



EG&G MOUND-04-01----9610220016



Volume 7
ENVIRONMENTAL
APPRAISAL REPORT
OF THE MOUND PLANT

March 29, 1996

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**ENVIRONMENTAL APPRAISAL REPORT
OF THE MOUND PLANT
Volume 7**

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Environmental Appraisal of the Mound Plant

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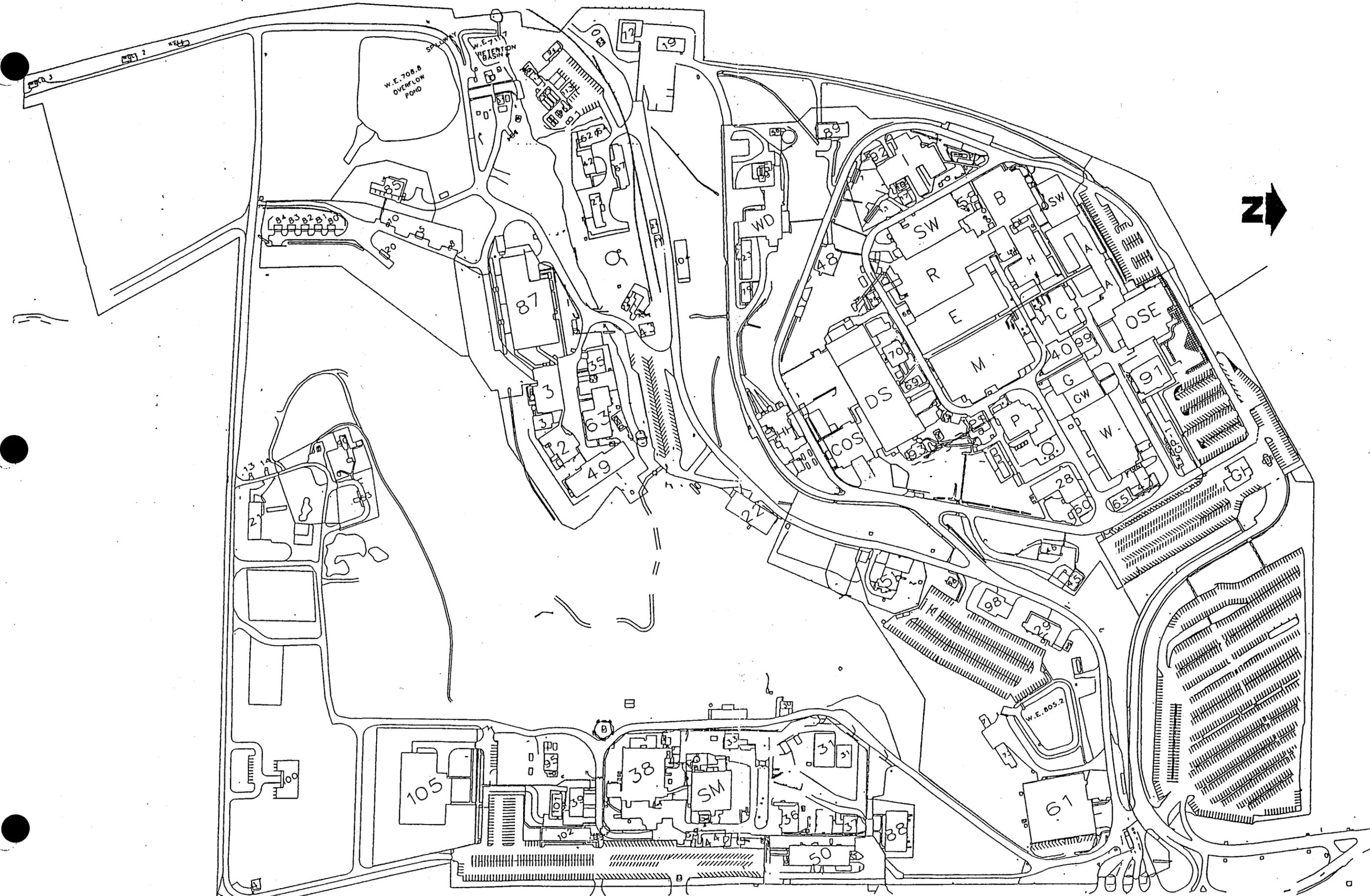
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Environmental Appraisal of the Mound Plant

LIST OF ACRONYMS

ACBM	asbestos-containing building material
ASTM	American Society for Testing and Materials
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
D&D	decontamination and decommissioning
DOD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
EA	environmental assessment
EMSOC	Energetic Materials Safety Overview Committee
EPA	Environmental Protection Agency
ER	environmental restoration
ES&H	environment, safety and health
FY	fiscal year
HAZWOPPER	hazardous waste operation and emergency response training
HEPA	high-efficiency particulate air
HP	health physics
LDR	Land Disposal Restricted
LSA	low specific activity
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollution
NIOSH	National Institute for Occupational Safety and Health
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
NTS	Nevada Test Site (DOE)
OAC	Ohio Administrative Code
OEPA	Ohio Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
OSP	Orphan Source Program
PCB	polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
RTG	radioisotopic thermoelectric generator
SAR	Safety Analysis Report
SARA	Superfund Amendments and Reauthorization Act
SPCC	spill prevention, control, and countermeasures
TRU	transuranic
TRUESOC	Transuranic Environmental and Safety Overview Committee
TSCA	Toxic Substances Control Act
UST	underground storage tank
UCNI	unclassified controlled nuclear information
VOC	volatile organic compounds



BUILDING LOCATION MAP

Environmental Appraisal of the Mound Plant

9.60 BUILDING 37

9.60.1 Scope of Building 37 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 37 on February 27, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.60.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.60.6.2).

9.60.2 Description of Building 37

Building 37 is a one-story structure constructed of concrete block with a penthouse. The roof is a metal built-up membrane of asphalt. The building was constructed in 1968. Building 37 is located on what is known as the SM/PP hill as shown in Attachment 3 (Section 9.60.6.3). Adjacent buildings are Building 88 to the north, Building 50 to the east, Building 36 to the south, and Building 31 to the west. The building is serviced by central steam for heat, chilled water, and electrical service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

Building 37 was used for two purposes. One use was research, development, and production in conjunction with the U.S. Advance Battery Consortium. The other was converting processes with Freon or other hazardous materials to processes that use safer materials. Now the building has been converted to a machine shop in support of the heat source program. The activities being performed are machining, cleaning, heat treating, and inspection. Total area of Building 37 is 2,463-square-feet. Floor plans are presented as Attachment 4 (Section 9.60.6.4). No research, development or production activities using radiation or energetic materials have occurred in the building (*Mound Facility Physical Characterization*, 12-1-93).

9.60.3 Summary of Findings

The building has been recently renovated and is well-maintained. The only concern inside the building are air emissions sources. The application submitted in 1992 to the Regional Air Pollution Control Agency (RAPCA) was for previous operations and the conditions listed in the application have changed. Outside the building there are three issues. One is the handling of compressed gas cylinders, such as improper labeling and mixing of full and empty cylinders. Second is the clutter of excess equipment outside the building. Material removed during renovation is still present and the majority of it could be recyclable metal. Last, there is a potential cross-connection between the storm and sanitary system at the lift station.

Environmental Appraisal of the Mound Plant

9.60.4 Observations

9.60.4.1 Air Emissions

An application was filed on March 5, 1992 for a Permit to Operate (PTO). No PTO was received from the Regional Air Pollution Control Agency (RAPCA). The application covered EF-1 in Room 4, hoods 1, 2, and 3. Building 37 renovation removed two fumehoods and a new machine shop was installed. There are eight machine shop tools being serviced by a central exhaust. It is undetermined whether particulate controls are on the exhaust. The application and Mound's air emission inventory database no longer reflect the ongoing operations. There are no fuel-burning units in the building. There was no visual evidence of fugitive dust.

9.60.4.2 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.

9.60.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.60.6.5), the building is serviced by a sanitary line. Expected discharges to the sanitary system are by sinks and toilets. Chemicals could enter the sanitary system as there is a sink in the fumehood where solvents will be used. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort, therefore, dye tests or smoke tests were not conducted. There is no monitoring of building effluent. Based on current operations identified by the process owner, effluent from Building 37 should not deviate from that expected by the sanitary treatment plant manager.

There are two underground sanitary tanks outside of the building. One is a 500-gallon settling tank for Building 37 on the north side of the building. The other is a lift station on the east side of the building. According to Attachment 5 (Section 9.60.6.5), a storm sewer line is attached to the lift station. No information was available as to which system discharged (or could discharge) into which system. A potential cross-connection could exist between the storm and sanitary system at the lift station.

Environmental Appraisal of the Mound Plant

9.60.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to Attachment 5 (Section 9.60.6.5). Roof drains discharge to the storm sewer. 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 have entered the storm drainage system. The potential exists for untreated waste to enter the storm drainage system if the storm water line is an emergency overflow for the sanitary lift station.

9.60.4.2.3 Process Wastewater

This building does not create or discharge radioactive wastewater to the WD facility. According to Attachment 5 (Section 9.60.6.5), no radioactive wastewater lines service Building 37. The underground settling tank at the north end of the building is listed as an inactive low-risk waste tank in the Underground Storage Tank (UST) Program. The original program for which the building was constructed was terminated before the building was operational. No documentation was found to support the UST survey that radioactive material was used in the building. According to the UST survey it is suspected that the tank has been disconnected from the sanitary line and bypassed.

9.60.4.2.3 Chemicals

Chemicals in Building 37 were evaluated against Table V of Appendix D in 40 CFR 122 and none are listed Clean Water Act (CWA) pollutants. However, two chemicals from past operations are listed in the BMQ, included as Attachment 2 (Section 9.60.6.2), under hazardous waste. Chemical storage and handling procedures are in place for proper disposal of chemicals. There have been no reported spills from Building 37. No floor drains were seen in areas of operations. There is no evidence that chemicals have entered the storm or sanitary drains.

9.60.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross-connections. Potable and service water lines are uniquely marked and easily identified. The bottled water fountain in the building is not an Environmental Protection Agency (EPA)-listed model suspected of lead contamination.

9.60.4.4 Chemical Storage and Hazardous Materials

An updated list of chemicals used or to be used in Building 37 was attached to the BMQ, included as Attachment 2 (Section 9.60.6.5). There was no visual evidence of chemical storage incompatibility. Material Safety Data Sheets (MSDS's) are available in the building and were reviewed for completeness. There is a flammable storage cabinet which meets standard National Fire Protection Association (NFPA) requirements.

Environmental Appraisal of the Mound Plant

Compressed gas cylinders were improperly stored on the south side of building. Full and empty gas cylinders were mixed together. Many gas cylinders were missing full/empty tags or the tags were illegible. Gas cylinders required for operations in Building 37 are used and stored inside. Personnel from Building 37 suspect that gas cylinders are being stored, or dumped, from surrounding buildings since there is storage space available.

The building is equipped with appropriate emergency response equipment such as eyewashes, safety showers, and fire extinguishers. Halon 1211 is the prevalent fire extinguisher. Inspection tags were present and current. There is an Emergency Evacuation Plan, and signs are posted in the building.

There are no aboveground storage tanks in or around the building that are associated with Building 37. There are no sumps, separators, or catch basins, in or around the building. There are two underground sanitary tanks associated with this building. Potential problems were previously discussed under the Water Emissions Section. The 500-gallon settling tank is a steel tank identified as tank No. 267 in the UST Program. The UST program identifies the lift station as tank No. 100. The lift station is a steel tank inside a concrete pit. The lift station has an audible alarm which is checked quarterly. The UST program notes that the lift station is visually checked as part of routine building activities, usually once a week. The appraisal team was unable to verify documents to verify inspections.

The building was tested and does contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no visual evidence of friable asbestos. The areas containing asbestos material were identified and properly marked indicating the presence of asbestos.

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

9.60.4.5 Solid, Hazardous, and Chemical Wastes

The solid waste generated in the building results from offices and machine shop activities. Solid wastes are removed by janitorial personnel to a local collection point, then shipped offsite to a local landfill by a service contractor. The disposal contract is maintained by Waste Management. There is no visual evidence that hazardous materials or wastes are mixed with solid waste streams.

All hazardous wastes that will be generated by the operations in Building 37 will be stored in solvent cans as a satellite accumulation area (SAA) located inside the building. Characterization of hazardous waste was not verified because no hazardous waste has been generated at the time of the walk-through. Hazardous wastes will be collected and transported by a representative of the EG&G Waste Management Group, and stored in Building 72 for ultimate disposal. There is no onsite treatment of waste. Waste disposal manifests and Certificates of Disposal are maintained by the EG&G Waste Management Group. They conform to Resource Conservation and Recovery Act (RCRA) requirements.

Environmental Appraisal of the Mound Plant

The hazardous materials listed in the BMQ, included as Attachment 2 (Section 9.60.6.2), are from previous operations in Building 37 and are no longer present. The disposition of material from the 1990 listing was beyond the scope of this assessment. However, records are maintained for any chemical that is collected and disposed of by Waste Management.

There are no drums of waste, identified or unidentified, in or around the building.

9.60.4.6 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. Metal shavings and scraps are recycled. The excess cabinets and equipment should be removed to a metal recycle bin, unless an alternative use has been established.

9.60.5 Findings and Recommendations

The environmental appraisal of Building 37 indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place. Photographs were taken to document the environmental appraisal. They are included at Attachment 6 (Section 9.60.6.6).

- 37-1 Update Mound's air emission inventory database and air permit application for Building 37. RAPCA should be notified of this change in status (OAC 3745-31).
- 37-2 A potential cross-connection exists between the storm and sanitary system. The NPDES permit does not allow the discharge of untreated waste from the plant site. The system should be examined to determine whether a problem exists, and any necessary corrective action should immediately follow.
- 37-3 The status of the other UST should be addressed to determine whether it contains anything and if it is connected to the sanitary system.
- 37-4 Full and empty gas cylinders should be stored separately and in a manner that minimizes their handling. All gas cylinders should carry a legible label or marking identifying their contents (CGA P-1).
- 37-5 Excess clutter outside the building should be removed. The cabinets and equipment seem to have no intrinsic value other than recyclable metal.

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Environmental Appraisal of the Mound Plant

9.60.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 37

Appraisers:

Ronald Paulick
Name Discipline

Billie J. Allins
Name Discipline

Philby Parker
Name Discipline

Name Discipline

Building Manager:

Gay Miller for Paul Malby

Process Manager:

Date: 2-27-96

ENVIRONMENTAL APPRAISAL CHECKLIST

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Revision 3.0 (1-5-96)

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Budick/Adkins/Parker

Date: 2-27-96

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	Y/N Y/N	Amy/Acetate, Purfural past operations
	Is the building in operation? What are the processes and where do they discharge to?	Y/N _____ _____	AAH machine shop in support RTG
	Do the floor drains, sinks & toilets appear to be draining properly?	Y/N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	Not Verified.
	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	Two sanitary sumps outside sewage
	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	

9.60-11

Environmental Appraisal Checklist

Building Name: 37

Appraisers: *Poulick/Adkins/Parker* Date: *2-27-96*

Clean Air Act (CAA) Screening Checklist

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

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	<input checked="" type="radio"/> Y / <input type="radio"/> N	<i>Emp Exempt - 3/5/96</i>
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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	<i>Operations have changed - now a machine cleaning ops R-166 moving in</i>
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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	<i>See above.</i>
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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Has there been any release of air contaminants from this building?	<input checked="" type="radio"/> Y / <input type="radio"/> N	

Environmental Appraisal Checklist

Building Name: 37

Appraisers: *Raulick/Adkins/Parker* Date: *2-27-96*

CAA Checklist

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

TABLE A									
Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
Machining ops.	004		Y/N <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Y/N	particulates operations have changed				
Fume hood	004	?	Y/N	Y/N	2 of 3 hoods removed.				
			Y/N	Y/N					
			Y/N	Y/N					
			Y/N	Y/N					

Source: _____

9.60-13

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Radtke/Adams/Parke

Date: 2-27-96

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

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

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96.

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	(Y) N	Halon 1211
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)	empties & full mixed; tags missing not from this building
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)	empties & full mixed.
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	N/A
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) RP 3/8/96	N/A
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	N/A
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	(Y) N	
	Is there an emergency response plan available?	(Y) / N	

9.60-15

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y/N	machine shop
	Does it have proper containment?	Y/N	
	Is there a liquid bulk transfer area?	Y/N	
	Is there proper containment?	Y/N	N/A
	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
				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: 37

Appraisers: *Paulick / Adams / Parker* Date: *2-27-96*

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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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)?	<input checked="" type="radio"/> Y <input type="radio"/> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	<input checked="" type="radio"/> Y <input type="radio"/> N	

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
37	Room 2	SH4R-3	Halsey Taylor RP 3/2/96
37	Room 5	BLSRHS-102	EBCO bottled water ok.

Source: _____

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

RCRA Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y / <input type="radio"/> N	If yes, conduct the following survey.
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RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	<p>Has any material generated been characterized RCRA hazardous? Was characterization 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?</p> <p>If yes, proceed with next section.</p>	<p><input checked="" type="radio"/> Y / <input type="radio"/> N analysis / process Y / <input checked="" type="radio"/> N Y / <input checked="" type="radio"/> N</p>	
OAC 3745 52-11	<p>Are any of the materials noted RCRA hazardous waste?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.</p>	<p><input checked="" type="radio"/> Y / <input type="radio"/> N</p>	

Environmental Appraisal Checklist

Building Name: *37*

Appraisers: *Paulick/Adams/Parker* Date: *2-27-96*

RCRA Checklist

Regulatory Guideline	Question	Response	Comments	
I. HAZARDOUS WASTE STORED IN CONTAINERS				
	Is there an area in the building that could qualify as a Satellite Accumulation Area? Is it treated as such?	<input checked="" type="radio"/> /N <input checked="" type="radio"/> /N	<i>There will be a potential SAA for solvents when operations begin.</i>	
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.	<input checked="" type="radio"/> /N		
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	<input checked="" type="radio"/> /N	<i>Cleaning operations in R. Building will be moved to BD-37.</i>	
	Are the containers in good condition?	<input checked="" type="radio"/> /N		
	Are the waste compatible with the containers?	<input checked="" type="radio"/> /N		
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	<input checked="" type="radio"/> /N		
	Are containers kept closed and locked except during filling?	<input checked="" type="radio"/> /N		<i>Access to containers controlled.</i>
	Are containers moved within 3 days of being filled?	<input checked="" type="radio"/> /N		

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Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	If a Satellite accumulation area has been abandoned and/or if waste left in place, and the containers may be subject to the 90-day-storage exclusion.		N/A
	If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:	N/A	
	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?	Y/N	
	Where is the log?		
	Is it properly completed, dated, and signed?	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.		

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick / Adkins / Parker

Date: 2-27-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y/N	No chemical waste in equipment
	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	

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Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker

Date: 2-27-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / (N)	
OAC 3745-68	Has any of the waste been managed in an incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / (N)	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / (N)	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. 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: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Asbestos Screening Checklist

Does this facility contain ACBM?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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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? If no for this building or area note this conclusion in the comment section.	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Contains Asbestos</i>
	Is there any evidence of friable asbestos?	<input type="radio"/> Y <input checked="" type="radio"/> N	
	Is the asbestos removal properly managed? (See questions listed below)	Y / <input checked="" type="radio"/> N	
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	/
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: 3.7

Appraisers: Paulick/Adkins/Parker

Date: 2-27-96

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

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

Regulatory Guideline	Question	Response	Comments
40 CFR 761	<p>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 ?</p> <p>If the answer is no, note .</p> <p>If the answer is yes, proceed with next section.</p>	Y/N <u>(N)</u>	<p>No PCBs</p> <p style="text-align: center;"> </p>
	<p>Based on an inspection, are any of the materials or equipment potentially PCB contaminated?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed.</p>	Y/N	
40 CFR 761.65 (c) (5)	<p>Are PCB articles or containers stored in this building checked for leaks at least once every 30 days?</p> <p>If yes, are auditable records maintained.</p>	Y/N	
40 CFR.30 (a) (1) (ix)	<p>Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater?</p> <p>Are they visually inspected quarterly? If yes, are auditable records maintained?</p>	Y/N	

Environmental Appraisal Checklist

Building Name: 37

Appraisers: *Faulick/Adkins/Parker* Date: *2-27-96*

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.30 (a) 1,viii	Are all combustible materials (i.e., paints, solvents, plastics, paper, sawn wood, etc.) cleared from areas containing PCB transformers to a distance of five meters?	Y / N	<i>No PCB's</i>
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y / N	
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N	
40 CFR 761.62 (b) (1) (i)	Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items?	Y / N	
40 CFR 761.62 (b) (1) (iv)	Are storage area 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: 37

Appraisers: *Faulstich/Adkins/Parker*

Date: 2-27-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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	No PCB's
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:



Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	Y / <input checked="" type="radio"/> N	If yes, conduct the following survey.
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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	N/A
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: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter III, 3.d.	Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal?	Y / N	N/A
	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	
	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	

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker

Date: 2-27-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / N	N/A
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	↓

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Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II, 3.b	Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage?	Y / N	N/A
	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: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y / N	N/A
	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: 37

Appraisers: Pauley/Atkins/Parker Date: 2-27-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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Waste Minimization/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.	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are there solvent wastes?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Is vehicle maintenance performed?	<input type="radio"/> Y <input checked="" type="radio"/> N	
	Are oils used ?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are these corrosive wastes?	<input type="radio"/> Y <input checked="" type="radio"/> N	
	Are there sludges?	<input type="radio"/> Y <input checked="" type="radio"/> N	
	Are there halogenated organic (nonsolvent) wastes?	<input checked="" type="radio"/> Y <input type="radio"/> N	methy chloride being phased out
	Are metals recovered from wastewater?	<input type="radio"/> Y <input checked="" type="radio"/> N 2/18/96	N/A
	Is waste sludge generated?	<input type="radio"/> Y <input checked="" type="radio"/> N	
	Are any waste minimization practices used that reduce the generation of sludge?	<input type="radio"/> Y <input type="radio"/> N	N/A
	Ion exchange process?	<input type="radio"/> Y <input type="radio"/> N	↓
	Lead in gasoline lowered to reduce tank sludge toxicity?	<input type="radio"/> Y <input type="radio"/> N	
	Storage tank agitators installed?	<input type="radio"/> Y <input type="radio"/> N	
	Corrosive resistant materials used?	<input type="radio"/> Y <input type="radio"/> N	
	Prevention of crude oil oxidation ?	<input type="radio"/> Y <input type="radio"/> N	
	Drying?	<input type="radio"/> Y <input type="radio"/> N	

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
<u>HALOGENATED ORGANIC (NONSOLVENT) WASTES</u>			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	
	Are baghouse filters used to collect pesticides and pesticide intermediates?	Y / N	N/A
	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	
<u>METAL WASTES</u>			
	Are any technologies for the recovering of metals from waste rinsewater used?	Y / N	N/A
	Evaporation of waste rinsewater?	Y / N	↓
	Reverse osmosis?	Y / N	
	Ion exchange?	Y / N	
	Electrolysis?	Y / N	
	Agglomeration?	Y / N	
<u>CORROSIVE WASTES</u>			
	Are acidic or basic cleaning solutions used as treatment for pH adjustment chemicals?	Y / N	N/A

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9.60-34

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	N/A
	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	↓
<u>CYANIDE AND REACTIVE WASTES</u>			
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y / N	N/A
	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	
<u>VEHICLE MAINTENANCE</u>			
	How are auto parts cleaned?	Y / N	N/A
	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	↓

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y/N	N/A
	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	
<u>OILS</u>			
	What kind of oils are used?		Cutting oils
	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	N/A
	Oil soaked rags laundered?	Y/N	N/A
	Rags and absorbants used to their limit?	Y/N	

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Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		N/A
	Reclaiming process to remove water and solvents by heat?	Y/N	↓
	Gravity setting?	Y/N	
	Screening?	Y/N	
	Centrifugation?	Y/N	
	Filtration?	Y/N	
<u>SOLVENT WASTES</u>			
	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	NO tanks
	Is a method used to minimize the use of new materials such as a countercurrent process?	Y/N	N/A

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick/Adkins/Parker Date: 2-27-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	N/A
	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 3/8/96	
	Are better operating practices used to reduce waste?	(Y) / N	
	How long is solvent waste stored and where?	_____ _____	Until container is filled.

9.60-37

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Environmental Appraisal of the Mound Plant

9.60.6.2 Building Manager's Questionnaire

04/21/10
Fur

Building Manager's Questionnaire

Building Name: 37 Building Manager: P.L. Molloy Phone: 3869 Date: 12-07-95
Alternate: T.J. GEESNER Phone: 5568

1. What are the access requirements?

None

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

Safety glasses

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

4. Provide a physical description of the building.

This is a concrete block structure with a BUM roof (asphalt). It has central steam heating. Total area is 2,463 ft² in one story. 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? *Various machining, inspection, cleaning, and heat treating operations are performed in direct support of*

The building is used for two purposes. (A) Research development, and pilot plant production in conjunction with the U.S. Advanced Battery Consortium, and (B) Converting processes with Freon or other hazardous materials to processes that use safer materials.

*HS/RT
Section
Assignment*

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

Building Manager's Questionnaire

Building Name: 37 Building Manager: P.T. Mollov 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: Organic material process development

How Wastes Are Generated: **PAST OPERATIONS**

Several processes and material properties are investigated in Building 37. A variety of wastes can be generated, depending upon the nature of the work being done. The current processes are briefly described below.

A very porous foam of polyacrylonitrile is formed by heating a mixture of acrylonitrile and maleic anhydride and then allowing the mixture to cool and harden. If the "web" of polymer forms inside the block of maleic anhydride as expected, the maleic anhydride is washed away with water. Maleic acid is formed, and it is washed down the drain to the sewer. If the "web" does not form properly, the block of maleic anhydride is packaged for pickup by Waste Management.

Another foam is formed by coating salt particles with phenolic resin, pressing the coated salt into a bar, infusing the bar with more of the polymer, and leaching out the salt. The coating and infusing portions of this work is done in Building 37. Acetone is the medium in which the salt and phenolic resin are mixed for the initial coating. The mixture is dried by allowing the acetone to evaporate. Acetone is also used to clean the equipment. Any liquid acetone wastes are poured into a waste can for pickup by Waste Management. Any dry phenolic resin powder that must be discarded is packaged for Waste Management.

Studies of alternatives to chlorinated hydrocarbons as cleaners and degreasers generate some miscellaneous solvents which are put into waste cans. Studies of alternatives to coolants and lubricants generate small amounts of miscellaneous coolant wastes which are also put into waste cans for Waste Management.

Some classified work generates a very small amount of toxic wastes which are handled by Waste Management.

Over the past year, Building 37's chemical inventory has been reduced by two thirds, and excess chemicals were discarded through Waste Management. Only those chemicals required for current or anticipated investigations have been kept.

Contact: **SEE ATTACHMENT**
Phone #:

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

Building Manager's Questionnaire

Building Name: 37 Building Manager: P.T. Molloy 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? Yes No

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
Standby	004	3700 40001	<input checked="" type="radio"/>	HF/HCL propanol ethyl alcohol acetone				
Standby	004	3700 40002	<input type="radio"/>					
Standby	004	3700 40003	<input type="radio"/>					
machine operation	004		<input checked="" type="radio"/> / <input type="radio"/>	particulates				
			<input type="radio"/> / <input type="radio"/>					

Source: Mound Air Emissions Database 11/30/95

Building Manager's Questionnaire

Building Name: 37 Building Manager: P.T. Molloy 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 Yes

14. Does the building discharge to the storm sewer? Yes No
 Where? *Furnace cooling water to storm drain.*

15. Does the building discharge to the sanitary sewer? Yes No
 Where? *8 D restrooms.*

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

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

Building Manager's Questionnaire

Building Name: 37 Building Manager: P.T. Molloy Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? ~~no~~ YES

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		
<u>SEE ATTACHMENT</u>		

Source: ~~Chemical Inventory 1994~~

Building Manager's Questionnaire

Building Name: 37 Building Manager: P.T. Molloy 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?

Excess materials transferred to waste mgmt.

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

In vestroom.

23. Where do excess janitorial supplies go?

Excess materials transferred to waste mgmt.

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: 37 Building Manager: P. E. Molloy 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~~ OUTSIDE 2 sanitary tanks
 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 Overflows
Y / N	<u>Sanitary</u>	<u>365</u>	Y / N	Y / N

Source: _____

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

Materials	Amount
ATTACHED	

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

BLDG 37	ACETONE, PHENOLIC RESIN WASTE	D001 F003	224.6
BLDG 37	ACRYLIC ACID	D002	0.9
BLDG 37	ACRYLONITRILE	NONE	15.7
BLDG 37	ACRSARITE II	NONE	2.2
BLDG 37	ACTIVATED CARBON	NONE	3.5
BLDG 37	ACTIVATED CARBON, WET POWDER	NONE	3.5
BLDG 37	ACTREL CLEANER	NONE	40.2
BLDG 37	ADIPRENE L-100	NONE	1.2
BLDG 37	AIRTHANE 75D	NONE	4.4
BLDG 37	AIRTHANE 90	NONE	2.2
BLDG 37	AIRTHANE 90A	NONE	2.5
BLDG 37	AIRTHANE 95	NONE	1.8
BLDG 37	AIRTHANE 95A	NONE	4.9
BLDG 37	ALIQUAT 336	NONE	0.3
BLDG 37	ALUMINA	NONE	1.4
BLDG 37	ALUMINUM NITRIDE	NONE	0.6
BLDG 37	ALUMINUM OXIDE	NONE	3.3
BLDG 37	ALUMINUM OXIDE	NONE	1.9
BLDG 37	ALUMINUM SULFATE	NONE	1.2
BLDG 37	AMBERLITE	NONE	1.0
BLDG 37	AMMONIUM GOLD CYANIDE	D003	1.0
BLDG 37	AMMONIUM HEXACHLORO IRIIDIUM	NONE	0.3
BLDG 37	AMMONIUM HYDROXIDE	D002	20.7
BLDG 37	AMMONIUM TETRACHLORO GOLD	NONE	2.6
BLDG 37	AMMONIUM TETRACHLORO PLATINATE	NONE	0.9
BLDG 37	AMMONIUM TETRACHLORO PLATINUM	NONE	0.2
BLDG 37	AMMONIUM TETRACHLORO PLATINUM IN	D001	0.5
	ACETONE		
F 37	AMORPHOUS SILICA	NONE	1.7
B 37	AMYL ACETATE	D001	3.2
BLDG 37	ANCAHINE 2049	D002	2.6
BLDG 37	ARALDITE MY510 EPOXY RESIN	NONE	4.1
BLDG 37	ARALDITE MY731 EPOXY RESIN	NONE	3.2
BLDG 37	ASILAMINE	NONE	0.1
BLDG 37	ASILAMINE DIAMINE	NONE	7.0
BLDG 37	BAYTEC 1604	NONE	9.8
BLDG 37	BENZOIC ACID	NONE	2.3
BLDG 37	BETA 5 CURING AGENT	D001	0.5
BLDG 37	BIOACT-EC7	D001 F003	91.2
BLDG 37	BIOACT, ACETONE WASTE	D001 F003	450.0
BLDG 37	BISMUTH	D003	0.1
BLDG 37	BORIC ACID, BORIC ANHYDRIDE	NONE	1.9
BLDG 37	BORON	D003	0.1
BLDG 37	BORON POWDER	D003	1.2
BLDG 37	BUTANEDIOL (1,4-)	NONE	0.2
BLDG 37	BUTANEDIOL (1,4-)	NONE	2.3
BLDG 37	BUTANOL	D001 U031	1.6
BLDG 37	BUTANOL (1)	D001 U031	25.0
BLDG 37	BUTANONE	D001 D035 U159 F005	4.7
BLDG 37	BUTOXYETHOXY ETHYL ACETATE	D003	3.2
BLDG 37	BUTYRLOACETONE	NONE	9.9
BLDG 37	CAB-O-SIL	NONE	0.6
BLDG 37	CALCIUM CHLORIDE	NONE	1.1
BLDG 37	CALCIUM HYDRIDE	D003	0.2
BLDG 37	CALCIUM NITRATE	D001	1.5

BLDG 37	CALCIUM OXIDE	NONE	7.0
BLDG 37	CALCIUM PHOSPHATE	NONE	1.4
BI 7	CALCIUM SULFATE	NONE	2.5
B	CAMPHORQUINONE	NONE	0.6
BLDG 37	CARBON	NONE	0.3
BLDG 37	CARBON	NONE	1.1
BLDG 37	CARBON BLACK	NONE	1.1
BLDG 37	CARBOWAX PEG	NONE	5.1
BLDG 37	CELLULOSE ACETATE	NONE	12.2
BLDG 37	CELLULOSE ACETATE	NONE	2.3
BLDG 37	CELLULOSE MICROCRYSTALLINE	NONE	4.0
BLDG 37	CESIUM BROMIDE	NONE	0.6
BLDG 37	CESIUM BROMIDE	NONE	0.1
BLDG 37	CHLORO NORBORNADIENE IRIIDIUM	NONE	0.6
BLDG 37	CHROMIUM (III) OXIDE	D007	0.3
BLDG 37	CITRACONIC ANHYDRIDE	NONE	1.8
BLDG 37	CITRIC ACID MONOHYDRATE	NONE	2.3
BLDG 37	CITRICONIC ANHYDRIDE	NONE	1.4
BLDG 37	COBALT CHLORIDE	NONE	1.7
BLDG 37	COBALTOUS ACETATE	NONE	0.5
BLDG 37	COMAP EN7 PART B	NONE	0.9
BLDG 37	COMATHANE EN7 PART A	NONE	2.4
BLDG 37	CORDOVA ATC-3	D007	0.1
BLDG 37	CORDOVA ATC-3	D007	0.6
BLDG 37	CYANOCURE	NONE	3.3
BLDG 37	CYANOPHENYL (3,4-) DECANE DIAMIDE	NONE	0.1
BLDG 37	CYCLO HEXANE	D001 U056	3.5
B 7	CYCLO HEXANOL	NONE	3.4
7	CYCLOHEXANE	D001	87.0
BLDG 37	CYCLOHEXYL PYRROLIDONE	D001	3.7
BLDG 37	CYCLOOCTADIENE PLATINUM CHLORIDE (1,5-)	NONE	2.6
BLDG 37	DECAHYDRO NAPHTHALENE	D001	1.6
BLDG 37	DECAHYDRONAPHTHALENE	NONE	6.7
BLDG 37	DIBUTYL TIN DILAURATE	NONE	0.3
BLDG 37	DICARBONYL ACETYLACETONATOIRIDIUM	NONE	0.6
BLDG 37	DICHLORO CYCLOOCTADIENE (1,5-)	NONE	0.6
BLDG 37	DICHLORO ETHANE (1,2-)	D001 D028	8.7
BLDG 37	DICHLOROETHANE	D001 D028	0.2
BLDG 37	DICYANO BENZENE (1,2-)	D003 D018	0.6
BLDG 37	DICYANO BENZENE (1,3-)	D003 D018	0.5
BLDG 37	DICYANO BENZENE (1,4-)	D003 D018	1.4
BLDG 37	DIETHANOL AMINE	NONE	2.8
BLDG 37	DIETHANOL AMINE	NONE	0.3
BLDG 37	DIETHYL ACETAMIDE	NONE	0.5
BLDG 37	DIETHYL ETHANOL AMINE	D001	3.2
BLDG 37	DIETHYLENE GLYCOL	NONE	11.9
BLDG 37	DIMETHYL ACETOMIDE	NONE	16.0
BLDG 37	DIMETHYL ACETOMIDE	NONE	15.0
BLDG 37	DIMETHYL BENZAMIDE	NONE	0.5
BLDG 37	DIMETHYL CARBONATE	D001	1.8
BLDG 37	DIMETHYL FORMAMIDE	D001	1.8
BLDG 37	DIPHENYLOXAZOLE (2,5-)	NONE	0.3
BLDG 37	DIVINYL BENZENE	D003	3.2
BLDG 37	DODECYL SULFATE SODIUM SALT	NONE	0.3

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11.11 37

BLDG 37	DOW CATALYST RTV 1	NONE	0.6
BLDG 37	DOW CATALYST RTV 4	D001 D007	0.1
BLDG 37	DOW CORNING 1200 PRIME COAT	D001	1.6
BLDG 37	DOW CORNING 3112	NONE	8.7
BLDG 37	DYNASOLVE 2	D002	7.5
BLDG 37	DYNASOLVE 210	F002	4.5
BLDG 37	EPIBOND 1555 B	D002	4.8
BLDG 37	EPON 828	NONE	28.0
BLDG 37	EPON 828	NONE	3.0
BLDG 37	EPOXY RESIN XU-71790	NONE	2.4
BLDG 37	EPOXYLITE 8822 PART A	NONE	4.1
BLDG 37	EPOXYLITE 8822 PART A	NONE	0.6
BLDG 37	EPOXYLITE 8822 PART B	D002 D003	1.5
BLDG 37	EPOXYLITE 8822 PART B	D002	1.8
BLDG 37	EPOXYSOLVE A1003	D002	6.4
BLDG 37	ETHACURE 100	NONE	22.6
BLDG 37	ETHACURE 100	NONE	4.3
BLDG 37	ETHACURE 100, SALICYLIC ACID	NONE	6.3
BLDG 37	ETHACURE 300	NONE	3.2
BLDG 37	ETHACURE BKC	D001	2.9
BLDG 37	ETHYL ACETATE	D001 F003 U112	12.3
BLDG 37	ETHYL BENZOATE	NONE	2.0
BLDG 37	ETHYL CINNAMATE	NONE	2.2
BLDG 37	ETHYL METHYLIMIDAZOLE (2-)(-4-)	NONE	0.6
BLDG 37	ETHYL PYRROLIDINONE	NONE	5.3
BLDG 37	ETHYLENE CARBONATE	NONE	0.4
BLDG 37	ETHYLENE CARBONATE	NONE	5.5
BLDG 37	ETHYLENE DINITRILOTETRAACETIC ACID	NONE	1.1
BLDG 37	ETHYLENE GLYCOL	NONE	17.6
BLDG 37	ETHYLENE GLYCOL	NONE	17.0
BLDG 37	EXXATE 1000 SOLVENT	NONE	7.3
BLDG 37	EXXATE 1300 SOLVENT	NONE	5.5
BLDG 37	EXXATE 800 SOLVENT	NONE	6.3
BLDG 37	FERRIC ACTYLACETONATE	NONE	0.1
BLDG 37	FERRIC CHLORIDE	D002	3.5
BLDG 37	FERRIC SULFATE	NONE	2.2
BLDG 37	FLUORAD SURFACTANT	NONE	3.0
BLDG 37	FORMAMIDE	NONE	22.3
BLDG 37	FORMIC ACID	D002 U123	9.7
BLDG 37	FURFURYL ALCOHOL	NONE	17.0
BLDG 37	FURFURYL ALCOHOL	D001 U125	1.0
BLDG 37	GE SILICONE RTV 11	NONE	4.2
BLDG 37	GE SILICONE RTV 31	NONE	13.8
BLDG 37	GE SILICONE RTV 60	NONE	16.6
BLDG 37	GE SILICONE RTV 630A	NONE	14.0
BLDG 37	GE SILICONE RTV 630B	F005	0.6
BLDG 37	GE SILICONE RTV 700	NONE	1.2
BLDG 37	GLYCEROL, ANHYDROUS	NONE	7.7
BLDG 37	GOLD POWDER	NONE	0.1
BLDG 37	HALTHANE 73-18 CURING AGENT	NONE	0.1
BLDG 37	HALTHANE 73-18 RESIN	NONE	0.2
BLDG 37	HALTHANE 88-2	NONE	1.1
BLDG 37	HEPTANE	D001	2.0
BLDG 37	HEPTANOIC ACID	D002	0.4
BLDG 37	HEXA HYDRO METHYLPHTHALIC ANHYDRIDE	NONE	4.3

BLDG 37	HEXANOIC ACID	D002	3.1
BLDG 37	HYCAR X-16	NONE	2.2
BLDG 37	HYCAR X-42	D002	2.2
BLDG 37	HYDRAZINE HYDRATE	D001 D002	1.1
BLDG 37	HYDROXYETHYL PYRROLIDONE	D001	1.0
BLDG 37	HYDROXYLAMINE HYDROCHLORIDE	NONE	8.9
BLDG 37	HYDROXYLAMINE HYDROCHLORIDE	NONE	0.5
BLDG 37	HYSOL 9394 PART A, PART B	D002	1.9
BLDG 37	HYSOL 9394 PART A, PART B	D002	2.0
BLDG 37	HYSOL 9396 PART A, PART B	D002	0.7
BLDG 37	IMICURE EI-24 CURING AGENT	NONE	3.5
BLDG 37	INSTA-GEL SCINTILLATION VIALS	D001 F003	9.0
BLDG 37	IRGACURE 184	NONE	0.6
BLDG 37	IRGACURE 651	NONE	0.5
BLDG 37	IRIDIUM ACETYLACETONATE	NONE	0.5
BLDG 37	IRON MICRO FIBER	D003	2.1
BLDG 37	ISOAMYL ACETATE	D001	2.3
BLDG 37	ISOPROPANOL	D001	15.0
BLDG 37	ISOPROPANOL	D001	18.0
BLDG 37	ISOPROPENYL ACETATE	D001	1.2
BLDG 37	ISOPROPYLIDENE DIPHENYL (4,4-)	NONE	1.2
BLDG 37	ITACONIC ANHYDRIDE	NONE	0.4
BLDG 37	KEPRO KP-1G	D001	19.8
BLDG 37	LEAD (II) NITRATE	D001 D008	0.1
BLDG 37	LITHIUM BROMIDE	NONE	1.0
BLDG 37	LITHIUM CARBONATE	NONE	1.1
BLDG 37	LITHIUM CHLORIDE	NONE	1.2
BLDG 37	LONZACURE 73-18 RESIN	NONE	0.4
BLDG 37	MAGNESIUM SULFATE	NONE	2.1
BLDG 37	MALEIC ACID	NONE	8.2
BLDG 37	MALEIC ACID	D003	1.1
BLDG 37	MALEIC ANHYDRIDE	U147	0.8
BLDG 37	MALEIC ANHYDRIDE	U147	4.8
BLDG 37	MALEIC ANHYDRIDE WASTE	NONE	240.0
BLDG 37	MERCURY	D009 U151	0.1
BLDG 37	MERCURY (II) CYANIDE	D003 D009	0.2
BLDG 37	MERCURY (II) CYANIDE	D003 D009 P030	0.9
BLDG 37	MERCURY CYANIDE IN ACETONE	D009	0.3
BLDG 37	MERCURY INSTRUMENTS, THERMOMETER	D009	3.4
BLDG 37	MESITYL GOLD	NONE	0.5
BLDG 37	MESITYLENE	D001	1.9
BLDG 37	METHANOL	D001 U154	9.5
BLDG 37	METHYL (1-) 2-PYRROLIDINONE	NONE	12.4
BLDG 37	METHYL (2) -2-PROPANOL	D001	50.0
BLDG 37	METHYL BUTANOL (2-)	D001	2.7
BLDG 37	METHYL BUTANOL (3-)	D001	4.8
BLDG 37	METHYL ETHYL KETONE, LUPERSOL DDM-9 (FORMERLY LPR91-004)	D001 D003	0.5
BLDG 37	METHYL PROPANOL	D001	2.7
BLDG 37	METHYL PROPANOL	D001	12.8
BLDG 37	METHYL PYRROLIDONE	NONE	5.8
BLDG 37	METHYL SULFONE	NONE	3.5
BLDG 37	METHYL SULFONE	NONE	2.4
BLDG 37	METHYLENE BENZAMIDE	NONE	0.1
BLDG 37	NICA DUST	NONE	0.4

BLDG 37	MOLECULAR SEIVES	NONE	1.8
BLDG 37	MOLECULAR SEIVES	NONE	12.4
BLDG 37	MOLYBDENUM POWDER	D003	0.5
BLDG 37	MOLYBDENYL ACETYLACETONATE	NONE	0.2
BLDG 37	MOUND GREEN GLUE	NONE	1.1
BLDG 37	NADIC METHYL ANHYDRIDE	D002 D003	0.2
BLDG 37	NADIC METHYL ANHYDRIDE	D002	1.1
BLDG 37	NADIC METHYL ANHYDRIDE	D002	3.1
BLDG 37	NADIC METHYL ANHYDRIDE	D002	1.5
BLDG 37	NAPHTHALENE	U165	2.3
BLDG 37	NAPHTHALENE	NONE	2.2
BLDG 37	NIAX POLYOL LA-475	NONE	2.7
BLDG 37	NIAX POLYOL LA-700	NONE	3.0
BLDG 37	NIAX POLYOL PPG-1025	NONE	1.9
BLDG 37	NICKEL POWDER	D003	4.6
BLDG 37	NICKEL WIRE	NONE	0.3
BLDG 37	NITRIC ACID	D002	11.8
BLDG 37	NORCAMPHOR	D003	21.0
BLDG 37	NORCAMPHOR	NONE	1.1
BLDG 37	OXALIC ACID	NONE	0.5
BLDG 37	PALLADIUM CHLORIDE	NONE	0.1
BLDG 37	PENTADECYLAUOROCTANOIC ACID	NONE	0.1
BLDG 37	PETROLEUM ETHER	D001	12.0
BLDG 37	PETROLEUM ETHER	D001	7.2
BLDG 37	PHENOLIC RESIN	NONE	1.1
BLDG 37	PHENOLIC RESIN	NONE	0.8
BLDG 37	PHENOLIC RESIN	NONE	113.8
BLDG 37	PHENOLIC RESIN IN ACETONE	D001	0.5
BLDG 37	PHENOLIC RESIN SOLUTION	D001	2.6
BLDG 37	PHENOLIC RESIN WASTE	NONE	1.0
BLDG 37	PHENOLIC RESIN, ACETONE, ETHYLENE GLYCOL	D001 F003	1.5
BLDG 37	PHENOLIC RESIN, PAN, DMF WASTE	NONE	6.0
BLDG 37	PHOSPHORIC ACID (o-)	D002	1.4
BLDG 37	PLASTICIZER HB-40	NONE	46.6
BLDG 37	PLATINIUM CHLORIDE	NONE	0.3
BLDG 37	PLATINUM	NONE	0.1
BLDG 37	PLATINUM ACETYLACETONATE	NONE	0.6
BLDG 37	PLATINUM CHLORIDE	NONE	0.2
BLDG 37	POLAROID DIPPIT	D001	0.7
BLDG 37	POLY ACRYLONITRILE	NONE	0.6
BLDG 37	POLY ACRYLONITRILE, SULFURIC ACID	D002	1.0
BLDG 37	POLY ETHYLENEIMINE	NONE	0.4
BLDG 37	POLY ETHYLENEIMINE	NONE	1.7
BLDG 37	POLY-4-METHYL-1-PENTANE	D003	0.2
BLDG 37	POLYACRYLIC ACID	NONE	0.2
BLDG 37	POLYACRYLIC NITRILE	NONE	5.0
BLDG 37	POLYACRYLONITRILE	NONE	0.1
BLDG 37	POLYACRYLONITRILE	NONE	0.4
BLDG 37	POLYSTYRENE	NONE	0.7
BLDG 37	POLYSTYRENE BEADS	NONE	1.7
BLDG 37	POLYSTYRENE Q DOPE	D001	0.6
BLDG 37	POLYSTYRENE STANDARD	NONE	1.1
BLDG 37	POLYVINYL ALCOHOL	NONE	4.2
BLDG 37	POLYVINYL PYRROLIDONE	NONE	2.8

BLDG 37	POTASSIUM ACID PHTHALATE	NONE	0.2
BLDG 37	POTASSIUM BROMIDE	NONE	0.3
B 37	POTASSIUM CARBONATE	NONE	1.2
E 37	POTASSIUM CHLORIDE	NONE	1.7
BLDG 37	POTASSIUM HYDROXIDE	NONE	13.2
BLDG 37	POTASSIUM HYDROXIDE	NONE	6.8
BLDG 37	POTASSIUM PHOSPHATE	NONE	1.2
BLDG 37	POTASSIUM PHOSPHATE, TRIBASIC	NONE	0.8
BLDG 37	PPG-1025	NONE	0.8
BLDG 37	PRIMAX UH-1250	NONE	5.8
BLDG 37	PROPYLENE CARBONATE	NONE	32.5
BLDG 37	PROPYLENE GLYCOL	NONE	11.2
BLDG 37	PROTON SPONGE	NONE	0.7
BLDG 37	RADIO TV CEMENT SOLVENT	D001 F003 F005	2.8
BLDG 37	RC-20	D001	0.2
BLDG 37	RC-20 REACTOMER	NONE	1.8
BLDG 37	REACTOMER RC-20	NONE	10.1
BLDG 37	RESIN FLUX REMOVER	D001	3.6
BLDG 37	RICON RESIN R-130	NONE	2.1
BLDG 37	RICON RESIN R-156	NONE	2.2
BLDG 37	RTV 615 A	NONE	11.3
BLDG 37	RTV 615 B	NONE	3.1
BLDG 37	RUBBER TO METAL CEMENT	D001 D035 F005 U003	1.1
BLDG 37	RUBIDIUM BROMIDE	NONE	0.4
BLDG 37	RUBIDIUM FLUORIDE	NONE	0.2
BLDG 37	RUBIDIUM FLUORIDE	NONE	0.2
BLDG 37	RUBIDIUM HYDROXIDE	D002	0.3
BLDG 37	RUBINIUM BROMIDE	D001	0.2
BLDG 37	SALICYLIC ACID	D003	0.6
BLDG 37	SENTINEL 7200	NONE	231.9
BLDG 37	SILASTIC E CURING AGENT	F003	0.3
BLDG 37	SILASTIC L CURING AGENT	D001 D007 F003	1.4
BLDG 37	SILASTIC RTV E	NONE	1.2
BLDG 37	SILASTIC RTV L	D001 D007 F003	6.6
BLDG 37	SILASTIC RTV-732	NONE	0.8
BLDG 37	SILVER ACETATE	D001 D011	0.1
BLDG 37	SILVER FLAKES	D011	9.3
BLDG 37	SILVER NITRATE	D001	0.3
BLDG 37	SILVER POWDER	D011	1.7
BLDG 37	SLYGARD 184	NONE	2.2
BLDG 37	SLYGARD 184 CURING AGENT	NONE	0.7
BLDG 37	SODIUM ACETATE	NONE	1.9
BLDG 37	SODIUM BICARBONATE	NONE	4.3
BLDG 37	SODIUM BISULFITE	NONE	1.1
BLDG 37	SODIUM BORATE DECAHYDRATE	NONE	1.3
BLDG 37	SODIUM CARBONATE	NONE	3.3
BLDG 37	SODIUM HYDROXIDE	NONE	22.0
BLDG 37	SODIUM HYDROXIDE, SODIUM CYANIDE	D002 D003	13.0
BLDG 37	SODIUM HYDROXIDE, SODIUM CYANIDE	D002 D003	3.9
	WASTE		
BLDG 37	SODIUM HYPOPHOSPHITE	D003	1.8
BLDG 37	SODIUM THIOSULFATE	NONE	0.9
BLDG 37	SOLUENE 100	D001 F005	0.5
BLDG 37	SOLVENT 140-66	D001	2.8
BLDG 37	SOTEX N	NONE	0.5

BLDG 37	SPAN 80	NONE	0.7
BLDG 37	SS 4155 DIP	D001	1.0
BLDG 37	STANNIC CHLORIDE	NONE	1.0
BLDG 37	STANNOUS OCTOATE	NONE	0.4
BLDG 37	STRIPPER MS-111	D002 F002	2.1
BLDG 37	STRONTIUM FLUORIDE	NONE	0.3
BLDG 37	SUCCINIC ANHYDRIDE	NONE	2.2
BLDG 37	SUCCINIC ANHYDRIDE	NONE	2.5
BLDG 37	SUCCINIMIDE	NONE	1.3
BLDG 37	SUCCINONITRILE	NONE	26.0
BLDG 37	SUCCINONITRILE	D003	2.3
BLDG 37	SUCCINONITRILE	D003	2.3
BLDG 37	SULFAMIC ACID	NONE	1.8
BLDG 37	SULFUR	NONE	1.9
BLDG 37	SULFUR	D003	1.8
BLDG 37	SULFURIC ACID	D002	3.2
BLDG 37	SULFURIC ACID	D002	16.8
BLDG 37	TATIX 742	NONE	0.5
BLDG 37	TOI DIMER	NONE	1.0
BLDG 37	TETRA METHYLENE SULFONE	NONE	1.8
BLDG 37	TETRA METHYLENE SULFONE	NONE	1.8
BLDG 37	TETRACHLOROETHANE (1,1,2,2)	U209	13.3
BLDG 37	TETRACHLOROPHTHALIC	NONE	1.1
BLDG 37	TETRACYANOETHYLENE	D003	0.1
BLDG 37	TETRAETHYLENE GLYCOL DIMETHYL ETHER	NONE	0.6
BLDG 37	TETRAHYDROFURAN	D001 U213	1.4
BLDG 37	TETRAMETHYL BENZENE (1,2,4,5-)	NONE	8.5
BLDG 37	TETRAMETHYLENE SULFONE	NONE	33.0
BLDG 37	TETRAMETHYLENE SULFONE	NONE	7.7
BLDG 37	THALLIUM CHLORIDE	NONE	0.7
BLDG 37	THALLIUM PIVALATE	NONE	1.8
BLDG 37	THERMINOL 44	NONE	1.4
BLDG 37	THERMINOL 60	NONE	39.4
BLDG 37	THERMINOL 75	NONE	3.0
BLDG 37	THERMINOL 88	NONE	2.8
BLDG 37	THERMINOL VP-1	D001	1.5
BLDG 37	THERMOMETER	D009	0.5
BLDG 37	THERMOMETER	D009	0.5
BLDG 37	TITANIUM DIOXIDE	NONE	1.1
BLDG 37	TOLUENE	D001 F005	30.0
BLDG 37	TOLUENE	D001 U220	3.1
BLDG 37	TOLUENE SULFONIC ACID	NONE	0.3
BLDG 37	TRICHLOROETHANE (1,1,1-)	F002	14.3
BLDG 37	TRICHLOROETHYLENE	D040 F002	5.0
BLDG 37	TRIETHYLENE TETRAMINE	D002	2.9
BLDG 37	TRIETHYLPHOSPHATE	NONE	2.0
BLDG 37	TRIFLUOROACETIC ACID	D002	2.4
BLDG 37	TRIMETHYL BENZENE	D001	2.2
BLDG 37	TRIMETHYLPROPANE	NONE	0.1
BLDG 37	TRIPHENYL PHOSPHATE	NONE	0.2
BLDG 37	TRITON 101 SURFACTANT	NONE	1.0
BLDG 37	TUNGSTEN POWDER	D003	3.2
BLDG 37	TUNGSTUN	D003	33.5
BLDG 37	UREA	NONE	2.4
BLDG 37	UVE 1014 CURING AGENT	NONE	2.2

BLDG 37	UVITHANE 783	NONE	10.6
BLDG 37	VERSAMID 125	NONE	1.2
BLDG 37	VERSAMID 140	NONE	6.2
BLDG 37	VERSIMID 140	NONE	10.0
BLDG 37	VINYL PYRROLIDINONE (1-)(-2-)	NONE	6.8
BLDG 37	VORANOL 220-530 POLYOL	NONE	10.3
BLDG 37	XCE-155	NONE	0.8
BLDG 37	XCE-89 POLYURETHANE	NONE	0.9
BLDG 37	XU-205	NONE	0.2
BLDG 37	XYLENE	D001	1.5
BLDG 37	XYLENE	D001 F003 U239	4.3
BLDG 37	ZEOSPHERES	NONE	0.2
BLDG 37	ZEOSPHERES	NONE	1.6
BLDG 37	ZINC CHLORIDE	NONE	1.8
BLDG 37	ZINC CHLORIDE SOLDERING PASTE	NONE	0.6
BLDG 37	ZINC METAL	D003	0.8
BLDG 37-ETSC	TERT- BUTYL PEROXY BENZOATE, FORMERLY LP93-066	D001	2.3
BLDG 37	3M STRUCTURAL ADHESIVE 2214	D003	6.9
BLDG 37	ACETIC ACID	D001 D002	4.7
BLDG 37	ACETONE, BIOACT WASTE	D001 F003	326.8
BLDG 37	ACETONE, BIOACT WASTE SOLVENT	D001 F003	416.2
BLDG 37	ACETONE, PHENOLIC RESIN	D001 F003	7.1
BLDG 37	ACETONE, PHENOLIC RESIN WASTE	D001 F003	470.0

Building Manager's Questionnaire

Building Name: 37 Building Manager: P. Molloy 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: 37 Building Manager: P.L. Molloy 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: 37 Building Manager: P. J. Molloy 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: 37 Building Manager: P.T. Molloy 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.

In process of reducing excess materials & transfer to waste mgmt.

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

Several cutting fluids and processing lubricants are used during machining and press operations in the fabrication of HS/RTG Hardware components and tooling.

Some of these waste become vapors and are discharged through the house exhaust system. Others are absorbed into rags or towels and disposed of in plastic bags and removed by waste management. Any bulk residual used lubricants are placed into containers and removed by waste management.

Some machine lubricants such as Vacuum pump oil are drained into containers and removed by waste management. Any excess machine lubricant that may collect in a small pan are absorbed with rags or towels which are disposed of in plastic bags and removed by waste management.

Parts cleaned in solvents/acids are rinsed by water flushing into fume hood drain. Parts are air dried inside the fume hood and vapors are discharged through the house exhaust system.

Bulk used solvents are placed into containers and disposed of by waste management. Used acids are diluted with large amounts of water and allowed to drain into the fume hood sink drain.

MSDS INDEX

<u>MOUND NO.</u>	<u>PRODUCT NAME</u>	<u>MANUFACTURER</u>	<u>LOCATION</u>
	ace kleen-kut P3-VL	Lube-Tech	Bd 37
	acetone	various	R166
A0208	adhesive/sealant 242	Loctite	Bd 37
A0046	aluminum alloys	various	Bd 37
D0158	Amplex compound & thinner	Amplex	Bd 37
	Aquadag	Acheson	Bd 37
A0139	argon	various	Bd 37
B0061	brass	various	Bd 37
B0077	bronze alloys (ampco)	Copper & Brass Sales	Bd 37
	calci-solve	NYCO	R166
C0008	carbide C1 thru C4	various	Bd 37
C0285	castone	Ransom & Randolph	Bd 37
C0044-45	cemented cobalt carbide	various	Bd 37
T0057	cemented tungsten carbide	various	Bd 37
	cerafiber Thermolyne furn insl	Manville	Bd 37
	Chestron oil	Chestron	Bd 37
	Cimcool sdf65	Cin. Milacron	Bd 37
C0333	Cimflo 10	Cin. Milacron	Bd 37
	Cimflo 20	Cin. Milacron	Bd 37
	Cimstar 40	Cin. Milacron	Bd 37
	coconut oil	Capital City	Bd 37
C0120	copper	various	Bd 37
	Cratex	Superior Abras.	Bd 37
D0141	diamond, CBN, resin bond	Citco	Bd 37
D0208	diamond or CBN wheels	Norton	Bd 37
	diamond resin, metal, plated	Accurate	Bd 37
	diamond slicing	DoAll	Bd 37
D0220	diffusion pump fluid 704	Dow Cornong	Bd 37
D0099	dry graphite lubricant	Crown Ind.	Bd 37
	Duct sealer	Nashua	Bd 37
D0123	duo seal oil 1407k	Sargent-Welch	Bd 37
D0115&118	Dykem layout fluid	Dykem	Bd 37
0072	ethyl alcohol 190 proof	various	Bd 37 R166
E0071	ethyl alcohol 200 proof	various	Bd 37 R166
G0029	Grafoil	Union Carbide	Bd 37

MSDS INDEX

<u>MOUND NO.</u>	<u>PRODUCT NAME</u>	<u>MANUFACTURER</u>	<u>LOCATION</u>
H0020	helium	Air Products	Bd 37
H0031	high nickel alloys	Cabot	Bd 37
H0165	high vacuum grease	Dow Corning	Bd 37
H0033	HP corrosion resistant alloys	Cabot	Bd 37
H0032	HP heat resistant alloys	Cabot	Bd 37
H0034	HP heat resistant alloys	Cabot	Bd 37
	hydrochloric acid	various	R166
	hydrofluoric acid	various	R166
	isoproyl alcohol	various	R166
K0073	Kester 197 resin flux	Kester	Bd 37
K0047	Kleen-surf aerosol	DoAll	Bd 37
L0015	lexan	General Electric	Bd 37
	liquid detergent	Alconox	Bd 37
L0070	Liquid Paper	Gillette	Bd 37 R166
C0023	Low carbon steel	various	Bd 37
	Macor	Corning	Bd 37
M0237	Met-All	Dars Met-All	Bd 37
	methylene chloride	various	R166
M0068	Micro 100 super carbide	Micro 100	Bd 37
N0024	nickel base alloy	various	Bd 37
	nitric acid	various	R166
	nylatron	Polymer Corp.	Bd 37
P0312	petrolatum	Fisher Scientific	Bd 37
	plastic polish (mirror glaze)	Mequiar's	Bd 37
	Platinum	Engelhard	Bd 37 R166
P0371	Platinum Powder	Engelhard	Bd 37
P0102	Plexiglass	various	Bd 37
	polyurethane foam	Airway Foam	Bd 37
R0119	Regal Oil R&O 32, 00700	Texaco	Bd 37
	Rhodium	Engelhard	Bd 37 R166
R0015	RTV 102	General Electric	Bd 37
R0023	rubber bonded silicon carbide	Bay State Abrasive	Bd 37
	scouring powder		R166
S0016	silicon carbide	Sohio	Bd 37
S0029	soap	Calgon Corp.	Bd 37
	sodium hydroxide	Mallinckrodt	R166

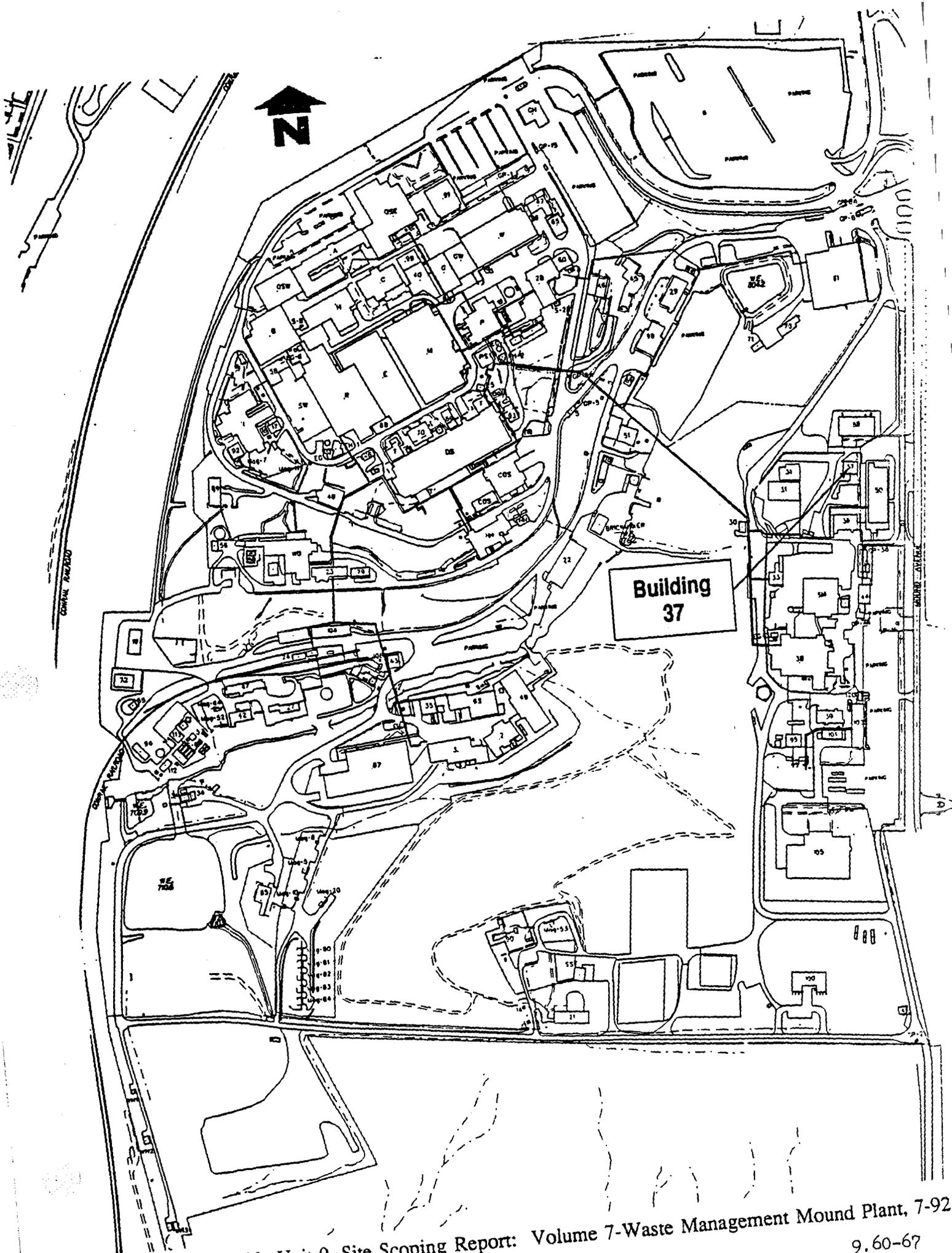
MSDS INDEX

<u>MOUND NO.</u>	<u>PRODUCT NAME</u>	<u>MANUFACTURER</u>	<u>LOCATION</u>
0332	Solder seal liquid wrench #1	Radiaator Spect.	Bd 37
S0095	Spray Tap	Chem-Tech	Bd 37
S0100	stainless steel	vaarious	Bd 37
S0108	steel	various	Bd 37
	sulfuric acid	various	R166
	Super 77	3M	Bd 37
T0004	Tantalum	Cabot	Bd 37
T0005	Tap Magic	Steco Corp.	Bd 37
T0113	Teflon	duPont	Bd 37
T0208	Three-in-one oil	Amer. home prod.	Bd 37
V0030	Vaseline Intensive care lotion	Chesebro. Ponds	Bd 37
W0012	WD-40 aerosol	WD-40 company	Bd 37
W0016	wetting agent	Glendo Corp	Bd 37
	Yttrium platelets	Ames Laboratory	Bd 37

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Environmental Appraisal of the Mound Plant

9.60.6.3 Location of Building 37

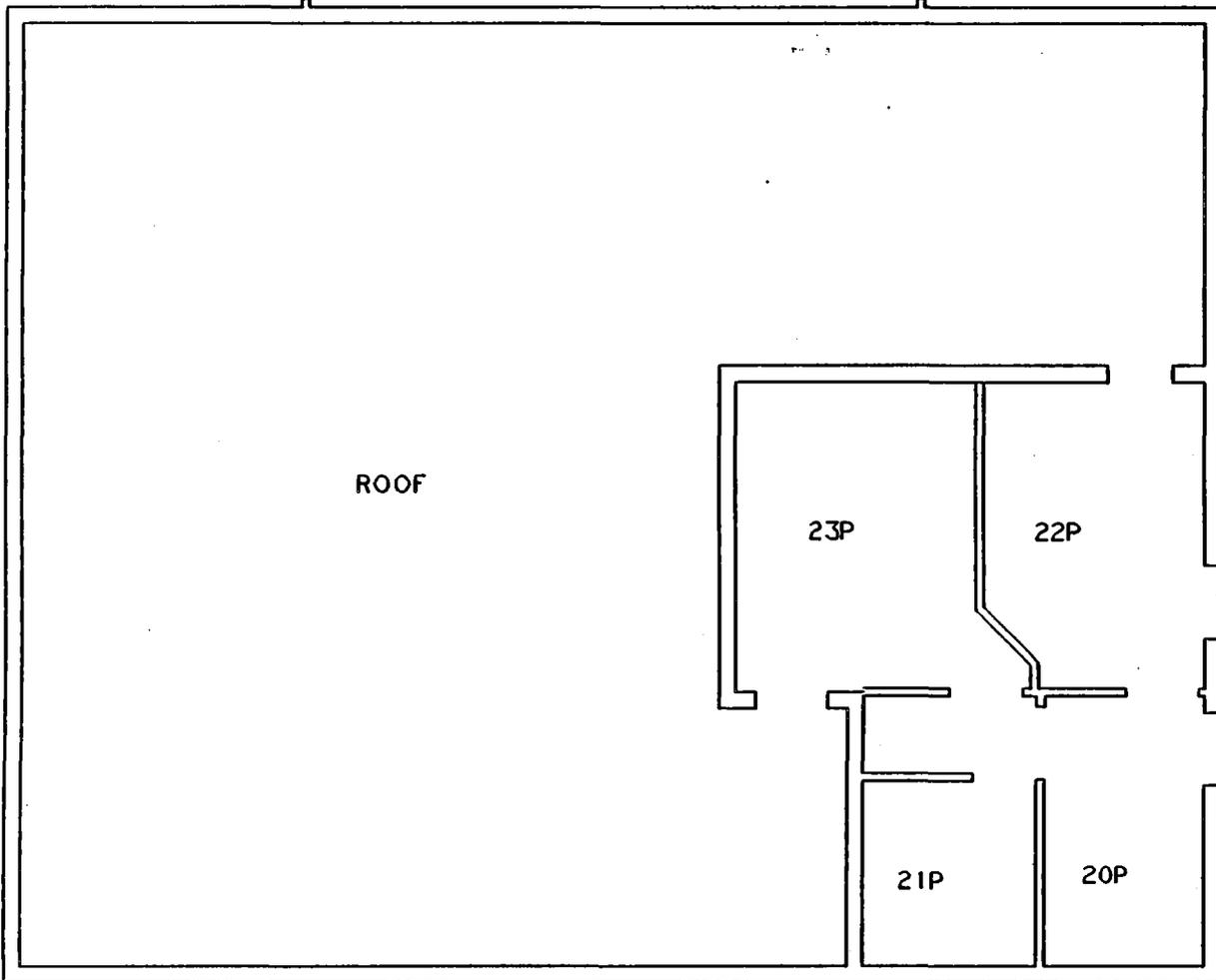


SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92
9.60-67

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Environmental Appraisal of the Mound Plant

9.37.6.4 Floor Plans for Building 37



DERIVATIVE CLASSIFIER

R. Meyer

Sr. Class. Anal. 2/20/96

(Title)

(Date)



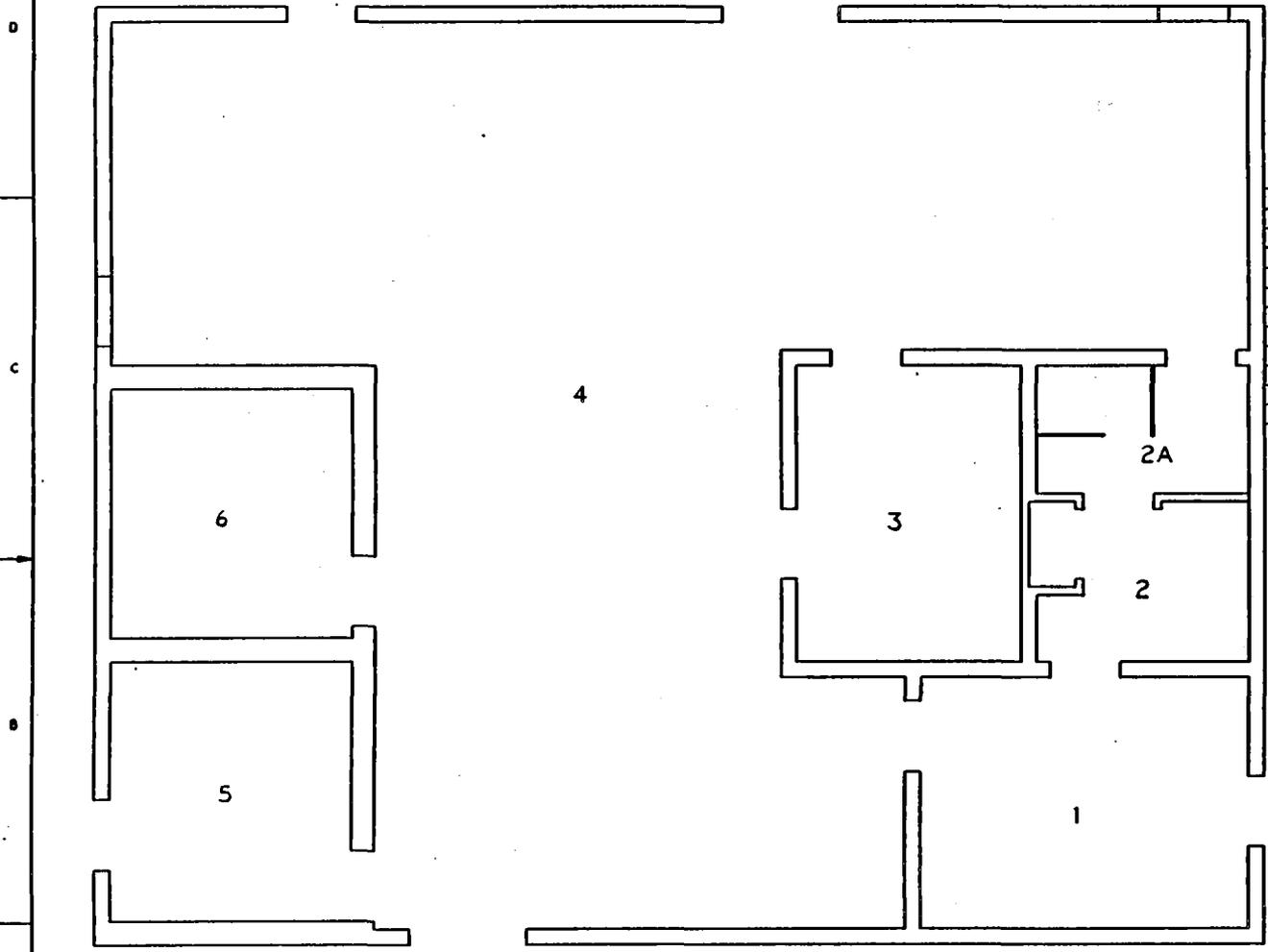
**BLDG #37
PENTHOUSE
BLDG CODE:3037**

NOT FOR PUBLIC DISSEMINATION		CONTROL NUMBER	JOB NUMBER
MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 1.48 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.		FSC911248	12335
		CLASSIFICATION	
		UCN1	
SIZE	DATE	SCALE AS NOTED	
C	14865	FIGURE #	SHEET 2
STANDARD: HD-REL-12/12/91			

9.60-71

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REV	DATE	REVISION	BY	CHKD	DATE	APVD	DATE
0	12/12/91	ASBUILT ISSUE					



DERIVATIVE CLASSIFIER
R. Meyer
 J. Class Anal. 2/20/96
 (Title) (Date)



BLDG #37
FIRST FLOOR
BLDG CODE:3037



9.60-73

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED:	
____ NONE ____ TRUEBLOC ____ TEOC ____ EBOC	
TECH. REPR.	
DR. PER.	
TRUEBLOC	
TEOC	
EBOC	

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 EN	PROJ PER
DATE	DATE

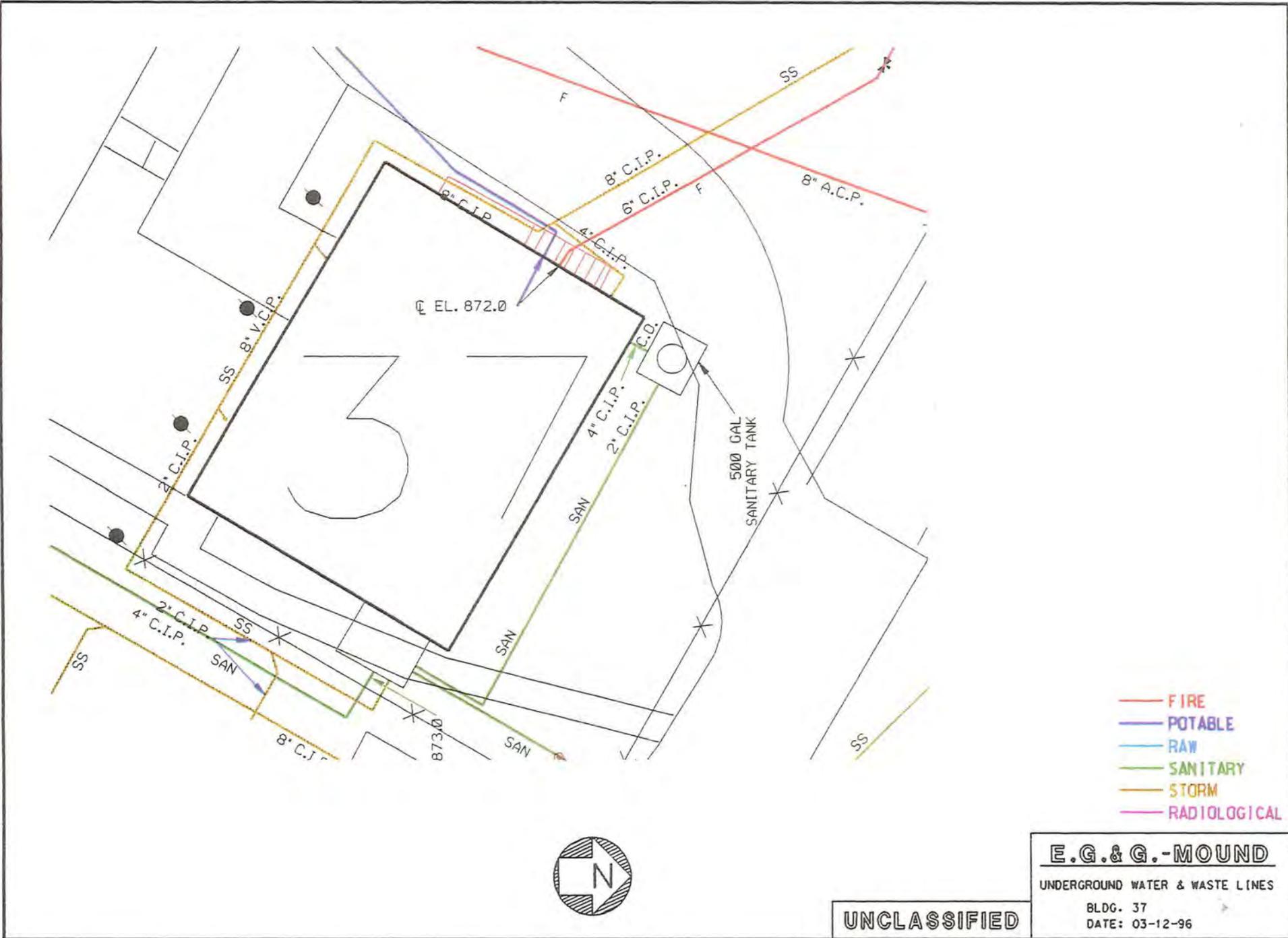
SHEET	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION
100%	0	0					BLDG #37 FLOOR PLANS	
DRAWING CLASSIFICATION							DATE	JOB NUMBER
UCNI							CT	FSC911248 12335
DWG TYPE SFP FROM BLDG #37 CASE 14865 SCALE AS NOTED							SHEET 1 OF 2	
STATUS PD-REL-12/12/91							ORIGIN PD-BR3-V3.0	

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Environmental Appraisal of the Mound Plant

9.37.6.5 Underground Utility Lines

9.60-77



- FIRE
- POTABLE
- RAW
- SANITARY
- STORM
- RADIOLOGICAL



E.G.&G.-MOUND
 UNDERGROUND WATER & WASTE LINES
 BLDG. 37
 DATE: 03-12-96

UNCLASSIFIED

Environmental Appraisal of the Mound Plant

9.60.6.6 Photographs

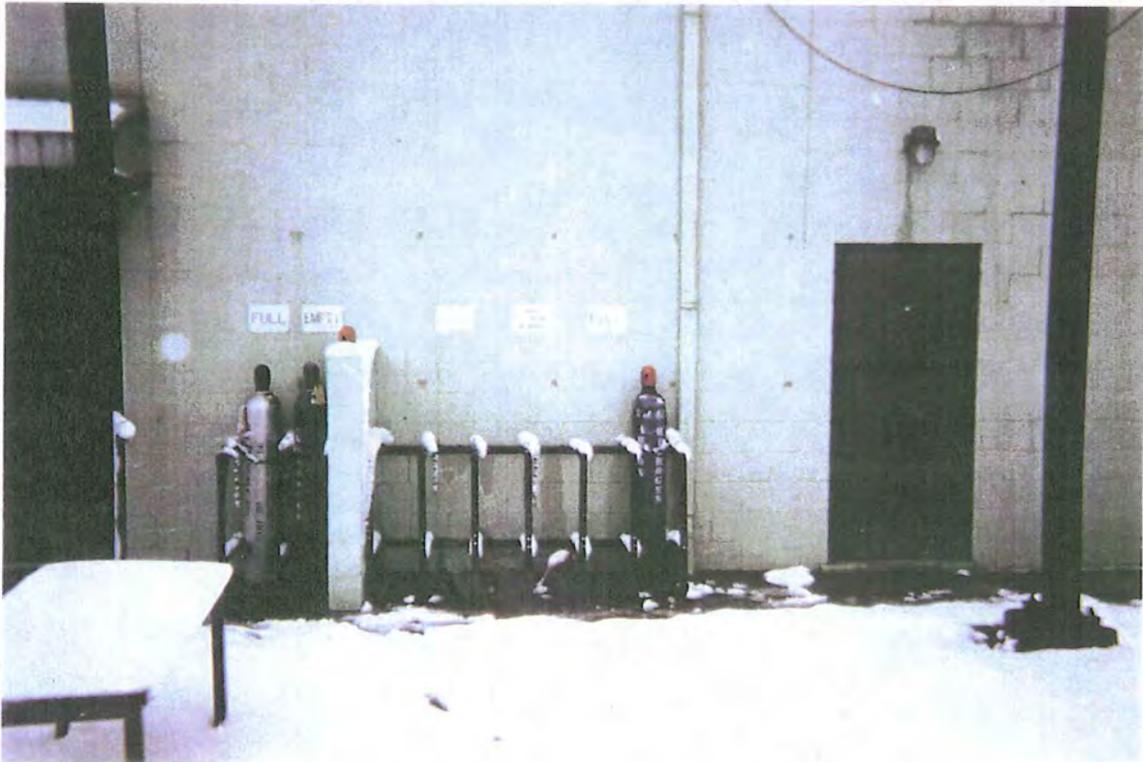
Mound Plant Building 37

9.60-81





Outside Building 37 this lift station must be evaluated for a potential cross-connection between storm and sanitary systems.



Full and empty gas cylinders are properly stored outside of Building 37.



This sanitary manhole is located outside of Building 37.



Excess equipment is stored outside of Building 37.

9.61 Building 38

Environmental Appraisal of the Mound Plant

9.61 BUILDING 38

9.61.1 Scope of Building 38 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 38 on February 8, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.61.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.61.6.2).

9.61.2 Description of Building 38

Building 38 is a two-story structure with the lower level constructed of reinforced concrete and prestressed concrete and the upper level constructed of concrete block. The roof is metal with built-up membrane of asphalt. Building 38 was constructed in 1970 to replace the operations in Building SM. Building 38 is located on what is known as the SM/PP hill as shown in Attachment 3 (Section 9.61.6.3). Adjacent buildings are Building 31 to the north, Building 44 to the east, and Building 39 to the south. Building SM was located north of Building 38 until it was decommissioned. Only the foundation walls of Building SM remain. Building 38 was constructed without a penthouse. The filter bank for the building is located in the lower level along with the utilities which enter through the lower level. The building is serviced by central steam for heat, chilled water, and electrical service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

Total area of Building 38 is 44,327 square feet. Floor plans are presented as Attachment 4 (Section 9.61.6.4). Building 38 supports assembly and testing of radioisotopic-thermoelectric generators (RTG's), analytical facilities, respirator cleaning, and a waste recharacterization and repackaging operation. The building history included production activities in various heat source programs and a Health Physics equipment calibration facility. Building 38, also known as Building PP, was also used for plutonium processing. The building is approximately 80 percent decontaminated and decommissioned (D&D). Only the A and F boxlines remain in the building. No research, development or production activities using energetic materials have occurred in the building. The building is contaminated with radiological materials (*Mound Facility Physical Characterization*, 12-1-93).

Environmental Appraisal of the Mound Plant

9.61.3 Summary of Findings

There were several issues of environmental concern identified during the walk-through and review of reference material. Mound's air emission inventory database needs to be updated to include operations in Building 38 and the self-venting diesel fuel tank. Drums and containers are not properly identified or bar-coded. An oxygen and flammable container were not properly stored. Radiological waste is not properly characterized, containerized, and controlled from the point of generation. Waste management procedures are not being applied consistently. The lower level of Building 38 is prone to water infiltration, especially since Building SM and the breezeway are no longer in existence.

9.61.4 Observations

9.61.4.1 Air Emissions

An application for operations in Building 38 was submitted on May 12, 1992 for a Permit to Operate (PTO). No PTO was received from the Ohio Environmental Protection Agency (OEPA). The application covers operations in Rooms 005, 111, 113, 120, and 142 exhausting to the SM/PP stack. Emissions from the SM/PP stack are monitored for radionuclides in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP's) Federal Facility Compliance Agreement (FFCA) Compliance Work Plan, February 20, 1995. Building 38 exhaust passes through a high-efficiency particulate air (HEPA) filter bank prior to venting to the SM/PP stack. The HEPA filters are tested weekly and maintained in accordance with the Nuclear Standard NEF3-43, Quality Assurance Testing of HEPA Filters, and NEF3-45, Specifications for HEPA Filter Use by Department of Energy (DOE) Contractors. Operations listed in Mound's air emission inventory database for Building 38 are still current. The corrosive vapor system in Room 5 and the lathe exhaust in Room 120 are not listed in the inventory database. There are no fuel-burning units in the building. There was no visual evidence of fugitive dust.

Standby diesel generator No. 2, located in a metal shed west of Building 38, is listed in the inventory database as an air emission source for Building 38. A permit (B012) went into effect on December, 28, 1995 for generator No. 2, requiring that monthly records of fuel use be kept. The review of records indicate that engine run time is recorded. Fuel use is calculated based upon the amount of fuel used per hour. The fuel is contained in a self-venting underground tank. The diesel fuel tank is not listed in the air emission inventory database. No PTO application has been submitted for the diesel fuel tank.

9.61.4.2 Water 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

Environmental Appraisal of the Mound Plant

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.

9.61.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.61.6.5), the building is serviced by two sanitary lines. Discharges to the sanitary system are by toilets and a sump that services the lower level bathroom. 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. There is no monitoring of building effluent. Based on current operations identified by the process owner, effluent from Building 38 should not deviate from that expected by the sanitary treatment plant manager. Chemicals would not be expected to enter the sanitary system as no floor drains discharge to the sanitary system.

9.61.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to Attachment 5 (Section 9.61.6.5). Roof drains discharge to the storm sewer. 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 have entered the storm sewers.

9.61.4.2.3 Process Wastewater

This building does create radioactive wastewater. According to Attachment 5 (Section 9.61.6.5), radioactive wastewater lines connecting Building 38 to the WD facility have been disconnected and abandoned. According to the building engineer, a majority of the radioactive wastewater lines associated with Buildings 38 and SM have been removed. Wastewater from sinks, showers, and floor drains are collected in one of two sumps. These sumps pump to a 10,000-gallon holding tank where the water is sampled to determine pH and alpha concentration. Water in the holding tank is vacuum-transferred to a tanker truck and transported to the WD facility for treatment. Chemicals would not be expected to enter the radioactive wastewater system as analytical operations are limited to gloveboxes.

Groundwater was seeping into the building in Bay 1. The building manager noted that this is a common problem when the ground is saturated with water or there is an extended amount of precipitation. Since Building SM and the breezeway have been removed, water runoff from the parking lot is no longer diverted from Building 38. According to the building engineer, approximately a foot of water infiltrated the lower level into Room 5A when three inches of rain

Environmental Appraisal of the Mound Plant

fell in August 1995. The water flowed towards the hot floor drains and was pumped from the sumps to the 10,000-gallon tank.

9.61.4.2.4 Chemical Wastewater

Chemicals in Building 38 were evaluated against Table V of Appendix D in 40 CFR 122 and none are listed Clean Water Act (CWA) pollutants. Chemical storage and handling procedures are in place for proper disposal of chemicals. There have been no reported spills from Building 38. There was no visual evidence that chemicals have entered any of the three wastewater collection systems.

9.61.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross-connections. Potable and service water lines are uniquely marked and easily identified. The water fountains in the building are being evaluated as to whether they are Environmental Protection Agency (EPA) listed models suspected of lead contamination.

9.61.4.4 Chemical Storage and Hazardous Materials

A list of chemicals found in Building 38 is included in the BMQ found in Attachment 2 (Section 9.61.6.2). The information was gathered as part of the chemical inventory which is conducted annually. The inventory information dates to 1994. Confirmation of the 1994 inventory was not attempted as 1995 data were being compiled at the time of the appraisal. There was no visual evidence of chemical storage incompatibility. Material Safety Data Sheets (MSDS's) are available in the building and were reviewed for completeness. There is a flammable storage cabinet which meets standard National Fire Protection Association (NFPA) requirements.

Two drums were observed without markings or labels regarding contents of the drums. One was a black drum with a shipping label from Los Alamos National Laboratory located in Room 142W. The other drum was a grey drum and it was located in Room 142E.

Storage of compressed gas cylinders on the dock was not reviewed during the walk-through as the area was restricted. The dock area was observed from a distance. Full and empty bays were properly marked and storage appeared to be appropriate. The team was unable to determine whether cylinders were missing full/empty tags. In Room 50, an oxygen cylinder and a flammable cylinder were stored within 20 feet of each other without a 5-foot noncombustible barrier.

The building is equipped with appropriate emergency response equipment such as eyewashes, safety showers, and fire extinguishers. Halon 1211 is the prevalent type of fire extinguisher. Inspection tags were present and current. There is an Emergency Evacuation Plan, and signs are posted in the building.

Environmental Appraisal of the Mound Plant

There is a 10,000-gallon aboveground storage tank in the building (Room 70). The tank contains wastewater generated in Building 38. The contents of the tank come from sumps that collect water from sinks, showers, and floor drains. The wastewater is vacuum transferred to a tanker truck to be transported to the WD facility. Access to the aboveground tank was restricted. The aboveground tank does not have secondary containment and it is undetermined if any is required. The sumps are listed as tank No. 26, No. 27, and No. 254 in the Underground Storage Tank (UST) Program.

There is an underground tank associated with Generator 2. This UST is a self-venting diesel fuel tank with a capacity of 4,000 gallons. Tank tightness testing is performed annually. Although not visually verified, the garage foreman indicated that the tank fuel level is checked weekly when the generator is tested. The diesel fuel tank is listed as tank No. 121 in the UST Program. A 2,000-gallon sump on the west dock is listed in the UST Program as tank No. 25. It is used to collect precipitation and any potentially spilled waste material from a bermed waste drum storage pad. The contents of the sump is tested to determine the appropriate disposal. If the water is contaminated, it is pumped into containers and sent to WD facility. Otherwise, the water is discharged to the storm sewer. The sump was not visually verified as the dock area was observed from behind the fence. There are storm sewer drains around the building.

The building was tested and does contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no visual evidence of friable asbestos. The areas containing asbestos material were identified and properly marked indicating the presence of asbestos.

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in the building. There is no record of past presence (1995 PCB Annual Document Log). PCB transformer and capacitors are in the SM Substation located on the west side of Building 38. They are scheduled for removal in calendar year 1996. The PCB area is appropriately identified and monitored.

9.61.4.5 Solid, Hazardous, and Radioactive Wastes

All waste generated in Building 38 is handled as low specific activity (LSA) waste. No solid wastes are removed because of the possibility that any trash coming from the building might be slightly contaminated as Building 38 was used for plutonium processing. Waste generated in the building has been determined not to be transuranic (TRU) waste. The use of lead-loaded gloves on boxlines in Building 38 and lead bricks create the potential for mixed waste.

Suspect mixed waste is processed for the purpose of collecting characterization data for final disposal. This operation is part of the Orphan Source Program (OSP). Suspect mixed waste is transferred from Building 23, analyzed, processed, and returned to Building 23 for storage. No mixed waste is generated from this process. The Waste Management organization is responsible for this operation and carries out these activities under an agreement with the Ohio Environmental Protection Agency (OEPA). Radioactive waste is disposed of at an approved

Environmental Appraisal of the Mound Plant

radioactive waste disposal site. Waste disposal manifests and Certificates of Disposal are maintained by the EG&G Waste Management Group.

Contaminated lead-loaded gloves were being packed in containers. The accumulation of lead-loaded gloves was not being treated as a Satellite Accumulation Area (SAA). Spent batteries are collected in another SAA. Several of the batteries were mercury cells which are Resource Conservation and Recovery Act (RCRA) regulated.

A wooden box in Room 141E was observed to be filled above the rim with trash, scrap metal, instrumentation and debris. No controls for access to this container or any other waste container, were observed during the walk-through. There was no characterization documentation observed for this waste. Although not verified, the building manager had the box of waste inventoried before it was sealed. Vacuum pump reservoirs and pails containing used oil were noted to be unmarked with respect to content and radiation hazard. Bags of waste in Rooms 10, 24, and 115 were observed not to be identified as radioactive and did not contain waste profile declarations to identify the generator and the contents of the waste packages. According to the Building Manager, these bags were accumulating because no LSA waste boxes were available. Although waste generator forms were not observed at the site of waste generation, the contents of the bags of waste are classified as general trash, which is a specific waste stream. Similar documentation was missing from waste drums in the OSP and drums containing liquid scintillation cocktail solutions. Although there were no waste profile forms, the drums contained a source log with codes. This documentation of radioactive waste containers is inconsistent with site requirements for radioactive waste packaging.

Due to the resources available to this appraisal team, the extent of compliance with DOE Order 5820.2A was not determined.

9.61.4.6 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.

9.61.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.61.6.6).

The environmental appraisal of Building 38 indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

- 38-1 Provide proper separation for oxygen and flammable containers. They are required to be separated by 20 feet or by a noncombustible barrier five feet high (CGA P-1 4.2.2).

Environmental Appraisal of the Mound Plant

- 38-2 Drums require proper identification and bar-coding. Containers should be marked to identify contents and hazards. Unlabelled and/or uncharacterized containers in Rooms 10, 24, 115, 141E, 142W and 142E must be labeled and characterized according to DOE Order 5820.2A and/or OAC 3745-51.
- 38-3 Building personnel need to characterize and properly package the radiological waste generated. Drums and boxes should have generator forms and be characterized as soon as they are filled. LSA waste must be controlled from the point of generation, with drums and boxes sealed when filled.
- 38-4 Personnel should be knowledgeable of waste management procedures concerning SAA's, the characterization of waste, and RCRA-regulated materials in a radiation area. The appropriate training should be re-emphasized.
- 38-5 The extent of compliance with DOE Order 5820.2A and MD-81240 should be evaluated.
- 38-6 Verify that the diesel fuel tank is part of the generator's permit or whether a PTO should be filed for the self-venting fuel tank. Other fuel tanks on plant site are individually permitted.
- 38-7 Applications on file with the Regional Air Pollution Control Agency (RAPCA) for air emission sources should be updated. Mound's air emissions database needs to be updated with respect to changing operations and air emissions.
- 38-8 Management must provide adequate resources as to prevent the accumulation of waste in radiological areas. Boxes and drums should be available to properly package waste, otherwise waste should not be generated.
- 38-9 Investigate fate and effect of groundwater seepage in Bay 1 regarding radioactive wastewater treatment.
- 38-10 Investigate secondary containment requirements per 40 CFR 122 for the aboveground storage tank in Room 70.
- 38-11 Investigate sumps regarding fate of overflow, leak tightness and design size adequacy per DOE Order 6430.

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Environmental Appraisal of the Mound Plant

9.61.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 38

Appraisers:

Ronald Paulick
Name Discipline

J. R. ...
Name Discipline

Name Discipline

Name Discipline

Building Manager:

M. D. ... for P. C. ...

Process Manager:

Date: _____

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Environmental Assessment Checklist

Building Name: 38

Appraisers: Paulick, Atkins, Ross, Hertweck

Date: 2-8-96

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	Y/N Y/N	
	Is the building in operation? What are the processes and where do they discharge to?	Y/N	GRHS program, Orphan source. Everything collected in 10K tanks except toilets
	Do the floor drains, sinks & toilets appear to be draining properly?	Y/N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	Floor drains go to a sump, sump is pumped to 10K holding tank
	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	3 sumps in building pump to 10,000 gal tank which is vacuum transferred to tanker truck & transported to WLD.
	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	

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Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Hertweck, Ross Date: 2-8-96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	(Y) N	005, 111, 113, 120, 142
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	Diesel fuel tank
	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 <u>applications</u> applicable to the building?	(Y) N	Filed on 5/12/92
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	NESHAP monitoring of SM stack
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	Diesel fuel tank
OAC 3745-31-03	Are there sources which are lab equipment or 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: 38

Appraisers: Paulick, Adkins, Hertweck
 Date: 2-8-96
 Ross

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
Diesel fuel tank	outside		Y/N	Y/N	fumes				
	120		Y/N	Y/N					
	005		Y/N	Y/N					
			Y/N	Y/N					
			Y/N	Y/N					

Source: _____

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Environmental Appraisal Checklist

 Building Name: *38*

 Appraisers: *Paulick, Adkins, Hartweck* Date: *2-8-96*
Ross

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	<i>Some Chemicals were missing barcode labels.</i>
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)	<i>Bags of trash downstairs rms. 10 & 24. Waiting boxes.</i>
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	N/A

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, HERTWICK Date: 2-8-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	YIN	
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	YIN	
CGA P-1 3.3 & 3.3.10	All gas cylinders (full or empty) shall carry a legible label or marking identifying the contents.	YIN	Dock area was inaccessible.
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.	YIN	From our vantage point everything with respect to CGC's was ok.
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.	YIN	
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.	YIN	Oxygen tank & flammable gas tank within 20ft in Room 5D
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.	YIN N/A	N/A
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	YIN N/A	N/A
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	YIN	
	Is there an emergency response plan available?	YIN	

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Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Ross, Hortwick Date: 2-8-96

HM Checklist

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

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
38	10,000	Wastewater	25000	(Y) N	(Y) N	Y/(N)	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N

Source: _____

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Hertweck
Koss Date: 2-8-96

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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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)?	<input checked="" type="radio"/> Y <input type="radio"/> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	<input checked="" type="radio"/> Y <input type="radio"/> N	

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
38	61		DASIS in men's locker room
38			

Source: _____

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Hertweck, Ross
Date: 2-8-96

RCRA Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
---	--	---------------------------------------

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	<p>Has any material generated been characterized RCRA hazardous? Was characterization 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?</p> <p>If yes, proceed with next section.</p>	<p><input checked="" type="radio"/> Y <input type="radio"/> N analysis / process Y/N Y/N</p>	<p>Lead bricks & leadline glove Orphan repack may contain RCRA- Hazardous Waste in BD-38 would be considered mixed waste</p>
OAC 3745 52-11	<p>Are any of the materials noted RCRA hazardous waste?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.</p>	<p><input checked="" type="radio"/> Y <input type="radio"/> N</p>	<p>Orphan repack Paint cans in LSA bins no labeling to determine if paint waste been characterized RCRA Hazardous or not.</p>

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Hortweck
Ross

Date: 2-8-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area? Is it treated as such?	<input checked="" type="radio"/> Y / <input checked="" type="radio"/> N	Lead line gloves are containerized.
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.	<input checked="" type="radio"/> Y / <input checked="" type="radio"/> N	Batteries
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y / <input checked="" type="radio"/> N	Containers not labeled in alpha alpha. -
	Are the containers in good condition?	<input checked="" type="radio"/> Y / <input checked="" type="radio"/> N	
	Are the waste compatible with the containers?	<input checked="" type="radio"/> Y / <input checked="" type="radio"/> N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	<input checked="" type="radio"/> Y / <input checked="" type="radio"/> N	
	Are containers kept closed and locked except during filling?	Y / <input checked="" type="radio"/> N	Rm 141
	Are containers moved within 3 days of being filled?	Y / <input checked="" type="radio"/> N	Unobserved

oil on
Bag 17
not I.D.

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Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Hertweck, Date: 2-8-96

RCRA Checklist Ross

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	<p>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.</p> <p>If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:</p>		N/A
	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?	Y / N	
	Where is the log?		
	Is it properly completed, dated, and signed?	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.		

Environmental Appraisal Checklist

Building Name: 38

Appraisers: *Paulick, Adkins, Hertweck, Ross* Date: *2-8-96*

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y/N	Orphan repack is be working w/ drums over 90 days old. & uncharacterized
	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	

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Environmental Appraisal Checklist

Building Name: 38

Appraisers: *Paulick, Adkins, Hertweck,* Date: *2-8-96*

RCRA Checklist

Ross

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 / <input checked="" type="radio"/> 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 / <input checked="" type="radio"/> N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / <input checked="" type="radio"/> N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / <input checked="" type="radio"/> 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 / <input checked="" type="radio"/> N	

General Comments:

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Environmental Appraisal Checklist

Building Name: 38

Appraisers: *Rudick, Adkins, Hertweck, Ross* Date: 2-8-96

Asbestos Screening Checklist

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

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	<p>Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos?</p> <p>If no for this building or area note this conclusion in the comment section.</p> <p>Is there any evidence of friable asbestos?</p> <p>Is the asbestos removal properly managed? (See questions listed below)</p>	<p>(Y) N</p> <p>Y (N)</p> <p>Y/N</p>	<p>If there is no asbestos removal, do not complete the following section.</p>
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	
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	

9.61-25

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Hertweck, Ross Date: 2-8-96

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

Does this facility potentially contain any PCB's or PCB contaminated equipment?	<input checked="" type="radio"/> Y / <input type="radio"/> 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.	<input checked="" type="radio"/> Y / <input type="radio"/> N <i>RP</i>	PCB rays from maintenance operations on transformers
	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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	SM/PP Sub Station outside of BD 38
40 CFR 761.65 (c) (5)	Are PCB articles or containers stored in this building checked for leaks at least once every 30 days? If yes, are auditable records maintained.	<input checked="" type="radio"/> Y / <input type="radio"/> N <i>RP</i>	N/A
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?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Are they visually inspected quarterly? If yes, are auditable records maintained?	<input checked="" type="radio"/> Y / <input type="radio"/> N	

Environmental Appraisal Checklist

Building Name: 37

Appraisers: Paulick, Adkins, Hertweck, Date: 2-8-96

TSCA Checklist

Ross

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	N/A
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y/N	N/A
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	N/A
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	N/A
40 CFR 761.62 (b) (1) (iv)	Are storage area floors curbed and constructed of continuous smooth and impervious materials?	Y/N	N/A
40 CFR 761.62 (b) (1) (i)	Are the curbs at least 6 inches high?	Y/N	N/A
40 CFR 761.62 (b) (1) (iii)	No drains are allowed in storage areas. Are there drains in the storage areas?	Y/N	

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Hertweck Date: 2-8-96

TSCA Checklist

Ross

9.61-28

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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	
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	N/A
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	N/A

GENERAL COMMENTS:



Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick/Adkins/Hartweck/Koss Date: 2-8-96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	If yes, conduct the following survey.
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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.	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	<i>All waste in building is considered LLW based on Building history.</i>
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.	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	<i>Whole Building</i>
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	<i>N/A</i>
DOE Order 5820.2A Chapter III, 3.b.	Is the waste stored in a configuration that protects ground-water resources?	<input checked="" type="radio"/> Y <input checked="" type="radio"/> 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? Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y / <input checked="" type="radio"/> N	<i>LLW containers & rooms did not have observable radiation dose levels posted. Rm 141W was posted.</i>

9.61-29

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Atkins, Hartweck, ^{Ross} Date: 2-8-96

Low-Level Waste and Transuranic Waste Checklist

9.61-30

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 <input checked="" type="radio"/> N	R141E contained full size box filled above rim w/ trash, scrap, metal, instrumentation & debris No controls for access to this container	
	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 <input checked="" type="radio"/> N	<p>Bags in 115 from a job conducted the day before were unmarked</p> <p>Orphan Waste Repack & Scintillation cocktail drums are inconsistent w/ site requirements for packaging requirements.</p>	
	Do characterization data include the following:			
	Physical and chemical characteristics of the waste?	Y <input checked="" type="radio"/> N	Wasters not being labeled and containerized at the time of generation. Containers not labeled or marked regard contents.	
	Volume of the waste (including solidification and absorbent material)?	Y <input checked="" type="radio"/> N		
	Weight of the waste (including solidification and absorbent material)?	Y <input checked="" type="radio"/> N		
	Major radionuclides and their concentrations?	Y <input checked="" type="radio"/> N		
	Packaging date, package weight, external volume?	Y <input checked="" type="radio"/> N		NOT ON DRUM.
	How were the concentration of radionuclides determined? Direct methods?	_____		UNOBSERVED
How were the concentrations of radionuclides determined? Indirect methods?	_____	UNOBSERVED		
DOE Order 5820.2A Chapter III, 3.h	Is the storage configuration in long term storage sufficient to meet the performance standard?	Y <input checked="" type="radio"/> N	N/A	
	Are records maintained at the facility enabling this waste to be traced from its origin?	Y <input checked="" type="radio"/> N		

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Adkins, Hertweck, Ross
Date: 2-8-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / N	NO TRU WASTE
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	↓
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick/Adkins/Hartwick Date: 2-8-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II, 3.b	Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage?	Y/N	No TRU Waste
	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	

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Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick, Atkins, Hertarck Date: 2-8-96
Rees

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	No TRU Waste
	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:

Environmental Appraisal Checklist

Building Name: 38

Appraisers: *Paulick, Adkins, Ross* Date: *2-8-96*

Hertzbeck

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	<i>Y/N</i>	If yes, conduct the following survey.
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Waste Minimization/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.	<i>Y/N</i>	<i>N/A</i>
	Are there solvent wastes?	Y/N	<div style="font-size: 2em;">V</div>
	Is vehicle maintenance performed?	Y/N	
	Are oils used ?	Y/N	
	Are these corrosive wastes?	Y/N	
	Are there sludges?	Y/N	
	Are there halogenated organic (nonsolvent) wastes?	Y/N	
	Are metals recovered from wastewater?	Y/N	
	Is waste sludge generated?	Y/N	
	Are any waste minimization practices used that reduce the generation of sludge?	Y/N	
	Ion exchange process?	Y/N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y/N	
	Storage tank agitators installed?	Y/N	
	Corrosive resistant materials used?	Y/N	
	Prevention of crude oil oxidation ?	Y/N	
	Drying?	Y/N	

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Paulick/Adkins/Ross/ *Heintweck*
Date: 2-8-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments	
HALOGENATED ORGANIC (NONSOLVENT) WASTES				
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	N/A	
	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	✓	

9.61-35

Environmental Appraisal Checklist

Ross

Building Name: *38*

Appraisers: *Paulich, Adams, Hertzfeld*

Date: *2-8-96*

Waste Minimization/Pollution Prevention Activities Checklist

9.61-36

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	<i>N/A</i>
	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	
<u>CYANIDE AND REACTIVE WASTES</u>			
	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	
<u>VEHICLE MAINTENANCE</u>			
	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	

Environmental Appraisal Checklist

Hertweck

Building Name: *38*

Appraisers: *Paulick, Adams, Ross* Date: *2-8-96*

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	<i>N/A</i>
	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	
<u>OILS</u>			
	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	

9.61-37

Environmental Appraisal Checklist

Building Name: 38

Appraisers: Ross, Atkins, Paulick, Hertweck
Date: 2-8-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		N/A
	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	

Environmental Appraisal Checklist

Building Name: 38

Appraisers: *Paulick, Adams, Ross, Hertweck* Date: *2-8-96*

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y/N	N/A
	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?	_____ _____	

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Environmental Appraisal of the Mound Plant

9.61.6.2 Building Manager's Questionnaire

PLW 02/07/96

- DROP TO EV WARMOTH
A-220

Building Manager's Questionnaire

WED. 02/07/96

Building Name: 38 Building Manager: P.C. Molloy Phone: 3869
Alternate: T.J. GRESNER Phone: 5568

Date: 12-07-95

TO: BILLIE
XATTA HOKINS/
RON PAULICK

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

MEET Training Plan # 8002; Course Nos. 054043; 035663; 470103; 6001; 6002; For all those who require permanent unescorted access to 80-38.

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

On General RWP entry; Safety Glasses; no respirator, standard street clothes; or Area specific RWP according to details as directed by the specific RWP/RET covering the work.

3. Are there any restricted areas? Yes No

Where are they? 38-100; 38-113, 140 E, 140 W, 38-31.

4. Provide a physical description of the building.

This two-story building contains 44,327 ft². The lower level is of reinforced concrete and prestressed concrete; the upper level is of concrete block. It has a BUM roof (asphalt), and the HVAC systems are central steam and chilled water. The building is contaminated with radiological materials. *(Recent extensive D&D effort over 80% of 80-38).*

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

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

The building is partly decommissioned *(80%)* ~~(in the basement)~~. It supports the assembly and testing of RTGs. The building also houses an analytical facility, a respirator cleaning facility, and an HP equipment calibration facility.

REF: FSAR FOR BLDG. 38;
Updated: MLM-ML-95-41-0001; REV. 2
NOV. 95

Source: Mound Buildings, 5-9-95

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

REF: FSAR FOR 80-38;
MLM-ML-95-41-0001; REV. 2
NOV. 95
SEE FACIL. OVERVIEW 2.3, ETC.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: 38 Building Manager: P.C. Molloy 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: ~~Decontamination activities in PP, partial heat source assembly, plutonium repackaging for storage, instrument calibration lab, HP offices and counting lab, respirator cleaning~~ (*Orphan Source Program*)

How Wastes Are Generated:

~~This building is being decontaminated.~~ Most of the equipment and structural materials that were likely to be highly contaminated have been removed. ~~Only two relatively hot areas (rooms 13 and 24) remain.~~ Virtually all of the wastes generated by current decontamination work are LSA.

D&D Areas: Because this building was used for plutonium processing and is ~~now being decontaminated~~ ^{*PARTIALLY*}, there is a possibility that any trash coming from the building might be slightly contaminated. Therefore, all trash from PP (restroom trash, paper, packaging, etc.) is handled as LSA.

F Line: The only waste generated on Line F where some assembly of inert heat source parts is done is LSA.

North A Line: TRU waste ^{*WAS*} ~~is~~ generated during repackaging of plutonium for storage on Line A. In the past, metal exchange work was done here, and various chemicals used in that work are being discarded. *TRU Waste generated anymore*

Cal Lab: Small amounts of isopropyl alcohol are used for cleaning in the calibration lab. The alcohol evaporates. No wastes are generated. *CAL LAB IS BEING RAISED TO 50-45. (90% CUMUL.)*

HP Counting Lab: In the HP lab scintillation counting is done. The scintillation fluid is ~~Insta-gel XE~~ *Ultima Gold*. Scintillation vials are put in an LSA container used only for them. ~~They are treated as mixed waste.~~

Decon A Lab: Respirators are cleaned with a detergent which is flushed down the drain.

All water from PP (Building 38) is collected in one of ^{*3*} ~~two~~ building sumps and pumped to a 10,000-gal holding tank where it is sampled to determine pH and alpha concentration. All water from this building is taken by tanker truck to WD for treatment.

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: 38 Building Manager: P.C. Molloy 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

CALIB. LAB MOVING TO 80-95

10. Does the building have air emission sources? Yes No

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
Safe Shutdown	111	03811	N					
Nuclear ops & D&D	113	038113 001 2 3 4 5	Y	Acetone Nitric Acid Scintillation cckh Sulfuric acid hydeacnisric acid	.0002 .02 .0026 .004 .007		.02 2 .26 .04 .07	
Nuclear ops & D&D <i>welder</i>	142 <i>142 E4W</i>	03814 20001	Y	Ethanol <i>ethylene glycol</i>	.044		.528	
Standby DG			Y	particulates sulfurdioxoc 6 vocs Nitrogen oxides carbon monoxide	.0347 .016 .012 .431 .114		19.12664 9.31528 6.89 237.5672 62.8368	
<i>Diesel fuel tank</i>			<i>Y</i>	<i>vapors</i>				

Source: Mound Air Emissions Database 11/30/95

*120 - lathe exhaust for heat source program.
 005A- glove box for corrosive vapor system*

Building Manager's Questionnaire

Building Name: 38 Building Manager: P.C. Mollov 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
Standby Gen	Boil	<input checked="" type="checkbox"/> Y / N	Monthly fuel use records
		Y / N	
SM STACK		<input checked="" type="checkbox"/> Y / N	NESHAPS
		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? Storm drain

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

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

ALL LIQUID WASTES GO TO EAST/WEST SUMPS TO 10,000 GAL. HOLD TANK & TANK TRUCK TO LND.

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

Building Manager's Questionnaire

Building Name: 38 Building Manager: P.C. Molloy Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

Chemical Name	State	Amount (MAX)
Solvent & Flux Remover	S	455/G
Spray Adhesive	L	125/OZ
Statnul Anti-static	L	32/OZ
Super Glue-5	L	1.5/OZ
Super Wash	L	215/OZ
Tap Magic (Oil)	L	16/OZ
TPD (Plsitidip Thinner)	L	195/OZ
Tyte-Untyte	L	2/OZ
Uhu Bond All	L	10/OZ
Ultra Jet	L	180/OZ
Was Insect Spray	L	17/OZ
WD-40	L	100/OZ
Winda Shine	L	215/OZ
Znag	S	130/OZ
Ajax Cleaner	S	14/OZ
Apiezon H Grease	S	20/G
Apiezon L Grease	S	45/G
Argon	G	1250/CF
Argon (W/52PPM Oxygen)	G	200/CF
Fog Pruf Lens Solution	L	120/ML
Helium Bonded Gas	G	630/CF
RTV Silicon	L	100/ML
Silicon III Vacuum Grease	S	655/G
Ajax Cleaner	S	6/LB
Argon	G	250/CF
Duo Seal Pump Oil	L	0.75/GA
Ethyl Alcohol 190 Proof	L	1/GA
Ethyl Alcohol 200 Proof	L	0.5/GA
Fog Pruf Lens Solution	L	60/ML
Leak-Tec Formula 372E	L	118/ML
Octoil	L	50/ML
Silicon Vacuum Grease	S	280/G
WD-40	L	2/LB
Apiezon H Grease	L	1.25/GA

Source: Chemical Inventory 1994

Above not up-to-date

Building Manager's Questionnaire

Building Name: 38 Building Manager: P.C. Molloy Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

Chemical Name	State	Amount (MAX)
Drierite	S	3/LB
Ethanol	L	1/PT
Fibercraft Rigidizer (Colloidal Silical)	L	750/ML
Florco	S	500/LB
Helium	G	240/CF
Hydrochloric Acid	L	7.5/L
Mortar Type M	S	80/LB
Nitric Acid	L	10/L
Nitric Acid, 1.0n	L	600/ML
Nitrogen	G	240/CF
Phenol Red Solution 0.02%	L	500/ML
RTV	L	60/OZ
Sakrete	S	90/LB
Sulfuric Acid	L	2.5/L
Titanium Sponge	S	20/LB
Ultima Gold	L	5/GA
2 Ton Epoxy	L	252/G
3 In One Oil	L	20/OZ
Aero Duster	L	400/G
Break Free Cleaner/Lube	L	16/OZ
Clean Sweep	L	135/OZ
Cleaner (Glass)	L	16/OZ
Correction Fluid	L	5/OZ
De-ox-id CNT Cleaner	L	20/OZ
Dessicant	S	5/LB
Disinfectant Deodorant	L	28/OZ
Flux-Off	L	215/OZ
Fogpruf Lens Cleaner	L	35/OZ
Freez-it	L	80/OZ
Freon TF Solvent	L	16/OZ
High Vacuum Grease	S	50/OZ
LP Gas (For Detectors)	G	1200/OZ
Lacquer Black	L	48/OZ
LPS-2-LUB	L	11/OZ
LQD Solder Flux 11	L	4/OZ
Methyl Alcohol	L	500/ML
Plastidip	L	1/GA
Protector Spray Paint	L	26/OZ
RTV Sealant	S	27/OZ
Scotch Spray-Mount	L	125/OZ
Silicone LUB #888	L	150/OZ
Skin Screen	S	28/OZ
Skin-So-Soft	L	145/OZ
Soft Guard	L	30/OZ
Solder (44)	S	145/OZ

Building Manager's Questionnaire

Building Name: 38 Building Manager: P.C. Molloy 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.

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
68476-34-6	diesel fuel	3000 Gallons		Y / N	
7697-37-2	nitric acid	01C		Y / N	
7697-37-2	nitric acid	01C		Y / N	
7440-37-1	Argon	01C		Y / N	inside rm 113
7440-37-1	Argon	02C		Y / N	
7440-37-1	Argon	01C		Y / N	
7440-37-1	Argon	01C		Y / N	
7440-37-1	Argon	01C		Y / N	
7440-37-1	Argon	01C		Y / N	
7440-37-1	Argon	01C		Y / N	
7440-59-7	Helium	01C		Y / N	
7440-59-7	Helium	01C		Y / N	
7664-93-9	Sulfuric Acid	01C		Y / N	
7782-37-9	Nitrogen	01C		Y / N	

Underground

these are not applicable

Source: Emergency and Hazardous Chemical Inventory Form - Chemical Storage Tanks on EGG Mound Site Owned and Maintained by Outside Contractors 8/8/94

26. Is there a sump or pit or underground tank in or around the building? Yes No
 Is it double-walled? What does it contain? How many days per year is it filled?
 Is there an emergency overflow tank? *Blocked - tank # 25, 26, 27, 121, 254*

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

Source: _____

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

Materials	Amount
Formica Adhesive	1.7
Oil Waste	328.8
PCB Rags From Maintenance	0.4
Scotch Grip Adhesive	1.2
Sodium Hydroxide	44.0

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

Building Manager's Questionnaire

Building Name: 38 Building Manager: D. Molloy 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? *Waste mgmt.*

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

Some Inside Bldg.

23. Where do excess janitorial supplies go?

Waste mgmt.

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: 38 Building Manager: P.C. Molloy 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: 38 Building Manager: P.C. Molloy Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

28. Does the building have abandoned process equipment such as tanks, piping, containers, etc.? Yes No - *MUST REMOVED BY O&D.*
29. Is waste material stored in or around the building for more than 90 days? Yes No *O&D materials*
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 *Orphan source*
32. Is mixed waste generated, stored, or disposed of from the building? Yes No *?*
 Where are logs found? *lead line gloves*
CK. ORPHAN SOURCE PROGRAM

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: 38 Building Manager: P.C. Molloy 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.

*— Reduce liquid waste flow to
W.D.
— Lo-Flow shower heads.*

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

*Single-pass HVAC with HEPA
Filters. Filter Bank AJ-113
to SM Stack.*

Building Manager's Questionnaire

Building Name: 38 Building Manager: P.C. Molloy Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

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

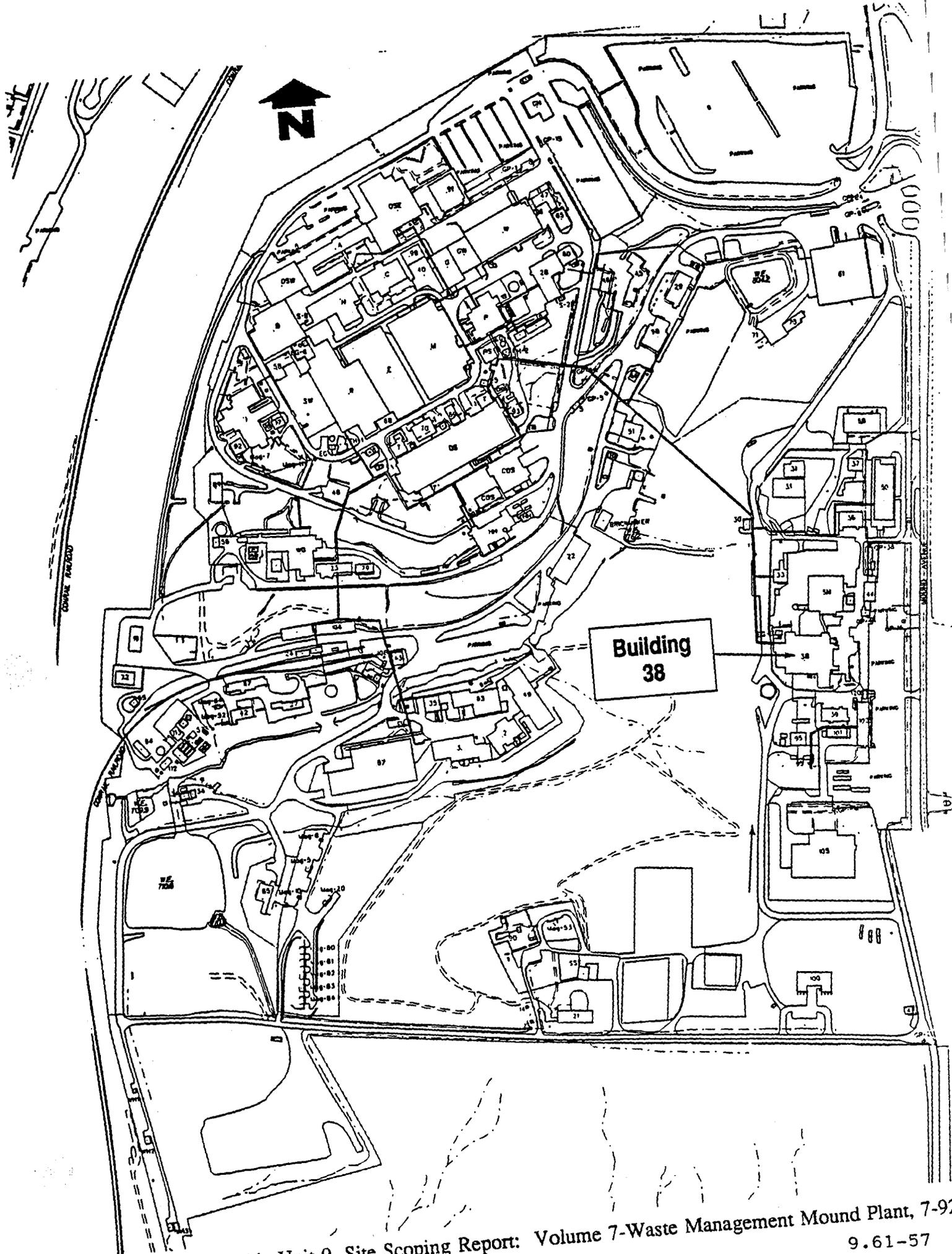
Process	Waste	Stored	Disposed	Logs
<i>A line</i>		Y / N	Y / N	Y / N
<i>7 line</i>		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N

Source: _____

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

Environmental Appraisal of the Mound Plant

9.61.6.3 Location of Building 38



SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92
9.61-57

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Environmental Appraisal of the Mound Plant

9.61.6.4 Floor Plans for Building 38

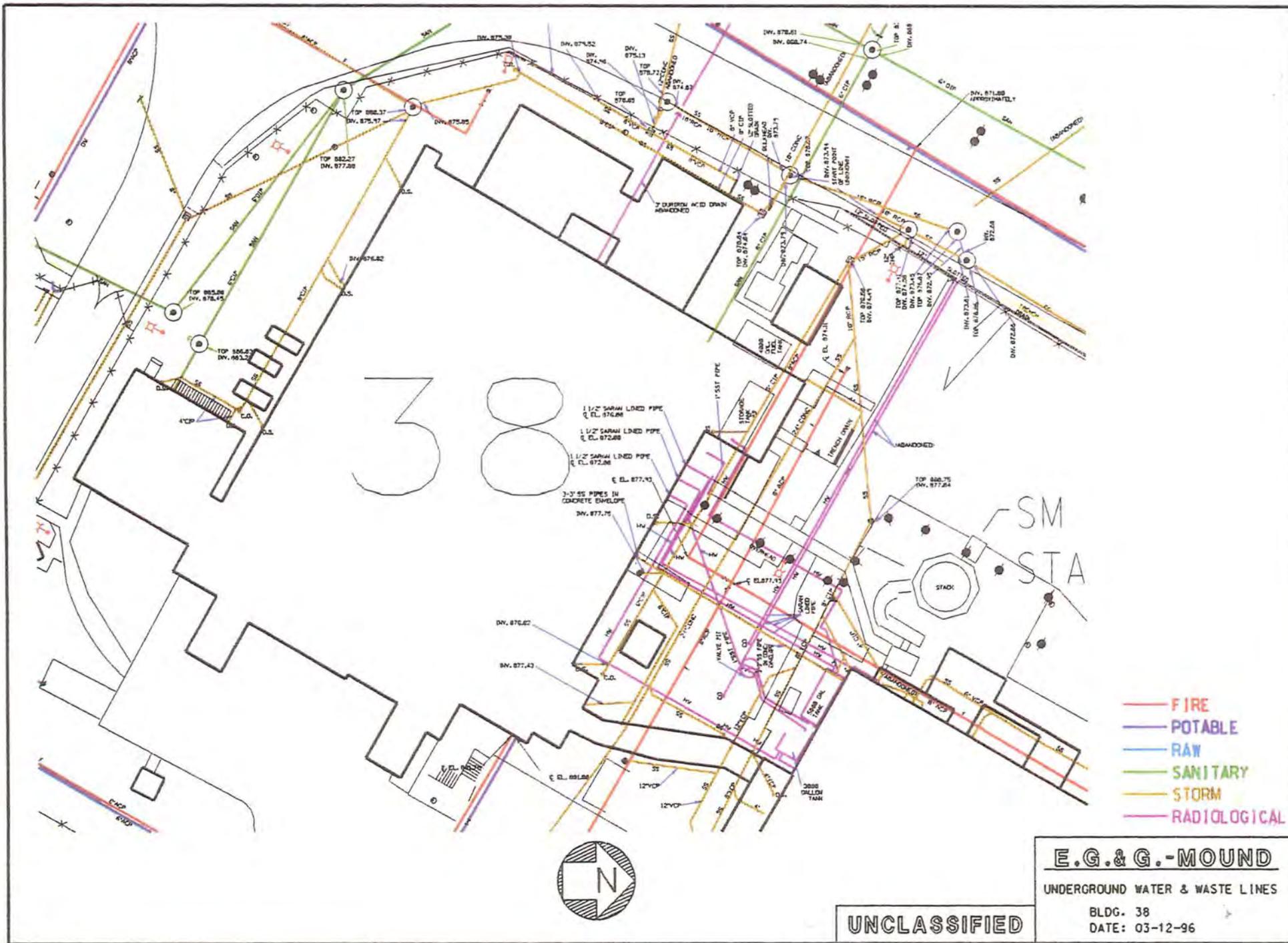
Environmental Appraisal of the Mound Plant

Floor plans are located in Appendix I—Unclassified Controlled Nuclear Information (UCNI), found in Volume 12 (Section 10.1) of this report.

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Environmental Appraisal of the Mound Plant

9.61.6.5 Underground Utility Lines



- FIRE
- POTABLE
- RAW
- SANITARY
- STORM
- RADIOLOGICAL

E.G.&G.-MOUND
 UNDERGROUND WATER & WASTE LINES
 BLDG. 38
 DATE: 03-12-96

UNCLASSIFIED

Environmental Appraisal of the Mound Plant

9.61.6.6 Photographs



Mound Plant Building 38

9.61-69

9.62 Building 39

Environmental Appraisal of the Mound Plant

9.62 BUILDING 39

9.62.1 Scope of Building 39 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 39 on February 26, 1996. The Environmental Appraisal Checklist (EAC) (Attachment 1—Section 9.62.6.1) was used to record findings. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.62.6.2).

9.62.2 Description of Building 39

Building 39 is a one-story structure constructed of prefabricated metal with a metal roof. The total area is 3,515 square feet. The building was constructed in 1969. Building 39 is located on what is known as the SM/PP hill as shown in Attachment 3 (Section 9.62.6.3). Adjacent buildings are Building 38 to the north, Building 102 to the east, Building 101 to the south, and Building 95 to the west. The building has electric heat and air conditioning with electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Building 39 was converted to a maintenance shop in 1988. Floor plans are presented in Attachment 4 (Section 9.62.6.4). The building is divided into three sections: the east end is a machine shop; the middle is a break room; and the west end is primarily for storage of building materials, parts, paints, and some solvents. From 1984 to 1988 the building was either inactive or used for storage. Originally the east end of the building was used by Decontamination and Decommissioning (D&D) to produce fiberglass wooden boxes used for radioactive trash. The turntable used for this operation is still in place. Indications are that the facility was also used to perform gamma spectroscopy on these boxes. No research, development, or production activities using radioactive or energetic materials have occurred in the building (*Mound Facility Physical Characterization*, 12-1-93).

9.62.3 Summary of Findings

The following issues were identified during the assessment of Building 39. The exhaust over the welding operation was not listed as an air emission source. A waste oil drum identified as a Satellite Accumulation Area (SAA) was unprotected from the weather. Gas cylinders stored outside were missing full/empty tags. Xylene, a Clean Water Act (CWA) pollutant, is used in the building. Activities are currently being conducted to reduce the volume of paints and solvents.

Environmental Appraisal of the Mound Plant

9.62.4 Observations

9.62.4.1 Air Emissions

No air emission permit application has been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in Building 39. There is an exhaust hood over the welding operation in the shop area. This operation is not listed in the Mound's air emission inventory database. There are no fuel-burning units in the building. There was no visual evidence of fugitive dust.

9.62.4.2 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.

9.62.4.2.1 Sanitary

The building has sanitary services. According to a diagram of underground lines, presented as Attachment 5 (Section 9.62.6.5), there appears to be no direct connection to the sanitary line that runs between Buildings 39 and 101. Discharge to the sanitary line would be the sink in the break room. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort, therefore, dye tests or smoke tests were not conducted.

Sanitary effluent is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations data, supplied by the process owner, effluent from Building 39 does not deviate from that expected by the sanitary treatment plant manager.

9.62.4.2.2 Storm Wastewater

The building has no direct connection to the storm sewer as detailed in Attachment 5 (Section 9.62.6.5). Water from the gutter follows the slope of the surrounding area to a storm sewer. Inspection showed no sign of odors, colored discharges, or scarring of the area which would indicate that any materials other than storm water have entered the storm drainage system.

Environmental Appraisal of the Mound Plant

9.62.4.2.3 Process Wastewater

This building does not create or discharge radioactive wastewater to the WD facility. According to Attachment 5 (Section 9.62.6.5), no radioactive wastewater lines service Building 39.

9.62.4.2.4 Chemicals

Chemicals stored and used in Building 39 were evaluated against Table V of Appendix D in 40 CFR 122 and one is considered to be a CWA pollutant. Several 1-gallon containers of xylene are stored in the flammable cabinet. Chemical storage and handling procedures are in place for proper disposal of chemicals. There has been no reported spills from Building 39. No floor drains were observed in areas of operations. There is no visual evidence that chemicals have entered the storm or sanitary drains.

9.62.4.3 Potable and Service Water

Potable water is supplied to the building. There are no visible points of cross connections in the building. Potable lines are uniquely marked and easily identified. The water fountain in the building is not an Environmental Protection Agency (EPA) listed model suspected of lead contamination.

9.62.4.4 Chemical Storage and Hazardous Materials

Chemicals used in or from Building 39 are for associated maintenance and repair work on the SM/PP hill. No chemicals were listed on the BMQ. A chemical inventory was conducted during the plant-wide building assessment. Although the inventory was unavailable at the time of the inspection, it was verified during a close-out meeting. All items are stored on shelves and in flammable cabinets. The flammable storage cabinet meets standard National Fire Protection Association (NFPA) requirements. There was no visual evidence of chemical storage incompatibility. Material Safety Data Sheets (MSDSs) for maintenance operations materials are kept in Building 101.

The compressed gas cylinders storage area on the outside of the building was properly marked with posted signs separating the empty and full cylinder storage bays. However, some of the cylinders were missing full/empty tags.

The building is equipped with appropriate emergency response equipment such as eyewashes, safety showers, and fire extinguishers. Halon 1211 is the prevalent type of fire extinguisher. Inspection tags were present and current. The eyewash/safety shower was in the machine shop area, however there is no eyewash/safety shower at the other end of the building where solvents are stored and used. There is an Emergency Evacuation Plan, and signs are posted in the building.

Environmental Appraisal of the Mound Plant

There are no aboveground storage tanks in or around the building and no underground storage tanks associated with Building 39. There are no sumps, separators, or catch basins, in or around the building.

The building was tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no visual evidence of asbestos in the building.

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

9.62.4.5 Solid, Hazardous, and Radioactive Wastes

The solid waste generated in the building originates in the break area and machine shop. Solid wastes are removed by janitorial personnel to a local collection point, then shipped offsite to a local landfill by a service contractor. The disposal contract is maintained by Waste Management. There is no visual evidence that hazardous materials or wastes are mixed with solid waste streams.

A Satellite Accumulation Area (SAA) was established at Building 39 for pump oil collected during maintenance operations. The drum was locked and identified as waste oil. However, the drum is stored outside and unsheltered. Rust was observed on portions of the drum and water has collected on top of it. Two other SAA's are being established for batteries and spray cans. Hazardous waste is characterized by the generator prior to Waste Management representatives collecting it from Building 39. Hazardous waste is transported and stored in Building 72 for ultimate disposal. There is no onsite treatment of waste. Waste disposal manifests and Certificates of Disposal are maintained by the EG&G Waste Management Group. They conform to Resource Conservation and Recovery Act (RCRA) requirements.

PCB light ballasts listed in the BMQ, were removed during maintenance on the SM/PP hill. The ballasts were staged in drums at Building 39 until collected by Waste Management. PCB light ballasts were picked up by Waste Management in April 1993 and May 1994.

There are no drums of unidentified waste in or around the building.

9.62.4.6 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. Metal shavings and scraps are recycled. Currently, personnel are in the process of reducing the volume of paint and solvents in the building.

Environmental Appraisal of the Mound Plant

9.62.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.62.6.6). The environmental appraisal of Building 39 indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

- 39-1 The exhaust over the welding operation was not listed as an air emission source. The air emission inventory database should be updated and a determination made whether an air permit application should be filed for the welding operations in Building 39.
- 39-2 The waste oil drum is a SAA. Drum is locked and identified, but unprotected from the weather. The waste oil drum should be on a wooden pallet and protected from the weather thus ensuring compliance with RCRA regulations (OAC 3745-52-34).
- 39-3 Full and empty gas cylinders shall be stored separately and in a manner that minimizes their handling. All gas cylinders shall carry a legible label or marking identifying their contents (CGA P-1).
- 39-4 Xylene is a CWA pollutant and its continued use should be discussed with the Environmental Technology and Monitoring Section.

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Environmental Appraisal of the Mound Plant

9.62.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 39

Appraisers:

Ronald Paulick
Name Discipline

Philly Arden
Name Discipline

Billie J. Adams
Name Discipline

Name Discipline

Building Manager:

Guy Miller for Paul Malloy

Process Manager:

Date: 2-26-96

ENVIRONMENTAL APPRAISAL CHECKLIST

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Clean Air Act	2
Hazardous Materials	4
Safe Drinking Water Act	7
RCRA Hazardous Waste	8
TSCA and NESHAP Requirements for Asbestos	13
TSCA—PCB	14
Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Environmental Appraisal Checklist

Building Name: ~~30~~ 39

Appraisers: Paulick/Adkins/Parker

Date: 2-26-96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	Y/N	If the answer to any of these questions is yes, proceed with the following checklist.
Are there <u>sinks</u> , 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	
	Is the building in operation? What are the processes and where do they discharge to?	Y/N _____ _____	Machine shop
	Do the floor drains, <u>sinks</u> & toilets appear to be draining properly?	Y/N	
OAC 3745-33	Do the floor drains and sinks drain to a <u>sanitary</u> or storm sewer?	Sanitary Storm	
	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	Oil drum outside, if punctured could drain to nearest storm sewer.

9.62-11

Environmental Appraisal Checklist

Building Name: ~~36~~ 39

Appraisers: *Paulick/Adkins/Parker* Date: *2-26-96*

Clean Air Act (CAA) Screening Checklist

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

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	<i>Y</i> / <i>N</i>	
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.	<i>Y</i> / <i>N</i>	<i>N/A</i>
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.	<i>Y</i> / <i>N</i>	
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.	<i>Y</i> / <i>N</i>	
	Has there been any release of air contaminants from this building?	<i>Y</i> / <i>N</i>	

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulick/Adkins/Parker Date: 2-26-96

CAA Checklist

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

TABLE A									
Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
Welding Ops.	1		Y /N	Y/N	Jungsten carbide				
			Y/N	Y/N					
			Y/N	Y/N					
			Y/N	Y/N					
			Y/N	Y/N					

Source: _____

Environmental Appraisal Checklist

Building Name: 39

Appraisers: *Rudick/Adkins/Parker* Date: *2-26-96*

Hazardous Materials (HM) Screening Checklist

Question	Response	Comments
Are any chemicals used or stored in this building, now or in the past?	<i>Y/N</i>	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.	<i>Y/N</i>	<i>Grey bucket on floor in RM1 contained ~ 2 gal liquid with parts in liquid. No ID on bucket.</i>
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	<i>Y/N</i>	<i>Available in G.W. Bldg. Material office. IN PROCESS OF CREATING A MSDS for the AREA IN TD 39. Should be</i>
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.	<i>Y/N</i>	<i>Housekeeping - alot of material in a small space.</i>
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.	<i>Y/N</i>	
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	<i>Y/N</i>	
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.	<i>Y/N</i>	<i>N/A</i>

cc. book completed by 3/2/96

** Red Solvent Waste Can sitting on top of Flammable @ cabinet with liquid in it. NO ID ON Red Solvent Can*

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulick/Adkins/Parker Date: 2-26-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	(Y) N	
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	(Y) N	Eye wash only in Rm 1 none in Rm 4 or 5
CGA P-1 3.3 & 3.3.10	All gas cylinders (full or empty) shall carry a legible label or marking identifying the contents.	(Y) N	
CGA P-1 3.5.3	Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers.	(Y) N	Empty full tags were missing on CGCs outside storage area.
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	N/A No bulk storage of oxygen
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	(Y) N	
	Is there an emergency response plan available?	(Y) N	

9.62-15

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Faulick/Adkins/Parker

Date: 2-26-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y/ N	
	Does it have proper containment?	Y/N	N/A
	Is there a liquid bulk transfer area?	Y/ N	
	Is there proper containment?	Y/N	N/A
	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
				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: 39

Appraisers: *Paulich/Adkins/Parner*

Date: 2-26-96

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	<input checked="" type="radio"/> Y / <input type="radio"/> 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	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	Y / N	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	<input checked="" type="radio"/> Y / <input type="radio"/> N	<i>Break Area - Ice machine in shop area</i>

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
39	<i>Rm 2</i>	<i>SH4R-3</i>	<i>Halsey Taylor</i> OK

Source: _____

9.62-17

Environmental Appraisal Checklist

Building Name: 39

Appraisers: *Ludich/Adams/Parker* Date: *2-26-96*

RCRA Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	<p>Has any material generated been characterized RCRA hazardous? Was characterization 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?</p> <p>If yes, proceed with next section.</p>	<p><input checked="" type="radio"/> Y <input type="radio"/> N analysis / process <input checked="" type="radio"/> Y <input type="radio"/> N Y <input checked="" type="radio"/> N</p>	
OAC 3745 52-11	<p>Are any of the materials noted RCRA hazardous waste?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.</p>	<p><input checked="" type="radio"/> Y <input type="radio"/> N</p>	

Environmental Appraisal Checklist

Building Name: 39

Appraisers: *Laukkala/Adkins/Parner*

Date: 2-26-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area? Is it treated as such?	<input checked="" type="radio"/> Y / <input type="radio"/> N <input checked="" type="radio"/> Y / <input type="radio"/> N	oil collection drum.
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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	oil
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y / <input checked="" type="radio"/> N	oil drum.
	Are the containers in good condition?	Y / <input checked="" type="radio"/> N	rust, unsheltered.
	Are the waste compatible with the containers?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Are containers kept closed and locked except during filling?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Are containers moved within 3 days of being filled?	<input checked="" type="radio"/> Y / <input type="radio"/> N	

Environmental Appraisal Checklist

Building Name: 39

Appraisers: *Laulick/Adkins/Parker* Date: *2-26-96*

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	<p>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.</p> <p>If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:</p>		N/A
	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?	Y / N	
	Where is the log?		
	Is it properly completed, dated, and signed?	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.		

9.62-20

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Pauleck/Adams/Parker Date: 2-26-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y/N	N/A
	If the answer was no, then proceed with the following:		
	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	

9.62-21

Environmental Appraisal Checklist

Building Name: 39

Appraisers: *Paudyal/Adkins/Parker* Date: 2-26-96RCRA 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 <input checked="" type="radio"/> 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 <input checked="" type="radio"/> N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y <input checked="" type="radio"/> N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y <input checked="" type="radio"/> 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 <input checked="" type="radio"/> N	

General Comments:



Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulick/Adkins/Parker

Date: 2-26-96

Asbestos Screening Checklist

Does this facility contain ACBM?	Y/N	If yes, conduct the following survey.
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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? If no for this building or area note this conclusion in the comment section. Is there any evidence of friable asbestos? Is the asbestos removal properly managed? (See questions listed below)	(Y)N Y(N) Y/N	No asbestos 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	/
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	

9.62-23

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulick/Adkins/Parker

Date: 2-26-96

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

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

Regulatory Guideline	Question	Response	Comments
40 CFR 761	<p>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 ?</p> <p>If the answer is no, note .</p> <p>If the answer is yes, proceed with next section.</p>	Y/N	PCB light Ballasts - listed on BMR. None noted on inspection.
	<p>Based on an inspection, are any of the materials or equipment potentially PCB contaminated?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed.</p>	Y/N	
40 CFR 761.65 (c) (5)	<p>Are PCB articles or containers stored in this building checked for leaks at least once every 30 days?</p> <p>If yes, are auditable records maintained.</p>	Y/N	No PCB articles stored in building N/A
40 CFR.30 (a) (1) (ix)	<p>Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater?</p>	Y/N	
	<p>Are they visually inspected quarterly? If yes, are auditable records maintained?</p>	Y/N	N/A

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Environmental Appraisal Checklist

Building Name: 39

Appraisers: Randall/Adkins/Parker

Date: 2-26-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.30 (a) 1,viii	Are all combustible materials (i.e., paints, solvents, plastics, paper, sawn wood, etc.) cleared from areas containing PCB transformers to a distance of five meters?	Y/N	N/A
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y/N	NO PCB material noted during walk through
	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: 39

Appraisers: *Laulick/Adkins/Parter*

Date: 2-26-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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	N/A
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	No PCB noted during walkthrough.
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:

Environmental Appraisal Checklist

Building Name: 39

Appraisers: *Rudick/Parter/Adkins*

Date: 2-26-96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	Y/N <input checked="" type="radio"/>	If yes, conduct the following survey.
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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	<i>No LLW</i>
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: 39

Appraisers: Paulich/Adkins/Parker

Date: 2-26-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter III, 3.d.	Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal?	Y / N	No LLW
	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	
	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	

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulich/Adkins/Parker Date: 2-26-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / N	<p>No TRU Waste</p>
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	

Environmental Appraisal Checklist

Building Name: *39*

Appraisers: *Paulick/Adkins/Parker*

Date: *2-26-96*

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II, 3.b	Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage?	Y/N	<i>No TRU Waste</i>
	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	

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Environmental Appraisal Checklist

Building Name: *39*

Appraisers: *Rudick/Adkins/Parker*

Date: *2-26-96*

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y / N	<i>No TRU Waste</i> ↓
	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:

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulick/Adkins/Parker

Date: 2-26-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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Waste Minimization/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 <input checked="" type="radio"/> N	
	Are there solvent wastes?	Y / N	N/A
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	Are there sludges?	Y / N	
	Are there halogenated organic (nonsolvent) wastes?	Y / N	
	Are metals recovered from wastewater?	Y / N	
	Is waste sludge generated?	Y / N	
	Are any waste minimization practices used that reduce the generation of sludge?	Y / N	
	Ion exchange process?	Y / N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y / N	
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	
	Drying?	Y / N	

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulich/Parker/Adkins

Date: 2-26-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments	
HALOGENATED ORGANIC (NONSOLVENT) WASTES				
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	N/A	
	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	V	

9.62-33

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulick/Adkins/Parker

Date: 2-26-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments	
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	N/A	
	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		

Environmental Appraisal Checklist

Building Name: 39

Appraisers: *Faulick / Adkins / Parker* Date: *2-26-96*

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	<i>N/A</i>
	Are drip tanks used to capture losses?	Y / N	<div style="font-size: 2em; font-family: cursive;">}</div>
	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	
<u>OILS</u>			
	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	

9.62-35

Environmental Appraisal Checklist

Building Name: 39

Appraisers: *Paulick / Adkins / Parker* Date: *2-26-96*

Waste Minimization/Pollution Prevention Activities Checklist

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

9.62-36

Environmental Appraisal Checklist

Building Name: 39

Appraisers: Paulick/Adkins/Parker Date: 2-26-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	N/A
	Distillation?	Y / N	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; height: 300px; margin: 0 auto;"></div>
	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	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; height: 40px; margin: 0 auto;"></div>
	How long is solvent waste stored and where?	<div style="border-bottom: 1px solid black; width: 80%; margin: 0 auto;"></div> <div style="border-bottom: 1px solid black; width: 80%; margin: 0 auto;"></div>	

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Environmental Appraisal of the Mound Plant

9.62.6.2 Building Manager's Questionnaire

1-17
Fluor

Building Manager's Questionnaire

Building Name: 39 Building Manager: P.C. Molloy Phone: 3869 Date: 12-07-95
Alternate: T.J. GRESNER Phone: 5568

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

None

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

None Safety glasses in shop areas.

3. Are there any restricted areas? Yes
Where are they?

No

4. Provide a physical description of the building.

This is a one-story building containing 3,515 ft². Construction is prefabricated metal with a metal roof. There is central steam in the building. 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?

Building is used as a maintenance shop.

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

Building Manager's Questionnaire

Building Name: 39 Building Manager: P.C. Molloy 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: Maintenance shop for construction crafts in SM-PP area (welding, fabrication, electrical)

How Wastes Are Generated:

The maintenance personnel change the oil in vacuum pumps in various buildings on the SM-PP hill. Oil removed from the pumps is put in a 55-gal drum labeled "Waste Oil." When the drum is full, Waste Management is called to pick it up.

Some solvents may be used infrequently for cleaning. The solvents are kept in a squeeze bottle. They evaporate during use, and no liquid wastes are generated.

~~Some~~ ^PPaint is stored in Building 39. The amount of paint stored here is kept to the minimum required to support maintenance activities. Any paint cans which have been opened are stored in the "flammables" cabinet.

Contact:

Phone:

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

Building Manager's Questionnaire

Building Name: 39 Building Manager: P.C. Molloy 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~~ **YES**

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
Welding ops.	1		(Y) / N					
			Y / N					
			Y / N					
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

Building Manager's Questionnaire

Building Name: 39 Building Manager: P.C. Molloy 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?

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 *SKR*

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

15. Does the building discharge to the sanitary sewer? Yes No
 Where? *Existing sink drain.*

16. Has an asbestos survey been conducted? Yes
 What are the results? No

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

Building Manager's Questionnaire

Building Name: 39 Building Manager: P.C. Molloy 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)
<u>NONE</u>		
<u>paints</u>		
<u>solvents</u>		
<u>rum oil</u>		

Source: Chemical Inventory 1994

Building Manager's Questionnaire

Building Name: 39 Building Manager: P.C. Molloy 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?

Transfer to waste mgmt.

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

None ~~is~~ within BD-39.

23. Where do excess janitorial supplies go?

Transfer to waste mgmt.

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: 39 Building Manager: P.C. Molloy 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
Antifreeze Waste	305.3
Oil Waste	343.0
Paint Waste, Solvent Based	375.0
PCB Containing Light Ballasts <u>5/94</u>	344.9
PCB Light Ballasts (4), >500PPM, No Serial Numbers, Out Of Service 04-26-93	100.0
Thorobond	96.5

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

Building Manager's Questionnaire

Building Name: 39 Building Manager: P.C. Molloy 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: 39 Building Manager: P.C. Molloy 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: 39 Building Manager: P.C. Molloy 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: 39 Building Manager: P.C. Molloy 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.

*In progress... removing excess materials
at present time - transfer to waste mgmt.*

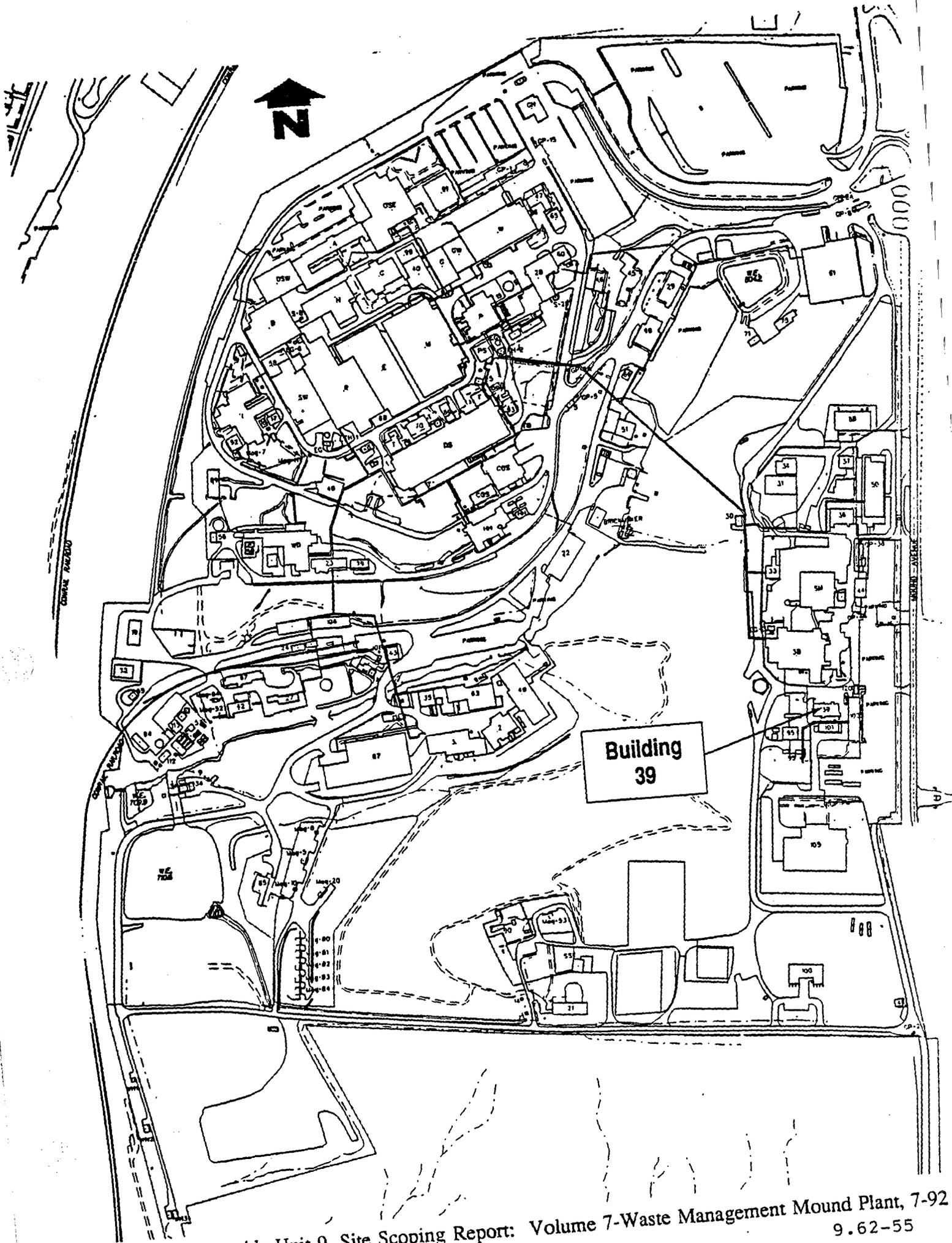
paints

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

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Environmental Appraisal of the Mound Plant

9.62.6.3 Location of Building 39



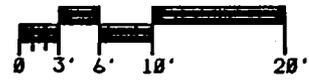
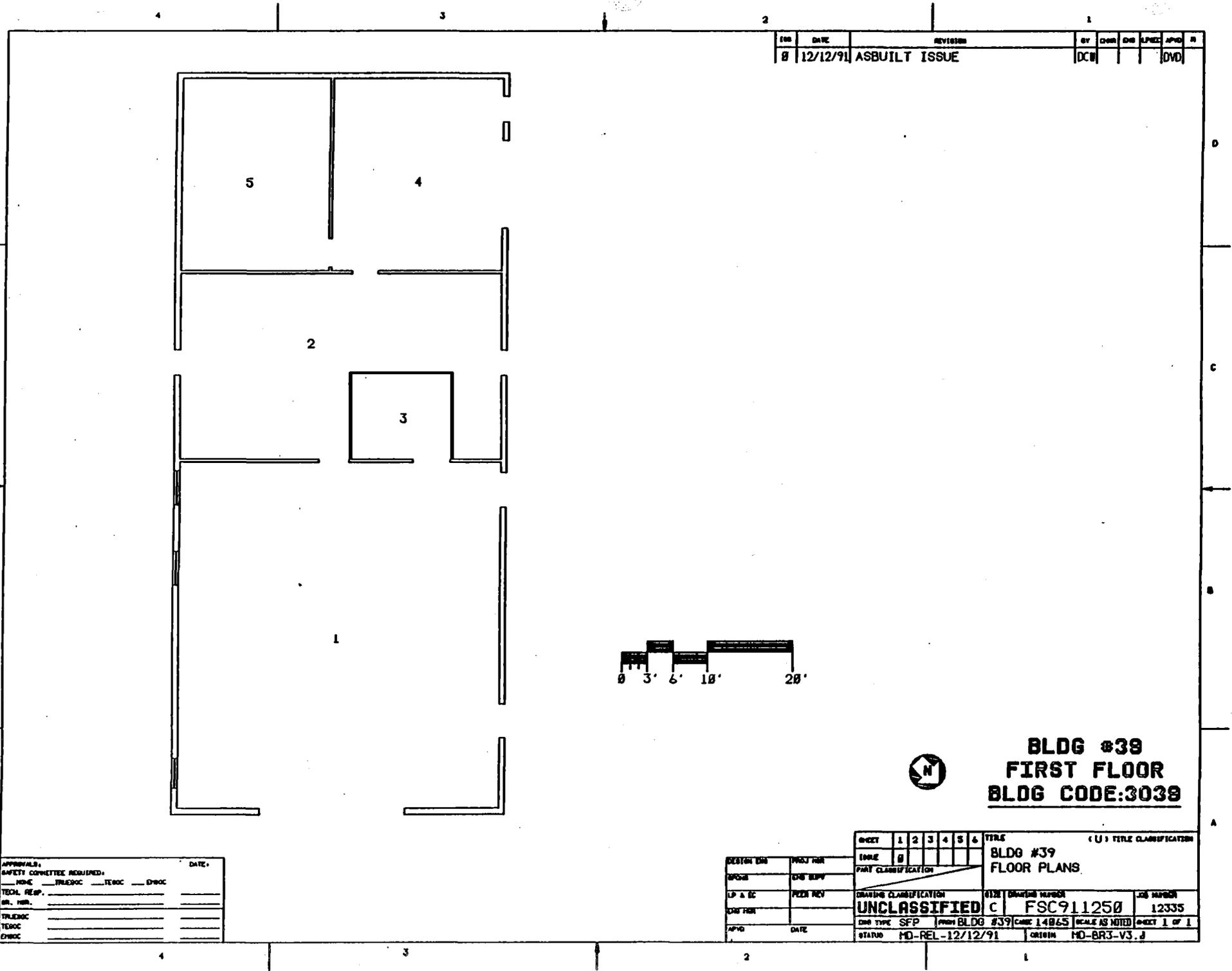
SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92
 9.62-55

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Environmental Appraisal of the Mound Plant

9.62.6.4 Floor Plans for Building 39

9.62-59



**BLDG #39
FIRST FLOOR
BLDG CODE:3039**

REV	DATE	REVISION	BY	CHK	APP	DATE
0	12/12/91	ASBUILT ISSUE	DCB			

APPROVALS: _____ DATE: _____
 SAFETY COMMITTEE REQUIRED:
 _____ NONE _____ TRLE/OC _____ TE/OC _____ E/OC
 TECH. REP. _____
 DR. NBR. _____
 TRLE/OC _____
 TE/OC _____
 E/OC _____

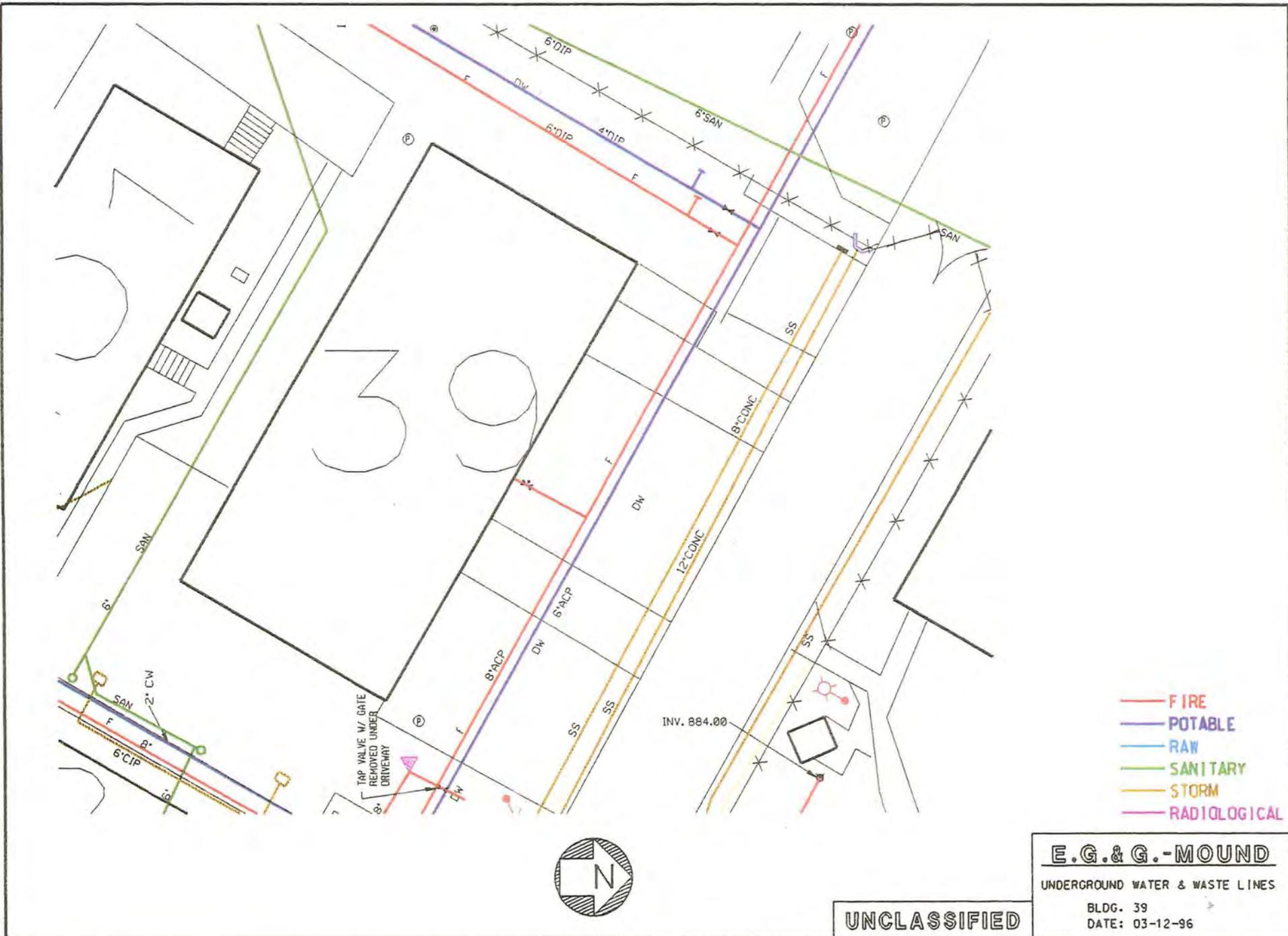
DESIGN EN	DRW'N EN	DATE	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION	
SCALE	DATE REV	DATE	0						BLDG #39		
LP & EC	PLAN REV	DATE	PART CLASSIFICATION						FLOOR PLANS		
DATE FOR			DRAWING CLASSIFICATION						SIZE	DRAWING NUMBER	JOB NUMBER
APVD	DATE		UNCLASSIFIED						C	FSC911250	12335
			CNO TYPE SFP						FROM BLDG #39	CASE 14865	SCALE AS NOTED
			STATUS MD-REL-12/12/91						ORIGIN	MD-BR3-V3.d	SHEET 1 OF 1

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Environmental Appraisal of the Mound Plant

9.62.6.5 Underground Utility Lines

9.62-63



- FIRE
- POTABLE
- RAW
- SANITARY
- STORM
- RADIOLOGICAL



UNCLASSIFIED

E.G.&G.-MOUND
 UNDERGROUND WATER & WASTE LINES
 BLDG. 39
 DATE: 03-12-96

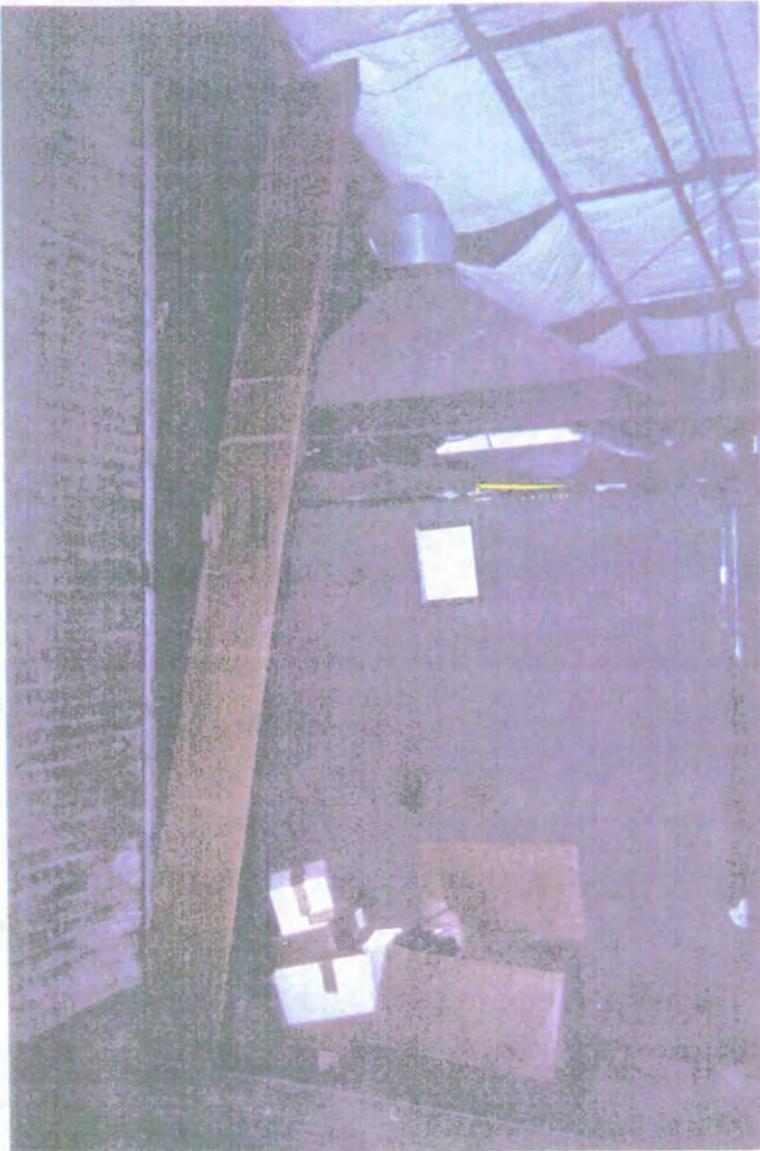
Environmental Appraisal of the Mound Plant

9.62.6.6 Photographs

Mound Plant Building 39

9.62-65

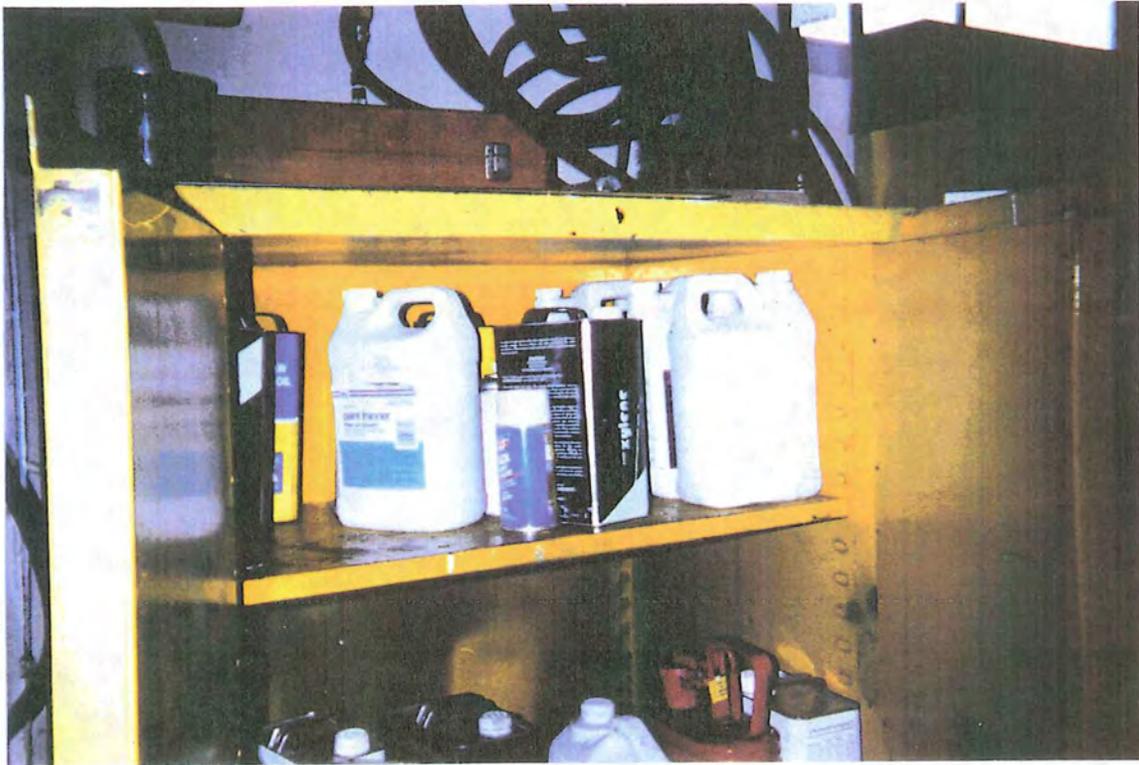




(Left) Welding exhaust hood needs to be included in emission inventory.

(Below) Satellite accumulation area (SAA) container needs to be protected from the weather.





Usage of xylene, a Clean Water Act (CWA) pollutant, needs to be reviewed.

Environmental Appraisal of the Mound Plant

9.63 BUILDING 40

9.63.1 Scope of Building 40 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.

A team of environmental professionals performed a walk-through of Building 40 on November 29, 1995. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is present as Attachment 1 (Section 9.63.6.1). Escorting the appraisers was the building manager, and other knowledgeable personnel such as the process manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.63.6.2).

9.63.2 Description of Building 40

Building 40 is a three-story, 12,200-square-foot concrete block slab-on-grade structure with brick facing. The building was constructed in 1968, and the annex was added in 1993 (MD-10391, *Asbestos Program Manual*, 9-14-95). The location is shown in Attachment 3 (Section 9.63.6.3). The building is bordered by a sidewalk on all sides. Adjacent buildings are Building 99 to the north, Building M to the south, Building G to the east, and Building C to the west. The roof is asphalt and metal built-up membrane. On the first floor of the structure (approximately 6,150 square feet) are printing and microfilming shops, and a vault for document storage. Offices are located on the second floor (approximately 3,880 square feet). The third floor (approximately 2,170 square feet) houses utility services with interstitial space between the ceiling and roof for duct work. Floor plans are presented as Attachment 4 (Section 9.63.6.4). The building is serviced by central steam for heat and chilled water, and electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

The building has been used for the same purpose since construction. No research, development, or production activities using radioactive or energetic materials have occurred in the building (*Mound Facility Physical Characterization*, 12-1-93).

9.63.3 Summary of Findings

Building 40 houses a print shop on the first floor and offices on the second floor. The third floor is a utility penthouse. The print shop contains processes conventional to printing: presses, developing, microfilming, reproduction, and document assembly. The building is well-maintained. Several issues of environmental concern were identified during the walk-through or during review of reference materials.

Environmental Appraisal of the Mound Plant

9.63.4 Observations

9.63.4.1 Air Emissions

There are three fumehoods. They are included in the Mound Air Emissions Inventory. A determination has been made by the EG&G Environmental Technology and Monitoring Group that sources are *de minimis*. No documentation is available to support the claim. Permit applications have not been filed with the Ohio Environmental Protection Agency. There are no fuel-burning units in the building. There is no evidence of fugitive dust.

9.63.4.2 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.

9.63.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground lines, presented as Attachment 5 (Section 9.63.6.5), the building is serviced by a sanitary line. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort, therefore, dye tests or smoke tests were not conducted. It should be noted that, according to drawings, there is an abandoned segment of sanitary line that runs beneath the building. The sink in the first-floor janitor's closet drains very slowly, and has a hand-printed sign over it suggesting that it not be used. It may run slowly because it drains into the abandoned line.

It is assumed that sinks in the film processing area discharge into the sanitary collection system. The process chemicals include heavy metals. There is no heavy metals trap, such as a silver trap, to recover metals. According to the process manager, it was investigated but not considered cost-effective.

Sanitary effluent is conveyed to the on-site tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations information, supplied by the process owner, effluent from Building 40 does

Environmental Appraisal of the Mound Plant

not deviate from that expected by the sanitary treatment plant manager, however, there is no supporting data.

9.63.4.2.2 Storm Wastewater

The building is also serviced by storm drains as shown in Attachment 5 (Section 9.63.6.5). All visible interior floor drains have been plugged. 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.

9.63.4.2.3 Chemicals

Many chemicals are stored and used in the print shop. The list is included in the BMQ in Attachment 2 (Section 9.63.6.2). A list of chemicals residing in Building 40 is included in the BMQ. The information was gathered as part of the chemical inventory which is conducted annually. The inventory information dates to 1994. Confirmation of the 1994 inventory was not attempted as 1995 data were being compiled at the time of the appraisal.

It is not uncommon to find that wastewater lines which drain from photo and print process areas are contaminated by silver and mercury. Evidence of such contamination may be found by analyzing effluent from the building. At Mound facilities, effluent monitoring has been conducted routinely for mercury and there is no evidence of contamination. Routine monitoring is not conducted for silver. However, there has been no monitoring of building effluent; concentrations may be diluted.

9.63.4.3 Potable and Service Water

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

9.63.4.4 Chemical Storage and Hazardous Materials

Chemicals used in the print shop and associated processes are stored in Building 40. There is a flammables storage cabinet which meets standard National Fire Protection Association (NFPA) requirements. Chemicals are stored in the building in accordance with applicable standards. Material Safety Data Sheets (MSDS) are available in the building.

The building is equipped with appropriate emergency response equipment such as a chemical spill containment kit, eyewash, safety shower, and fire extinguisher. Inspection tags were present and current. There is an emergency evacuation plan, and signs were posted in work areas.

Environmental Appraisal of the Mound Plant

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

The building was tested and does contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There is no evidence of friable asbestos. Ceiling repair work being conducted in the first-floor men's restroom and janitor's closet were properly marked and contained, and signs were posted indicating the presence of asbestos.

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

9.63.4.5 Solid, Hazardous and Radioactive Waste

Solid wastes are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill by a contractor. Aluminum cans, glass and cardboard are removed by janitorial personnel to specific collection points, then sent offsite to be recycled by a contractor. White paper is collected and sent offsite to be recycled by a service contractor. Scrap metal is collected at a specific site, then sent offsite to be recycled by a contractor. Lead acid batteries are recycled by a contractor. Waste Management maintains the service contracts for the respective contractors. Classified paper is collected at specific collection points, then is transported by Security to the Montgomery County South Incinerator. This service contract is maintained by Security. There is no evidence that hazardous materials or wastes are mixed with solid waste streams, based on observations of trash containers.

Hazardous wastes are generated by the printing and associated procedures. "Blankrola" is a liquid cleaner for the offset presses. Estimated use is 1 gallon per week. Dry ink is used as a toner in copying machines. Cartridges are changed once per month, and are recycled by the warehouse. Photo waste consists of a developer and fixer which is used to develop silver-based film for prints. There is no silver recovery process or silver trap in Building 40. Aluminum plates are used in the printing process (*Characterization of Mound's Hazardous, Radioactive, and Mixed Waste*, 8-16-90").

All hazardous wastes generated by the process, maintenance and cleaning, are stored in a Satellite Accumulation Area located inside the building proximate to and within view of the work area. The procedures and appearance conform to Resource Conservation and Recovery Act (RCRA) requirements. Wastes are collected and transported by a representative of the EG&G Waste Management Group, and are stored in Building 72 for ultimate disposal. There is no onsite treatment of waste. All are disposed of under a contract with Rollins. Waste disposal manifests and Certificates of Disposal are maintained by the EG&G Waste Management Group. Manifests were reviewed; they conform to RCRA requirements.

Environmental Appraisal of the Mound Plant

Solvent-contaminated rags used to clean the presses are stored in a closed can and are sent offsite for cleaning by a contractor. No records were available for review in Building 40. Review of procurement/contract records was not within the scope of this appraisal. Trichloroethane is occasionally used to clean equipment.

9.63.4.6 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.

Programs for waste minimization are in place including aluminum can recycling. The print shop actively encourages customers to make use of recycled paper stock. Additional opportunities for waste minimization activities include a review of use of printing inks, changing from solvent-based to soy-based inks. The photographic darkroom uses fixer and developer to process materials having a silver base. According to the process manager, a determination was made that the cost of equipment to recover the silver was excessive based on the amount which could be recovered.

9.63.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.63.6.6). The environmental appraisal of Building 40 indicates that the following action items, in priority order, should be planned and scheduled for accomplishment, thus assuring that best management and operating practices are in place.

- 40-1. Drainage from the janitor's closet should be investigated to confirm that there is not a connection to the wastewater line which runs beneath the building, shown to be cut and plugged. If there is an improper connection, drainage should be rerouted.
- 40-2. Building effluent wastewater is not routinely analyzed for mercury or silver. An analysis should be performed. Drainage lines should be investigated to confirm that there is no residual contamination from silver or mercury.
- 40-3. Solvent-contaminated rags are shipped offsite for cleaning. Treatment records were unavailable for inspection. The process manager should review the contract and confirm proper handling and treatment at the contractor cleaning facility. Use of trichloroethane should be discontinued.
- 40-4. Opportunities for waste reduction in the print shop should be considered. Review work practices involving solvents to determine the waste generated, and evaluate methods of curtailing solvent evaporation and solvent use replacement. The feasibility of switching to water-based inks should also be considered. Process modification and material substitution should be examined to reduce the uses of those solvents associated with cleaning, cleanup, and degreasing. It was not determined at the time of the inspection if waste photo solutions containing silver have been targeted for waste minimization.

Environmental Appraisal of the Mound Plant

- 40-5. MSDS sheets should be prominently displayed, clearly labeled, and readily available. A visitor to the area should be able to walk into the room and find them immediately.

Environmental Appraisal of the Mound Plant

9.63.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 4-0

Appraisers:

Nancy Vyas civil / environmental engineer
Name Discipline

see below
Name Discipline

Name Discipline

Name Discipline

Building Manager:

Jeff Boston

Process Manager:

Barry Leiter

Date: 11-29-95 pm

Team Review:

Eunice Warmoth

Ron Paulick

John Hausfeld

John Puckett

Mary Sizemore

Mary Louise Hoagland

Mark Gullett

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Checklist	Page
Clean Water Act	1
Clean Air Act	2
Hazardous Materials	4
Safe Drinking Water Act	7
RCRA Hazardous Waste	8
TSCA and NESHAP Requirements for Asbestos	13
TSCA—PCB	14
Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Environmental Assessment Checklist

Building Name: 40

Appraisers: *V. J. S.*

Date: 11-29-95 *PM*

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?	<input checked="" type="radio"/> Y <input type="radio"/> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Are chemicals being used in the building?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Is there a process which discharges to the storm or sanitary system?	<input checked="" type="radio"/> Y <input type="radio"/> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> Y <input type="radio"/> N	<i>Some chemicals should be stored in flammable cabinets.</i>
	Is the building in operation? What are the processes and where do they discharge to?	Y / N _____ _____	
	Do the floor drains, sinks & toilets appear to be draining properly?	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Yes, except 1st floor janitor's closet. All floor drains are plugged.</i>
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	
	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 <input checked="" type="radio"/> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N Y <input checked="" type="radio"/> N Y <input checked="" type="radio"/> N	

Janitor's closet neatly kept.

FIRST Floor Janitor's closet drains v. slowly. Abandoned sanitary line under B-40 may receive U.W. Investigate/correct.

Environmental Appraisal Checklist

Building Name: 40

Appraisers: Vyas

Date: 11-29-95 PM

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 <input checked="" type="radio"/> N	
OAC 3745-35	Using the air emissions inventory reference for this building, are there any sources in the building that are not documented?	<input checked="" type="radio"/> N	
	Is there evidence of fugitive dust emissions inside or outside of the building	Y <input checked="" type="radio"/> N	

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	Y <input checked="" type="radio"/> N	<i>No permits, no documentation for de minimus determination</i>
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.	N/A 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.	<input checked="" type="radio"/> 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.	<input checked="" type="radio"/> N	
	Has there been any release of air contaminants from this building?	Y <input checked="" type="radio"/> N	

- Develop documentation for de minimus sources.
- Update local air emission database.

Environmental Appraisal Checklist

Building Name: 40

Appraisers: Vyas

Date: 11-29-95

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
hot glue binder	1	-	Y (N)	Y (N) NOT used for 10 years	-	-	-	-	-
developer	2	002232	Y (N)	Y (N)					
micro-filming	6	-	Y (N)	Y (N)					
solvent cleaning	100	-	Y (N)	Y (N)	TCA	2 8oz/mo.	0	Contin-uous	-
			Y (N)	Y (N)					

Source: visual observation

9.63-14

Environmental Appraisal Checklist

Building Name:

Appraisers:

Date: 11-29-95

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	Segregate chemicals in storage area.
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	Store printer developer in flammables cabinet.
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	(Y) (N)	Storage area chemicals to be segregated.
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 NA	

• Segregate storage area chemicals (Return 11-29-95 pm) chemical, segregated & stored properly

Environmental Assessment Checklist

Building Name:

Appraisers:

Date: 11-29-95

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 N/A	
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 N/A	
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 N/A	
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 N/A	
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 N/A	
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y/N N/A	
	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: 40

Appraisers: *Vegas*

Date: 11-29-95

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 / N/A	
	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
				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 Assessment Checklist

Building Name: _____

Appraisers: _____

Date: 11-29-95

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Does actual or potential cross-connections exist between potable (light green) and service water (dark green)?	<input checked="" type="radio"/> Y <input type="radio"/> N	penthouse mixer-rooms photo lab (backflow preventers are installed)
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?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	Y <input checked="" type="radio"/> N	There is no service water - No Need.
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	<input checked="" type="radio"/> Y <input type="radio"/> N	Rm 1 2nd floor

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
40	Rm 1	not known	no markings
40	2nd floor	not known	no markings
	corridor		

Source: _____

Environmental Appraisal Checklist

Building Name: 40

Appraisers: *V. J. W.*

Date: 11-29-95

RCRA Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y / <input type="radio"/> 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 characterization 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.	<input checked="" type="radio"/> Y / <input type="radio"/> N analysis / process <input checked="" type="radio"/> Y / <input type="radio"/> N Y / N <input checked="" type="radio"/> Y / <input type="radio"/> N	<i>containers of materials are marked by chemical content.</i>
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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	<i>developer generates RCRA waste</i>

Environmental Appraisal Checklist

Building Name: 40

Appraisers: Vyas

Date: 11 29-95

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	
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	(Y) N	
	Are the containers in good condition?	(Y) N	
	Are the waste compatible with the containers?	(Y) N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	(Y) N	
	Are containers kept closed and locked except during filling?	(Y) N	
	Are containers moved within 3 days of being filled?	(Y) N	

- Solvent contaminated cleaning rags are stored in an unmarked container. Container should be marked, Contract for off-site cleaning/recovery should be reviewed to confirm compliance with requirements of CWA, RCRA. Visit contractor facility. (Return visit 11/29-95 pm. Can marked)
- Process manager + hwy waste handlers have training records.
- Generator's waste profile sheets on-file with process manager.

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Environmental Appraisal Checklist

Building Name: *Vygas*

Appraisers: *40*

Date: *1-29-95*

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:	<i>NA</i>	
	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
	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?
If no go to next section.			
If yes, note.			
For Building 23, Building 72 & Burn area use special checklist.			

Environmental Assessment Checklist

Building Name: 40

Appraisers: *V. J. ...*

Date: 1-29-95

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORE 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)	

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9.63-22

Environmental Appraisal Checklist

Building Name: 40

Appraisers: *Vigil*

Date: 1-29-95

RCRA Checklist

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Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. 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: 40

Appraisers: V. J. W.

Date: 11-29-95

Asbestos Screening Checklist

Does this facility contain ACBM?	<input checked="" type="radio"/> Y / <input type="radio"/> N	If yes, conduct the following survey.
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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? If no for this building or area note this conclusion in the comment section. Is there any evidence of friable asbestos? Is the asbestos removal properly managed? (See questions listed below)	<input checked="" type="radio"/> Y / <input type="radio"/> N <input type="radio"/> Y / <input type="radio"/> N <input checked="" type="radio"/> Y / <input type="radio"/> N	Asbestos Survey - shows presence. Men's room 1st floor is under repair - proper signing & procedures. 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	area was surrounded by plastic - no work going on - appears to be
40 CFR 61.152(b) (1)	ACBM is treated with water in accordance with 40 CFR 152(b)?	Y / N	appropriate practice
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: 40

Appraisers: Vegas

Date: 1-29-95

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

Does this facility potentially contain any PCB's or PCB contaminated equipment?	Y <input checked="" type="radio"/> N	If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey.
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TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	<p>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 ?</p> <p>If the answer is no, note .</p> <p>If the answer is yes, proceed with next section.</p>	Y / N	
	<p>Based on an inspection, are any of the materials or equipment potentially PCB contaminated?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed.</p>	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	

Environmental Appraisal Checklist

Building Name: 40

Appraisers: Vyas

Date: 1-29-95

TSCA Checklist

this page not completed

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

Environmental Appraisal Checklist

Building Name: 40

Appraisers: Vegas

Date: 1-29-95

TSCA Checklist*not completed*

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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	
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:

Environmental Assessment Checklist

Building Name: 40

Appraisers: Vyas

Date: 1-29-95

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	Y / <input checked="" type="radio"/> N	If yes, conduct the following survey.
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Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 40

Appraisers: Vyas

Date: 1-29-95

Low-Level Waste and Transuranic Waste Checklist

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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	
	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	

Environmental Assessment Checklist

Building Name: 40

Appraisers: Vyas

Date: 1-29-95

Low-Level Waste and Transuranic Waste Checklist

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Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / N	
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	

Environmental Appraisal Checklist

Building Name: 40

Appraisers: Vija

Date: 1-29-95

Low-Level Waste and Transuranic Waste Checklist*this page not completed*

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

Environmental Appraisal Checklist

Building Name: 40

Appraisers: *V. J. ...*

Date: 1-29-95

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Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

Environmental Appraisal Checklist

Building Name: 40

Appraisers: VJG

Date: 1-29-95

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y / <input type="radio"/> N	If yes, conduct the following survey.
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Waste Minimization/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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Are there solvent wastes?	<input checked="" type="radio"/> Y / <input type="radio"/> N	<i>from cleaning rags</i>
	Is vehicle maintenance performed?	<input type="radio"/> Y / <input checked="" type="radio"/> N	
	Are oils used ?	<input type="radio"/> Y / <input checked="" type="radio"/> N	
	Are these corrosive wastes?	<input type="radio"/> Y / <input checked="" type="radio"/> N	
	Are there sludges?	<input type="radio"/> Y / <input checked="" type="radio"/> N	
	Are there halogenated organic (nonsolvent) wastes?	<input type="radio"/> Y / <input checked="" type="radio"/> N	
	Are metals recovered from wastewater?	<input type="radio"/> Y / <input checked="" type="radio"/> N	<i>silver not recovered</i>
	Is waste sludge generated?	<input type="radio"/> Y / <input checked="" type="radio"/> N	
	Are any waste minimization practices used that reduce the generation of sludge?	<input type="radio"/> Y / <input checked="" type="radio"/> N / <input type="radio"/> A	
	Ion exchange process?	<input type="radio"/> Y / <input type="radio"/> N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	<input type="radio"/> Y / <input type="radio"/> N	
	Storage tank agitators installed?	<input type="radio"/> Y / <input type="radio"/> N	
	Corrosive resistant materials used?	<input type="radio"/> Y / <input type="radio"/> N	
	Prevention of crude oil oxidation ?	<input type="radio"/> Y / <input type="radio"/> N	
	Drying?	<input type="radio"/> Y / <input type="radio"/> N	

Print Shop currently recycles paper & cans; uses recycled paper,



Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

Waste Minimization/Pollution Prevention Activities Checklist

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

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Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

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	
<u>CYANIDE AND REACTIVE WASTES</u> N/A			
	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	
<u>VEHICLE MAINTENANCE</u> N/A			
	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	

Environmental Assessment Checklist

Building Name:

Appraisers:

Date:

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	
<u>OILS</u>	<i>N/A</i>		
	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	

Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

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	
<u>SOLVENT WASTES</u>			
	Has there been an attempt to reduce volume or toxicity by:		
	Eliminating solvents?	(Y) N	<i>Generator reviewing use of soy-based ink, No solvent needed. Water cleaning. Cleaning rags recycled.</i>
	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	<i>No tanks</i>
	Is a method used to minimize the use of new materials such as a countercurrent process?	(Y) N	

Environmental Assessment Checklist

Building Name:

Appraisers:

Date:

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	N/A. Cleaned off-site
	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?		N/A
	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?	_____	rags picked up routinely

& mixed with other site solvent contaminated material;
 Cleaned off-site by contractor.
 Investigate contract/contractor.

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Environmental Appraisal of the Mound Plant

9.63.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 40 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

1. What are the access requirements (training, clearance, etc.)?
2. What protective equipment is required to enter the building?
3. Are there any restricted areas? Yes No
Where are they?

4. Provide a physical description of the building.

This is a three-story, concrete block structure with brick facing. Total area is 12,200 ft². Roof is of BUM (asphalt and metal), and HVAC systems are central steam and chilled water. 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?

Building contains printing and microfilming shops, a small storage area, a vault for classified documents, and offices.

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

Building Manager's Questionnaire

Building Name: 40 Building Manager: J.L. Boston 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: Print shop, word processing

How Wastes Are Generated:

Blankrola is a cleaner for the offset presses. The label on the can reads "Offset Automatic Blanket Cleaner Solution, AB Dick 4-1235." It is automatically pumped from a fresh can, through the press, and into an empty can. Estimated use is 1 gal per week.

Dry ink is the toner used in copying machines. The toner is usually changed once a month.

Photowaste is developer and fixer used to develop silver-based film for prints. Only the negatives are produced in this building. All developer and fixer are collected in waste cans for pickup by Waste Management.

Aluminum waste is in the form of plates used in the printing process.

The lead waste was old lead bricks that were used for doorstops. They were discarded during a site-wide lead cleanup effort. There are no more in the building.

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: 40 Building Manager: J.L. Boston 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?

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

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

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

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

Building Manager's Questionnaire

Building Name: 40 Building Manager: J.L. Boston 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)
BLACK OPAQUE	L	4 GA
PAK REFILL	L	16 OZ
SILICONE OIL	L	1000 ML
STARTER	S	1 LB
TONER (BLACK)	S	1200 G
TONER (CYAN)	S	1200 G
TONER (MAGENTA)	S	1800 G
TONER (YELLOW)	S	1200 G
ANTI-STATIC FLUID	L	48 OZ
AUTOMATIC BLANKET WASH	L	2 GA
BLANKET FIX	L	12 OZ
CLEAN-N-EASY	S	4 PT
CLEANING SOLVENT	L	2 PT
CYLINDER CLEANER	L	1 PT
DEGLAZING SOLVENT	L	5 PT
DEVELOPER	S	36 LB
DRY INK	S	30 LB
FOUNTAIN CONCENTRATE	L	20 QT
FURNITURE POLISH	G	16 OZ
FUSER AGENT	L	4 L
INK ROLLER CONDITIONER	L	12 PT
INK ROLLER DESENSITIZER	S	3 PT
NON-OXIDIZING INK BLACK	S	45 LB
NON-OXIDIZING INK COLOR	S	80 LB
OFFSET SPRAY POWDER	S	5 LB
OXIDIZING INK BLACK	S	2 LB
OXIDIZING INK COLOR	S	2 LB
PROPANOL	L	1500 ML
TACK REDUCER	S	2 LB
TONER HIGH YIELD	S	908 G
WESTERN A.G.E.	L	3 GA
CRONALAR FIXER PART A	L	11 GA
CRONALAR FIXER PART B	L	9 GA
CRONALITH LIQUID DEVELOPER(A)	L	7 GA
CRONALITH LIQUID DEVELOPER(B)	L	3 GA
DEVELOPER (RA2001)	L	5 GA
PMT ACTIVATOR	L	6 GA
VIKING 2-IN-1 DEVELOPER-GUM	L	5 GA
VIKING NEGATIVE MAKE-UP SOLUTION	L	8 GA

Source: Chemical Inventory 1994

Building Manager's Questionnaire

Building Name: 40 Building Manager: J.L. Boston 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?

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

23. Where do excess janitorial supplies go?

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: 40 Building Manager: J.L. Boston 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
4-1200 Safety Zone Cleaner	12.3
Bldg 40 Photofixer	22.2
Developer II Concentrate	25.0
Developer II Concentrate	25.1
Dry Ink	41.3
Epoxy Resin	3.6
Fixer II concentrate	47.2
Ink Paste	2.7
Kodak PMT Activator	9.6
Kodak PMT Activator	10.2
Kodak PMT II Activator	20.9
Mercury Thermometer	0.3
Multigraphics Hydrogen Cyanide Ferrocyanide	0.7
Photo Fixer	28.1
Photo Fixer	7.3
Photo Fixer Sample, LP94-875	0.4
Photo Fixer, Sample 94-004	1.0
Photo Waste	138.0
Photo Waste	148.6
Photo Waste	65.5
Photo Waste	84.9
Photo Waste	258.4
Photo Waste	207.2

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

Building Manager's Questionnaire

Building Name: 40 Building Manager: J.L. Boston 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: 40 Building Manager: J.L. Boston 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: 40 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

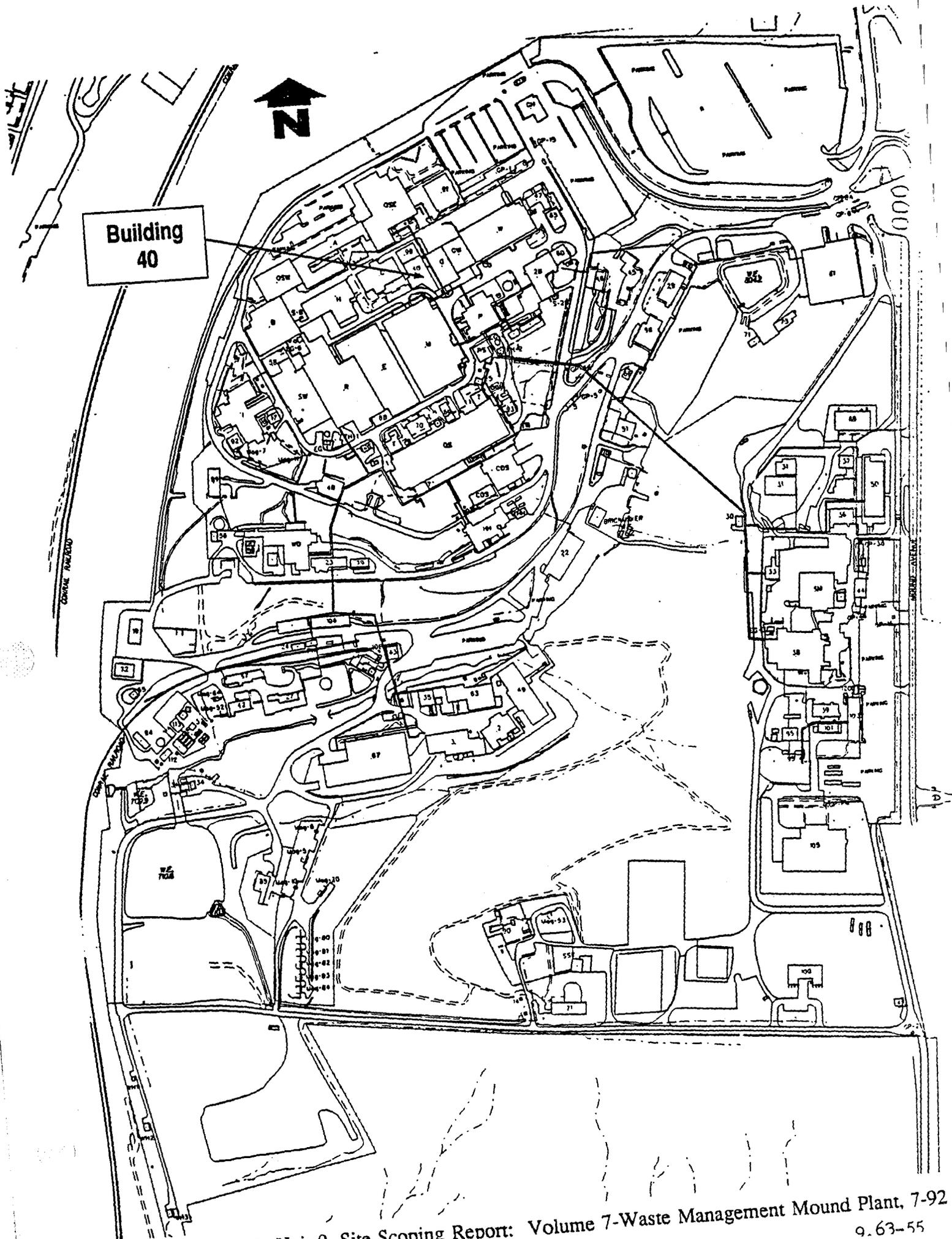
36. Is there a waste minimization program in the building? Yes No
Discuss your ideas about how to minimize waste.

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

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Environmental Appraisal of the Mound Plant

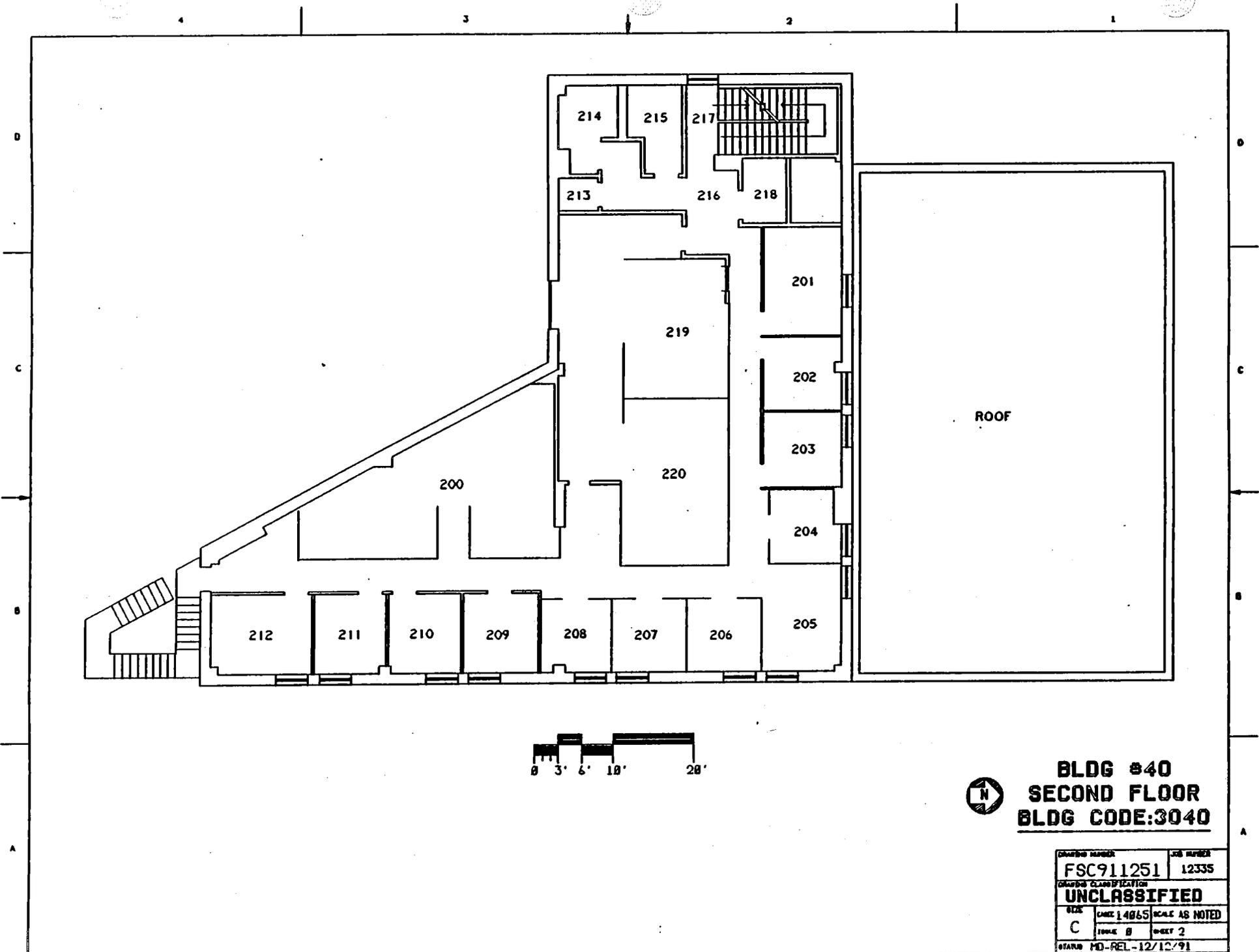
9.63.6.3 Location of Building 40



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Environmental Appraisal of the Mound Plant

9.63.6.4 Floor Plans for Building 40

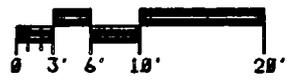
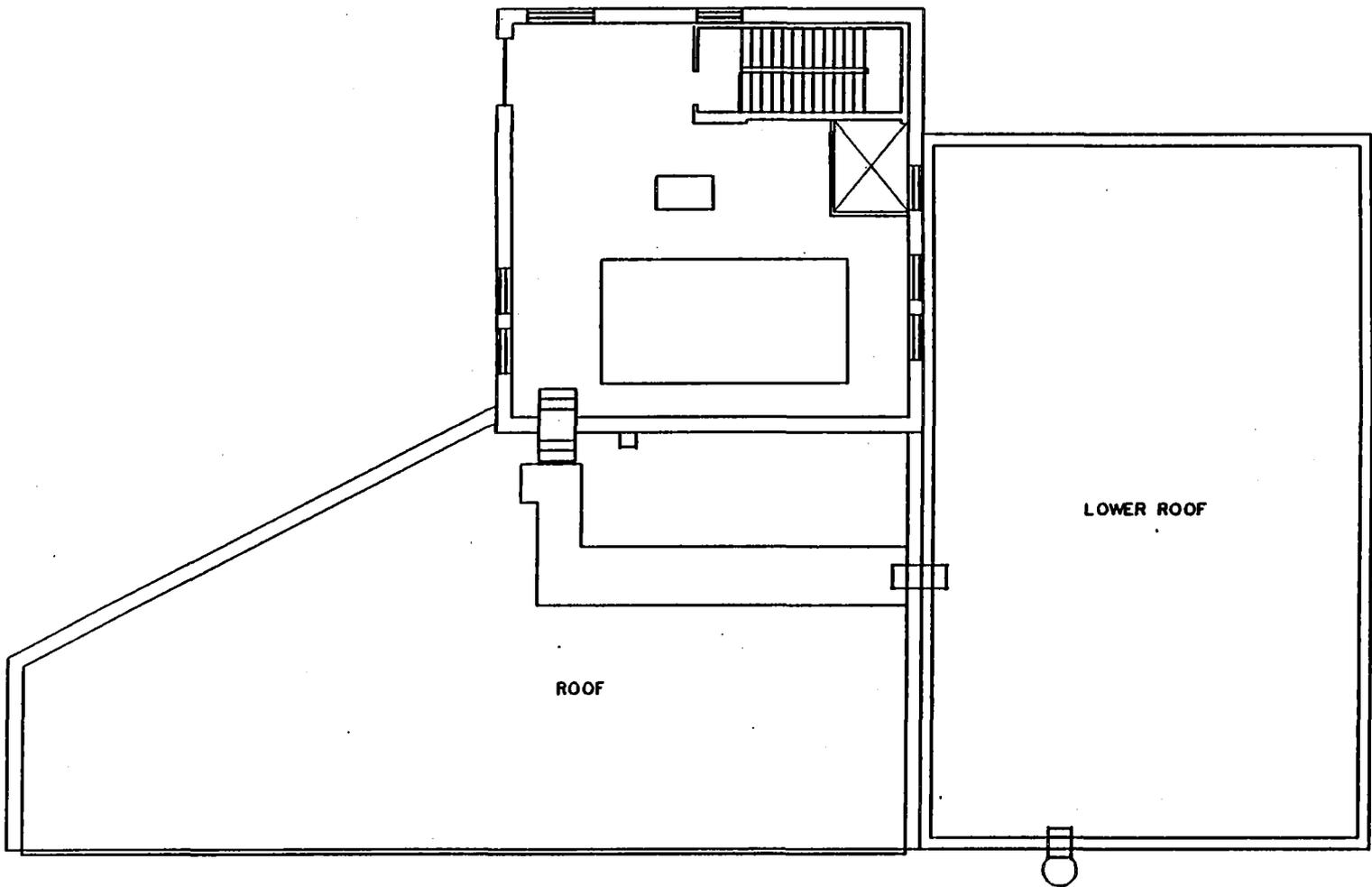


**BLDG #40
SECOND FLOOR
BLDG CODE:3040**

DRAWING NUMBER		JOB NUMBER	
FSC911251		12335	
CLASSIFICATION			
UNCLASSIFIED			
SIZE	DATE	SCALE AS NOTED	
C	14865		
	ISSUE B	SHEET 2	
STANDARD: MD-REL-12/12/91			

9.63-59

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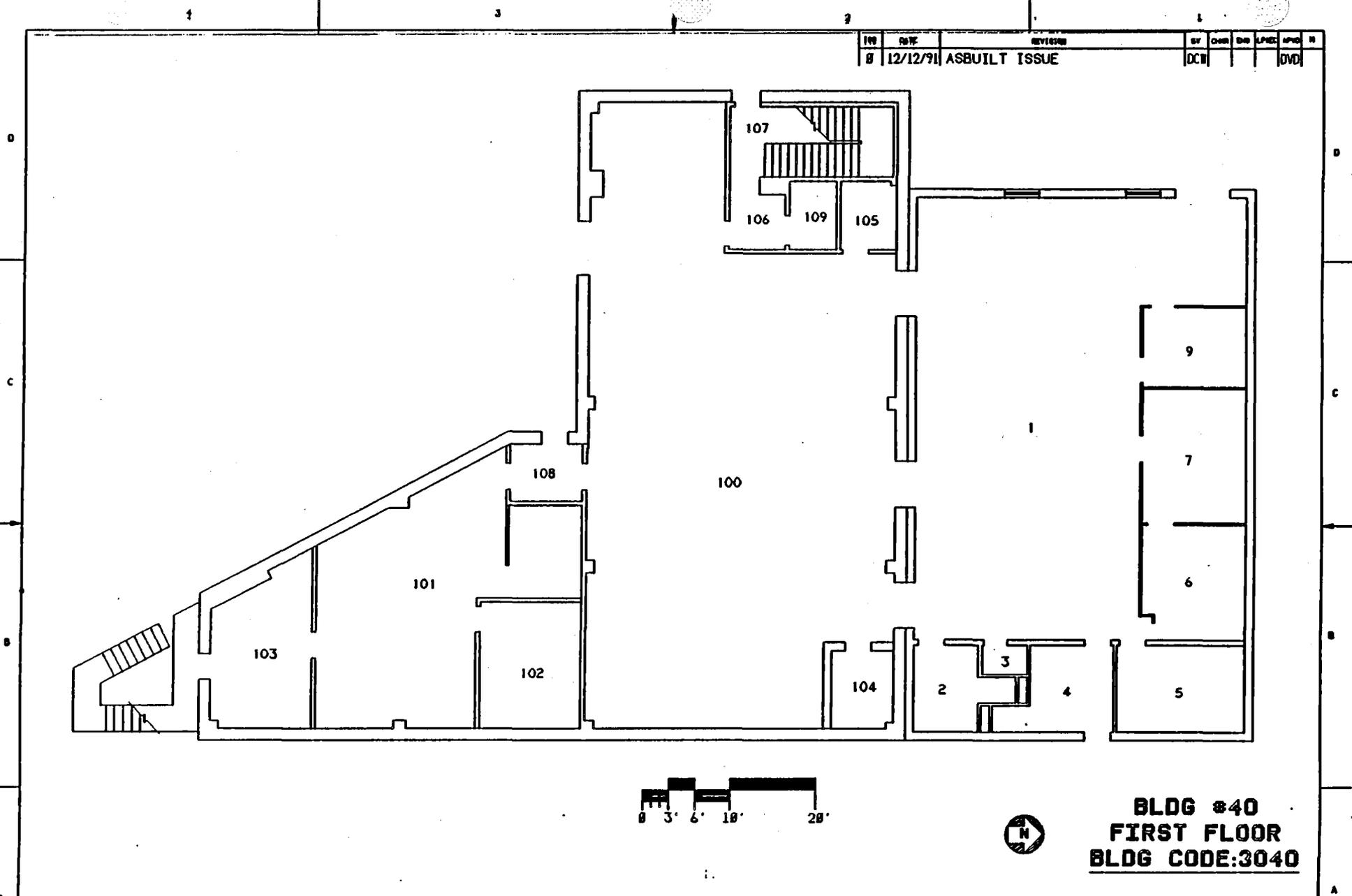
**BLDG #40
PENTHOUSE
BLDG CODE:3040**

DRAWING NUMBER	FSC911251		JOB NUMBER	12335
CLASSIFICATION	UNCLASSIFIED			
SIZE	C	DATE	14065	SCALE AS NOTED
		TITLE #		SHEET 3
STATUS	MO-REL-12/12/91			

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NO	REV	REVISION	BY	CHK	DATE	APPROV	DATE
8	12/12/91	ASBUILT ISSUE					



BLDG #40
FIRST FLOOR
BLDG CODE:3040

APPROVALS:	DATE:
SAFETY COMMITTEE REVIEWED:	
TECH. DESK:	
TRAC/OC:	
DATE:	

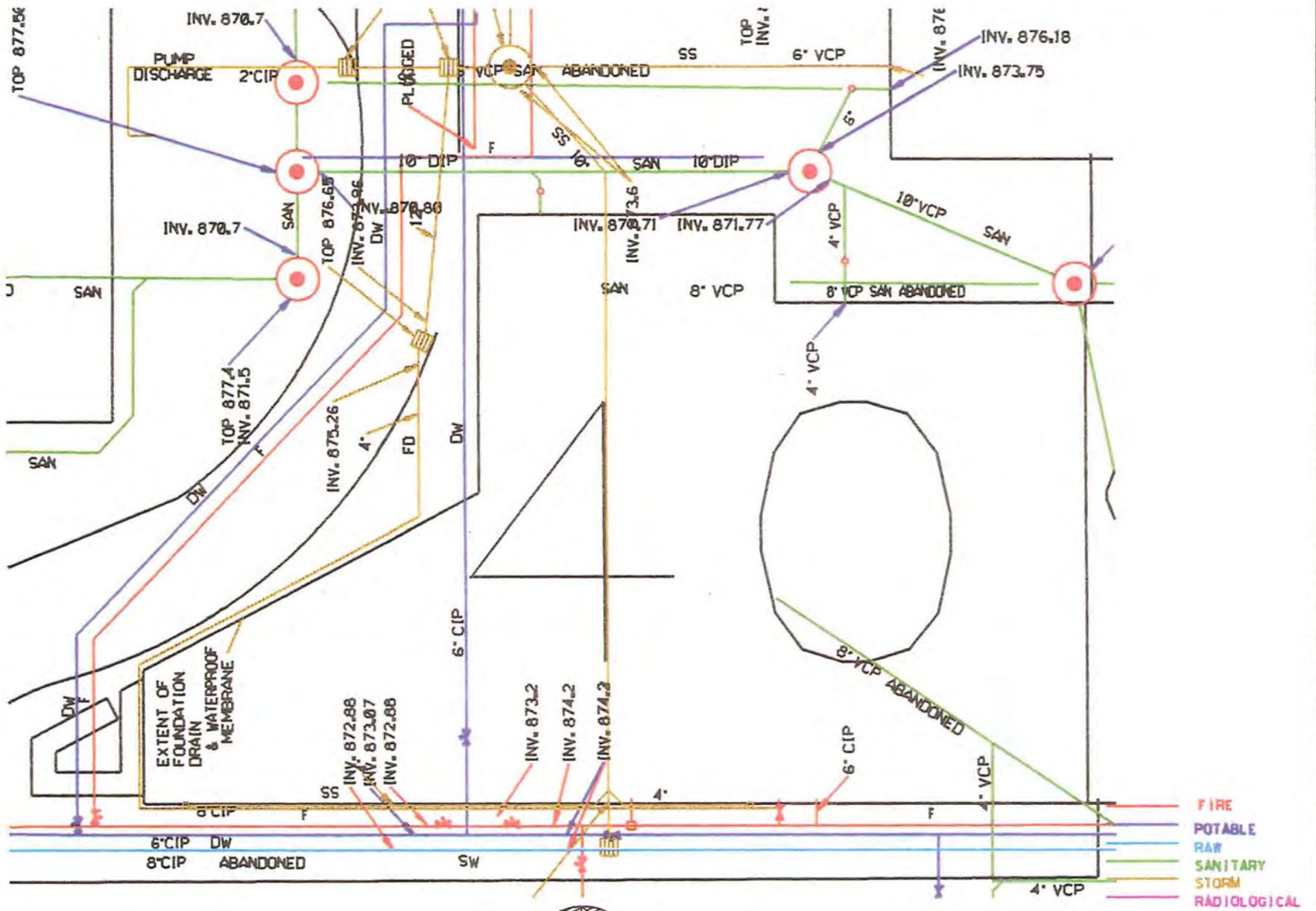
CUSTOMER:	PROJ. NO.:	SHEET	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION	
DATE:	DATE:	NO.	8	8	8				BLDG #40		
DATE:	DATE:	PART CLASSIFICATION						FLOOR PLANS			
DATE:	DATE:	DRAWING CLASSIFICATION						JOB NUMBER		JOB NUMBER	
DATE:	DATE:	UNCLASSIFIED C						FSC911251		12335	
DATE:	DATE:	JOB TYPE SFP						FROM BLDG #40		CASE 14865	
DATE:	DATE:	STATUS MD-REL-12/12/91						ORIGIN MD-BR3-V3.8		SHEET 1 OF 3	

9.63-63

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Environmental Appraisal of the Mound Plant

9.63.6.5 Underground Utility Lines



UNCLASSIFIED

E.G. & G. - MOUND
 UNDERGROUND WATER & WASTE LINES
 BLDG. 40
 DATE: 5-6-96

Environmental Appraisal of the Mound Plant

9.63.6.6 Photographs



Mound Plant Building 40

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Environmental Appraisal of the Mound Plant

9.64 BUILDING 42

9.64.1 Scope of Building 42 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 42 on the morning of February 7, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.64.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.64.6.2).

9.64.2 Description of Building 42

Building 42, Pyrotechnics and Thermite Production facility, is a two-story, 2,892-square-foot combination reinforced concrete and concrete block slab-on-grade structure. It has a built-up membrane (coal tar) roof. Location is shown in Attachment 3 (Section 9.64.6.3). The facility is bordered by Magazines 52 and 64 to the west, Building 27 to the east and Building 67 to the north. A gravel area is on the remaining side.

Floor plans are presented as Attachment 4 (Section 9.64.6.4). On the first floor of the structure (approximately 2,000 square feet) are the assembly cells, an electronic equipment room, lavatory, laboratory, office, storage, and a janitor's closet. The second floor (approximately 200 square feet) is the penthouse containing mechanical equipment. It has an outside access stairway. The building is serviced by central steam for heat and chilled water, and electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Building 42 was constructed in 1970 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building has been used for the same purpose since construction. Component testing and assembly of pyrotechnics and energetic materials have occurred in the building (*Mound Facility Physical Characterization*, 12-1-93).

Building 42 is in the process of undergoing Safe Shutdown. The central safety air exhaust systems are not scheduled to be decontaminated. The assembly rooms have steel blast shields or steel blast cells. The interior assembly rooms contain distribution systems for nitrogen, argon, and high-pressure air.

Environmental Appraisal of the Mound Plant

9.64.3 Summary of Findings

Installed equipment has undergone EM 60 Decontamination and has either been removed from the building or temporarily stored in Room 104, a clean room (MD-10363, Issue 6, *Mound Explosives Safety Manual*, Issue 6). Rooms have also been cleaned to the same specifications. There are physical signs that the roof leaks and significant ceiling and wall damage has occurred in Room 107, a lavatory. Three issues were identified during the walk-through. None were identified during review of reference materials or through discussions with the building manager and Safe Shutdown managers. According to the process manager, air ducts will not be cleaned during this Safe Shutdown "cheap-to-keep" phase.

9.64.4 Observations

9.64.4.1 Air Emissions

There are three fumehoods, a room exhaust, and an air collection system, including filters, servicing the assembly rooms. These rooms are out of service. Permit applications were filed with the Ohio Environmental Protection Agency (OEPA) March 5, 1992 for sources in Rooms 101A, 105 and 109 which do not correspond to the three fumehoods, room exhaust, and the assembly area's air collection system. No permits were issued. There are no fuel-burning units in the building. There is no evidence of fugitive dust or other materials observed which might be caused by the Safe Shutdown processes. Since air emission sources in the building are no longer active, the Regional Air Pollution Control Agency (RAPCA) should be notified of this change in status.

9.64.4.2 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.

9.64.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.64.6.5), the building is serviced by a sanitary line.

Environmental Appraisal of the Mound Plant

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 from the laboratory sink, lavatory, and lavatory floor drain is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations information, supplied by the building manager, effluent from Building 42 did not deviate from that expected by the sanitary treatment plant manager.

9.64.4.2 Storm Wastewater

The building is also serviced by storm drains according to Attachment 5 (Section 9.64.6.5). Penthouse and roof 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.

9.64.4.4 Chemicals

A review of the Safe Shutdown records indicated that all chemicals stored and previously used as listed in the BMQ, included as Attachment 2 (Section 9.64.6.2) had been removed in July and August of 1995 and transferred to Waste Management for disposition. External tanks and cylinders of nitrogen and argon were removed during the same period. Chemical storage and handling procedures were still in place for proper disposal of chemicals.

There is no evidence that chemicals entered the storm or sanitary drains. Because there were no floor drains where chemicals were handled or stored there is no evidence that chemicals which might have been spilled could have entered the storm drains. There have been no reported spills from Building 42.

9.64.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross connection in the mechanical room. The fountain which supplies drinking water has not been tested for lead. According to Environmental Protection Agency (EPA) protocol, annual sampling criteria do not require testing of the fountain. There is service water within the Penthouse; it is not distributed within the building.

9.64.4.4 Chemical Storage and Hazardous Materials

There is a flammable storage cabinet remaining in the building which meets standard National Fire Protection Association (NFPA) requirements. Chemicals are no longer stored in the building and Material Safety Data Sheets (MSDS's) have been removed. The exhaust collection system may contain thermite dust particles due to past process activities.

Environmental Appraisal of the Mound Plant

The building is equipped with appropriate emergency response equipment such as two eyewashes, a safety shower, and charged fire extinguishers. Each extinguisher was bar-coded. The inspection date database is maintained in the Fire Station, Building 98. There is an Emergency Evacuation Plan, and signs were posted.

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

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

There are no capacitors or transformers containing polychlorinated biphenyls (PCBs) located in the building. There is no record of past presence (PCB Annual Document Log).

9.64.4.5 Solid, Hazardous, and Radioactive Wastes

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

However, outside the building, attached to the wall in common with Room 101B is a lean-to which housed argon gas cylinders and the high pressure air compressor. The high pressure air compressor remains in place and a small quantity of compressor oil is leaking onto the concrete pad. The oil has not entered the soil nor the storm water collection system. The compressor should be handled along with the interior idle equipment.

There is no evidence that hazardous materials or wastes are mixed with solid waste streams during the Safe Shutdown process.

9.64.4.6 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856. As part of the Safe Shutdown process, equipment and supplies were evaluated for reuse. They were handled in several ways: reused

Environmental Appraisal of the Mound Plant

at Mound; sent to other Department of Energy (DOE) facilities; claimed by the City of Miamisburg; sold at auction; sold to recycle; or disposed of.

9.64.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.64.6.6).

The environmental appraisal of Building 42 indicates that the following action items, in recommended priority, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

- 42-1 Air emission sources in the building are no longer active. An air permit application was filed with the OEPA in 1992 and no permit was granted. RAPCA should be notified of this change in status (OAC 3745-31,35).
- 42-2 Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 261.4) require that waste be removed from idled manufacturing processes and waste producing equipment within 90 days. ("Idle" is defined as occurring either from the cessation of production or idled between production runs). The leaking compressor located outside the building should be handled as idle equipment.
- 42-3 The exhaust system may contain thermite dust particles due to past process activities.

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Environmental Appraisal of the Mound Plant

9.64.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 42 Production Facility

Appraisers:

Team # 4

MARK GILLIAT Engineer
Name Discipline

MARCIA VANNUST CHEMIST
Name Discipline

MURROW SMITH, Jr. Engineer
Name Discipline

- -
Name Discipline

Building Manager: Bob WARD (x-3821)

Process Manager: Brady BARNHART (SAFE SHUTDOWN)

Date: 7 February 1992

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team # 4

Date: 2-7-96

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	Y/N Y/N	<i>No chemicals. Removed under cafe shutdown Jul-Aug 95</i>
	Is the building in operation? What are the processes and where do they discharge to?	Y/N	
	Do the floor drains, sinks & toilets appear to be draining properly?	Y/N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	
	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	

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** Undergoing Cafe shutdown*

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	(Y) N	105, 108, 109 101, 102, 103 have fume hoods not exhaust with filter system
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: 42

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Date: 2-7-96

CAA Checklist

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

TABLE A									
Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
None	105	0421050001	Y/N	Y/N					
None	108	0421080001	Y/N	Y/N					
None	109	0421090001	Y/N	Y/N					
			Y/N	Y/N					
			Y/N	Y/N					

Source: _____

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Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-96

Hazardous Materials (HM) Screening Checklist

Question	Response	Comments
Are any chemicals used or stored in this building, now or in the past?	Y/N <input checked="" type="checkbox"/> Y	If the answer is yes, proceed with the following checklist.

HM Checklist

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

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Building Name: 42

Appraisers: Tom #4

Date: 2-7-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	Y / N	None
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	<input checked="" type="checkbox"/> / 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	N ₂ & Argon cylinders Buckets / Trucks Removed
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?	<input checked="" type="checkbox"/> / N	
	Is there an emergency response plan available?	<input checked="" type="checkbox"/> / N	

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Environmental Appraisal Checklist

Building Name: 42

Appraisers: Teams ⁴ 4

Date: 2-7-96

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory							
Building	Capacity (Gal.)	Contents	Estimated Volume	In Service	Containment	Visual Stains/ Contamination	If Empty, Flushed
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N
				Y/N	Y/N	Y/N	Y/N

Source: _____

Environmental Appraisal Checklist

Building Name: 42

Appraisers: TEAM # 4

Date: 2-7-96

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	(Y) N	If yes, conduct the following survey.
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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	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	Y / N	POTABLE WATER
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	(Y) / N	BUILT-IN cooler

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
42	Hallway	NO NUMBER	In wall outside R 104

Source: _____

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Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-96

RCRA Screening Checklist

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

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was characterization 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	
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	

Building exhaust system may be contaminated with energetic materials. Safe shutdown procedure will be to check & clean to DOE xxx EM standard

IDLE EQUIPMENT - AIR COMPRESSOR on pad 007 side wall lower area Room 101B, has leaking compressor oil into concrete Deck - Has not reached soil or drain.

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team # 4

Date: 2-7-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
<u>I. HAZARDOUS WASTE STORED IN CONTAINERS</u>			
	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	
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y / N	
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	Y / N	
	Are containers kept closed and locked except during filling?	Y / N	
	Are containers moved within 3 days of being filled?	Y / N	

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team # 4

Date: 2-7-96

RCRA Checklist

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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:		
	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?	Y / N	
	Is it properly completed, dated, and signed?	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.		

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team # 4

Date: 2-7-94

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

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Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. 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: 42

Appraisers: Team # 4

Date: 2-7-96

Asbestos Screening Checklist

Does this facility contain ACBM?	<input checked="" type="radio"/> Y / <input type="radio"/> N	If yes, conduct the following survey.
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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?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	If no for this building or area note this conclusion in the comment section.		
	Is there any evidence of friable asbestos?	Y / <input checked="" type="radio"/> N	
	Is the asbestos removal properly managed? (See questions listed below)	Y / N	#/A 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	
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: 42

Appraisers: Team #4

Date: 2-7-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.30 (a) 1,viii	Are all combustible materials (i.e., paints, solvents, plastics, paper, sawn wood, etc.) cleared from areas containing PCB transformers to a distance of five meters?	Y / N	
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y / N	
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N <i>Blank</i>	
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 area 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: 42

Appraisers: Team #4

Date: 2-7-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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	
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:

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	Y <input checked="" type="radio"/> N	If yes, conduct the following survey.
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Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 42

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Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter III, 3.d.	Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal?	Y / N	<i>Blank</i>
	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	
	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	

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-94

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / N	<i>Blank</i>
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	

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Building Name: 42

Appraisers: Team #4

Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

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Appraisers: TEAM #4

Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y / N	<i>Blank</i>
	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: 42

Appraisers: Team #4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	(Y) / (N) *	If yes, conduct the following survey.
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Waste Minimization/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)	
	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	Explosive material
	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	Blank
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	
	Drying?	Y / N	

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Building Name: 42

Appraisers: Team #4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
<u>HALOGENATED ORGANIC (NONSOLVENT) WASTES</u>			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	<i>Blank</i>
	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	
<u>METAL WASTES</u>			
	Are any technologies for the recovering of metals from waste rinsewater used?	Y / N	<i>Blank</i>
	Evaporation of waste rinsewater?	Y / N	
	Reverse osmosis?	Y / N	
	Ion exchange?	Y / N	
	Electrolysis?	Y / N	
	Agglomeration?	Y / N	
<u>CORROSIVE WASTES</u>			
	Are acidic or basic cleaning solutions used as treatment for pH adjustment chemicals?	Y / N	<i>N/A</i>

9.64-33

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	<i>Blank</i>
	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	
<u>CYANIDE AND REACTIVE WASTES</u>			
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y / N	<i>Blank</i>
	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	
<u>VEHICLE MAINTENANCE</u>			
	How are auto parts cleaned?	Y / N	
	Solvent sink?	Y / N	<i>Blank</i>
	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	

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
<u>OILS</u>			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	<i>Air Compressor out of Service Idle Equip</i>
	Transformer oil?	Y / <input checked="" type="radio"/> N	
	Metal working fluids?	Y / <input checked="" type="radio"/> N	
	Spent lubricating oils?	Y / <input checked="" type="radio"/> N	
	Can the process be modified or changed to use water-based fluids?	Y <input checked="" type="radio"/> 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	

9.64-35

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team #4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Environmental Appraisal Checklist

Building Name: 42

Appraisers: Team # 4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

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Environmental Appraisal of the Mound Plant

9.64.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 42 Building Manager: R.A. Ward Phone: 3821 Date: 12-07-95
Alternate: R. HOEHLER Phone: 4886

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

NONE

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

NONE

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

4. Provide a physical description of the building.

This one-story building contains 2,892 ft². It is constructed of reinforced concrete and concrete blocks with a BUM roof (coal tar). HVAC systems are central steam and chilled water. Building is contaminated with energetic materials and also contains asbestos.

Duck work

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Used to produce pyrotechnics and thermites and for materials compatibility studies in support of defense programs.

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

.9.64-41

Environmental Appraisal of the Mound Plant

Page 2 of 11 of the Building Manager's Questionnaire was not provided.

Building Manager's Questionnaire

Building Name: 42 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

EQUIPMENT REMOVAL

10. Does the building have air emission sources? Yes

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
High Explosives <i>Pyrotechnics</i>	101A	42101 A0001	Y <i>N*</i>	Acetone	.106		66.144	
High Explosives	109	42109	Y <i>N*</i>	Acetone hexane methanol petroleum ether	.265 .134 .041 .134		165.36 83.616 25.584 83.616	
High Explosives	105	42105 0001	Y <i>N*</i>	Acetone ethanol hexane	.1453 .029 .082		27.8976 5.568 15.744	
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

** 2/7/96 undergoing safe shutdown*

Building Manager's Questionnaire

Building Name: 42 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?

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

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

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

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

Building Manager's Questionnaire

Building Name: 42 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: 42 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: 42 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. ?

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
	Nitrogen	1500 Gal		Y / N	
7782-37-9	Nitrogen	03C		Y / N	outside
				Y / N	

removed

Source: Emergency and Hazardous Chemical Inventory Form - Chemical Storage Tanks on EGG Mound Site Owned and Maintained by Outside Contractors 8/8/94

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
ATTACHED	

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

BLDG 42	ALUMINUM OXIDE	NONE	2.3
BLDG 42	ALUMINUM POWDER	D003	0.5
BLDG 42	ALUMINUM STEARATE	NONE	1.5
BLDG 42	AMMONIUM HYDROXIDE CLEANING SOLUTION	D002	3.1
BLDG 42	AMMONIUM HYDROXIDE, PYRRIDINE	D002 D038 F005	0.2
BLDG 42	AMMONIUM SULFATE	NONE	1.2
BLDG 42	AMYL PHTHALATE	NONE	0.1
BLDG 42	AQUO AMINO PENTAMINE COBALT (III) PERCHLORATE, OIL WASTE	D001	0.0
BLDG 42	AROCHLOR CLEANUP	PCB2	0.5
BLDG 42	ASBESTOS CEMENT PASTE	NONE	4.2
BLDG 42	ASBESTOS CEMENT POWDER	NONE	4.1
BLDG 42	AZIDO PENTAMINE COBALT (III) BROMIDE, OIL WASTE	D001	0.0
BLDG 42	AZO BENZENE	NONE	0.2
BLDG 42	BENZENILIDE	NONE	0.1
BLDG 42	BENZIL	NONE	0.1
BLDG 42	BENZOIC ACID	NONE	0.3
BLDG 42	BENZOIC ACID	NONE	1.2
BLDG	BENZOIC ACID	NONE	2.8
BLDG	BETA NAPHTHOL	NONE	0.1
BLDG 42	BORON POWDER	D001 D003	15.7
BLDG 42	BUTOXYETHYL PHTHALATE	NONE	0.1
BLDG 42	BUTYL STEARATE	NONE	0.1
BLDG 42	CALCIUM CHLORIDE	NONE	2.5
BLDG 42	CALCIUM METASILCATE	NONE	0.3
BLDG 42	CALCIUM METASILCATE	NONE	0.3

*REMOVED
July-Aug 95*

	EXPLOSIVE CONTACT DEBRIS WITH TITANIUM SUBHYDRIDE, POTASSIUM PERCHLORATE	NONE	5.0
42	EXPLOSIVE CONTACT WIPES, DEBRIS WITH TITANIUM SUBHYDRIDE, POTASSIUM PERCHLORATE	NONE	2.2
BLDG 42	FERROCENE	NONE	0.6
BLDG 42	FLUORESCENCE	NONE	0.2
BLDG 42	FLUORINERT FC-70	NONE	0.1
BLDG 42	FORMALDEHYDE SOLUTION	D001	1.5
BLDG 42	FURFURAL ACETATE	NONE	0.2
BLDG 42	GOLD CHLORIDE	NONE	0.1
BLDG 42	GOLD CYANIDE	D003	0.1
BLDG 42	GOLD CYANIDE, SODIUM CHLORIDE	NONE	5.8
BLDG 42	GOLD POTASSIUM CYANIDE	D003	0.1
BLDG 42	GOLD SULFIDE	D003	0.1
BLDG 42	GRAPHITE POWDER	NONE	0.3
BLDG 42	GREASE	NONE	0.2
BLDG 42	GROUND GLASS	NONE	1.9
BLDG 42	HAFNIUM HYDRIDE, NITROCELLULOSE, OIL WASTE	D001	0.0
BLDG 42	HAFNIUM OXIDE, OIL WASTE	D001	0.0
BLDG 42	HAFNIUM OXYCHLORIDE, OIL WASTE	D001	0.0
BLDG 42	HAFNIUM POWDER, OIL (FORMERLY LP91-1520)	D001 D003	0.5
BLDG 42	HALTHANE RESIN 88	NONE	0.5
BLDG 42	HEXANE	D001	2.4
BLDG 42	HYDROCHLORIC ACID	D002	2.7
	INDOLE	NONE	0.2
	INSULCAST	D001	1.1
BLDG 42	IODINE	NONE	0.4
BLDG 42	IRON POWDER	D003	22.2
BLDG 42	JAGUAR C13	NONE	0.1
BLDG 42	LAURYL ACRYLATE	NONE	0.3
BLDG 42	LEAD OXIDE	D008	1.3
BLDG 42	LEAD PHTHALOCYANINE	D008	0.1
BLDG 42	LINDANE (O)	D013	0.4
BLDG 42	LITHIUM CHLORIDE	NONE	0.8
BLDG 42	MAGNESIUM METAL	D003	0.8
BLDG 42	MAGNESIUM PHTHALOCYANINE	NONE	0.3
BLDG 42	MAGNESIUM PHTHALOCYANINE	NONE	0.1
BLDG 42	MAGNESIUM STEARATE	NONE	0.9
BLDG 42	MANGANESE DIOXIDE	D001	0.1
BLDG 42	MERCURIC CHLORIDE	D009	0.2
BLDG 42	MERCURY- METAL	D009 U151	1.6
BLDG 42	METHANOL, ETHYLENE GLYCOL WASTE	D001 F003	5.0
BLDG 42	METHANOL, TRIBROMOPHENOL (2,4,6-), CHLOROPHENOL (2-)	D001 U048	0.6
BLDG 42	METHYL ISOBUTYL KETONE	D001 F003	2.7
BLDG 42	METHYL METHACRYLATE	U162	0.2
BLDG 42	METHYL RED	NONE	0.3
BLDG 42	METHYLENE CHLORIDE	D001 F002	12.3
BLDG 42	MICRO CLEANER	D002	2.3
BLDG 42	NICKEL PHTHALOCYANINE	NONE	0.3
	NICKEL POWDER	NONE	1.4

Building Manager's Questionnaire

Building Name: 42 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: 42 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: 42 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: 42 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

36. Is there a waste minimization program in the building?
Discuss your ideas about how to minimize waste.

Yes

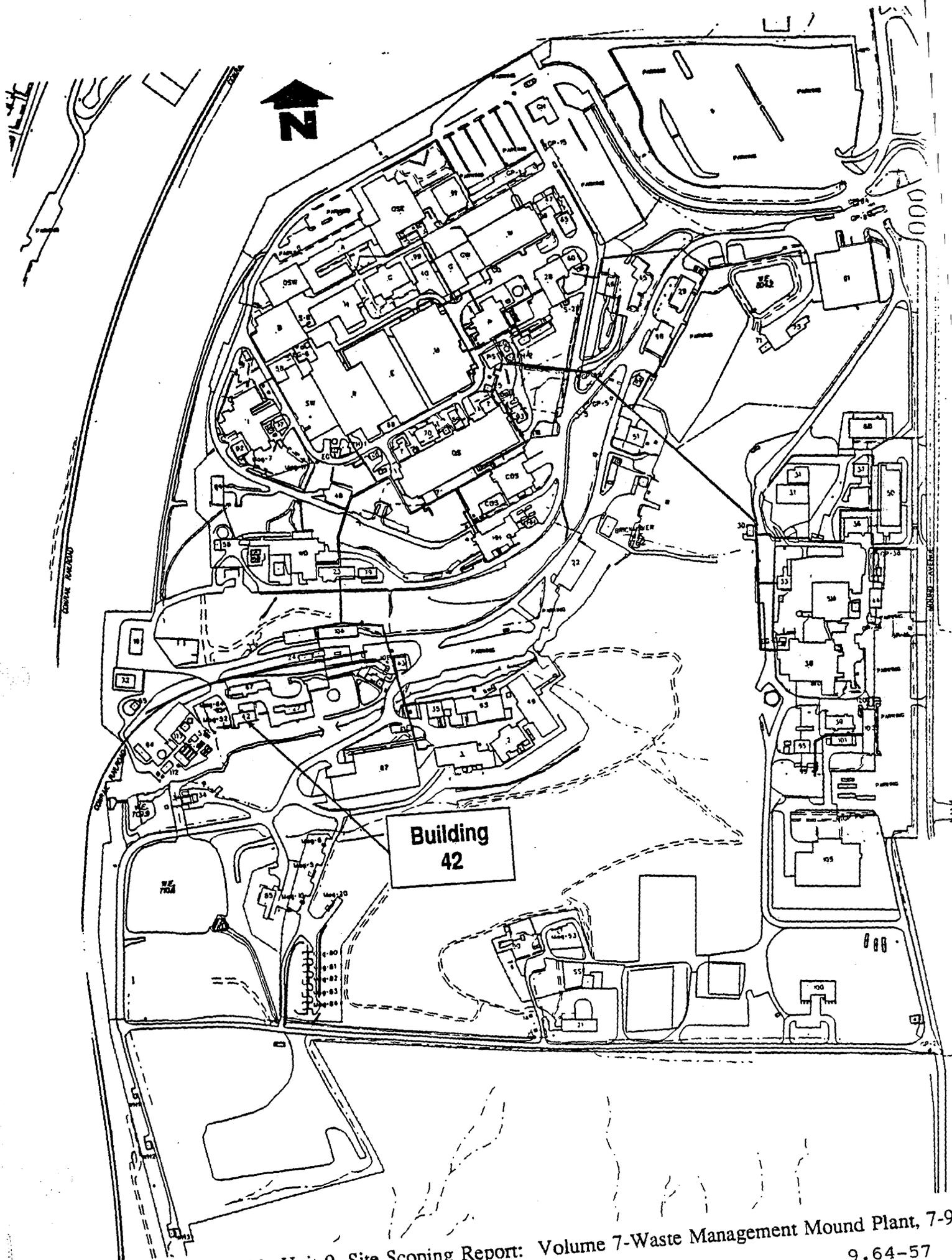
No

37. Has a pollution prevention program been developed for the building? Yes

No

Environmental Appraisal of the Mound Plant

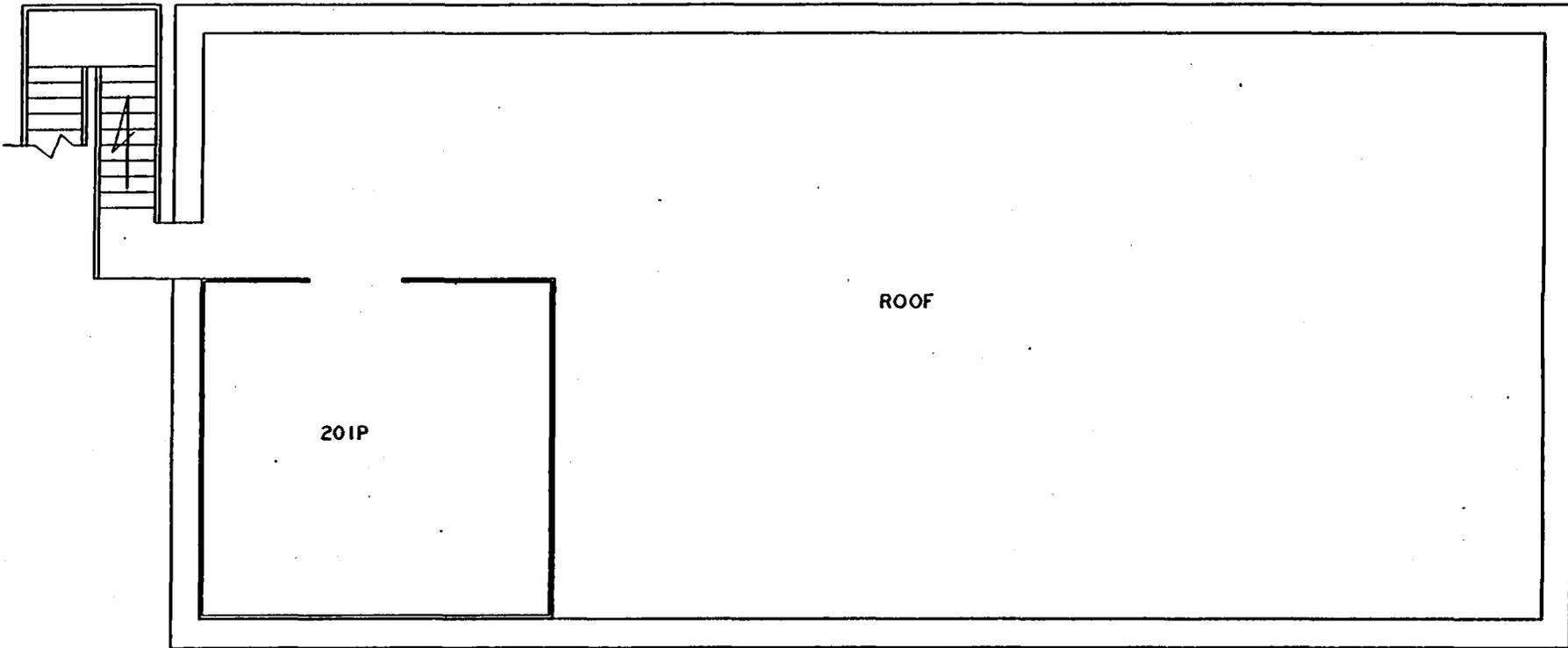
9.64.6.3 Location of Building 42



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Environmental Appraisal of the Mound Plant

9.64.6.4 Floor Plans for Building 42



UNCLASSIFIED



DERIVATIVE CLASSIFIER
[Signature]
S. Class. Anal. 2/20/96
 (Title) (Date)



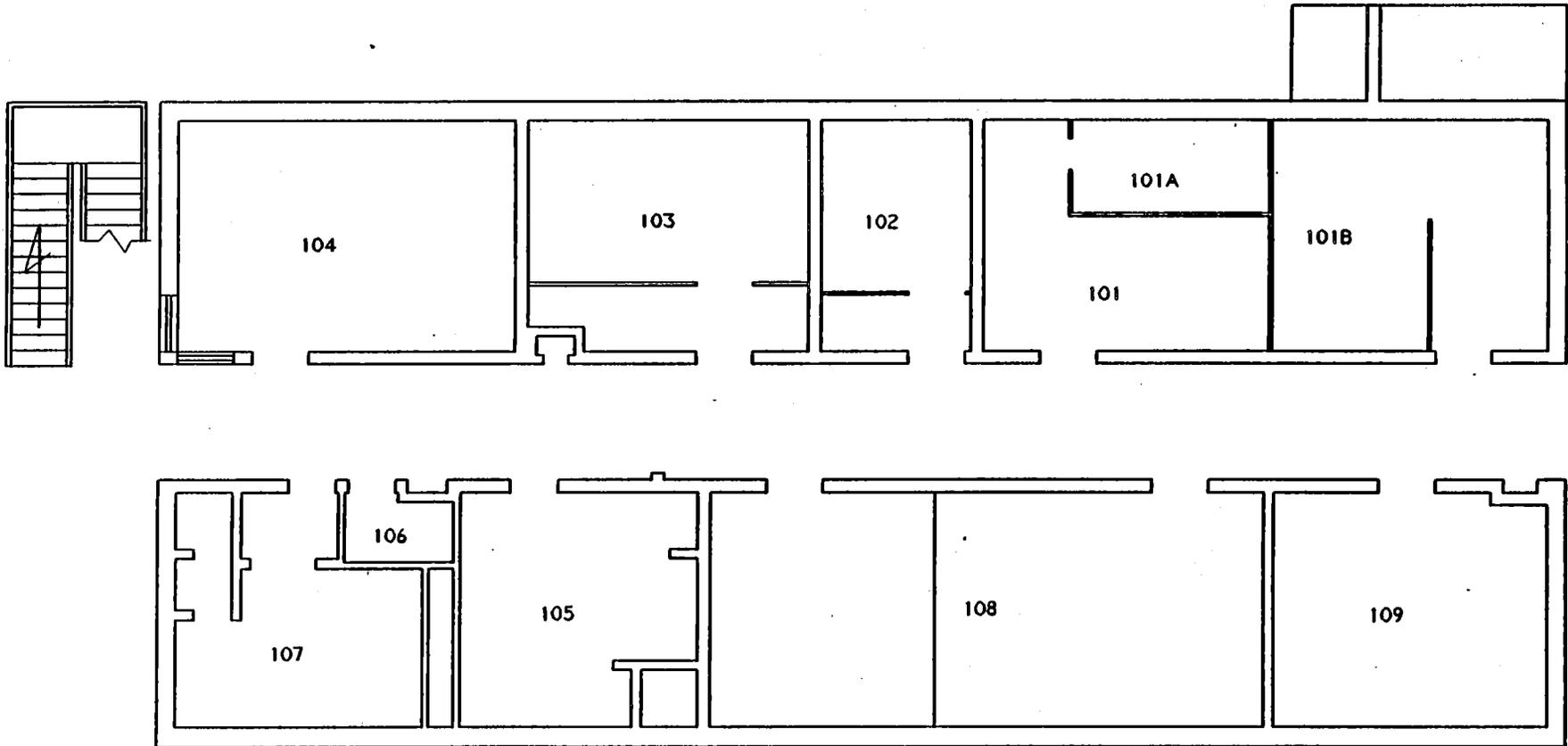
**BLDG #42
 PENTHOUSE
 BLDG CODE:3042**

NOT FOR PUBLIC DISSEMINATION		DESIGN NUMBER	JOB NUMBER
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.		FSC911252	12335
		CLASSIFICATION UCNI	
CLASS	DATE	SCALE	AS NOTED
C	14065		
	TABLE #	SHEET 2	
STANDARD NO.-REL-12/12/91			

9.64-61

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REV	DATE	REVISION	BY	CHKD	DES	LP/EC	AP/CD	II
8	12/12/91	ASBUILT ISSUE						



UNCLASSIFIED



DERIVATIVE CLASSIFIER

[Signature]
 Title: _____ (Title)
[Signature] 2/30/96 (Date)



BLDG #42
FIRST FLOOR
BLDG CODE:3042

9.64-63

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED:	
None TR/EC TECO C/EC	
TECH. REVP.	
DR. NO.	
TR/EC	
TECO	
C/EC	

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 2162). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

SHEET	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION	
NO.	8	8					BLDG #42 FLOOR PLANS		
DESIGN DR									
ISS									
UP & CC									
REV									
DATE									
CLASSIFICATION	UCNT						DRWING NUMBER	C FSC911252	JOB NUMBER 12335
DRW TYPE	SFP	FROM BLDG #42 CASE 14865					SCALE AS NOTED	SHEET 1 OF 2	
STATUS	MD-REL-12/12/91						ORIGIN	MD-BR3-V3.2	

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Environmental Appraisal of the Mound Plant

9.64.6.5 Underground Utility Lines

69-49*6



- FIRE
- POTABLE
- RAW
- SANITARY
- STORM
- RADIOLOGICAL



UNCLASSIFIED

E.G. & G. - MOUND
 UNDERGROUND WATER & WASTE LINES
 BLDG. 42
 DATE: 2/29/96

Environmental Appraisal of the Mound Plant

9.64.6.6 Photographs



Mound Plant Building 42

9.64-71

Environmental Appraisal of the Mound Plant

9.65 BUILDING 43

9.65.1 Scope of Building 43 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 43 on the morning of February 7, 1996. The Environmental Appraisal Checklist (EAC) (Attachment 1—Section 9.65.6.1) was used to record findings. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.65.6.2).

9.65.2 Description of Building 43

Building 43 is a one-story, 1516-square-foot, reinforced concrete structure. Its location is shown in Attachment 3 (Section 9.65.6.3). Building 1 is adjacent, to the east. The roof is of built-up membrane (asphalt). Floor plans are presented as Attachment 4 (Section 9.65.6.4). The building is serviced with electrical service of 240V, and central steam and chilled water (*Mound Facility Physical Characterization*, 12-1-93).

Building 43 was constructed in 1971 (MD-10391, *Asbestos Program Manual*, 9-14-95). The facility has been used for the same purpose since construction. Research and development activities involving thermite have been conducted in the building (*Mound Facility Physical Characterization*, 12-1-93). It is currently undergoing Safe Shutdown.

9.65.3 Summary of Findings

There were two issues of environmental concern identified during the walk-through or during review of reference materials.

9.65.4 Observations

9.65.4.1 Air Emissions

There is one fumehood in the building, which was not documented in the Mound Air Emissions Database. It is no longer being used. No air emission permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building. There are no fuel-burning units in the building. There is no evidence of fugitive dust.

Environmental Appraisal of the Mound Plant

9.65.4.2 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.

9.65.4.2.1 Sanitary Wastewater

Building 43 is serviced by a sanitary line, according to the diagram of underground utilities in Attachment 5 (Section 9.65.6.5). It is equipped with a fire sprinkler system. Confirmation of drainage of sanitary waste and floor drains into sanitary conveyance lines was not within the scope of the effort; therefore, neither dye tests nor smoke test were conducted.

Sanitary effluent is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations data, supplied by the process owner, effluent from Building 43 does not deviate from that expected by the sanitary treatment plant manager.

9.65.4.2.2 Storm Wastewater

The building is partially serviced by storm drains, through two roof downspouts, according to drawings presented in Attachment 5 (Section 9.65.6.5). Storm water also becomes part of the surface water and is either absorbed into the ground or flows to the nearest storm drain inlet. Exterior grates and drains were not tested to confirm that they connect to the storm drainage system. Inspection showed no signs of odors, colored discharges, or scarring which would indicate that any materials other than storm water had entered the storm drainage system.

9.65.4.2.3 Chemicals

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

Environmental Appraisal of the Mound Plant

Subsequently, all the remaining chemicals are placed in containers, characterized, and transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance becomes a permanent part of the Mound Safe Shutdown Plan for the specific building. As chemicals are transferred to Waste Management, a central chemical database in the program manager's office is updated monthly to reflect the disposition. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown process managers have received training in accordance with 40 CFR 265.16. There is no evidence that chemicals entered the storm or sanitary drains.

9.65.4.3 Potable and Service Water

The building was equipped with potable water. There were no water coolers or fountains. A backflow prevention device was installed in the janitor's deep sink.

9.65.4.4 Chemical Storage and Hazardous Material

There are no chemicals stored in the building. The exhaust collection system may contain thermite dust particles, due to past process activities. Idle equipment has not been cleaned.

There are no aboveground storage tanks in or around the building. The diagram of underground utility lines presented in Attachment 5 (Section 9.65.6.5) indicates a 1,000-gallon storage tank. Visual inspection shows it no longer exists. There are no sumps, separators, or catch basins, in or around the building. There are no underground storage tanks associated with this building.

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

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

9.65.4.5 Solid, Hazardous, and Radioactive Wastes

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

Environmental Appraisal of the Mound Plant

accordance with 40 CFR 265.16. There is no evidence that hazardous waste entered either the storm or sanitary systems.

9.65.4.6 Waste Minimization and Pollution Prevention

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

9.65.5 Findings and Recommendations

The environmental appraisal of Building 43 indicates that the following action item should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

- 43-1 Resource Conservation and Recovery Act (RCRA) regulations require that waste be removed from idled manufacturing and waste producing equipment within 90 days. ("Idle" is defined as occurring either from the cessation of production or idled between production runs). In the EG&G Mound Safe Shutdown Program, equipment is not addressed until funding, resources, and schedule permits, and/or ultimate disposition is known. The Safe Shutdown Program should review 40 CFR 261.4 and develop appropriate procedures for handling idle equipment.
- 43-2 The exhaust collection system may contain thermite dust particles due to past process activities.

Environmental Appraisal of the Mound Plant

9.65.6.1 Environmental Appraisal Checklist

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Environmental Appraisal Checklist

Building Name: H3

Appraisers: Team #4

Date: 2-7-96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	Y/N	If the answer to any of these questions is yes, proceed with the following checklist.
Are there sinks, toilets and floor drains in the building?	Y/N	
Are chemicals being used in the building?	Y/N Y	
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?	Y/N	Chemicals removed
	Are they properly contained?	Y/N	
	Is the building in operation? What are the processes and where do they discharge to?	Y/N	
	Do the floor drains, sinks & toilets appear to be draining properly?	Y/N	one only - plugged
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	
	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	
	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	

9-65-9

* Safe shut down to begin

fire deluge system

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	Y/N	
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: 43

Appraisers: Team #4

Date: 2-7-94

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
Thermite Equipment	004	0430040001	Y/(N)	Y/(N)	Thermite	unknown	Out of Service		
			Y/N	Y/N					
			Y/N	Y/N					
			Y/N	Y/N					
			Y/N	Y/N					

Source: _____

Environmental Appraisal Checklist

9.65-12

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	Y / N	
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	Y / N	<i>No longer in building 1994 inventory does not list</i>
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	Y / N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y / N	
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y / N	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y / N	

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

HM Checklist

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

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Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

HM Checklist

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

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
			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
				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: 43

Appraisers: Team # 4

Date: 2-7-96

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	Potable
	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

Source: _____

9.65-15

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

RCRA Screening Checklist

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

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	<p>Has any material generated been characterized RCRA hazardous? Was characterization 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.</p>	<p>Y/N analysis / process Y/N Y/N</p>	
OAC 3745 52-11	<p>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.</p>	<p>Y/N</p>	

* no longer in operation
 exhaust collection system contains
 thermite dust

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area? 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	
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y/N	
	Are the containers in good condition?	Y/N	
	Are the waste compatible with the containers?	Y/N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	Y/N	
	Are containers kept closed and locked except during filling?	Y/N	
	Are containers moved within 3 days of being filled?	Y/N	

Blank

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Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team H 4

Date: 2-7-96

RCRA Checklist

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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.		Blank
	If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:		
	Are the containers in good condition?	Y/N	
	Are the waste compatible with the containers?	Y/N	
	Are the containers kept closed except during filling?	Y/N	
	Are the containers managed in such a way, that they are not ruptured, or leaks caused?	Y/N	
	Is the area inspected at least once weekly?	Y/N	
	Is the inspection recorded? Where is the log? Is it properly completed, dated, and signed?	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.		

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-94

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 X		
	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		

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** idle equipment
decontaminated to 3X
... & system not cleaned*

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. 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: 43

Appraisers: Team #4

Date: 2-7-96

Asbestos Screening Checklist

Does this facility contain ACBM?	Y <input checked="" type="radio"/> N	If yes, conduct the following survey.
----------------------------------	--------------------------------------	---------------------------------------

Asbestos Checklist

none observed

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? If no for this building or area note this conclusion in the comment section.	Y / N	
	Is there any evidence of friable asbestos?	Y / N	
	Is the asbestos removal properly managed? (See questions listed below)	Y / N	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	
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: 43

Appraisers: Team #4

Date: 2-7-94

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	<p>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 ?</p> <p>If the answer is no, note .</p> <p>If the answer is yes, proceed with next section.</p>	Y / N	
	<p>Based on an inspection, are any of the materials or equipment potentially PCB contaminated?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed.</p>	Y / N	
40 CFR 761.65 (c) (5)	<p>Are PCB articles or containers stored in this building checked for leaks at least once every 30 days?</p>	Y / N	
	<p>If yes, are auditable records maintained.</p>	Y / N	
40 CFR.30 (a) (1) (ix)	<p>Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater?</p>	Y / N	
	<p>Are they visually inspected quarterly? If yes, are auditable records maintained?</p>	Y / N	

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-94

TSCA Checklist

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

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team # 4

Date: 2-7-94

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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	
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:

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste?	Y/N <input checked="" type="radio"/>	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 <i>BLANK</i>	
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? Is the waste stored in a configuration that protects ground-water resources?	Y/N 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? Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y/N Y/N	

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Environmental Appraisal Checklist

Building Name: 43

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Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter III, 3.d.	Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal?	Y / N	
	Based on field data does the characterization as documented at the time of generation of the waste ensure that the actual physical and chemical characteristics, and major radionuclide content of this material are recorded and known at all stages of the waste management process?	Y / N	
	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	

BLANK

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-94

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / N	
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	

BLANK

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?

Y N

If yes, conduct the following survey.

Waste Minimization/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 / <input checked="" type="radio"/> N	
	Are there solvent wastes?	Y / N	
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	Are there sludges?	Y / N	
	Are there halogenated organic (nonsolvent) wastes?	Y / N	
	Are metals recovered from wastewater?	Y / N	
	Is waste sludge generated?	Y / N	
	Are any waste minimization practices used that reduce the generation of sludge?	Y / N	
	Ion exchange process?	Y / N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y / N	
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	
	Drying?	Y / N	



Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-94

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
<u>HALOGENATED ORGANIC (NONSOLVENT) WASTES</u>			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	Blank
	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	
<u>METAL WASTES</u>			
	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	
<u>CORROSIVE WASTES</u>			
	Are acidic or basic cleaning solutions used as treatment for pH adjustment chemicals?	Y / (N)	

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9.65-32

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #14

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	
	Is crystallization used to remove corrosives from solution by cooling?	Y / N	
	Is the process of evaporation of liquid wastes by heating used to leave behind a more concentrated solution?	Y / N	
<u>CYANIDE AND REACTIVE WASTES</u>			
	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	
<u>VEHICLE MAINTENANCE</u>			
	How are auto parts cleaned?	Y / N	
	Solvent sink?	Y / N	
	Solvent dunk bucket?	Y / N	
	Solvent dip tank?	Y / N	
	Are parts cleaning solvents used for anything else besides cleaning parts?	Y / N	
	Are spills reduced by locating sinks or dunk buckets near auto service bays?	Y / N	

BLANK

Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

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Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-94

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	

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Environmental Appraisal Checklist

Building Name: 43

Appraisers: Team #4

Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

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

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Environmental Appraisal of the Mound Plant

9.65.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 43 Building Manager: R.A. Ward Phone: 3821 Date: 12-07-95
Alternate: K. KOEHLER Phone: 4886

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

N/A

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

N/A

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

4. Provide a physical description of the building.

This is a 1,516-ft², reinforced concrete structure with a BUM roof (asphalt). The HVAC systems are central steam and chilled water. The one-story building is contaminated with energetic materials and asbestos.

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

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

Shut down.

Source: Mound Buildings, 5-9-95

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

Building was used for thermite development work.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: 43 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: Thermite development

How Wastes Are Generated: *

In this building thermites (aluminum powder, iron oxide, copper oxide) are mixed in a dry blending process. The mixture is pressed, and the resulting pieces are sometimes machined. The machining process is currently shut down until installation of shields and an exhaust system is complete.

Wastes consist of dust, broken parts, and extra powder which are put in explosive waste containers and sent to be burned on site.

Generally soap and water are used to clean equipment. Acetone or alcohol may be used occasionally, but it evaporates quickly and no wastes are generated.

Contact:
Phone #:

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

* Building is shut down - no wastes currently generated

Building Manager's Questionnaire

Building Name: 43 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 mission 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: 43 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

Building Manager's Questionnaire

Building Name: 43 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: 43 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?

N/A

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

N/A

23. Where do excess janitorial supplies go?

N/A

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: 43 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 Overflows
Y / N			Y / N	Y / N

Source: _____

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

Materials	Amount
Formica Adhesive	1.7
Oil Waste	328.8
PCB Rags From Maintenance *	0.4
Scotch Grip Adhesive	1.2
Sodium Hydroxide	44.0

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

* 2-7-96 none present

Building Manager's Questionnaire

Building Name: 43 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: 43 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: 43 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

36. Is there a waste minimization program in the building?
Discuss your ideas about how to minimize waste.

Yes

No

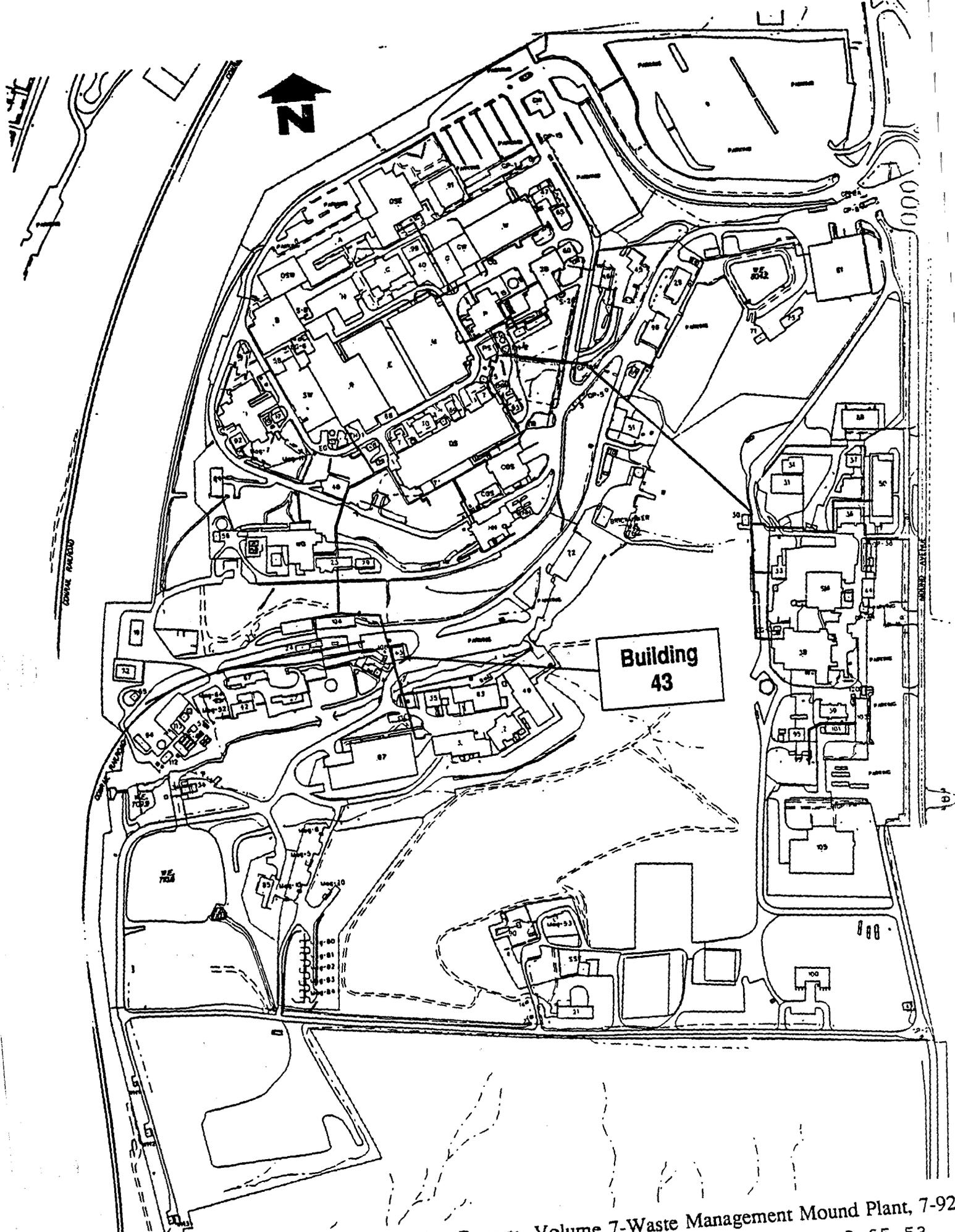
37. Has a pollution prevention program been developed for the building? Yes

No

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Environmental Appraisal of the Mound Plant

9.65.6.3 Location of Building 43



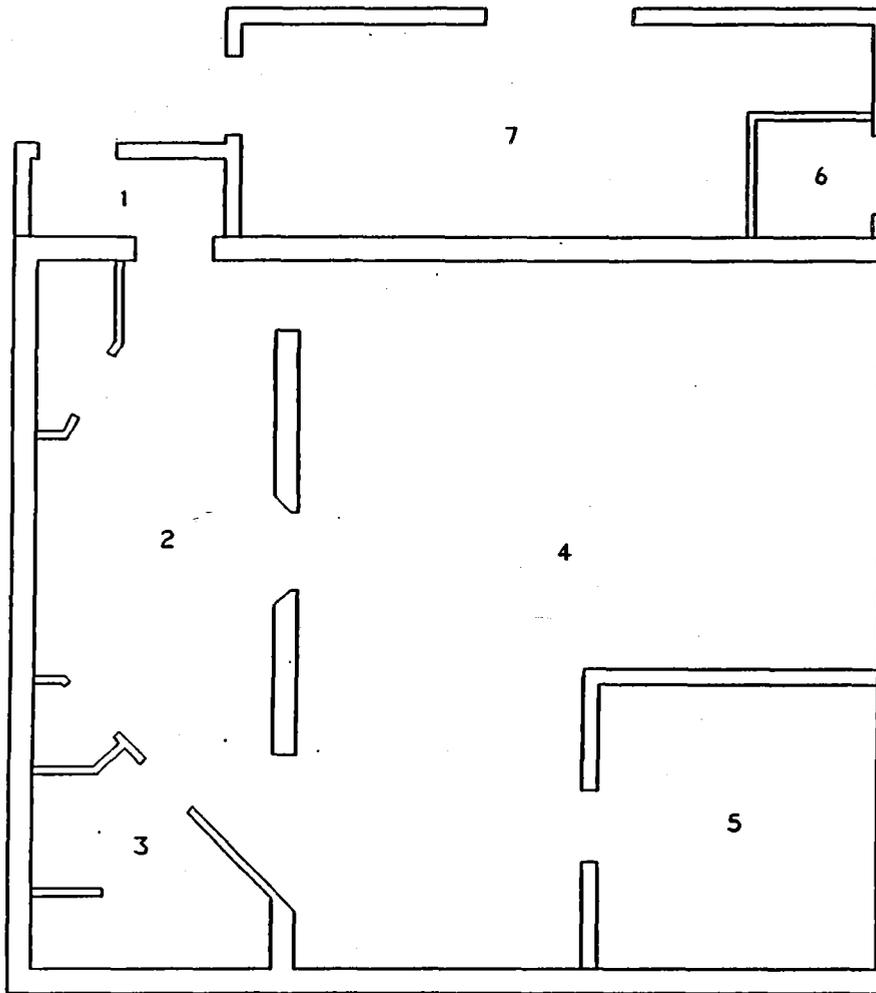
SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92
9.65-53

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Environmental Appraisal of the Mound Plant

9.65.6.4 Floor Plans for Building 43

NO	DATE	REVISION	BY	CHKD	DES	LNCH	APPD	BY
0	12/12/91	ASBUILT ISSUE						DCB



**BLDG #43
FIRST FLOOR
BLDG CODE:3043**

9.65-57

APPROVALS:	DATE:
SAFETY COMMITTEE REVIEWED:	
____ HMC ____ TRACOC ____ TEOC ____ EBOC	
TECH. RESP. _____	
GR. MGR. _____	
TRACOC _____	
TEOC _____	
EBOC _____	

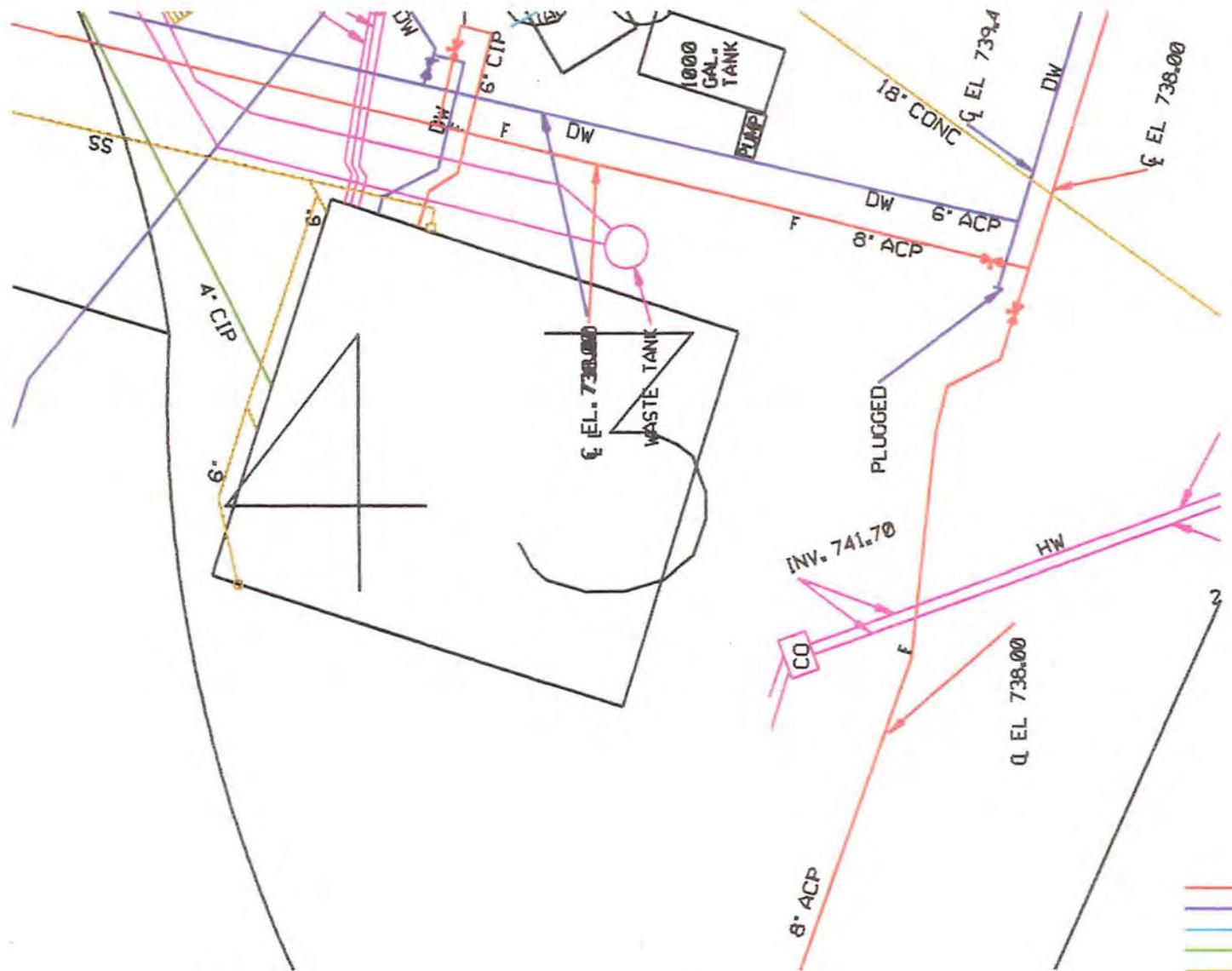
DESIGN ENG	PROJ MGR	SHEET	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION
		TABLE	0						BLDG #43	
SPONS	ENG BDR	PART CLASSIFICATION		FLOOR PLANS						
LP & GC	PERM PER	CLASSIFIED CLASSIFICATION		UNCLASSIFIED		C		FILE NUMBER	FSC911253	JOB NUMBER
CON PER		CLASS TYPE		SFP	FROM BLDG #43		CASE 14865		SCALE AS NOTED	SHEET 1 OF 1
APPD	DATE	STATUS		MD-REL-12/12/91		ORIGIN		MD-BR3-V3.0		

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Environmental Appraisal of the Mound Plant

9.65.6.5 Underground Utility Lines

19-65-61



- FIRE
- POTABLE
- RAW
- SANITARY
- STORM
- RADIOLOGICAL

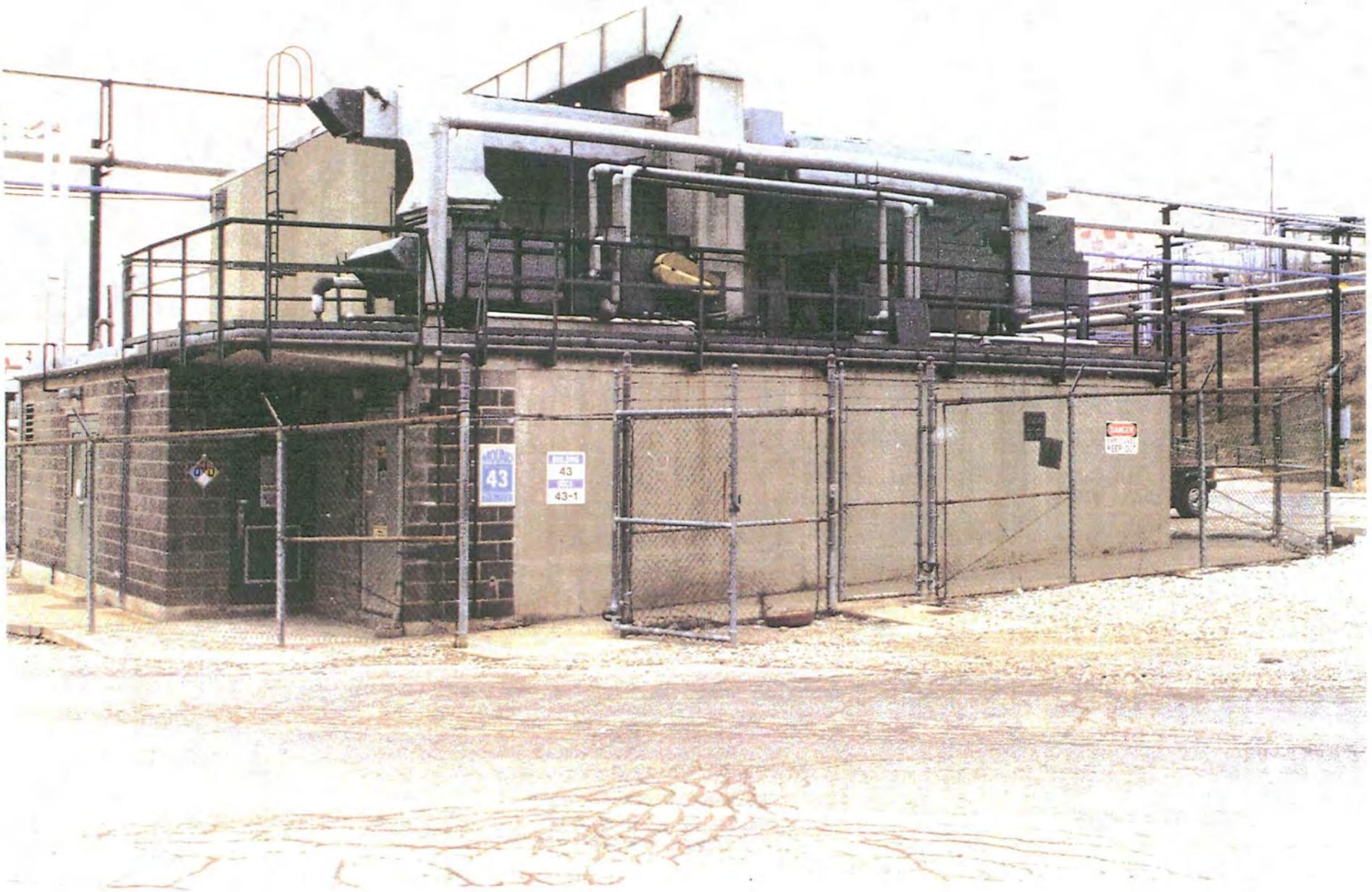
UNCLASSIFIED

E.G. & G. - MOUND
 UNDERGROUND WATER & WASTE LINES
 BLDG. 43
 DATE: 2/29/96

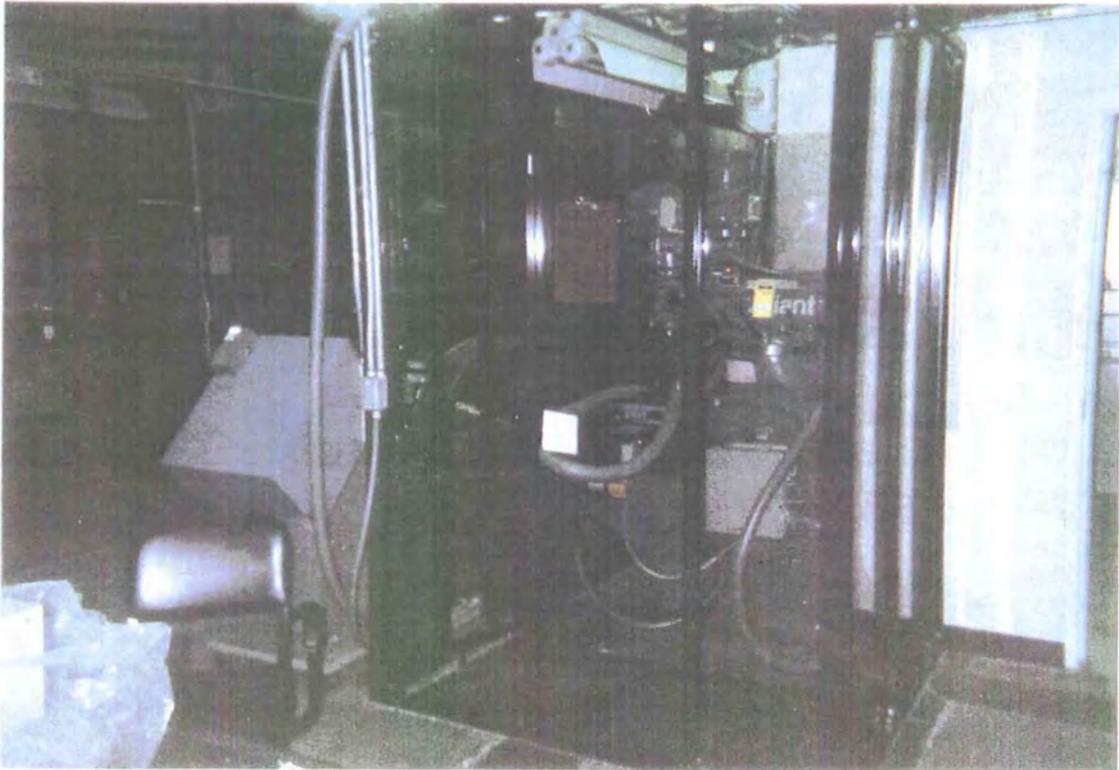
Environmental Appraisal of the Mound Plant

9.65.6.6 Photographs

Mound Plant Building 43



9.65-65



Inside Building 43 idle equipment has not been cleaned, as required by the Resource Conservation and Recovery Act (RCRA).

9.66 Building 44

Environmental Appraisal of the Mound Plant

9.66 BUILDING 44

9.66.1 Scope of Building 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 44 on the afternoon of February 27, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.66.6.1). The appraisers were not accompanied by the building manager or the process manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.66.6.2).

9.66.2 Description of Building 44

Building 44 is a one-story, 2,248-square-foot concrete block slab-on-grade structure. The roof is of built-up membrane (coal tar) construction. The location is shown in Attachment 3 (Section 9.66.6.3). The building is bordered on three sides by a combination of gravel, dirt, and grass. The west side of the building parallels a paved road. Adjacent buildings are Building SM on the west and Building GP-44 on the north.

Floor plans are presented as Attachment 4 (Section 9.66.6.4) The building contains an office, store room, dining area, lavatories, and a combination food preparation and dishwashing room. The air conditioning compressor equipment is located on the roof. The building is serviced by central steam for heat, potable water, a fire sprinkler system, and electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Building 44 was constructed in 1970 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building was used for the same purpose since construction until September 1994. The building no longer provides cafeteria food services. It is now used as an employee rest area, "brown bag" lunch room, and meeting and training facility for employees working in the SM/PP area. There is a window air conditioner in the office and an additional electric space heater in the food preparation room.

9.66.3 Summary of Findings

The building appeared to be in good condition. The two remaining equipment items in the food preparation and dishwashing area are an electric grill and electric dishwasher. Both are disconnected and clean. No issues of environmental concern were identified during the review

Environmental Appraisal of the Mound Plant

of reference materials. There is a recommendation concerning Material Safety Data Sheets (MSDS's).

9.66.4 Observations

9.66.4.1 Air Emissions

There are no fumehoods. There is an installed flame hood, which meets standard National Fire Protection Association (NFPA) requirements, over the former food cooking area. There are no fuel-burning units in the building. There is no evidence of fugitive dust and food is no longer prepared in the building which might have caused other fugitive air emissions. No air emissions permit applications have been submitted to RAPCA for activities in the building.

9.66.2.2 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.

9.66.4.2.1 Sanitary

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.66.6.5), the building is serviced by a sanitary line. A review of the original construction drawings indicated that two of the floor drains in the food preparation room are connected to the sanitary line. 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.

9.66.4.2.2 Storm Wastewater

The interior of the building has floor drains, in the lavatories and food preparation room, which are serviced by storm drains. Storm water from the roof flows onto the ground, becoming surface water, and flows to the nearest storm grate (approximately 65 feet away by visual inspection). Exterior grates and drains were not tested to confirm that they connect to the storm

Environmental Appraisal of the Mound Plant

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.

9.66.4.2.3 Chemicals

The only chemicals stored in the building are three plastic bottles of janitorial cleaning materials. The list of chemicals found in Building 44 as included in the BMQ indicated that no chemicals were stored in the building.

9.66.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross connection in the food preparation room and deep sink in the lavatory. There is an operational ice machine in the dining area. There is no fountain which supplies drinking water. Service water is only supplied in the fire sprinkler system.

9.66.4.4 Chemical Storage and Hazardous Materials

Janitorial cleaning supplies are stored in the building in accordance with applicable chemical storage standards. MSDS's were not available.

The building is equipped with appropriate charged fire extinguishers. Each extinguisher was bar-coded. The inspection date database is maintained in the Fire Station, Building 98. There is an Emergency Evacuation Plan, and signs were posted within the dining and food preparation spaces.

There are no aboveground storage tanks in or around Building 44 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 contains asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There is no visible evidence of friable asbestos.

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

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

9.66.4.5 Solid, Hazardous, and Radioactive Wastes

According to the information provided in the BMQ, and supported by the visual inspection, no hazardous waste is generated in the building. Solid wastes generated are primarily paper. There is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a local collection point, then shipped to a local landfill by a service

Environmental Appraisal of the Mound Plant

contractor. The disposal permit is maintained by Waste Management. There is no evidence that hazardous materials or wastes are mixed with solid waste streams.

9.66.4.5 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. Programs for waste minimization are in place including aluminum can recycling. There does not appear to be additional opportunities for waste minimization activities within Building 44.

9.66.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.66.6.6). The environmental appraisal of Building 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.

- 44-1 MSDS's for janitorial supplies should be located near the storage cabinet or in the room where stored (29 CFR 1910.1200).

Environmental Appraisal of the Mound Plant

9.66.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 44 CATERIA

Appraisers:

TEAM # 4

MARK GILLIAT ENGINEER
Name Discipline

MARCIA VANNET CHEMIST
Name Discipline

MYRON SMITH, JR. ENGINEER
Name Discipline

Name Discipline

Building Manager:

BOB WARD (x-3821)

Process Manager:

Date:

27 FEBRUARY 1996

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Clean Air Act	2
Hazardous Materials	4
Safe Drinking Water Act	7
RCRA Hazardous Waste	8
TSCA and NESHAP Requirements for Asbestos	13
TSCA—PCB	14
Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Environmental Appraisal Checklist

Building Name: 44

Appraisers: TEAM #4

Date: 2-27-96

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	Y/N Y/N	
	Is the building in operation? What are the processes and where do they discharge to?	Y/N _____ _____	INFORMAL USE
	Do the floor drains, sinks & toilets appear to be draining properly?	Y/N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	2 in food prep to SANITARY LAVATORY AND 2 in
	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	

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Environmental Appraisal Checklist

Building Name: 44

Appraisers: TEAM # 4

Date: 2-27-96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	Y/N	FLAME HOOD IN FOOD PREP ROOM
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	HOOD OUT OF SERVICE
OAC 3745-31-03	Are there sources which are lab equipment of lab fumehoods 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: 44

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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: _____

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Environmental Appraisal Checklist

Building Name: 44

Appraisers: TEAM # 4

Date: 2-27-96

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	(Y) N	Janitorial Supplies
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	NO DRUMS
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	NONE
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y/N	NONE
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	N/A

Environmental Appraisal Checklist

Building Name: 44

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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	<i>B. Davis</i>
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	Y / N	
CGA P-1 3.3 & 3.3.10	All gas cylinders (full or empty) shall carry a legible label or marking identifying the contents.	Y / N	
CGA P-1 3.5.3	Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers.	Y / N	
CGA P-1 3.5.8	All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured.	Y / N	
CGA P-1 4.2.2	Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high.	Y / N	
29 CFR 1910.104(2)(10)	Oxygen stored as a liquid shall be on a noncombustible surface. Asphalt is considered combustible. Wood and long dry grass shall be cut back 15 ft. from the container.	Y / N	
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	(Y) N	
	Is there an emergency response plan available?	(Y) N	

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Environmental Appraisal Checklist

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Building Name: 44

Appraisers: TEAM #4

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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
				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: 44

Appraisers: TEAM # 4

Date: 2-27-96

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	(Y) N	If yes, conduct the following survey.
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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	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	(Y) N	
	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
			<i>Blank</i>

Source: _____

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Environmental Appraisal Checklist

Building Name: 44

Appraisers: TEAM #4

Date: 2-27-96

RCRA Screening Checklist

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

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

Environmental Appraisal Checklist

Building Name: 44

Appraisers: TEAMS # 4

Date: 2-27-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area? 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. Are the containers marked with the words hazardous waste, or other words denoting the hazard? Are the containers in good condition? Are the waste compatible with the containers? Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary? Are containers kept closed and locked except during filling? Are containers moved within 3 days of being filled?	Y / N Y / N Y / N Y / N Y / N Y / N	

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Environmental Appraisal Checklist

Building Name: *44*

Appraisers: *TEAM #4*

Date: *2-27-96*

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	<p>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.</p> <p>If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:</p>		<i>Blank</i>
	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?	Y / N	
	Where is the log?		
	Is it properly completed, dated, and signed?	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.		

Environmental Appraisal Checklist

Building Name: **44**

Appraisers: **TEAM #4**

Date: **2-27-96**

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	<i>Blessed</i>
	If the answer was no, then proceed with the following:		
	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	

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Building Name: 44

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Date: 2-27-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y/N	<i>Blank</i>
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y/N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y/N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. 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: 44

Appraisers: TEAM #4

Date: 2-27-96

Asbestos Screening Checklist

Does this facility contain ACBM?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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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? If no for this building or area note this conclusion in the comment section.	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Is there any evidence of friable asbestos?	<input type="radio"/> Y <input checked="" type="radio"/> 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	<i>Blank</i>
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	

Environmental Appraisal Checklist

Building Name: 44

Appraisers: TEAM #4

Date: 2-27-96

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

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

Environmental Appraisal Checklist

Building Name: 44

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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	<i>B. [Signature]</i>
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y / N	
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N	
40 CFR 761.62 (b) (1) (i)	Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items?	Y / N	
40 CFR 761.62 (b) (1) (iv)	Are storage area 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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TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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 <i>Blank</i>	
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:

Environmental Appraisal Checklist

Building Name: 44

Appraisers: TEAM #4

Date: 2-27-96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
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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	<i>Blank</i>
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

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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	<i>Blank</i>
	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	
	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	

Environmental Appraisal Checklist

Building Name: *44*

Appraisers: *TEAM # 4*

Date: *2-27-96*

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / N	<i>Blank</i>
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	

Environmental Appraisal Checklist

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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	

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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	<i>Blank</i>
	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:

Environmental Appraisal Checklist

Building Name: 44

Appraisers: TEAM #4

Date: 2-27-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	<u>(N)</u>	If yes, conduct the following survey.
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Waste Minimization/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	<i>B. Park</i>
	Are there solvent wastes?	Y / N	
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	Are there sludges?	Y / N	
	Are there halogenated organic (nonsolvent) wastes?	Y / N	
	Are metals recovered from wastewater?	Y / N	
	Is waste sludge generated?	Y / N	
	Are any waste minimization practices used that reduce the generation of sludge?	Y / N	
	Ion exchange process?	Y / N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y / N	
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	
	Drying?	Y / N	

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Building Name: 44

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Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	<i>Blank</i>
	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	

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Environmental Appraisal Checklist

Building Name: 44

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Date: 2-27-94

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	<i>Blank</i>
	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	

Environmental Appraisal Checklist

Building Name: *44*

Appraisers: *TEAM #4*

Date: *2-27-96*

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	<i>Blank</i>
	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	
<u>OILS</u>			
	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: 44

Appraisers: TEAM #4

Date: 2-27-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		
	Reclaiming process to remove water and solvents by heat?	Y / N	<i>Blank</i>
	Gravity setting?	Y / N	
	Screening?	Y / N	
	Centrifugation?	Y / N	
	Filtration?	Y / N	
<u>SOLVENT WASTES</u>			
	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	

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Environmental Appraisal Checklist

Building Name: *44*

Appraisers: *TEAM # 4*

Date: *2-27-96*

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	<i>Blank</i>
	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?	_____ _____	

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Environmental Appraisal of the Mound Plant

9.66.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

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

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

No

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

NONE

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

4. Provide a physical description of the building.

Building is a 2,480-ft², one-story building ~~that currently has vending machines in it.~~ It is made of concrete block with a BUM roof (coal tar). It has central steam heat. Building is not contaminated with 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?

~~It has vending machines in it and is used as a lunch and break area.~~ Meetings and training classes are also sometimes held there.

Source: Mound Buildings, 5-9-95

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

It used to be the SM-PP cafeteria.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: 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: SM Area Cafeteria

How Wastes Are Generated:

No hazardous wastes are generated in this building.

Contact:

Phone #:

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

Building Manager's Questionnaire

Building Name: 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: 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

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

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

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

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

Building Manager's Questionnaire

Building Name: 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: 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?

CABINET

23. Where do excess janitorial supplies go?

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: 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: 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 *KITCHEN EQUIPMENT*
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: 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: 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: 44 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

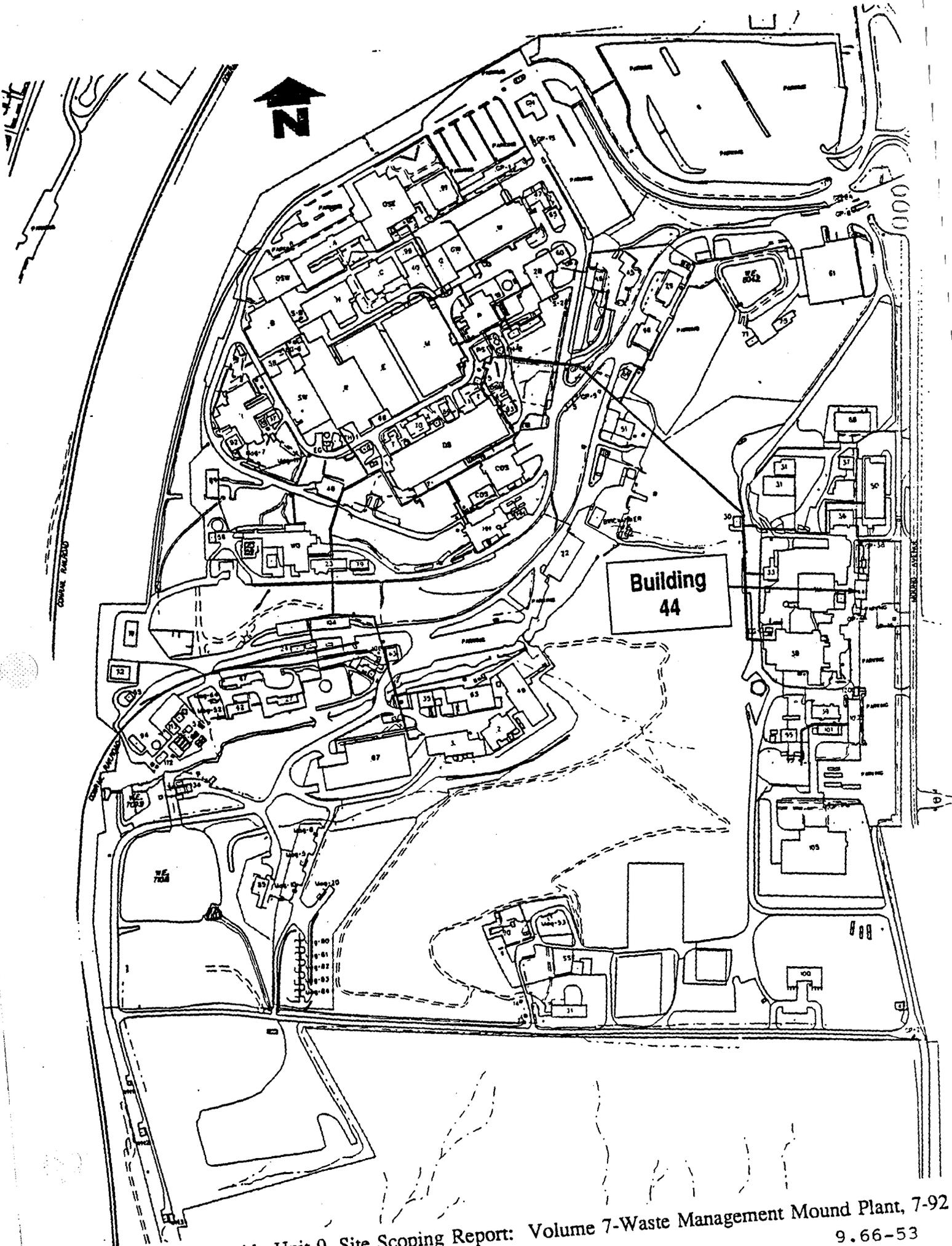
36. Is there a waste minimization program in the building? Yes No
Discuss your ideas about how to minimize waste.

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

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Environmental Appraisal of the Mound Plant

9.66.6.3 Location of Building 44



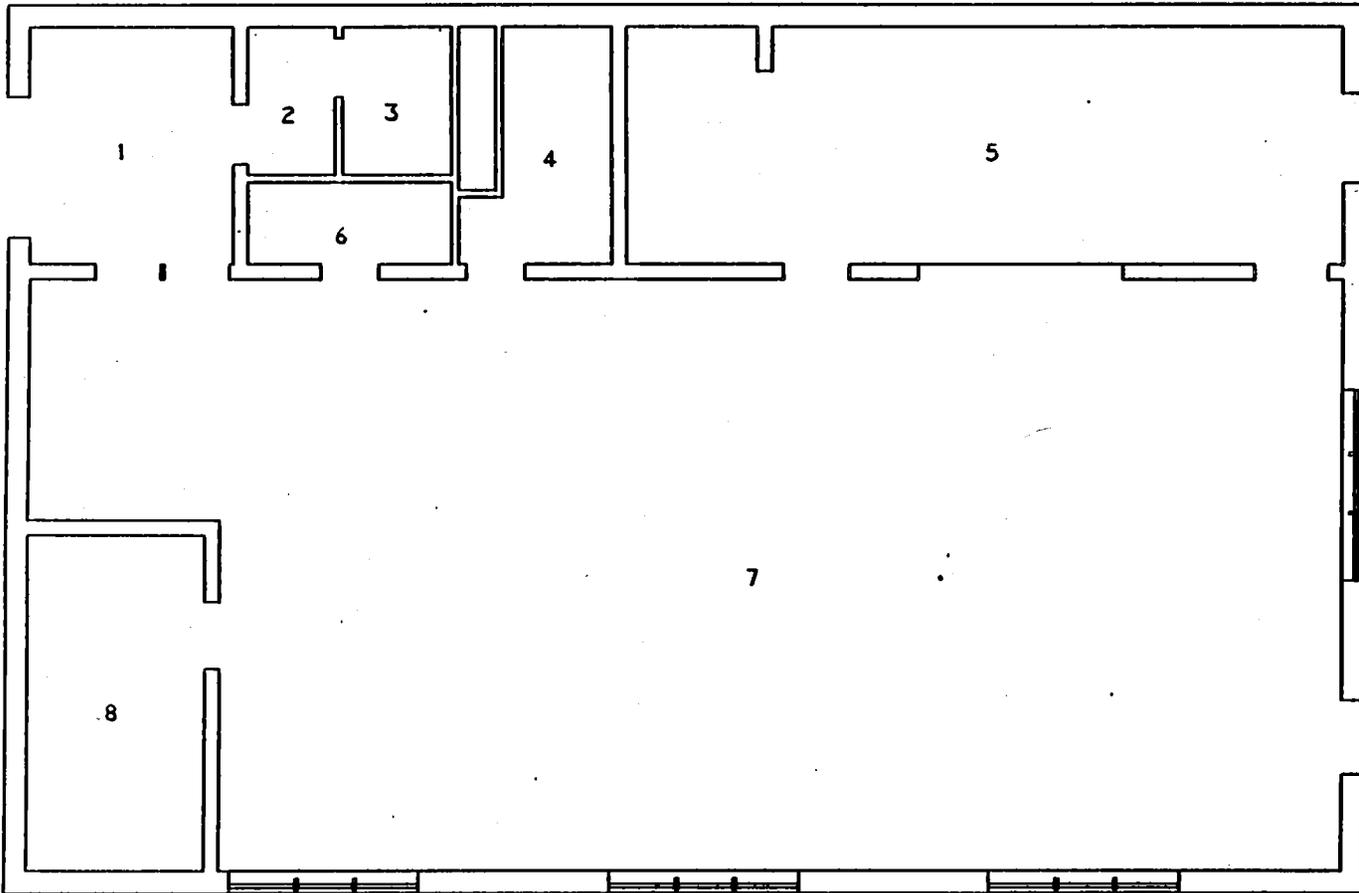
SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92
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Environmental Appraisal of the Mound Plant

9.66.6.4 Floor Plans for Building 44

REV	DATE	BY	CHKD	DATE	APPROV	DATE
8	12/12/91	ASBUILT-ISSUE				



BLDG #44
FIRST FLOOR
BLDG CODE:3044

APPROVALS:	DATE:
SAFETY CHECKED:	
TECH. DESK:	
DR. DESK:	
TELESC:	
TEOC:	
ENOC:	

DESIGN NO.	PROJ. NO.	SHEET	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION	
ENOC	ENR 889	NO.	8						BLDG #44		
LP & GC	PLUM REV	PART CLASSIFICATION							FLOOR PLANS		
ENR 708		UNCLASSIFIED							C	FSC911254	12335
APP'D	DATE	Dwg TYPE SFP							PROJ BLDG #44	CASE 14863	SCALE AS NOTED
		STATUS MD-REL-12/12/91							ORIGIN	MD-BR3-V3. J	SHEET 1 OF 1

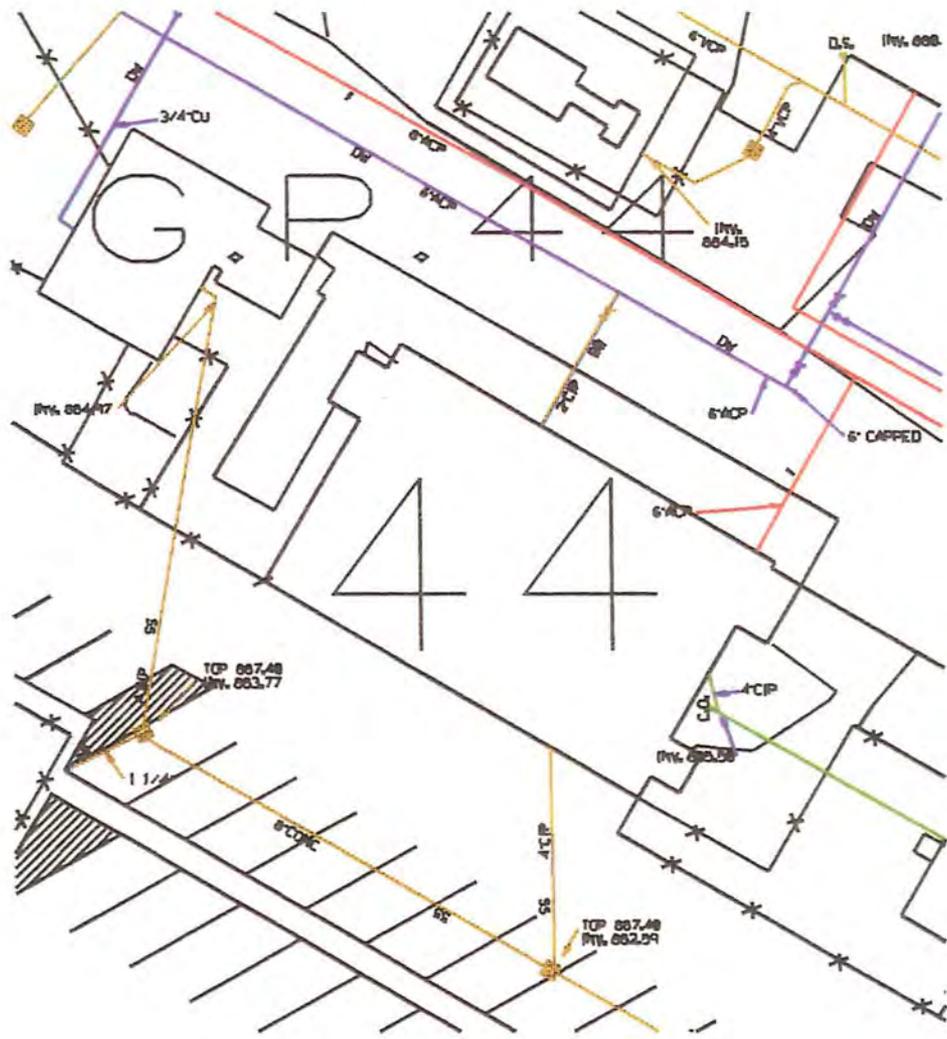
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Environmental Appraisal of the Mound Plant

9.66.6.5 Underground Utility Lines

9.66-61



- FIRE
- POTABLE
- RAW
- SANITARY
- STORM
- RADIOLOGICAL



E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 44

UNCLASSIFIED

DATE: 2/29/96

Environmental Appraisal of the Mound Plant

9.66.6.6 Photographs

Mound Plant Building 44

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9.67 Building 45

Environmental Appraisal of the Mound Plant

9.67 BUILDING 45

9.67.1 Scope of Building 45 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 45 on the morning of February 20, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.67.6.1). The appraisers were not accompanied by the building manager, however, the health physics calibration manager and a senior health physicist did accompany the team. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.67.6.2).

9.67.2 Description of Building 45

Building 45, the Health Physics calibration lab, is a 9,582-square-foot facility consisting of an original single-story concrete block structure and addition totaling 2,784 square feet with a penthouse. The second addition totals approximately 6,800-square-foot. Its location is shown in Attachment 3 (Section 9.67.6.3). The facility is located on the hillside between Buildings 60 and 29. The building is situated on a man-made plateau created by removing top soil from a bedrock formation. The facility's heating and air conditioning system is serviced by central plant steam and chilled water. Electrical power is 480V three-phase. The radiation source handling systems and computers are provided with an uninterruptible power supply (UPS). Floor plans are presented as Attachment 4 (Section 9.67.6.4).

The original Building 45 structure was constructed in 1968 with a small addition made in 1988. The original building and first addition consist of a single-story concrete block structure with a penthouse for housing heating and air conditioning systems, electrical and other mechanical equipment. The second addition was completed in 1995 and consists of a two-story structure on the south side of the original building and a one-story structure on the north side of the original facility. The additions are constructed of masonry load-bearing walls.

The facility houses equipment and space necessary for the calibration of Health Physics instrumentation and personnel dosimeters. The facility contains a beta calibration area, a calibration/repair area, a dosimeter preparation area and X-ray calibration area, a calibration well area, and a low scatter neutron and maximum field calibration room. The facility has been used for the same purpose since construction. No research, development, or production activities using radioactive or energetic materials have occurred in the buildings (*Mound Facility Physical Characterization*, 12-1-03), although sealed radioactive sources are used in the calibration of Health Physics instrumentation.

Environmental Appraisal of the Mound Plant

9.67.3 Summary of Findings

A facility walk-through was conducted and the facility was found to be in excellent condition. The health physics calibration manager demonstrated a thorough understanding of the facility and all processes within the facility. There was one issue of environmental concern noted during the facility tour.

9.67.4 Observations

9.67.4.1 Air Emissions

There are no air emission sources in Building 45. There is no evidence of fugitive dust. No air emission permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building.

9.67.4.2 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.

9.67.4.2.1 Sanitary

The facility is serviced by a sanitary sewer line as shown in the diagram of underground utility lines presented in Attachment 5 (Section 9.67.6.5). Facility drawings indicate that the building restroom facilities and janitor sink drain to this line. Additionally, the penthouse floor drains are indicated as being serviced by this line.

Sanitary effluent is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations data, supplied by the process owner, effluent from Building 45 does not deviate from that expected by the sanitary treatment plant manager.

Environmental Appraisal of the Mound Plant

9.67.4.2.2 Storm Wastewater

The roof drains discharge to the storm water ditch which runs parallel to the eastern side of the facility, along the roadway.

9.67.4.2.3 Chemicals

A list of chemicals residing in Building 45 is included in the BMQ in Attachment 2 (Section 9.67.6.2). The information was gathered as part of the chemical inventory which is conducted annually. The inventory information dates to 1994. Confirmation of the 1994 inventory was not attempted as 1995 data were being compiled at the time of the appraisal.

Storage, handling, and disposal of chemicals listed in the BMQ in Attachment 2 (Section 9.67.6.2) were reviewed to assure conformance to regulations related to 40 CFR 122, 40 CFR 261-265, 40 CFR 268, and 29 CFR 1910. None of the chemicals listed in the BMQ are Clean Water Act priority pollutants. There is no evidence that chemicals stored in the building have entered the wastewater collection system. There have been no reported spills from Building 45.

The facility does not use a large quantity of chemicals, according to the 1994 chemical inventory included with the BMQ in Attachment 2 (Section 9.67.6.2). The typical use for chemicals is small quantity use in the repair of health physics calibration equipment.

9.67.4.3 Potable and Service Water

The facility is serviced by potable and service water. Service water is distributed within the building, including the fire sprinkler system. Backflow preventers were installed at all visible points of cross connection. The fountains which supply drinking water have not been tested for lead. According to Environmental Protection Agency (EPA) protocol, annual sampling criteria do not require testing of each fountain.

9.67.4.4 Chemical Storage and Hazardous Materials

As noted, the facility does not contain a large chemical inventory. Chemicals were found to be properly stored. There are many commercial alkaline batteries stored in the facility for use in the Health Physics monitoring equipment. The facility also has three californium-252 sources (0.7 micrograms, 0.7 milligrams and 2 milligrams), four Cs-137 sources (20 Ci, 30 Ci, 17 Ci and 30 μ Ci) and one 10 Ci Co-60 source. These sources are all non-dispersible, being encapsulated, electroplated, or otherwise sealed. All sources are stored in secured shielded containers, except during actual exposure operations.

A review of the Mound Active Underground Storage Tank Plan and visual inspection indicated that there are no underground storage tanks in or around the building. Additionally, visual inspection revealed there are no aboveground storage tanks in or around the facility. The facility does contain pits which house the radioactive sources when not in use. These pits are not expected to contain liquid.

Environmental Appraisal of the Mound Plant

The building was tested and does contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no evidence of friable asbestos noted during the facility walk-through.

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

9.67.4.5 Solid, Hazardous and Radioactive Wastes

Solid non-hazardous wastes include paper, plastics and packaging materials all in low volume. Any excess chemicals are collected by Waste Management for disposal. Used alkaline batteries are collected in the facility for subsequent pickup by Mound Waste Management. In the future, lithium batteries will be used and the manufacturer will be responsible for disposing of all used batteries.

The radioactive standards used for instrument calibration will ultimately become radioactive waste. However the facility does not routinely generate this type of waste. Additionally, health physics instrumentation which has outlived its usefulness and may be contaminated at low levels is occasionally returned to the lab. These instruments are disposed of as low-specific activity (LSA) waste in an LSA wastebox outside the facility. Compliance with Department of Energy (DOE) Order 5820.2A was not addressed.

9.67.4.5 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.

9.67.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.67.6.6). The environmental appraisal of Building 45 indicates that the following action item should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

45-1 Perform DOE 5820.2A Radioactive Waste Management compliance assessment.

Environmental Appraisal of the Mound Plant

9.67.6.1 Environmental Appraisal Checklist

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Waste Minimization/Pollution Prevention Activities	22

Environmental Appraisal Checklist

Building Name: AS

Appraisers: TEAM 4

Date: 2/20/96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	<input checked="" type="radio"/> Y <input type="radio"/> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Are chemicals being used in the building?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Is there a process which discharges to the storm or sanitary system?	Y <input checked="" type="radio"/> 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?	Y / N	
	Are they properly contained?	Y / N	
	Is the building in operation? What are the processes and where do they discharge to?	<input checked="" type="radio"/> Y <input type="radio"/> N	chemical There is no ¹ process which discharges to storm or sewer
	Do the floor drains, sinks & toilets appear to be draining properly?	<input checked="" type="radio"/> Y <input type="radio"/> N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	<input checked="" type="radio"/> Sanitary <input type="radio"/> Storm	
	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?	<input checked="" type="radio"/> Y <input type="radio"/> N _____ Y / N Y / N	pits contain the real sources when not in use - not expected to hold water
	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?	<input checked="" type="radio"/> Y <input type="radio"/> N Y <input checked="" type="radio"/> N Y <input checked="" type="radio"/> N	Chemicals not stored near drains

9.67-9

9.67-10

Environmental Appraisal Checklist

Building Name: _____

Appraisers: _____

Date: _____

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 <input checked="" type="radio"/> 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 <input checked="" type="radio"/> N	
	Is there evidence of fugitive dust emissions inside or outside of the building	Y <input checked="" type="radio"/> N	

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	Y / N	<i>BLANK</i>
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 fumehoods 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: 45

Appraisers: TEAM 4

Date: 2/20/96

CAA Checklist

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

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

Source: _____

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Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	(Y)N	
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	(Y)N	
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	(Y)N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y/N	N/A
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	N/A

Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

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	N/A
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	N/A
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	N/A
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	N/A
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	N/A
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y/N	N/A
	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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9.67-14

Environmental Appraisal Checklist

Building Name: _____

Appraisers: _____

Date: _____

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y/ <input checked="" type="radio"/> N	
	Does it have proper containment?	Y/N	N/A
	Is there a liquid bulk transfer area?	Y/ <input checked="" type="radio"/> N	
	Is there proper containment?	Y/N	N/A
	Is there an above ground storage tank? If so, complete Table B.	Y/ <input checked="" type="radio"/> 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
				Y/N	Y/N	Y/N	Y/N
		<i>BLANK</i>		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: 45

Appraisers: TEAM 4

Date: 2/20/96

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	<input checked="" type="radio"/> Y / <input type="radio"/> 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)?	<input checked="" type="radio"/> Y / <input type="radio"/> 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?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y / N	* Two water coolers (asis) w/ NO MODEL numbers

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
<i>BLANK</i>			

Source: _____

9.67-15

Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

RCRA Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
---	--	---------------------------------------

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	<p>Has any material generated been characterized RCRA hazardous?</p> <p>Was characterization by analysis or by process knowledge?</p> <p>Are lab results or documentation of process knowledge readily available?</p> <p>Note any uncharacterized material in comment section. Is it waste?</p> <p>If yes, proceed with next section.</p>	<p align="center"><input checked="" type="radio"/> Y <input type="radio"/> N</p> <p align="center">analysis / <input checked="" type="radio"/> process</p> <p align="center"><input checked="" type="radio"/> Y <input type="radio"/> N</p> <p align="center"><input checked="" type="radio"/> Y <input type="radio"/> N</p>	<p>* Alkaline bufferies are used if wastes go to waste den.</p>
OAC 3745 52-11	<p>Are any of the materials noted RCRA hazardous waste?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.</p>	Y / N	

+ minor amounts of solvent are used - (solvents allowed to evaporate)

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Environmental Appraisal Checklist

Building Name: AS

Appraisers: TEAM 4

Date: 2/20/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
<u>I. HAZARDOUS WASTE STORED IN CONTAINERS</u>			
	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	
	<i>BLANK</i>		
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y / N	
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	Y / N	
	Are containers kept closed and locked except during filling?	Y / N	
	Are containers moved within 3 days of being filled?	Y / N	

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Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

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	
	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? If no go to next section. If yes, note. For Building 23, Building 72 & Burn Area use special checklist.	



Environmental Appraisal Checklist

Building Name: 45

Appraisers: TEAM 4

Date: 2/20/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments	
II. HAZARDOUS WASTE STORED IN TANKS				
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y/N	BLANK	
	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:			Y/N
	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

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Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

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	<i>BLANK</i>
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y/N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y/N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y/N	
OAC 3745-56	Has any of the waste been managed in a Waste Pile? If yes, then note. Go to the next section.	Y/N	

General Comments:

9.67-20

Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

Asbestos Screening Checklist

Does this facility contain ACBM?	(Y) N	If yes, conduct the following survey.
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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? If no for this building or area note this conclusion in the comment section. Is there any evidence of friable asbestos? Is the asbestos removal properly managed? (See questions listed below)	(Y) N Y / (N) (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	N/A
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: .

Appraisers:

Date:

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

Does this facility potentially contain any PCB's or PCB contaminated equipment?	Y <input type="radio"/> N <input checked="" type="radio"/>	If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey.
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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? If yes, are auditable records maintained.	Y / N	
	Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater?	Y / N	
40 CFR.30 (a) (1) (ix)	Are they visually inspected quarterly? If yes, are auditable records maintained?	Y / N	

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Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

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	BLANK
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y / N	
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N	
40 CFR 761.62 (b) (1) (i)	Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items?	Y / N	
40 CFR 761.62 (b) (1) (iv)	Are storage area 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:

Appraisers:

Date:

TSCA Checklist

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Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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 <i>BLANK</i>	
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:

Environmental Appraisal Checklist

Building Name: 45

Appraisers: TEAM 4

Date: 2/20/96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	<input checked="" type="radio"/> Y / <input type="radio"/> N	If yes, conduct the following survey.
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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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	used rad monitors that have outlived usefulness, are treated as LLW
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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	LLW container outside Bld 45
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?	<input checked="" type="radio"/> Y / <input type="radio"/> N	unknown
	Is the waste stored in a configuration that protects ground-water resources?	<input checked="" type="radio"/> Y / <input type="radio"/> N	unknown
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	unknown
	Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y / N	unknown

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Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

Low-Level Waste and Transuranic Waste Checklist

9.67-26

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 count rate
	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	
	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?	_____	surface wipes
	How were the concentrations of radionuclides determined? Indirect methods?	_____	N/A
DOE Order 5820.2A Chapter III, 3.h	Is the storage configuration in long term storage sufficient to meet the performance standard?	Y/N	N/A Not long term storage
	Are records maintained at the facility enabling this waste to be traced from its origin?	(Y)N	

Environmental Appraisal Checklist

Building Name: 45

Appraisers: TEAM 4

Date: 2/20/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y/N	NOT TRU WASTE
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y/N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y/N	
	<p>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.</p>	Y/N	

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Environmental Appraisal Checklist

Building Name: _____

Appraisers: _____

Date: _____

Low-Level Waste and Transuranic Waste Checklist

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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	<i>BLANK</i>
	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: 45

Appraisers: TEAM 4

Date: 2/20/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y/N	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:

Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	(Y) N	If yes, conduct the following survey.
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Waste Minimization/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?	(X) N	small quantities
	Is vehicle maintenance performed?	Y (N)	
	Are oils used ?	(Y) N	Mineral Oil in X-ray unit *
	Are these corrosive wastes?	Y (N)	
	Are there sludges?	Y (N)	
	Are there halogenated organic (nonsolvent) wastes?	Y / N	
	Are metals recovered from wastewater?	Y (N)	N/A
	Is waste sludge generated?	Y / N	N/A
	Are any waste minimization practices used that reduce the generation of sludge?	Y / N	N/A
	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	

Environmental Appraisal Checklist

Building Name: 45

Appraisers: TEAM 4

Date: 2/20/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES			
	Are halogenated organic wastes used as fuel in cement kilns?	Y/N	N/A
	Are baghouse filters used to collect pesticides and pesticide intermediates?	Y/N	N/A
	Are solid wastes generated from the collection of baghouse dust?	Y/N	N/A
	Wet instead of dry grinding used?	Y/N	N/A
	The output spray dried?	Y/N	N/A
	Has baghouse emptying and recycling of baghouse fines been scheduled?	Y/N	N/A
	Have operations been evaluated to improve procedures such as handling, storage and spill prevention for increased efficiency?	Y/N	N/A
METAL WASTES			
	Are any technologies for the recovering of metals from waste rinsewater used?	Y (N)	N/A
	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	N/A

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Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

Waste Minimization/Pollution Prevention Activities Checklist

9.67-32

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y/N	N/A
	Is crystallization used to remove corrosives from solution by cooling?	Y/N	N/A
	Is the process of evaporation of liquid wastes by heating used to leave behind a more concentrated solution?	Y/N	N/A
CYANIDE AND REACTIVE WASTES			
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y/N	N/A
	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	N/A
	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	

Environmental Appraisal Checklist

Building Name: 45

Appraisers: TEAM 4

Date: 2/20/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y/N	N/A
	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	
<u>OILS</u>			
	What kind of oils are used?		Mineral Oil :- X-ray machine *
	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(<u>N</u>)	No
	Are these good housekeeping and operation practices used to minimize oil waste production?		yes
	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	

* not routinely changed out

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Environmental Appraisal Checklist

Building Name:

Appraisers:

Date:

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		N/A
	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	N/A
	Is a method used to minimize the use of new materials such as a countercurrent process?	Y/N	N/A

* small quantities of solvents are used. & will evaporate - no waste solvents are generated

Environmental Appraisal Checklist

Building Name: AS

Appraisers: TEAM 4

Date: 2/20/92

Waste Minimization/Pollution Prevention Activities Checklist

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

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Environmental Appraisal of the Mound Plant

9.67.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 45 Building Manager: R.A. Ward Phone: 3821 Date: 12-07-95
Alternate: K. KOEHLER Phone: 4886

COPY

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

Radworker II, Building Orientation, + Calibration
Laboratory Manager's Approval

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

None Safety glasses in posted rooms

3. Are there any restricted areas? Yes No

Where are they? ^{001, 121} Low Scatter Room, ¹⁰⁶ X-ray Room, Wall Room
+ other areas posted with Radiological signs

4. Provide a physical description of the building.

Building will contain 9,500 ft² after addition is completed. It is constructed of concrete blocks and reinforced concrete with a BUM roof (coal tar). HVAC systems are central steam and chilled water. DX units. Asbestos has been found in the building; but it is not contaminated with either radiological or energetic materials.

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Building is used for repair and calibration of radiation instrumentation and dosimetry.

Source: Mound Buildings, 5-9-95

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

Same use since construction.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: 45 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: Health Physics Interim Calibration Facility

How Wastes Are Generated:

design and used
~~This building is being prepared for calibration of dosimetry equipment. When it is fully operational, there will be two Cf-252 sources (57 micrograms and 380 micrograms) and three Cs-137 sources (45 mCi, 350 mCi, and 27 Ci). Sources will be returned to the supplier at the end of their useful lifetimes. No radioactive wastes will be generated.~~ *Health physics instrumentation*

20 and 30 Ci and 10 Ci Co-60 and 2 milligrams
Solvents may occasionally be used in small amounts for cleaning. They evaporate. No waste solvent is generated.

Mineral oil in the x-ray machine may be removed and disposed of if there is an equipment failure. Otherwise, the oil will not be changed. *by waste management*

Contact:

Phone #:

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

3

This building is designed and used for calibration of health physics instrumentation and dosimetry equipment. There are 3 Cf-252 sources (2 milligrams, 0.7 micrograms and 0.7 milligrams) and 4 Cs-137 (20 Ci, 30 Ci, 17 Ci & 30 mCi) as well as 1 Co-60 source at 10 Ci.

All sources are returned to the supplier at the end of their useful lifetimes.

Building Manager's Questionnaire

Building Name: 45 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
Major Addition to meet 10 CFR 835 needs

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: 45 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? *NO*

14. Does the building discharge to the storm sewer? Yes No
 Where? *Roof Drains To Lower Road*

15. Does the building discharge to the sanitary sewer? Yes No
 Where? *Rstrooms - To Line along Lower Road*

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

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

Building Manager's Questionnaire

Building Name: 45 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	
2 TON EPOXY	L	
2-PROPANAL	L	
3 IN 1 OIL	L	
BUTANE SOLDERING IRON	G	
CORRECTION FLUID	L	5 OZ
DESSICANT	S	1 LB
DEUTERIUM OXIDE	L	15 KG
DISINFECTANT DEODORANT	L	28 OZ
FLUX-OFF	L	28 OZ
FOGPRUF LENS CLEANER	L	5 OZ
FREEZ-IT	L	20 OZ
FREON TF SOLVENT	L	16 OZ
ISOPROPYL ALCOHOL	L	1 GA
LACQUER BLACK	L	6 OZ
RTV SEALANT	S	3 OZ
SILICONE LUB # 888	L	18 OZ
SOFT GUARD	L	3 OZ
SOLDER	S	35 OZ
SUPER GLUE 5	L	0.2 OZ
SUPER WASH	L	50 OZ
WAS INSECT SPRAY	L	17 OZ
WD-40	L	20 OZ
WINDA SHINE	L	20 OZ
ZNAG	S	30 OZ
ABOVE FLOOR FINISH	L	8 GA
CONQUEST CLEANER	L	1 GA
DMQ DAMP MOP	L	4 GA
NABC BATHROOM CLEANER	L	3 QT
SPRAY PAINTT, BLACK	L	590 ML
SPRAY'N GLUE	L	326 G
DIFF PUMP OIL	O	500 ML
ETHYL ALCOHOL	L	1 PT
MINERAL OIL	L	40 GA

*ATTACH
New List
on #19*

Source: Chemical Inventory 1994

** see attached 1995 Inventory*

Building Manager's Questionnaire

Building Name: 45 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? *Evaporate during use*
waste management picks-up unused chemicals

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

Included in #19

23. Where do excess janitorial supplies go?

~~Industrial Hygiene~~ *Waste Management*

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: ~~Included in #19~~ _____

Building Manager's Questionnaire

Building Name: 45 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 *Dry - NOT expected to have liquids*
 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?

contains IR Radiation System

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
ETHYLENE GLYCOL, MASTIC, WATER	270.4
WASTE	
FUEL OIL SPILL CLEANUP, SOIL	490.4
FUEL OIL SPILL CLEANUP, SOIL	728.3
SODIUM HYPOCHLORITE	9.7

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

*Excess chemicals are picked up by waste management.
 Used batteries are disposed of by waste management.*

Building Manager's Questionnaire

Building Name: 45 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: 45 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: _____

Radio active standards used for Instrument calibration will eventually become waste.

Building Manager's Questionnaire

Building Name: 45 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
Contaminated In Calibration	Contaminated instruments	Y / <u>(N)</u>	<u>(Y)</u> / N LSA box	<u>(Y)</u> / N Rn 012
		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: S. Hendley

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

Instruments with contamination are occasionally ^{/BLO6#}
 returned to the Lab. Disposal is via ~~the~~ box at 45.
 LSA

Building Manager's Questionnaire

Building Name: 45 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

36. Is there a waste minimization program in the building?
Discuss your ideas about how to minimize waste.

Yes

No

37. Has a pollution prevention program been developed for the building? Yes

No

HEALTH PHYSICS CALIBRATION FACILITY
1995 CHEMICAL INVENTORY

CHEMICAL	MANUFACTURER	MAX. DAY AMOUNT	TYPICAL AMOUNT	# OF DAYS Held	BLDG. & ROOM	CHEM FORM	CHEM STATE	STORAGE CODE	PRESSURE CONDITION	TEMP. COND.	MSDS
2 TON EPOXY	Devon Corp	2 G	2 G	200	45-105 & 117	M	L	R	1	4	Y
3 IN ONE OIL	Boyle-Midway	10 oz	5 oz	200	45-105 & 117	P	L	F	1	4	Y
Aero Duster	Miller-Stephenson	400 g	350 g	100	45-105 & 117	M	L	F	2	4	Y
Butane soldering iron	Master Appliance	28 ml	< 28ml	5	45-105 & 117	P	G	R	2	4	N
Correction Fluid	Liquid Paper corp	5 oz	5 oz	365	45-105 & 117	M	L	M	1	4	N
De-Ox-Id cnt cleaner	G. C. Electronics	10 oz	5 oz	200	45-105 & 117	M	L	F	2	4	N
Dessicant	Dvison Chem. Div.	5 lb	4 lb	365	45-105 & 117	M	S	F	1	4	Y
Deuterium Oxide	Cambrdige Isotope Labs	15 kg	15 kg	365	45-108	P	L	M	1	4	Y
Diff pump oil	unknown - old	500 ml	500 ml	365	45-108	P	L	M	1	4	Y
Ethyl Alcohol	Commercial Solvents Corp.	1 pt	1 pt	365	45-108	P	L	M	1	4	Y
Flux-Off	Chemtronics	25 oz	20 oz	200	45-105 & 117	M	L	F	2	4	Y
High Vacuum Grease	Dow Corning	50 oz	40 oz	200	45-105 & 117	M	S	R	1	4	Y
Isopropyl Alcohol	Mound stock room	1 ga	.5 ga	300	45-105 & 117	P	L	F	1	4	N
LPS-2 lub	Holt LLOYD Corp.	11 oz	5 oz	50	45-105 & 117	M	L	F	2	4	Y
Lacquer black	Eberline	48 oz	40 oz	200	45-105 & 117	M	L	M	1	4	Y
Lqd Solder Flux 11	Oatey Co.	4 oz	3 oz	25	45-105 & 117	M	L	F	2	4	Y
Mineral Oil	Shell Oil co.	40 ga	40 ga	200	45-108	P	L	D	1	4	Y
RTV sealant	Dow Corning	27 oz	20 oz	200	45-105 & 117	M	S	R	1	4	Y
SPRAY ADHESIV	3M corp	25 oz	20 oz	200	45-105 & 117	M	L	F	2	4	Y
Scotch Spray-Mount	3M	25 oz	20 oz	200	45-105 & 117	M	L	F	2	4	Y
Silicone lub #888	Camie-Campbell	150 oz	150	200	45-105 & 117	M	L	F	2	4	Y
Solder ["44"]	Kester	145 oz	100 oz	365	45-105 & 117	M	S	R	1	4	Y
Solvent & Flux Remover	Miller-Stephenson	455 g	400 g	200	45-105 & 117	M	S	N	1	4	Y
Statnul anti static	Weston Instrument Inc.	32 oz	15 oz	200	45-105 & 117	M	L	N	1	4	N
Super Glue-5	Duro	1.5 oz	1 oz	200	45-105 & 117	M	L	R	1	4	N
Super Wash	MCM Electronics	50 oz	25 oz	50	45-105 & 117	M	L	F	2	4	Y
WD-40	WD-40 Co.	100 oz	50 oz	180	45-105 & 117	M	L	F	2	4	Y
ZNAG	G.E.	130 oz	100 oz	200	45-105 & 117	M	S	J	1	4	Y
JANATORIAL:											
Above Floor Finish	Butchers	8 ga	6 ga	?	45-002 & 111	M	L	N	1	4	N
Conquest Cleaner	Chardon	1 ga	<1 ga	?	45-002 & 111	M	L	N	1	4	N
DMQ Damp Mop	Spartan Chem. Co.	4 ga	2 ga	?	45-002 & 111	M	L	N	1	4	N
NABC Bath Rm Cleaner	Spartan Chem. Co.	3 qt	2 qt	?	45-002 & 111	M	L	N	1	4	N

SUPERVISOR

4998
H.P.#

NA out side security island

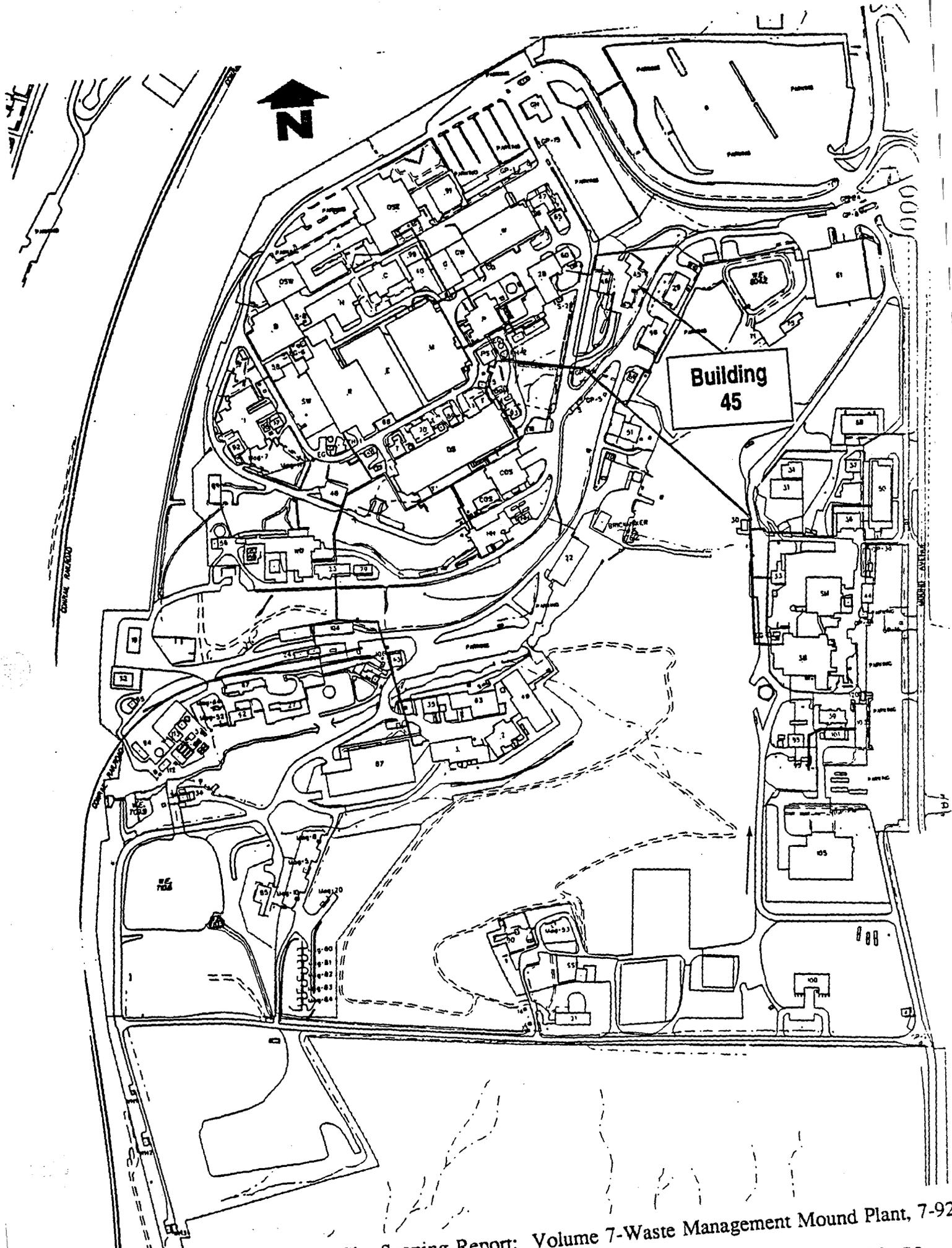
AUTHORIZED DERIVATIVE CLASSIFIER

The Authorized Derivative Classifier certifies that the information contained on this form is UNCLASSIFIED

DATE

Environmental Appraisal of the Mound Plant

9.67.6.3 Location of Building 45



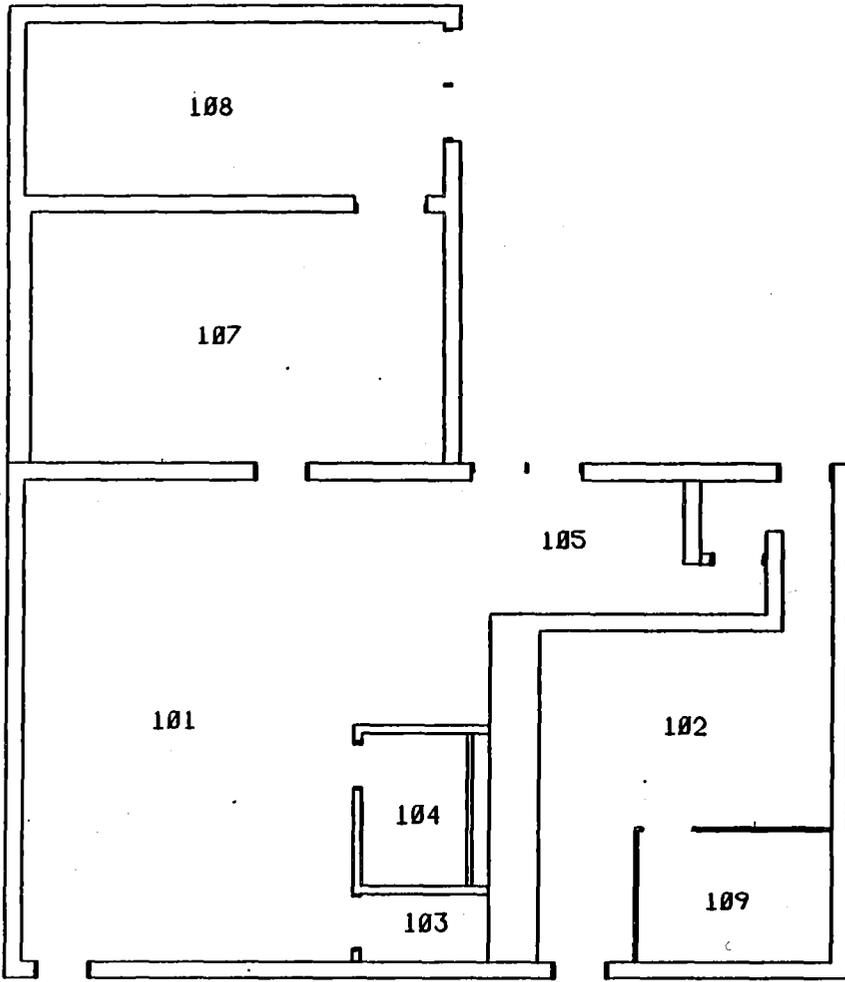
SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92

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Environmental Appraisal of the Mound Plant

9.67.6.4 Floor Plans for Building 45

ISS	DATE	REVISION	BY	CHKD	DES	LP/ED	APVD	R
0	12/12/91	ASBUILT ISSUE					DVD	



**BLDG #45
FIRST FLOOR
BLDG CODE:3045**

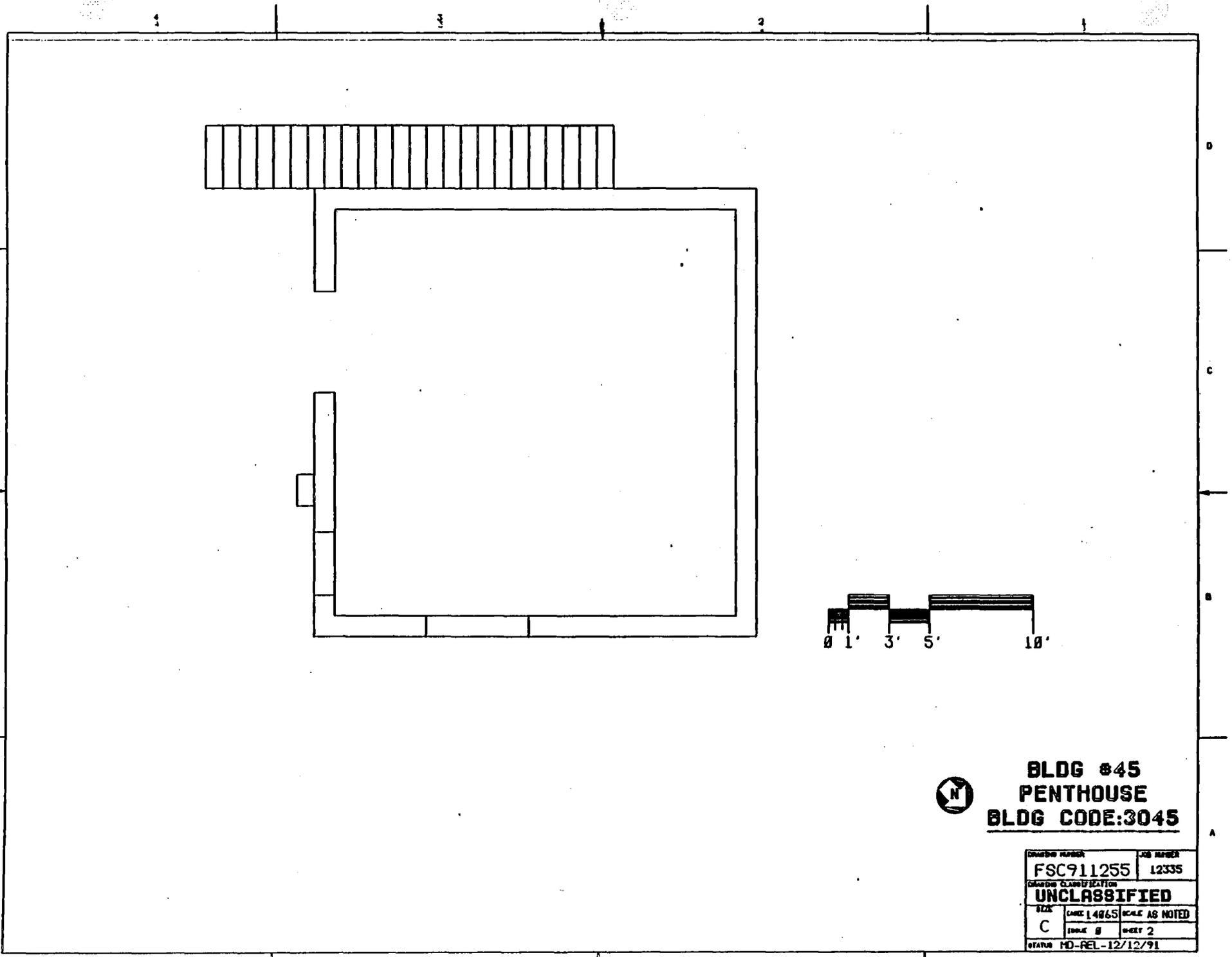
9.67-57

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED:	
TECH. RESP.	
DR. MR.	
TRACOC	
TEBAC	
EDBAC	

DESIGN DR	PROJ DR	ISSUE	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION	
		0	0						BLDG #45		
SPCS	DRS BOP	PART CLASSIFICATION								FLOOR PLANS	
LP & EC	PERM REV	DRAWING CLASSIFICATION								BLDG #45	
		UNCLASSIFIED								FSC911255	12335
CONTR	DATE	DRG TYPE	SFP	PROJ BLDG	#45	CHK	14865	SCALE	AS NOTED	SHEET 1 OF 2	
APVD		STATUS	MD-REL-12/12/91	ORIGIN	MD-BR3-V3.#						

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9.67-59



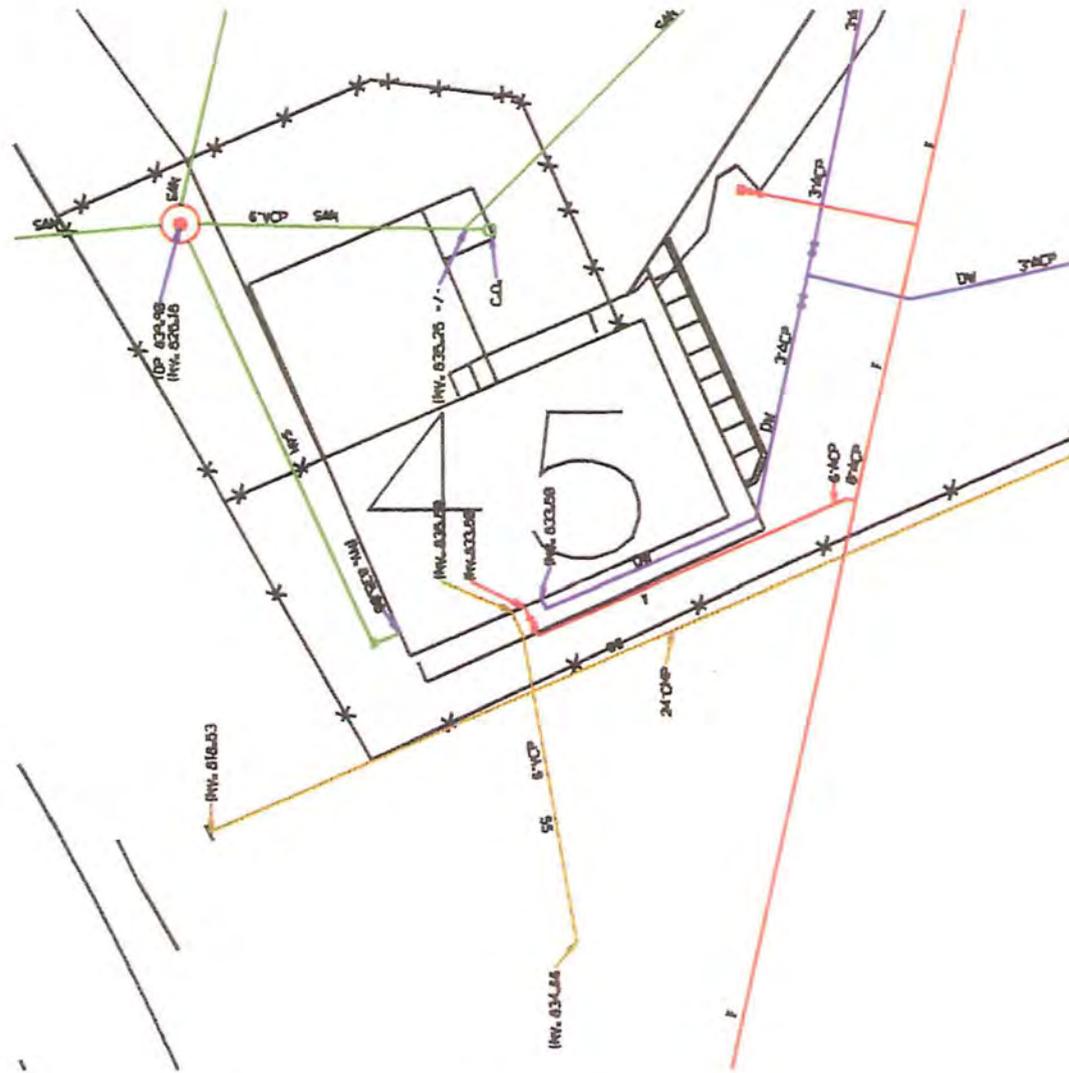

BLDG #45
PENTHOUSE
BLDG CODE:3045

DRAWING NUMBER		JOB NUMBER	
FSC911255		12335	
CLASSIFICATION			
UNCLASSIFIED			
SIZE	CAD: 14865	SCALE AS NOTED	
C	ISSUE #	SHEET 2	
STATUS: NO-REL-12/12/91			

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Environmental Appraisal of the Mound Plant

9.67.6.5 Underground Utility Lines



- FIRE
- POTABLE
- RAW
- SANITARY
- STORM
- RADIOLOGICAL



UNCLASSIFIED

E.G. & G. - MOUND
 UNDERGROUND WATER & WASTE LINES
 BLDG. 45
 DATE: 2/29/96

Environmental Appraisal of the Mound Plant

9.67.6.6 Photographs



Mound Plant Building 45

9.67-67

9.68 Building 46

Environmental Appraisal of the Mound Plant

9.68 BUILDING 46

9.68.1 Scope of Building 46 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 46 on February 28, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.68.6.1). The appraisers were accompanied by the building manager and the technical personnel responsible for the operations in the building. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.68.6.2).

9.68.2 Description of Building 46

Building 46 is a one-story, concrete block slab-on-grade structure with a penthouse. The roof is metal and built-up membrane of asphalt. Building 46, whose location is shown in Attachment 3 (Section 9.68.6.3), was constructed in 1969. A parking lot is north of Building 46 and a roadway borders it on the west. Adjacent buildings are Building 45 to the east and Building 28 to the west. The penthouse on the roof houses utility services. The building is serviced by central steam for heat, chilled water, and electrical service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

The building has been used for the same purpose since its construction. The total area of the structure is 2,439 square feet. The building contains specialized welding facilities that are used for welding development efforts in support of the heat source program. Welding development for energetic materials was also performed. Machine shop operations are also conducted in the building. Floor plans are shown in Attachment 4 (Section 9.68.6.4). No research, development, or production activities using radioactive materials have occurred in the building (*Mound Buildings*, 5-9-95).

9.68.3 Summary of Findings

Building 46 is well-maintained, with minor issues of environmental concern identified during the walk-through or during review of reference materials. Items that require some attention are a label on an oil transformer for the electron beam welder showing it to be free of polychlorinated biphenyls (PCB's) and preventive measures to preclude machinery from leaking oil to the floor drain. Oil stains leading to a drain shows evidence of a leak from four years ago. It is unknown whether the drain discharges to the storm or sanitary system. Two positive notes are the storage

Environmental Appraisal of the Mound Plant

and labeling of gas cylinders and the Satellite Accumulation Area (SAA) setup for vacuum pump oil.

9.68.4 Observations

9.68.4.1 Air Emissions

A permit-to-operate (PTO) application was submitted to the Regional Air Pollution Control Agency (RAPCA) on February 11, 1993, however, no PTO has been received. The two operations used under the application are for a fumehood used for cleaning and etching of welded parts and a cutoff wheel. A potential emission source is a polisher used for the preparation of metallurgical samples. All three operations are serviced by one exhaust system. No particulate controls were observed on the exhaust system. Vacuum pumps associated with glovebox operations are vented directly outside on the west wall. The vacuum pumps and the polisher are not listed in Mound's air emission inventory database. There are no fuel-burning units in the building. There is no visual evidence of fugitive dust.

9.68.2 Water 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.

9.68.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.68.6.5), the building is serviced by a sanitary line. Discharges to the sanitary system are by sinks, toilets, and floor drains. 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. There is no monitoring of building effluent. Based on current operations identified by the process owner, effluent from Building 46 should not deviate from that expected by the sanitary treatment plant manager. Only one of the two floor drains in laboratory is open. The fumehood, used to clean and etch welded parts, has a sink that can be a potential release point for chemicals to the sanitary system. Chemicals would not be expected to enter the sanitary system as the quantities are small and limited to the fumehood.

Environmental Appraisal of the Mound Plant

9.68.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to Attachment 5 (Section 9.68.6.5). Discharges to the storm sewer are roof drains and single-pass cooling water from the electron beam welder. A floor drain in the penthouse shows visual evidence of an oil leak or spill. The team was unable to determine the discharge point for these drains based on in-field observations. Exterior grates and drains were not tested to confirm that they connect to the storm drainage system.

9.68.4.2.3 Chemicals

A list of chemicals stored and used in Building 46 is included in Attachment 2 (Section 9.68.6.2), the BMQ. This list was evaluated against Table V of Appendix D in 40 CFR 122 and none are considered Clean Water Act (CWA) pollutants. Chemical storage and handling procedures are in place for proper disposal of chemicals. There is no evidence that chemicals have entered the storm or sanitary drains. The only spill observed was an oil leak from a pump to a floor drain in the penthouse. Building personnel noted that the oil leak occurred four years ago. Whether the floor drain discharges to the sanitary or storm is undetermined.

9.68.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross connection. Service water lines are identified and marked. The water fountain that supplies drinking water is not an Environmental Protection Agency (EPA) listed fountain suspected of lead contamination.

9.68.4.4 Chemical Storage and Hazardous Materials

Chemicals used in the welding development and associated processes are stored in Building 46. There was no visual evidence of chemical storage incompatibility. Material Safety Data Sheets (MSDS's) are available in the building and were reviewed for completeness. There is no flammable storage cabinet in the building. It is not required for small quantities of material.

The building is equipped with appropriate emergency response equipment such as a eyewash, safety shower, and fire extinguisher. Inspection tags were present and current. There is an Emergency Evacuation Plan, and signs were posted in work areas.

Compressed gas cylinders are properly stored inside and outside of the building. Labels were intact and legible except for one cylinder outside. Wiring for the tag was on the cylinder but the wind had blown the tag off. Personnel promptly replaced the tag when notified.

Although listed in the BMQ, there has never been any aboveground storage tanks in or around the building. This was visually verified during the inspection. There are no sumps, separators, or catch basins, in or around the building. There are no underground storage tanks associated with this building.

Environmental Appraisal of the Mound Plant

The building was tested and does contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There is no visual evidence of friable asbestos. Signs were posted indicating the presence of asbestos.

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

9.68.4.5 Solid, Hazardous and Radioactive Wastes

Solid wastes are generated in Building 46 and removed by janitorial personnel to a local collection point, then shipped offsite to a local landfill by a service contractor. The disposal contract is maintained by Waste Management. There is no evidence that hazardous materials or wastes are mixed with solid waste streams.

Small quantities of hazardous wastes are generated by welding development processes. Minute quantities of solvent are used in the cleaning process, thus they evaporate before disposal. A slurry of oxalic acid is used to etch metal parts. When the slurry is spent, it is placed in containers and characterized for Regional Conservation and Control Act (RCRA) metal contaminants. Mound policy is for generators to characterize their waste before it is collected and transported by representatives of Waste Management. Vacuum pump oil is collected and containerized and stored in a SAA. The pump oil is accumulated in a drum that is locked, labeled, and stored in a sheltered area outside of the building. The SAA procedures and appearance conform to RCRA requirements. Wastes are collected and transported by representatives of the Waste Management Group, and are stored in Building 72 for ultimate disposal. There is no onsite treatment of waste. Waste disposal manifests and Certificates of Disposal are maintained by Waste Management. They conform to RCRA requirements.

9.68.4.6 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. Paper and scrap metal are collected and recycled. Oxalic acid slurry is reused until the solution is spent.

9.68.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.68.6.6). The environmental appraisal of Building 46 indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

- 46-1 Preventive measures should be evaluated to prevent machinery from leaking oil to the floor drain.
- 46-2 Determine whether the floor drain in the penthouse discharges to the storm or sanitary system.

Environmental Appraisal of the Mound Plant

- 46-3 There is a sink in the fumehood where chemicals are used to clean and etch welded parts, creating a potential release to the sanitary system. It is recommended that the use of the sink be investigated to determine whether it is necessary.
- 46-4 A PCB-free label should be attached to the oil transformer for the electron beam welder.
- 46-5 Update air emission database and air permit application for Building 46. RAPCA should be notified of this change in status (OAC 3745-31).

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Environmental Appraisal of the Mound Plant

9.68.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 46

Appraisers:

Ronald Faulick
Name Discipline

Billie G. Allison
Name Discipline

Phillip Park
Name Discipline

Name Discipline

Building Manager: [Signature]

Process Manager: _____

Date: 2-28-96

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick/Adkins/Parker

Date: 2-28-96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	<input checked="" type="radio"/> Y <input type="radio"/> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Are chemicals being used in the building?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Is there a process which discharges to the storm or sanitary system?	<input checked="" type="radio"/> Y <input type="radio"/> 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 <input checked="" type="radio"/> N Y <input type="radio"/> N	N/A
	Is the building in operation? What are the processes and where do they discharge to?	<input checked="" type="radio"/> Y <input type="radio"/> N _____ _____	Bathroom to sanitary
	Do the floor drains, sinks & toilets appear to be draining properly?	<input checked="" type="radio"/> Y <input type="radio"/> N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	<input checked="" type="radio"/> Sanitary <input type="radio"/> Storm	
	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 <input checked="" type="radio"/> N _____ _____ Y <input type="radio"/> N Y <input type="radio"/> N	Not applicable
	Are there any manholes, catch basins, <u>(drains)</u> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> Y <input type="radio"/> N	Floor drain in penthouse has oil stain around it. Unsure whether san./storm. 2 floor drains in lab 1 open, 1 closed.

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Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick/Adkins/Larber

Date: 2-28-96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	Y/N	46-DCI
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	pump exhaust directly outside
	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	Polisher & vac pumps
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: 46

Appraisers: Paulick/Adams/Parker Date: 2-28-96

CAA Checklist

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

TABLE A									
Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
Machining Process	46-001	46-1-2	(Y)/N	(Y)/N	particulates				
Welding Develop.	46-001	46-1-1	(Y)/N	(Y)/N	Ethanol Trichloro-ethane	0.016 0.027		0.192 0.324	
Welding Develop. polisher	46-001		Y/(N)	(Y)/N	Aluminum oxide				
Vacuum pumps	46-001		Y/(N)	(Y)/N					
			Y/N	Y/N					

Source: _____

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Pawlick/Adkins/Parker Date: 2-28-96

Hazardous Materials (HM) Screening Checklist

Question	Response	Comments
Are any chemicals used or stored in this building, now or in the past?	<input checked="" type="radio"/> Y <input type="radio"/> 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.	<input checked="" type="radio"/> Y <input type="radio"/> N	
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	<input checked="" type="radio"/> Y <input type="radio"/> 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.	<input checked="" type="radio"/> Y <input type="radio"/> N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y <input checked="" type="radio"/> N	No flammable cabinet, quantities less than 25 gal
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y <input checked="" type="radio"/> 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 <input type="radio"/> N N/A	Not applicable

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick/Adkins/Parker Date: 2-28-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	Y/N	
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	Y/N	
CGA P-1 3.3 & 3.3.10	All gas cylinders (full or empty) shall carry a legible label or marking identifying the contents.	Y/N	
CGA P-1 3.5.3	Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers.	Y/N	
CGA P-1 3.5.8	All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured.	Y/N	
CGA P-1 4.2.2	Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high.	Y/N	No oxygen cylinders in storage Oxygen used with acetylene for welding
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	No oxygen cylinders as liquids
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y/N	Not applicable
	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: *46*

Appraisers: *Paulick / Parker / Adams*

Date: *2-28-96*

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y/ N	
	Does it have proper containment?	Y/N	<i>P/A</i>
	Is there a liquid bulk transfer area?	Y/ N	
	Is there proper containment?	Y/N	<i>Not applicable</i>
	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
				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: 46

Appraisers: Paulick, Adkins, Parker

Date: 2-28-96

Safe Drinking Water Act (SDWA) Screening Checklist

Does this facility have potable water?	<input checked="" type="radio"/> Y <input type="radio"/> 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)?	<input checked="" type="radio"/> Y <input type="radio"/> 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?	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>BFP on janitorial sink. Sink fed by potable water</i>
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Fume hood & lab area marked</i>
	Does the facility contain any water coolers or fountains? that are not lead free? Complete Table C.	<input checked="" type="radio"/> Y <input type="radio"/> N	

TABLE C—Water Fountain Survey.

Building	Location	Model #	Comments / Date of Analysis for Lead
<i>46</i>	<i>46-5</i>	<i>SC8A</i>	<i>OK. Halsey Taylor</i>

Source: _____

9.68-17.

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick/Adams/Parker

Date: 2-28-96

RCRA Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
---	--	---------------------------------------

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	<p>Has any material generated been characterized RCRA hazardous? Was characterization 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?</p> <p>If yes, proceed with next section.</p>	<p><input checked="" type="radio"/> Y <input type="radio"/> N analysis / process <input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> Y <input type="radio"/> N</p>	<p>pump oil, cleaning process (alcohol etching, Oxalic acid) Oxalic acid neutralization available, unsure of pump oil</p>
OAC 3745 52-11	<p>Are any of the materials noted RCRA hazardous waste?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.</p>	<p><input checked="" type="radio"/> Y <input type="radio"/> N</p>	

Environmental Appraisal Checklist

Building Name: 46

Appraisers: *Paulick/Adkins/Parker* Date: *2-28-96*

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area? Is it treated as such?	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> Y <input type="radio"/> N	<i>collection of pump oil</i>
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.	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y <input checked="" type="radio"/> N	
	Are the containers in good condition?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are the waste compatible with the containers?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are containers kept closed and locked except during filling?	<input checked="" type="radio"/> Y <input type="radio"/> N	
	Are containers moved within 3 days of being filled?	<input checked="" type="radio"/> Y <input type="radio"/> N	

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick/Adkins/Parker Date: 2-28-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	If a Satellite accumulation area has been abandoned and/or if waste left in place, and the containers may be subject to the 90-day-storage exclusion.		Not Applicable
	If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:		
	Are the containers in good condition?	Y/N	
	Are the waste compatible with the containers?	Y/N	
	Are the containers kept closed except during filling?	Y/N	
	Are the containers managed in such a way, that they are not ruptured, or leaks caused?	Y/N	
	Is the area inspected at least once weekly?	Y/N	
	Is the inspection recorded?	Y/N	
	Where is the log? Is it properly completed, dated, and signed?	Y/N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the facility boundary?	Y/N	
OAC 3745-52-34(B)	Are incompatible wastes managed in such a way that they will not react with another incompatible waste?	Y/N	May take more than 90 days to fill drum
	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.		

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick / Adkins / Parker Date: 2-28-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y/N	Not Applicable
	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	

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Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick / Adkins / Parker Date: 2-28-96

RCRA Checklist

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

General Comments:

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Pawlick/Adkins/Parker Date: 2-28-96

Asbestos Screening Checklist

Does this facility contain ACBM?	Y/N	If yes, conduct the following survey.
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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? If no for this building or area note this conclusion in the comment section.	Y/N	
	Is there any evidence of friable asbestos?	Y/N	
	Is the asbestos removal properly managed? (See questions listed below)	Y/N	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	/
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: 46

Appraisers: *Roudick/Adkins/Parker* Date: 2-28-96

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

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

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	<p>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 ?</p> <p>If the answer is no, note .</p> <p>If the answer is yes, proceed with next section.</p> <p>Based on an inspection, are any of the materials or equipment potentially PCB contaminated?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed.</p>	Y (N)	Dil transformer for E.B. Welder is non PCB But does not have a label.
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	

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick / Adkins / Parker Date: 2-28-96

TSCA Checklist

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

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Pawlick/Adkins/Parker Date: 2-28-96

TSCA Checklist

Intentionally left blank

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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	/
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:

Environmental Appraisal Checklist

Building Name: 46

Appraisers: *Paulick / Atkins / Parker* Date: 2-28-96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	Y <input checked="" type="radio"/> N	If yes, conduct the following survey.
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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	/
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: 46

Appraisers: *Bulick/Adkins/Parker* Date: *2-28-96*

Low-Level Waste and Transuranic Waste Checklist

Intentionally left blank

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	<i>/</i>
	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	
	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	

Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick/Parker/Adkins Date: 2-28-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / (N)	/
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	

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Environmental Appraisal Checklist

Building Name: 46

Appraisers: *Paulick/Adkins/Parker* Date: *2-28-96*Low-Level Waste and Transuranic Waste Checklist*Intentionally left blank*

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

Environmental Assessment Checklist

Building Name: 46

Appraisers: *Paulick/Adkins/Parker* Date: *2-28-96*

Low-Level Waste and Transuranic Waste Checklist

Intentionally left blank

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

GENERAL COMMENTS:

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Environmental Appraisal Checklist

Building Name: 46

Appraisers: *Kaulick/Adkins/Parker* Date: *2-28-96*

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
---	--	---------------------------------------

Waste Minimization/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	<i>collecting scrap metal for recycle</i>
	Are there solvent wastes?	Y <input checked="" type="radio"/> N	<i>solvents evaporate during cleaning</i>
	Is vehicle maintenance performed?	Y <input checked="" type="radio"/> N	
	Are oils used ?	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>pump oil collected.</i>
	Are these corrosive wastes?	Y <input checked="" type="radio"/> N	
	Are there sludges?	Y <input checked="" type="radio"/> N	
	Are there halogenated organic (nonsolvent) wastes?	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>1,1,1 trichloroethane</i>
	Are metals recovered from wastewater?	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>metals recovered for recycle</i> RP
	Is waste sludge generated?	Y <input checked="" type="radio"/> N	
	Are any waste minimization practices used that reduce the generation of sludge?	Y/N	<i>Not applicable</i>
	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	

Environmental Appraisal Checklist

Building Name: *46*

Appraisers: *Paulick/Adkins/Parber* Date: *2-28-96*

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES			
	Are halogenated organic wastes used as fuel in cement kilns?	Y/ <input checked="" type="radio"/> N	
	Are baghouse filters used to collect pesticides and pesticide intermediates?	Y/N	<i>Not applicable</i>
	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?	<input checked="" type="radio"/> Y/N	
METAL WASTES			
	Are any technologies for the recovering of metals from waste rinsewater used?	Y/N	<i>Not applicable</i>
	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?	<input checked="" type="radio"/> Y/N	<i>Oxalic acid is neutralized before disposing into drain</i>

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Environmental Appraisal Checklist

Building Name: 46

Appraisers: Paulick/Adkins/Barber Date: 2-28-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y (N)	Not applicable
	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	Not applicable
	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	Not applicable
	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	

Environmental Appraisal Checklist

Building Name: 46

Appraisers: *Reubek / Atkins / Parker* Date: 2-28-96

Waste Minimization/Pollution Prevention Activities Checklist

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

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Environmental Appraisal Checklist

Building Name: *46*Appraisers: *Paulick/Adkins/Parker* Date: *2-28-96*

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		<i>NOT APPLICABLE</i>
	Reclaiming process to remove water and solvents by heat?	Y/N	↓
	Gravity setting?	Y/N	
	Screening?	Y/N	
	Centrifugation?	Y/N	
	Filtration?	Y/N	
<u>SOLVENT WASTES</u>			
	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	<i>Not collected/they evaporate</i>
	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	

Environmental Appraisal Checklist

Building Name: *46*

Appraisers: *Raulick/Adkins/Parker* Date: *2-28-96*

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Distillation?	Y / N	<i>Not applicable</i>
	Solids removal?	<input checked="" type="radio"/> Y / <input type="radio"/> N	
	Dispersion breaking?	Y / N	<i>Not applicable</i>
	Dissolved and emulsified organics recovery?	Y / N	↓
	Are any of these housekeeping procedures used to minimize the production of solvent wastes?		<i>Not applicable</i>
	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?	_____	↓

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Environmental Appraisal of the Mound Plant

9.68.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

... Mound Facility
02/28/96

Building Name: 46 Building Manager: P.C. Molloy Phone: 3867 Date: 12-07-95
Alternate: T.J. GERBER Phone: 5388

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

None

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

Safety glasses in some areas,

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

4. Provide a physical description of the building.

This one-story (with penthouse) concrete block building has a BUM roof (asphalt), and HVAC systems of central steam and chilled water. Total area is 2,439 ft². The building contains asbestos, but it is not contaminated with radiological or energetic materials.

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

The building is used for welding development efforts in support of the heat source program. Some welding development for energetic materials is also performed. The building contains specialized welding facilities.

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

Building Manager's Questionnaire

Building Name: 46 Building Manager: P.C. Molloy 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: Welding process development

How Wastes Are Generated:

No hazardous wastes are generated in this building.

Note: Ethyl alcohol is used for wiping parts clean. The alcohol evaporates. In addition, oxalic acid is used in very small (*ml*) quantities for etching small parts. When the process is finished, the acid is diluted and flushed down the drain to the sewer.

Contact: neutralized,
Phone #:

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

Vacuum pump oil is collected by W.M.

Building Manager's Questionnaire

Building Name: 46 Building Manager: P.C. Molloy 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? Yes

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
Weld Develop.	001	4600 10001	<input checked="" type="checkbox"/>	Ethanol 1,1,1,-TCA <i>Trichloroethylene</i>	.016 .027		.192 .324	
Machining Tools	001	4600 1002	<input checked="" type="checkbox"/> Y / N	particulates from cutting operations				
Polisher	001		<input checked="" type="checkbox"/> Y / N					
Vac. Pumps	001		<input checked="" type="checkbox"/> Y / N	Vapors				
			Y / N					

Source: Mound Air Emissions Database 11/30/95

Building Manager's Questionnaire

Building Name: 46 Building Manager: P.C. Molloy 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?

*Excess materials transfer to waste
Mgmt.*

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

*General normal janitorial cleaning supplies
inside.*

23. Where do excess janitorial supplies go?

*Excess materials transferred to waste
management.*

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: 46 Building Manager: P.C. Molloy 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.

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
7697-37-2	Nitric Acid	01C		Y / N	
7440-37-1	Argon	01C		Y / N	
7664-93-9	Sulfuric Acid	01C		Y / N	
				Y / N	

There has never been any storage tanks in the history of the building

Source: Emergency and Hazardous Chemical Inventory Form - Chemical Storage Tanks on EGG Mound Site Owned and Maintained by Outside Contractors 8/8/94

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
<i>Very small amounts of oxalic acids</i>	<i>ml / month</i>
<i>Waste oil (vacuum pump types)</i>	

Source: _____

Never had any tanks

Building Manager's Questionnaire

Building Name: 46 Building Manager: P.C. Molloy 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 *waste drum collection of pump oil*
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 *Collection of pump oil in waste drum oil*
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: 46 Building Manager: P.C. Molloy 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: 46 Building Manager: P.C. Molloy 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.

None

Building Manager's Questionnaire

Building Name: 46 Building Manager: P.C. Molloy Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

36. Is there a waste minimization program in the building?
Discuss your ideas about how to minimize waste.

Yes

No

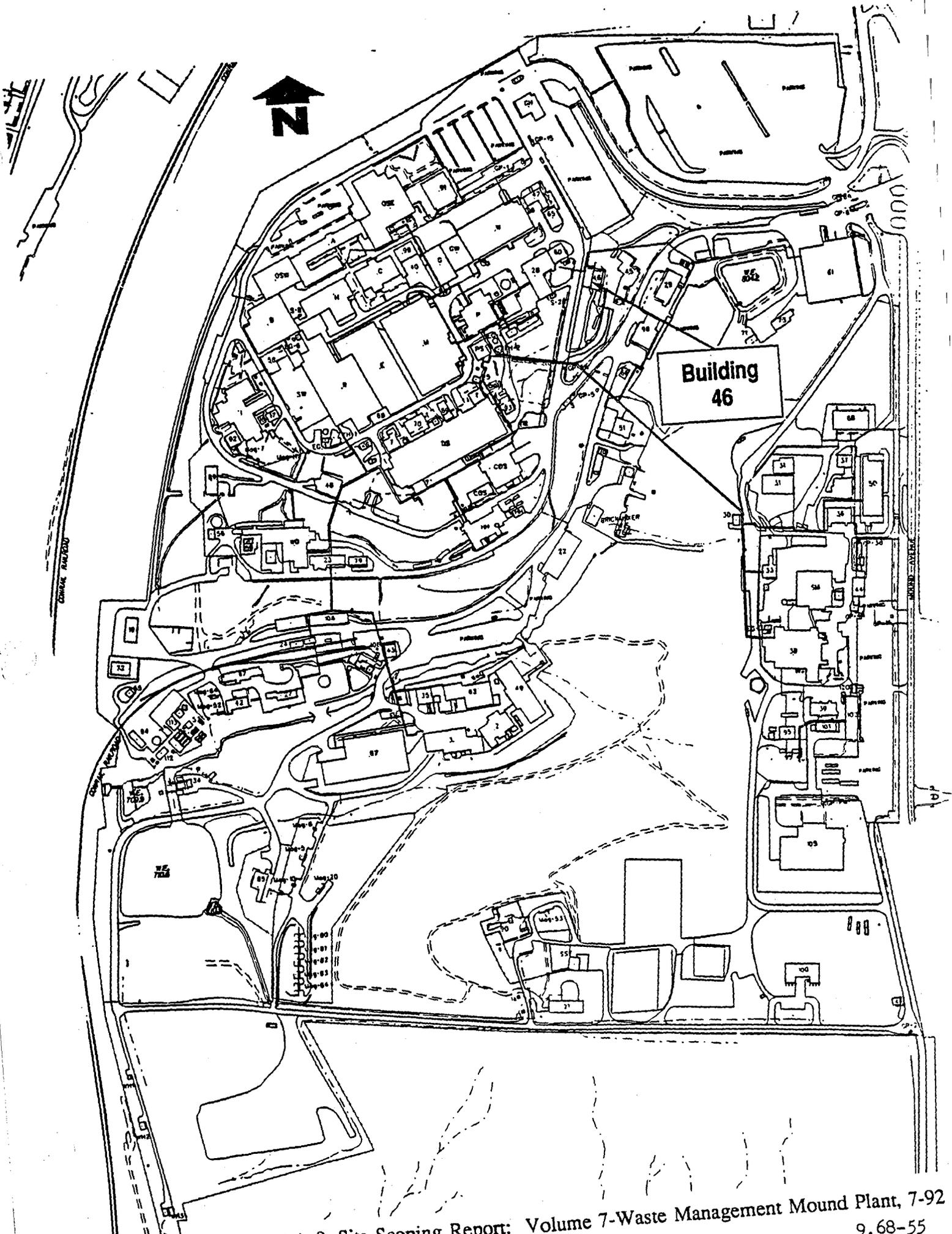
Collect scrap metal for recycle

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

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Environmental Appraisal of the Mound Plant

9.68.6.3 Location of Building 46



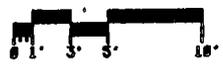
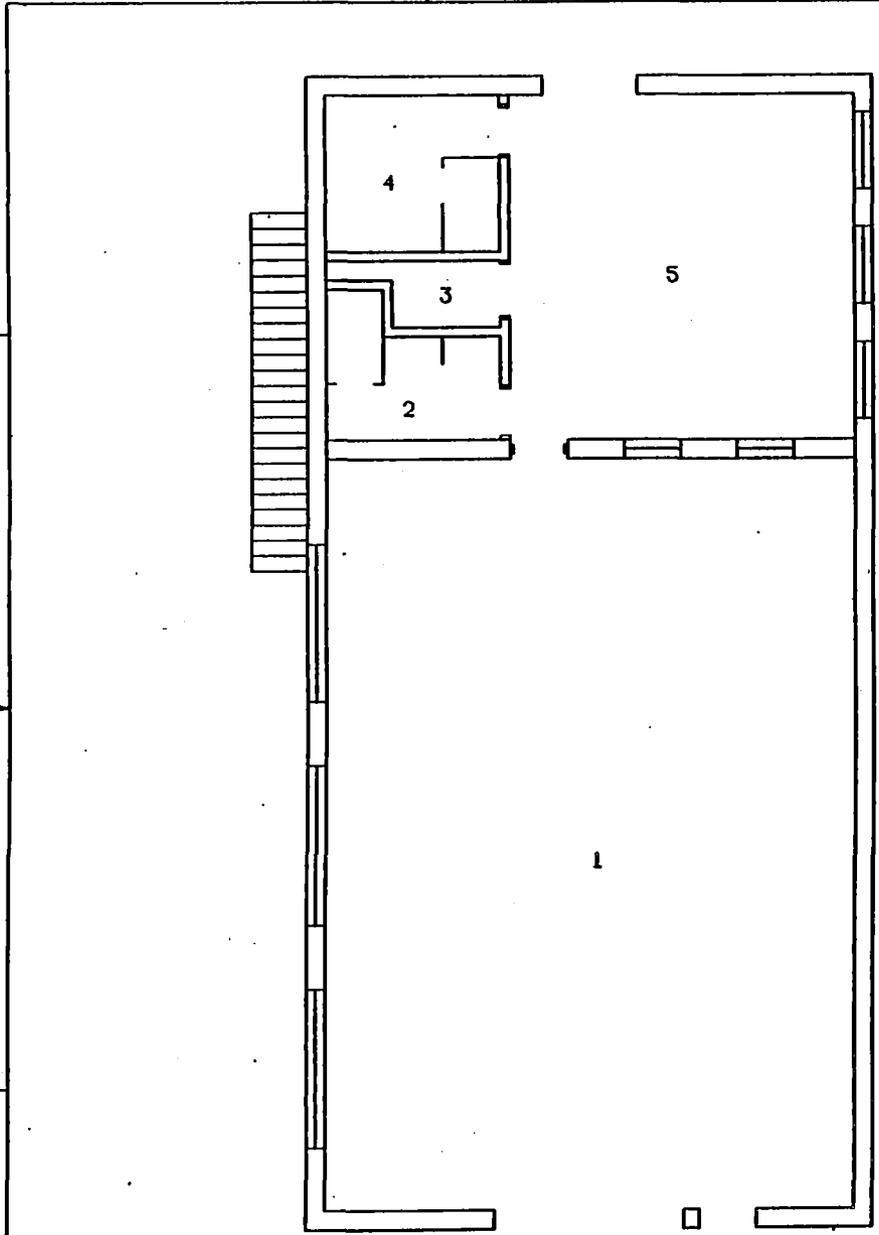
SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92
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Environmental Appraisal of the Mound Plant

9.68.6.4 Floor Plans for Building 46

REV	DATE	REVISION	BY	CHK	CHK	CHK	CHK	CHK
B	12/12/91	ASBUILT ISSUE						



**BLDG #46
FIRST FLOOR
BLDG CODE:3046**

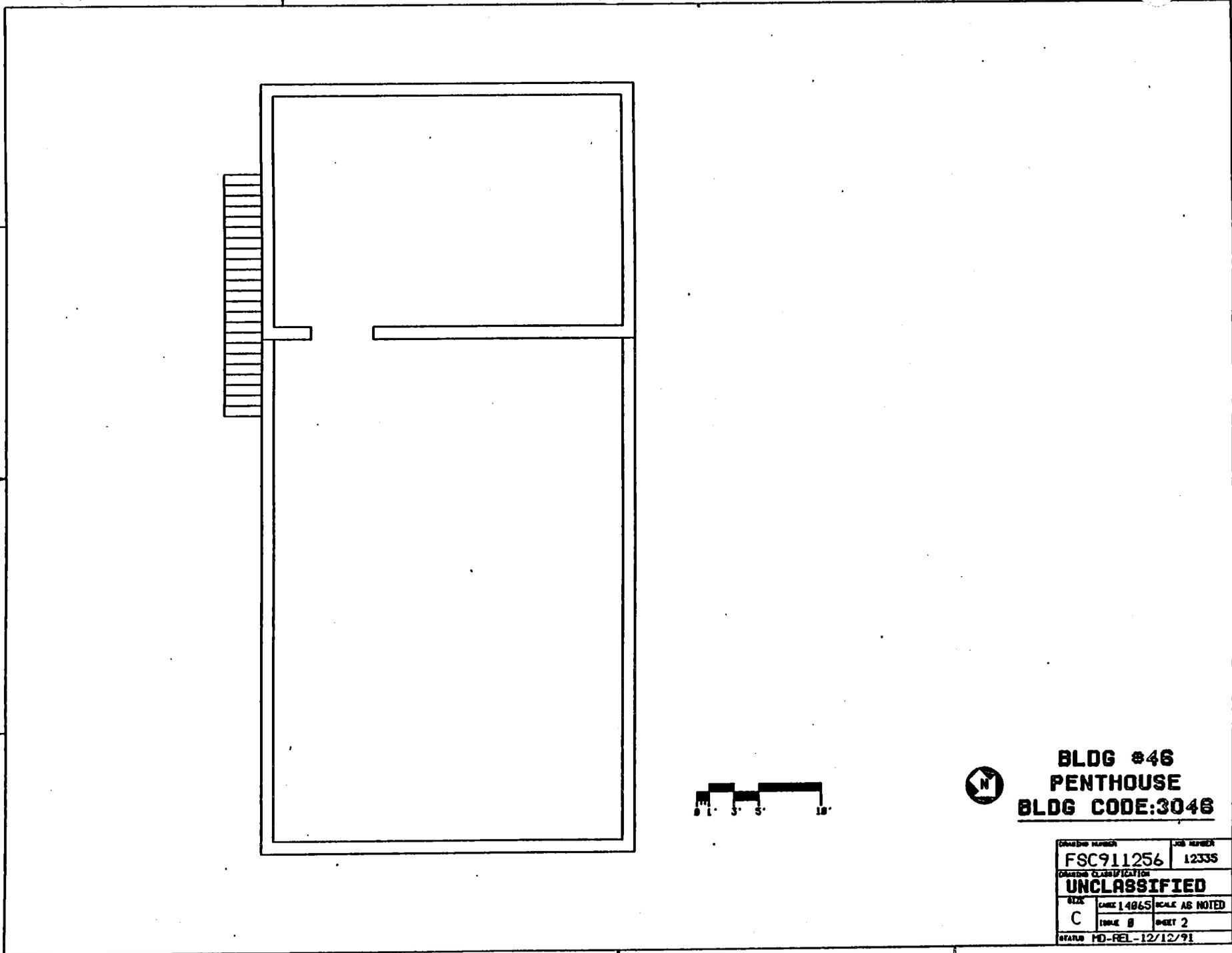
APPROVALS: _____ DATE: _____
 SAFETY COMMITTEE REQUIRED:
 NONE _____ TALEOC _____ TEOC _____ DBOC _____
 TECH. REV. _____
 SR. NR. _____
 TALEOC _____
 TEOC _____
 DBOC _____

DESIGN	PROJ	NO.	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION
DESIGN	PROJ	NO.							BLDG #46	
DATE	REV	NO.							FLOOR PLANS	
CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	UNCLASSIFIED			C			FSC911256	12335
TYPE	TYPE	TYPE	SFP			BLDG #46			CASE 14865	SCALE AS NOTED
STATUS	DATE	ORIGIN	MO-REL-12/12/91			MO-BR3-V3.0			SHEET 1 OF 2	

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BLDG #46
PENTHOUSE
BLDG CODE:3046

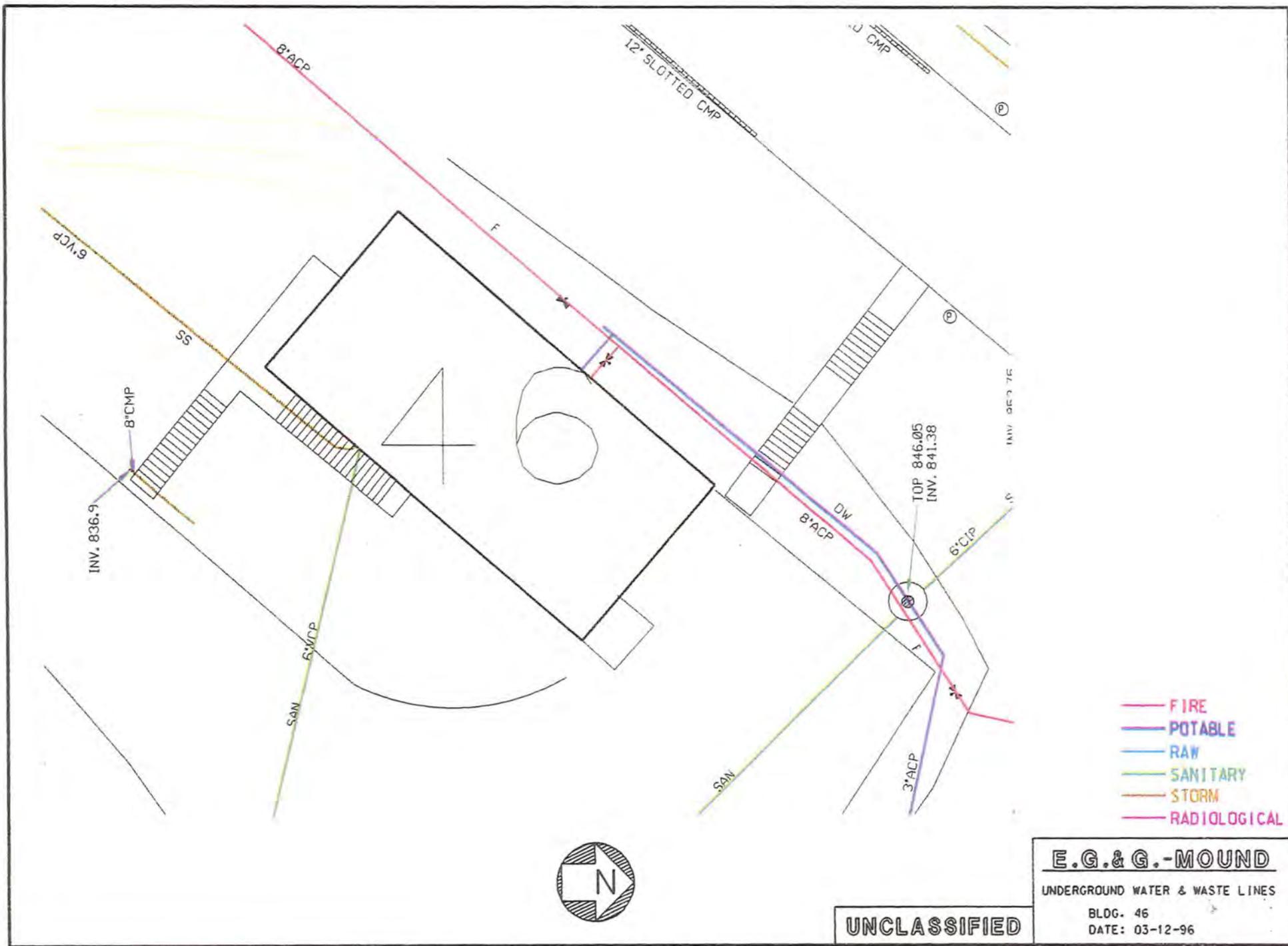
DRAWING NUMBER		JOB NUMBER	
FSC911256		12335	
CLASSIFICATION			
UNCLASSIFIED			
BLK	CHK 14865	SCALE AS NOTED	
C	TRK 8	SHEET 2	
STATUS MD-REL-12/12/91			

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Environmental Appraisal of the Mound Plant

9.68.6.5 Underground Utility Lines

59-89*6



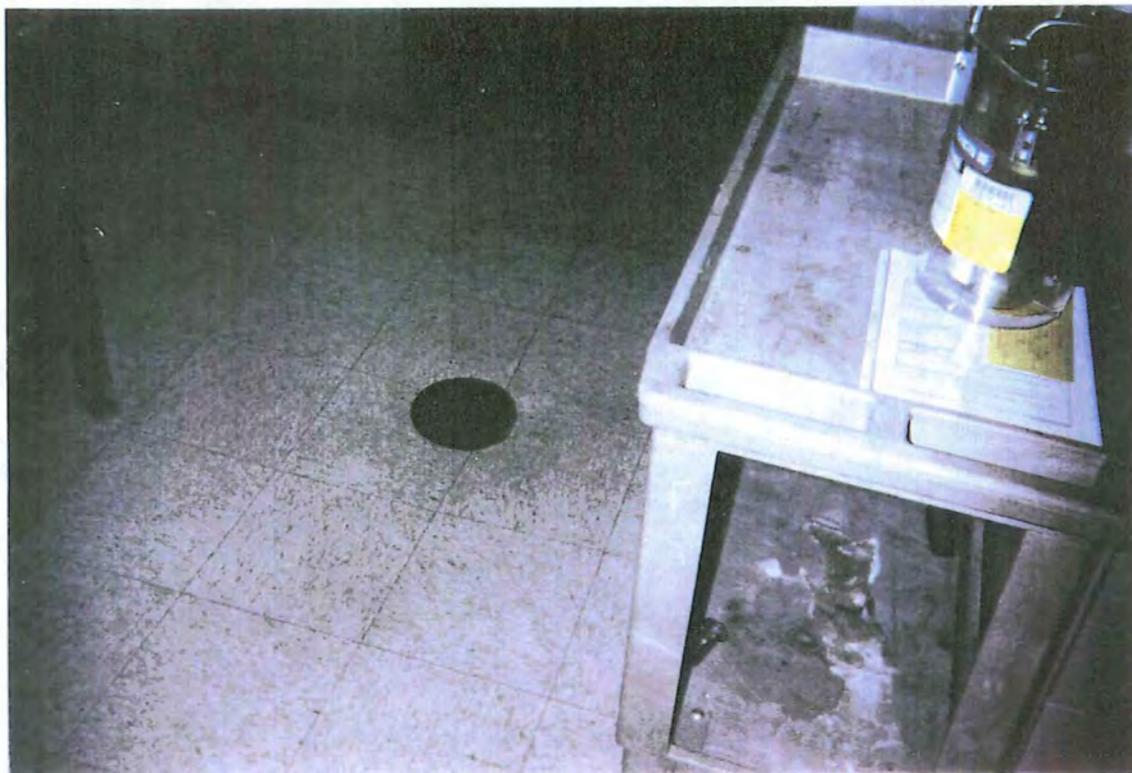
Environmental Appraisal of the Mound Plant

9.68.6.6 Photographs

Mound Plant Building 46

9.68-69

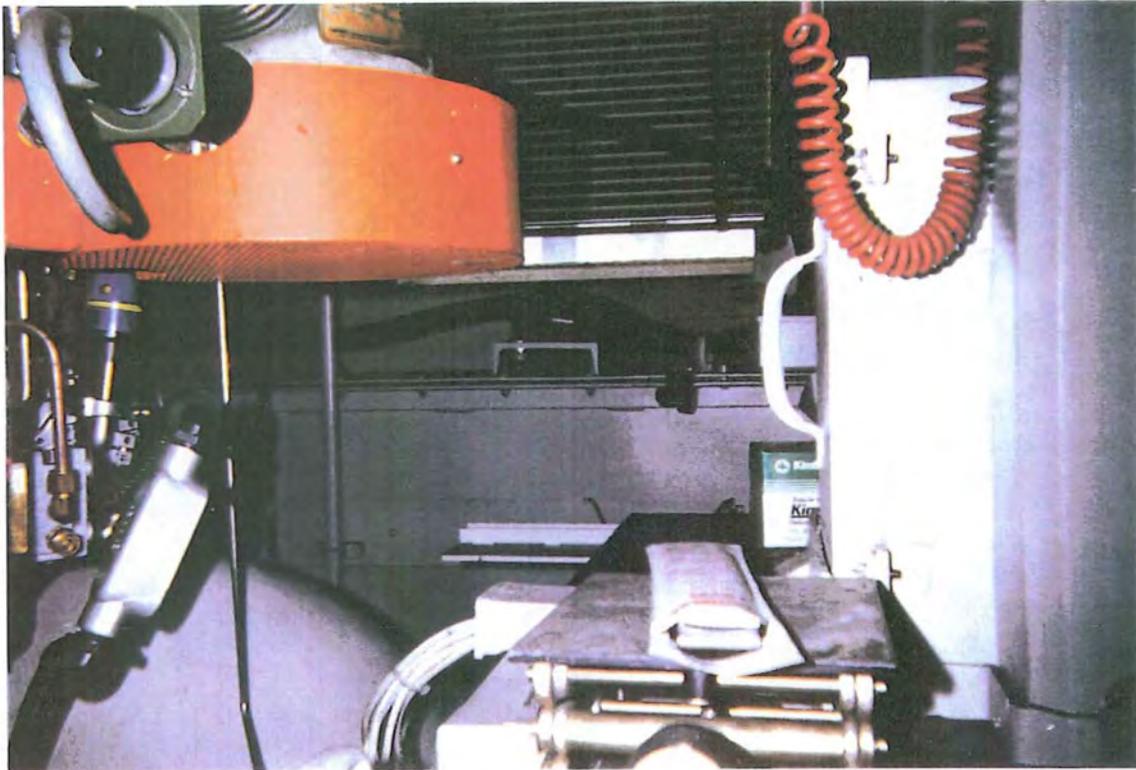




In Building 46 an open drain provides a pathway for oil leaks to surface water.



Sinks provide potential for release of used chemicals to sanitary system.



In Building 46 a PCB-free label needs to be affixed to high-voltage transformer.

Environmental Appraisal of the Mound Plant

9.69 BUILDING 47

9.69.1 Scope of Building 47 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 47 on February 26, 1996. The EAC (Attachment 1—Section 9.69.6.1) was used to record findings. Escorting the appraisers were knowledgeable personnel such as process owners. Other information was supplied by the building manager and recorded on the BMQ, included as Attachment 2 (Section 9.69.6.2).

9.69.2 Description of Building 47

Building 47 is a one-story, 3,611-square-foot reinforced concrete building with brick facing and a built-up membrane roof. The building contains a magazine. The location is shown in Attachment 3 (Section 9.69.6.3). The building is bordered by Building 28 to the south, Building W to the west, a parking lot to the west and Building GP-1 to the north. Floor plans for the building are presented in Attachment 4 (Section 9.69.6.4). The building is serviced by central steam for heat, chilled water and electrical service. The building has a fire sprinkler system (Mound Facility Physical Characterization, 12-1-93).

Building 47 was constructed in 1969. According to the Mound Facility Physical Characterization report (12-1-93), the building is not contaminated with radioactive or energetic materials.

9.69.3 Summary of Findings

Building 47 was originally built to house administrative offices for protective security personnel, weapons storage, and classified waste storage areas. These areas are still in use. The building is well-maintained. Some issues of environmental concern were identified during the walk-through and review of reference materials.

9.69.4 Observations

9.69.4.1 Air Emissions

There are no processes that create air emissions located in the building. There are no fuel-burning units in the building. There is no evidence of fugitive dust.

Environmental Appraisal of the Mound Plant

9.69.4.2 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.

9.69.4.2.1 Sanitary Wastewater

The building does have sanitary services. According to a diagram of underground lines, presented as Attachment 5 (Section 9.69.6.5), the building is serviced by a sanitary line. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort, therefore, dye tests or smoke tests were not conducted.

Sanitary effluent is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations data, supplied by the process owner, effluent from Building 47 does not deviate from that expected by the sanitary treatment plant manager.

9.69.4.2.2 Storm Wastewater

The building is not serviced by storm drains, according to the underground lines diagram in Attachment 5 (Section 9.69.6.5). Storm water is either absorbed into the ground or flows downhill as surface water until it reaches a storm drain. There are floor drains in the lavatories and janitorial closet. Inspection of the surrounding area 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.

9.69.4.2.3 Chemicals

There are janitorial and office supply chemicals used in Building 47. A list of chemicals residing in Building 47 is included in the BMQ. The information was gathered as part of the chemical inventory which is conducted annually. The inventory information dates to 1994. Confirmation of the 1994 inventory was not attempted as 1995 data were being compiled at the time of the appraisal.

Environmental Appraisal of the Mound Plant

Storage, handling, and disposal of chemicals listed in the BMQ were reviewed to assure conformance to regulations related to 40 CFR 122, 40 CFR 261-265, 40 CFR 268, and 29 CFR 1910. Chemical storage and handling procedures are in place for proper disposal of chemicals.

There is asbestos in the building. Asbestos is identified as a Clean Water Act (CWA) toxic pollutant in 40 CFR Part 122, Appendix D, Table V. There is no evidence that chemicals or asbestos enter the storm or sanitary drains. There have been no reported spills from Building 47.

9.69.4.3 Potable and Service Water

Potable water is supplied to the building. There is one water fountain (Halsey-Taylor) located on the first floor. Fountains which supply drinking water have not been tested for lead. According to EPA protocol, annual sampling criteria do not require testing of each fountain. Potable water is supplied to the building where it is separated with a backflow preventer into potable and service water and then distributed throughout the building.

9.69.4.4 Chemical Storage and Hazardous Materials

Chemicals used in janitorial services are stored in Building 47. Chemicals are stored in the building in accordance with applicable standards. MSDSs were not readily available in the building.

The building is equipped with appropriate emergency response equipment such as fire extinguishers and sprinklers. Emergency evacuation plans and signs were posted in the areas.

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 does contain asbestos-containing building materials (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no visual evidence of friable asbestos. Pipe lagging is intact. Pipe content is identified.

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

9.69.4.5 Solid, Hazardous, and Radioactive Waste

Solid wastes generated are primarily paper. There is paper and aluminum can recycling to minimize solid waste. Solid wastes, i.e., trash, paper, glass, and cardboard are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill or recycling center by a contractor. Scrap metal is collected at specific sites, then sent offsite for recycling by a contractor. Lead-acid batteries are recycled by a contractor. All these service contracts are maintained by Waste Management. Classified paper is collected by Security and incinerated at

Environmental Appraisal of the Mound Plant

the Montgomery South Incinerator. This contract is maintained by Security. There is no evidence that hazardous materials or wastes are mixed with solid waste streams.

9.69.4.6 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. Programs for waste minimization in place include aluminum can and white paper recycling.

9.69.5 Findings and Recommendations

The environmental appraisal of Building 47 indicates that the following action items in order of priority should be planned and scheduled for accomplishment thus assuring the best management and operating practices are in place. Photographs were taken in connection with the appraisal process. They are included as Attachment 5 (9.69.6.6).

- 47-1. Determine if water fountain is suspect for lead contamination.
- 47-2. In accordance with 29 CFR 1910.1200, MSDSs should be prominently displayed, clearly labeled, and readily available. A visitor to the area should be able to walk into the room and find them immediately.

Environmental Appraisal of the Mound Plant

6.69.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 47

Appraisers:

Mary E. Sizemore
Name Discipline

Name Discipline

H. P. [unclear]
Name Discipline

Lemy R. Glandz
Name Discipline

Building Manager: JEFFREY L. BOSTON

Process Manager: RONALD L. PARR

Date: 2/26/96

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander
John Puckett

Mary-Louis Hoagland
Mary Sizemore

Date: 2/26/96

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list?	Y/N	
	Are they properly contained?	Y/N	
	Is the building in operation? What are the processes and where do they discharge to?	Y/N	GUARD FORCE OFFICES
	Do the floor drains, sinks & toilets appear to be draining properly?	Y/N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	
	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	N/A N/A
	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 X/N Y/N	JANITOR'S CLOSET HAS A SINK

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Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
John Puckett Mary Sizemore

Date: 2/26/96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	Y/N	
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	X
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 or 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: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

CAA Checklist

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

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

Source: _____

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Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
John Puckett Mary Sizemore

Date: 2/26/96

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	(Y) N	Janitorial Supply Chemicals
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	(Y) N	MSDS / Janitorial supply
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	(Y) N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y/N NA	No flammable storage containers or cabinets
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 NA	

Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

HM Checklist

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

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Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
John Puckett Mary Sizemore

Date: 2/26/96

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory							
Building	Capacity (Gal.)	Contents	Estimated Volume	In Service	Containment	Visual Stains/ Contamination	If Empty, Flushed
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N

Source: _____

Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander
John Puckett

Mary-Louis Hoagland
Mary Sizemore

Date: 2/26/96

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	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	Y / N	N/A
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y / N	SEE BELOW

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
47	101	WT-14-A	HALSEY-TAYLOR
 	 	 	
 	 	 	
 	 	 	

Source: _____

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Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

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RCRA Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y <input type="radio"/> N	If yes, conduct the following survey.
---	--	---------------------------------------

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	<p>Has any material generated been characterized RCRA hazardous? Was characterization 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?</p> <p>If yes, proceed with next section.</p>	<p><input checked="" type="radio"/> Y <input type="radio"/> N analysis / process</p> <p><input type="radio"/> Y <input checked="" type="radio"/> N</p> <p><input type="radio"/> Y <input type="radio"/> N</p>	<p><i>PROCESS KNOWLEDGE</i></p> <p><i>N/A</i></p>
OAC 3745 52-11	<p>Are any of the materials noted RCRA hazardous waste?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.</p>	<p><input checked="" type="radio"/> Y <input type="radio"/> N</p>	<p><i>NICKEL-CADMIUM BATTERIES FOR RADIOS AND 6 VOLT BATTERIES MOVED TO GUARD POST 1 AND THEN PICKED UP BY WASTE MANAGEMENT</i></p>

Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area? Is it treated as such?	Y/N Y/N	N/A
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	X
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y/N	
	Are the containers in good condition?	Y/N	
	Are the waste compatible with the containers?	Y/N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the plant site boundary?	Y/N	
	Are containers kept closed and locked except during filling?	Y/N	
	Are containers moved within 3 days of being filled?	Y/N	

Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

RCRA Checklist

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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.		X
	If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:		
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are the containers kept closed except during filling?	Y / N	
	Are the containers managed in such a way, that they are not ruptured, or leaks caused?	Y / N	
	Is the area inspected at least once weekly?	Y / N	
	Is the inspection recorded? Where is the log?	Y / N	
	Is it properly completed, dated, and signed?	Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the facility boundary?	Y / N	
OAC 3745-52-34(B)	Are incompatible wastes managed in such a way that they will not react with another incompatible waste?	Y / N	
	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.		

Environmental Approval Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
John Puckett Mary Sizemore

Date: 2/26/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	X
	If the answer was no, then proceed with the following:		
	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	

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Environmental Appraisal Checklist

Building Name: 47

 Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	X
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. 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: 47

Appraisers: Terry Glander Mary-Louis Hoagland
John Puckett Mary Sizemore

Date: 2/26/96

Asbestos Screening Checklist

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

Asbestos Checklist

Note: Routinely, the asbestos standard for ACM 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 ACM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos? If no for this building or area note this conclusion in the comment section. Is there any evidence of friable asbestos? Is the asbestos removal properly managed? (See questions listed below)	(Y) N Y (N) Y/N N/A	INSPECTION AND ANALYSIS 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 ACM during the removal.	Y/N	X
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: 47

Appraisers: Terry Glander Mary-Louis Hoagland
John Puckett Mary Sizemore

Date: 2/26/96

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

Does this facility potentially contain any PCB's or PCB contaminated equipment?	Y <input type="radio"/> N <input checked="" type="radio"/>	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	X
	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	

Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander
John Puckett

Mary-Louis Hoagland
Mary Sizemore

Date: 2/26/96

TSCA Checklist

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

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Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitors 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	
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:

Environmental Assessment Checklist

Building Name: 47

Appraisers: Terry Glander
John Puckett

Mary-Louis Hoagland
Mary Sizemore

Date: 2/26/96

Low-Level Waste and Transuranic Waste Screening Checklist

Does this facility contain radioactive waste ?	Y (N)	If yes, conduct the following survey.
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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	X
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? Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y / N Y / N	

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Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

Low-Level Waste and Transuranic Waste Checklist

9.69-26

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	X
	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	
	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	

Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	<p>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?</p> <p>If no, note and stop.</p> <p>If yes, proceed with the next section.</p>	Y / N	X
	<p>Are any of the materials noted as being TRU waste during an inspection?</p> <p>If no, note and stop.</p> <p>If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.</p>	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	<p>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?</p> <p>(Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)</p>	Y / N	
	<p>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.</p>	Y / N	

Environmental Appraisal Checklist

Building Name:

47

 Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date:

2/26/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II, 3.b	Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage?	Y / N	X
	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: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y / N	X
	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:

Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander
John Puckett

Mary-Louis Hoagland
Mary Sizemore

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	<input checked="" type="radio"/> Y / <input type="radio"/> N	If yes, conduct the following survey.
---	--	---------------------------------------

Waste Minimization/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.	<input checked="" type="radio"/> Y / <input type="radio"/> N	Excess of janitorial supplies. Suppliers should be limited to need.
	Are there solvent wastes?	Y / N	X
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	Are there sludges?	Y / N	
	Are there halogenated organic (nonsolvent) wastes?	Y / N	
	Are metals recovered from wastewater?	Y / N	
	Is waste sludge generated?	Y / N	
	Are any waste minimization practices used that reduce the generation of sludge?	Y / N	
	Ion exchange process?	Y / N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y / N	
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	
	Drying?	Y / N	

Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	N A
	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	N A
	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	

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Environmental Appraisal Checklist

Building Name: 47

 Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	X
	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	
<u>CYANIDE AND REACTIVE WASTES</u>			
	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	
<u>VEHICLE MAINTENANCE</u>			
	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	

Environmental Assessment Checklist

Building Name: **47**

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: **2/26/96**

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments	
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	X	
	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		
<u>OILS</u>				
	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: 47

Appraisers: Terry Glander Mary-Louis Hoagland
 John Puckett Mary Sizemore

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments	
	Are these treatment techniques used to promote separation of oil/water wastes?		X	
	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		

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Environmental Appraisal Checklist

Building Name: 47

Appraisers: Terry Glander Mary-Louis Hoagland
John Puckett Mary Sizemore

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y/N	X
	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?	_____ _____	

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Environmental Appraisal of the Mound Plant

9.69.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 47 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

1. What are the access requirements (training, clearance, etc.)?
NONE REQUIRED EXCEPT AFTERHOURS WHEN A PROPERLY CODED MAGNETIC STRIPE ON THE BADGE IS REQUIRED FOR ENTRY
2. What protective equipment is required to enter the building?
NONE REQUIRED
3. Are there any restricted areas? Yes No
Where are they?

4. Provide a physical description of the building.

Building is a 3,611-ft² structure. It is one story with a magazine. Construction is of concrete block with a brick face and has a BUM roof (asphalt). Building is operational 24 hours per day. 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?

Protective force administrative; weapons storage; classified waste storage.

Source: Mound Buildings, 5-9-95

7. What is the history of building use other than that described in #6?
IT WAS THE FIRESTATION (SLEEPING AREA, EQUIPMENT MAINTENANCE, KITCHEN, OFFICE, AND FIRE ENGINE & AMBULANCE BAYS) PRIOR TO THE MODIFICATION TO CURRENT CONFIGURATION

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: 47 Building Manager: J.L. Boston 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: Offices for security personnel

How Wastes Are Generated:

No hazardous wastes are generated in this building.

Contact: RONALD L. PATT
Phone #: 3957

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

Building Manager's Questionnaire

Building Name: 47 Building Manager: J.L. Boston 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: 47 Building Manager: J.L. Boston 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 services? Yes No
 Is there bottled water? Yes No

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

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

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

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

Building Manager's Questionnaire

Building Name: 47 Building Manager: J.L. Boston 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? Yes 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: 47 Building Manager: J.L. Boston 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? N/A

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

PLASTIC BAGS, NABC, TOILET TISSUE, KINDEST CARE SKIN CLEANSER, WINDOW SHINE GLASS CLEANER, BUTCHERS MAJOR MAX SPRAY BUFF, SPARTAN DAMP MOP, NEUTRAL DISINFECTANT CLEANER, SPARTAN RINSE FREE STRIP, BUTCHER'S HEAD START CARPET PRESpray, BUTCHERS SPIN OUT SPIN BONNET CARPET CLEANER, TAMPAX TAMPONS

23. Where do excess janitorial supplies go? NONE ARE EXCESS

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: 47 Building Manager: J.L. Boston 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: 47 Building Manager: J.L. Boston 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: 47 Building Manager: J.L. Boston 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: 47 Building Manager: J.L. Boston 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.

NONE

Building Manager's Questionnaire

Building Name: 47 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

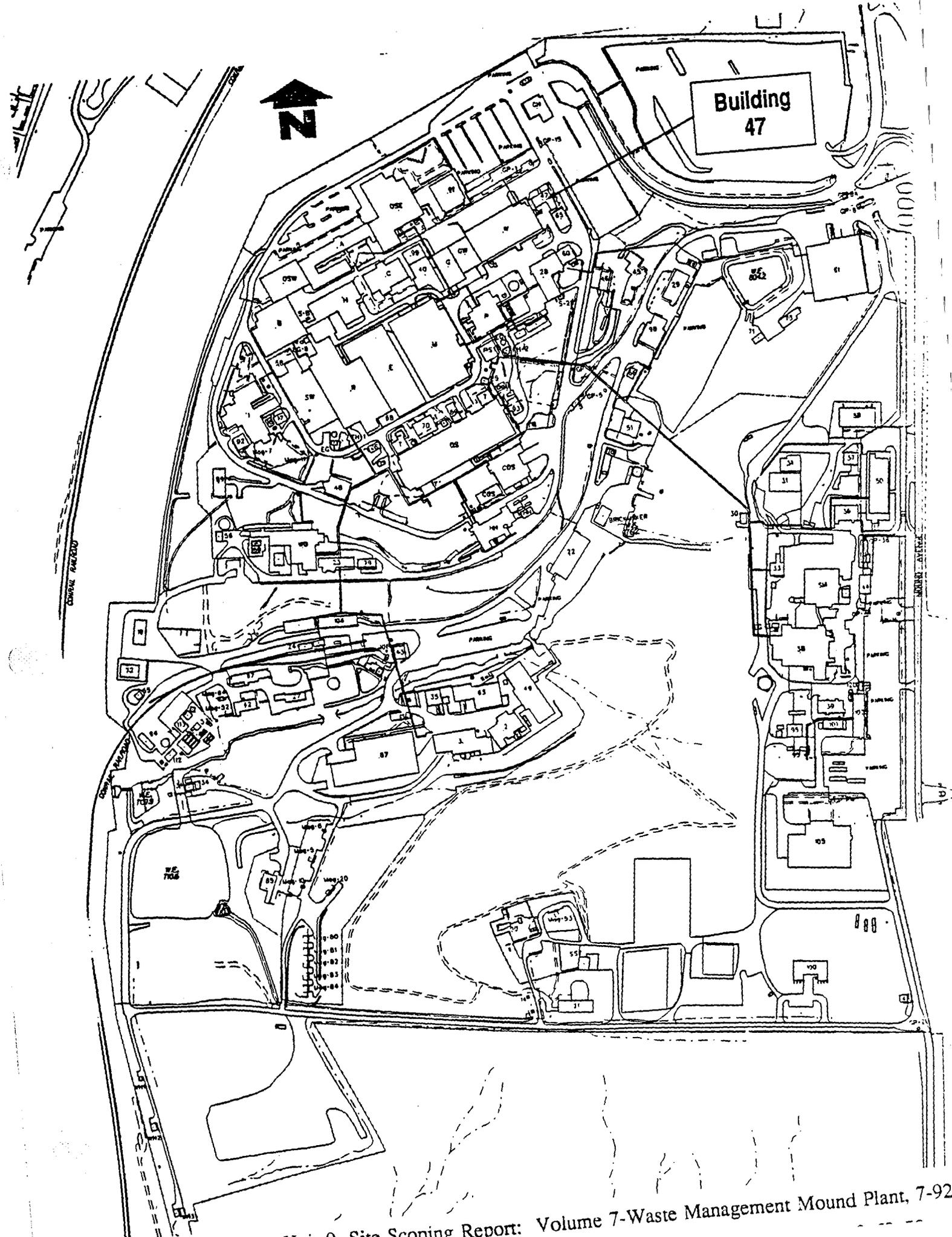
36. Is there a waste minimization program in the building? Yes No
Discuss your ideas about how to minimize waste.

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

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Environmental Appraisal of the Mound Plant

9.69.6.3 Location of Building 47



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

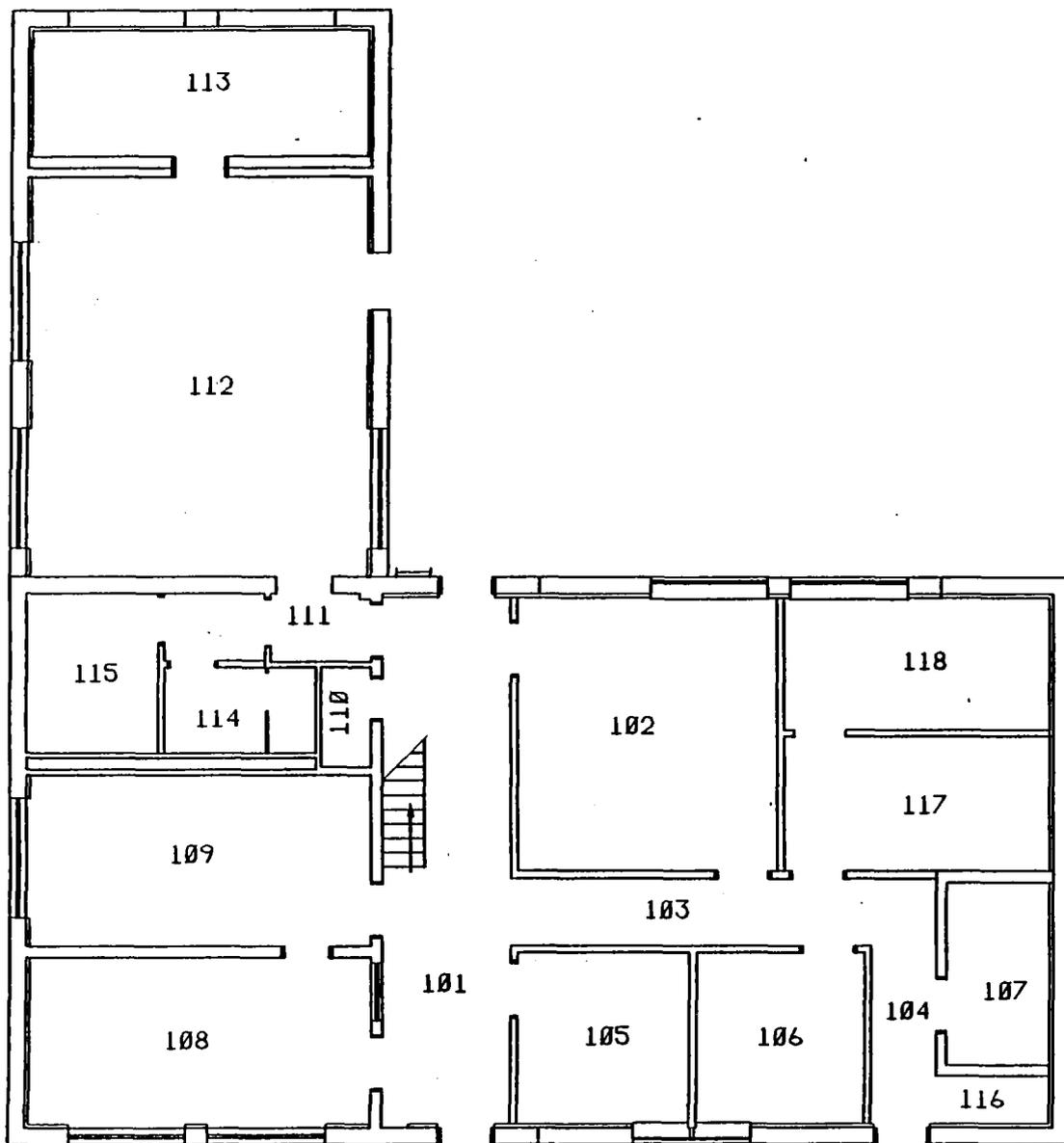
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Environmental Appraisal of the Mound Plant

9.69.6.4 Floor Plans for Building 47

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NO	DATE	REVISION	BY	CHK	DES	APPD	IN
0	12/12/91	ASBUILT ISSUE	DCT			DVD	

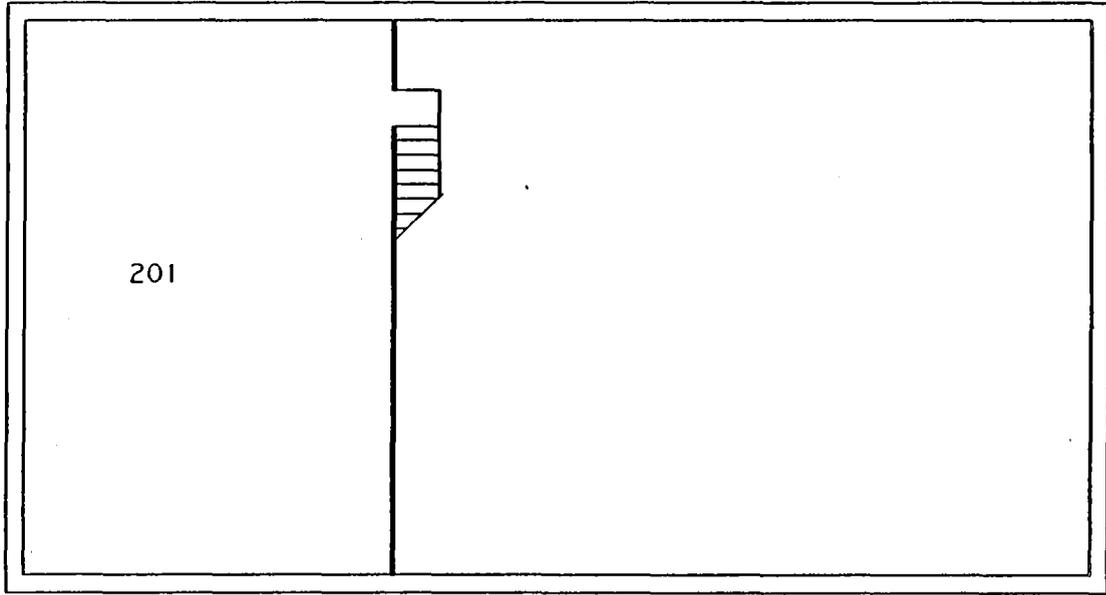


**BLDG #47
FIRST FLOOR
BLDG CODE:3047**

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED:	
____ NONE ____ TRUCOC ____ TEOOC ____ DIBOC	
TECH. REV.:	
DR. REV.:	
TRUCOC:	
TEOOC:	
DIBOC:	

DESIGN DRW	PROJ. NO.	SHEET	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION
DWG. DRW	DWG. REV.	1000	0	0					BLDG #47 FLOOR PLANS	
LP & GC	FEED REV.	PART CLASSIFICATION								
DWG. REV.		DRAWING CLASSIFICATION		618		DRAWING NUMBER		JOB NUMBER		
		UNCLASSIFIED		C		FSC911257		12335		
APVD	DATE	DWG. TYPE		SFP		FROM BLDG #47		CHECK 14865		SCALE AS NOTED
		STATUS		MD-REL-12/12/91		ORIGIN		MD-BR3-V3.0		SHEET 1 OF 2

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BLDG #47
SECOND FLOOR
BLDG CODE:3047

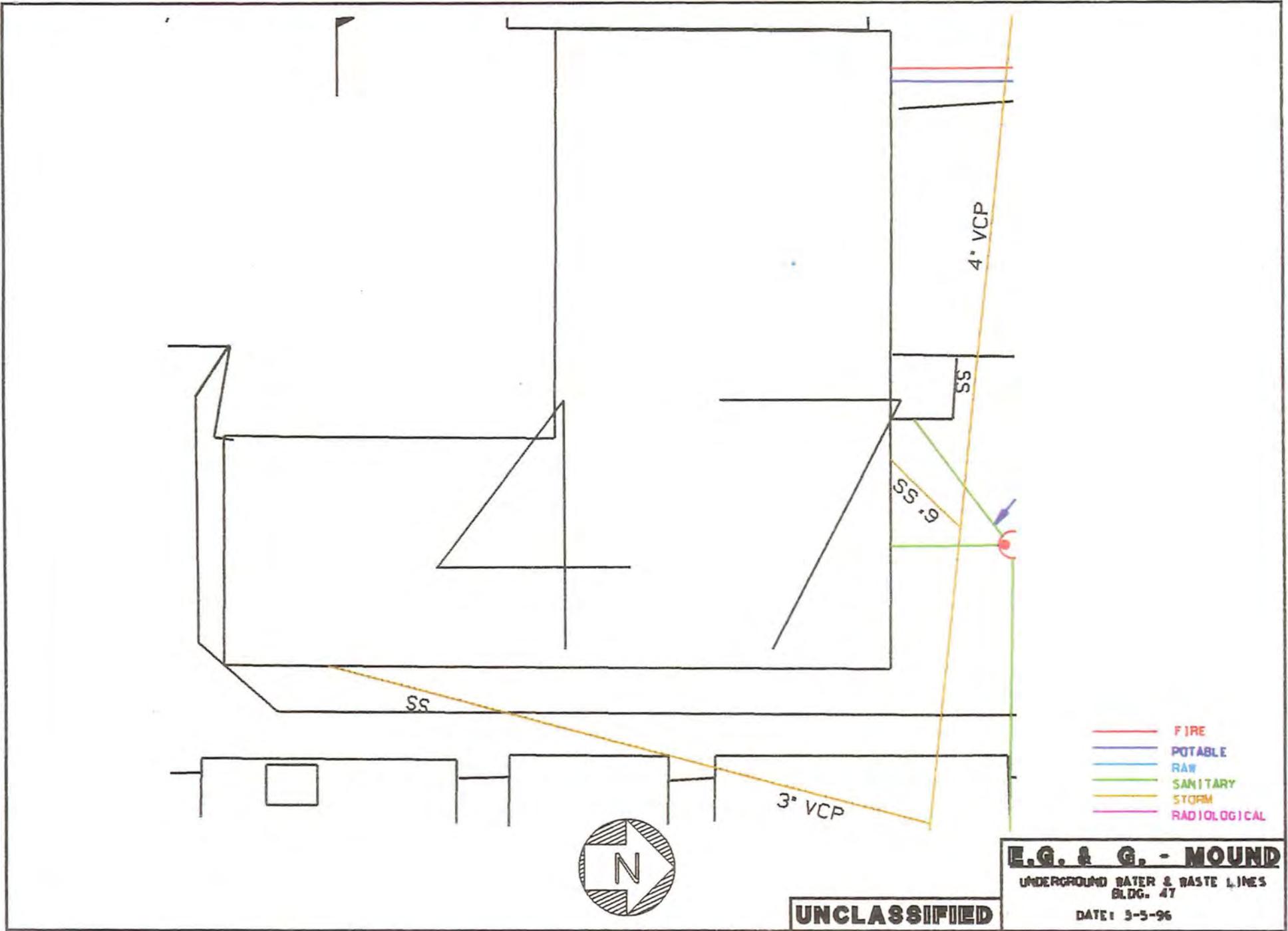
DRAWING NUMBER		JOB NUMBER	
FSC911257		12335	
DRAWING CLASSIFICATION			
UNCLASSIFIED			
SIZE	DATE	SCALE AS NOTED	
C	14865		
	ISSUE 8	SHEET 2	
STATUS MD-REL-12/12/91			

9-60-55-6

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Environmental Appraisal of the Mound Plant

9.69.6.5 Underground Utility Lines



Environmental Appraisal of the Mound Plant

9.69.6.6 Photographs

Mound Plant Building 47



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