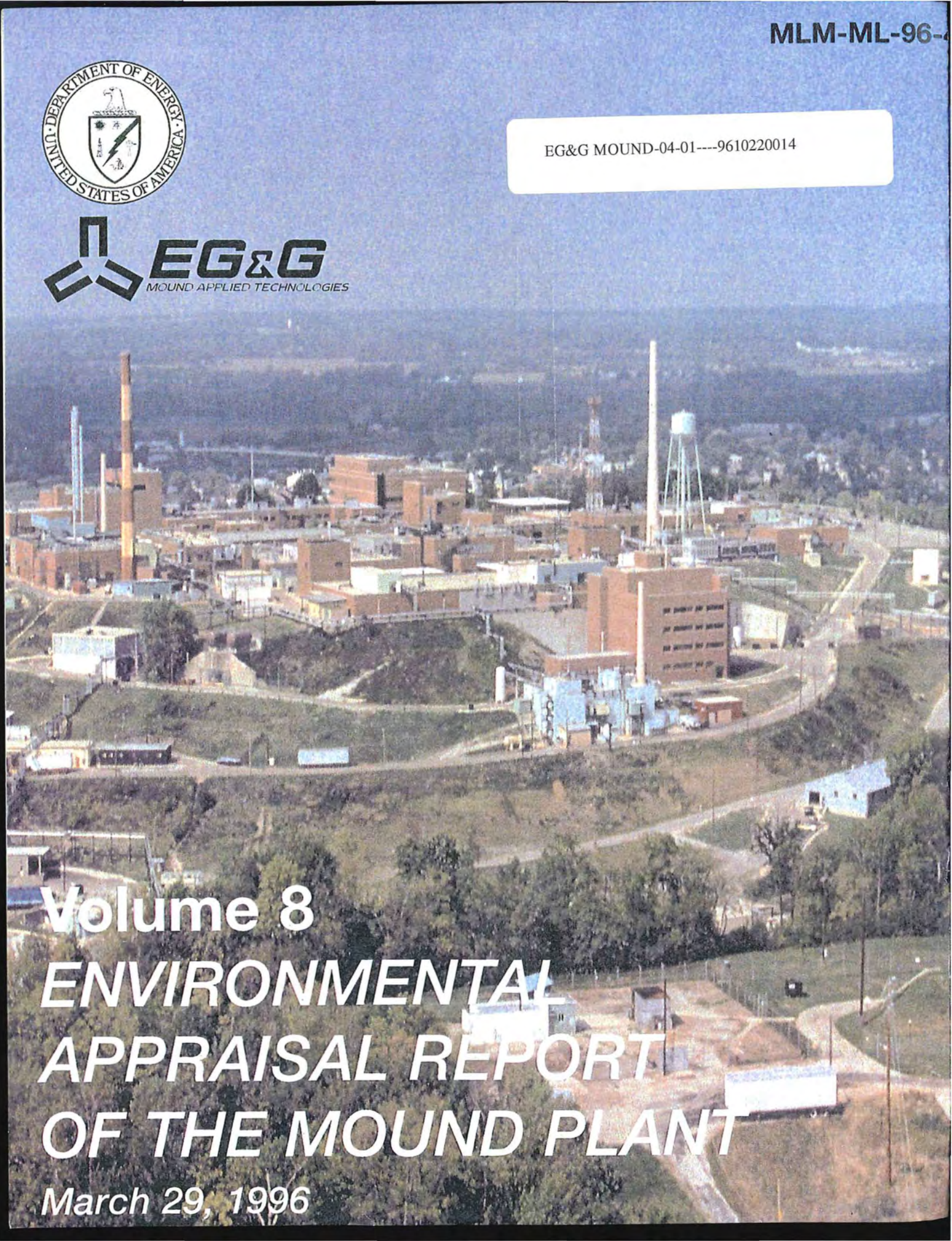
MLM-ML-96-

EG&G MOUND-04-01----9610220014

EG&G
MOUND APPLIED TECHNOLOGIES



Volume 8
ENVIRONMENTAL APPRAISAL REPORT OF THE MOUND PLANT

March 29, 1996

MLM-ML-96-43-0001

ENVIRONMENTAL APPRAISAL REPORT OF THE MOUND PLANT

Volume 8

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Environmental Appraisal of the Mound Plant

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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

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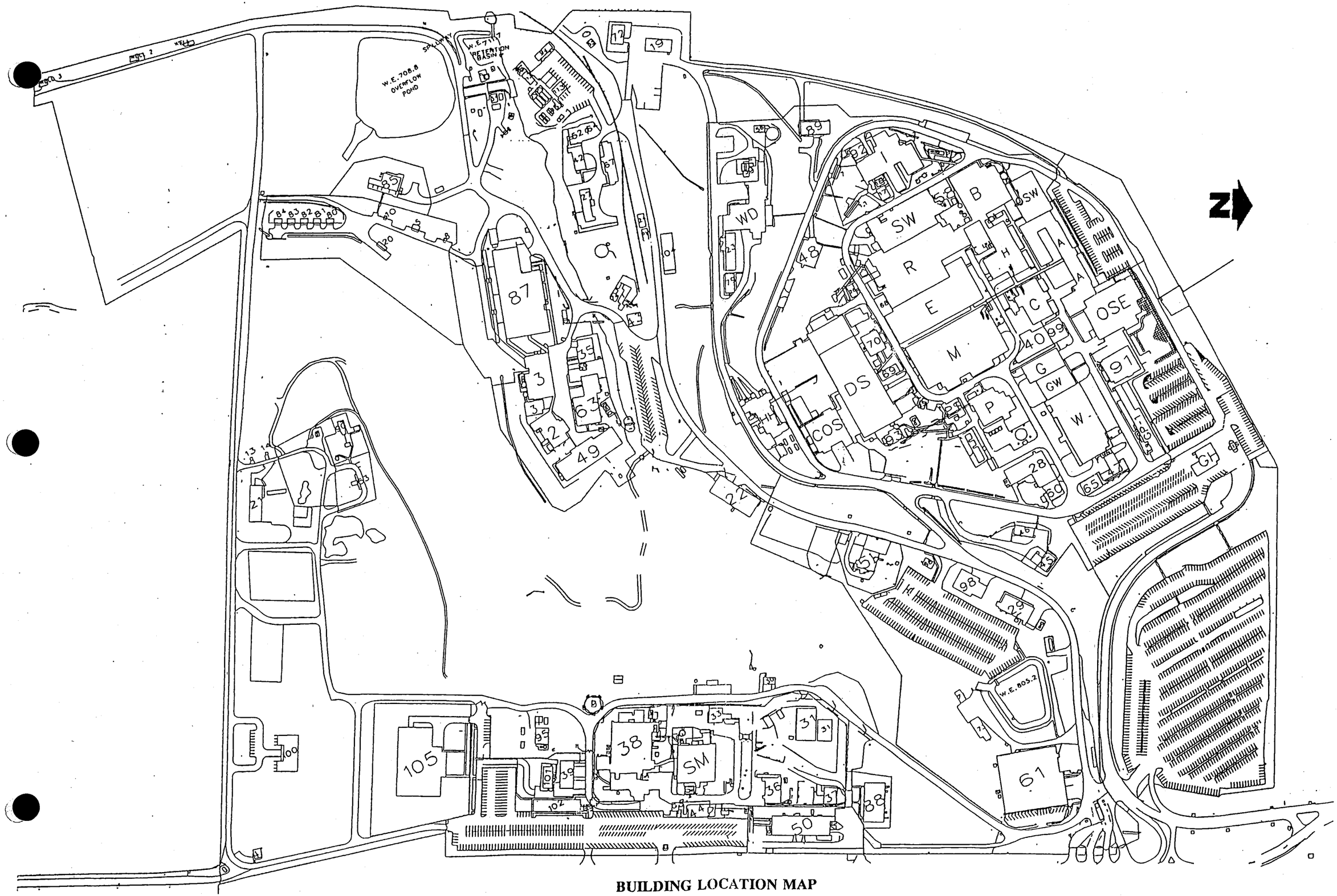
9.0 BUILDING APPRAISALS



BUILDING LOCATION MAP

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9.70.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to the underground diagram located in Attachment 5 (Section 9.70.6.5). 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. One storm drain on the south side of the building was discolored by rust. Further investigation determined that the discoloration was due to the flushing of the fire sprinkler system. Ferrous minerals from piping discolor the water and drainage of this water can discolor the pavement. It was determined that this has no impact on the environment.

9.70.4.2.3 Chemicals

Janitorial supplies are stored and used in Building 48. A list of chemicals residing in Building 48 is included in the BMQ in Attachment 2 (Section 9.70.6.2). 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 were reviewed to assure conformance to regulations related to 40 CFR 122, 40 CFR 261-265, 40 CFR 268, and 29 CFR 1910.

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 enter the storm or sanitary drains. There have been no reported spills from Building 48.

9.70.4.3 Potable and Service Water

Potable water is supplied to the building. There were two water fountains, one on each floor of the building. The water fountains were Oasis brand. 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. 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.

9.70.4.4 Chemical Storage and Hazardous Materials

Chemicals used in janitorial services are stored in Building 48. There is a flammable storage cabinet outside the facility 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's) are available in the building, but need to be reviewed to see which ones are no longer applicable.

The building is equipped with appropriate emergency response equipment such as fire extinguishers and sprinklers. Extinguishers are bar-coded. The inspection date database is maintained in the fire station, Building 98. There is an Emergency Evacuation Plan, 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 was tested and does contain asbestos-containing building materials (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no evidence of friable asbestos. Pipe lagging was intact.

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

9.70.4.5 Solid and Hazardous Wastes

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 local 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. These service contracts are maintained by Waste Management. Classified paper is collected by Security and incinerated at 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.

The processes that generated hazardous wastes in Building 48 are no longer in operation.

9.70.4.6 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 and paper recycling. Processes in this building are no longer active, therefore they were not reviewed for waste minimization or pollution prevention techniques.

9.70.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.70.6.6). The environmental appraisal of Building 48 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.

48-1 Signs posted on the doors indicating energetic material presence should be removed, if the room has been decontaminated.

48-2 MSDS displays should be updated to include only materials that are currently in the building. In accordance with 29 CFR 1910.1200, MSDS's were prominently displayed, clearly labeled, and readily available. A visitor to the area is able to walk into the room and find them immediately.

48-3 The exhaust system on top of the fumehood in Room 205 could potentially contain energetic materials. However, only pellets and not powders were used in this facility. Collect and document process knowledge and/or analytical data to provide information on potential contamination of exhaust system.

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Environmental Appraisal of the Mound Plant

9.70.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 48

Appraisers:

Mary Louise Hoagland
Name Discipline

Name Discipline

Mary E. Sizemore
Name Discipline

Terry L. Glander
Name Discipline

Building Manager: JEFFREY L. BOSTON J. L. Boston 2/27/96

Process Manager: DANIEL J. GORMAN

TERRY L. HALDERMAN Terry L. Halderman 2/22/96

Date: 1/29/96

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
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Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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	N/A
	Is the building in operation? What are the processes and where do they discharge to?	(Y) / N _____ _____	GENERAL OFFICE AREA WASTE
	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	STORM - ROOF DRAINAGE SANITARY - ALL ELSE
	Is there a sump/pit in the building? If so, what does it contain? How often is it pumped out? Does water collect in sump? Does sump have secondary containment?	Y / (N) _____ _____ Y / (N) Y / (N)	
	Are there any manholes, catch basins, drains, or fill pipes in or around the building? If so, are there any unusual appearances, colors, and/or odors? Describe in comment section. Can chemicals flow into the drain?	(Y) / N Y / (N) Y / (N)	

9.70-11

9.70-12

Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Marsha Vannet, Mary-Louis Hoagland, Mary Sizemore

Date: 1/29/96

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	NOT IN CURRENT USE
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: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

CAA Checklist – NONE IN CURRENT USE

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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9.70-14

Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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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9.70-16

Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Marsha Vannet, Mary-Louis Hoagland, Mary Sizemore

Date: 1/29/96

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 – N/A

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: 48 Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore Date: 1/29/96

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)	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y / N	UNKNOWN - SEE TABLE

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
48	CORRIDOR 201	Ø64681	
48	FRONT of ROOM 115	Ø64673	

Source: _____

9.70-17

9.70-18

Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

RCRA Screening Checklist

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

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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	

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Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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. 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 _____ 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: 48 Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore Date: 1/29/96

RCRA Checklist

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

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Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Marsha Vannet, Mary-Louis Hoagland, Mary Sizemore

Date: 1/29/96

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: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

Asbestos Screening Checklist

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

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos?	(Y) / N	ALL PIPING HAS BEEN WRAPPED
	If no for this building or area note this conclusion in the comment section.		
	Is there any evidence of friable asbestos?	Y / (N)	
	Is the asbestos removal properly managed? (See questions listed below)	Y / N	If there is no asbestos removal, do not complete the following section.
NESHAPS FOR ASBESTOS FOR ANY ONGOING ASBESTOS REMOVAL:			
40 CFR 61.156	There are no discharges of visible emissions to the outside air from collection, processing, packaging, transporting, or deposition of ACBM during the removal.	Y / N	
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: 48 Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore Date: 1/29/96

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

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

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	
	Based on an inspection, are any of the materials or equipment potentially PCB contaminated? 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: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

TSCA Checklist

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

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Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement?	Y / N	
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: 48 Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore Date: 1/29/96

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? 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: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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	

Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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: 48 Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore Date: 1/29/96

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:

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Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist - ONLY JANITORIAL SUPPLIES

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	
	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: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

Waste Minimization/Pollution Prevention Activities Checklist

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

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Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

Waste Minimization/Pollution Prevention Activities Checklist

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

Environmental Appraisal Checklist

Building Name: 48 Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore Date: 1/29/96

Waste Minimization/Pollution Prevention Activities Checklist

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

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Environmental Appraisal Checklist

Building Name: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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: 48

Appraisers: Terry Glander, Mary-Louis Hoagland, Marsha Vannet, Mary Sizemore

Date: 1/29/96

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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9.70.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 48 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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 two-story building contains 7,950 ft^2. It is constructed of reinforced concrete with a BUM roof (coal tar). HVAC systems are central steam and chilled water. The building was built in 1970. It contains asbestos in the thermal insulation and is contaminated with energetic materials. There is no radiological contamination. Offices are on the first floor; analytical laboratories are on the second floor.

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 analyzing energetic materials from the stockpile. Energetic materials are also analyzed for the Department of Defense.

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

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Building Manager's Questionnaire

Building Name: 48 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: Surveillance of weapons components *

How Wastes Are Generated:

When explosive components of weapons are cut apart for inspection and testing, some of the explosive must be removed. Any explosive not held for long-term storage or required for analysis is put in boxes for explosive wastes along with any paper, cloth, etc. which may be contaminated with explosives. These wastes are sent to be burned onsite.

Acetone is used to dissolve pentaerythritol tetranitrate (PETN). Any waste acetone is poured into a red waste can for Waste Management to pick up.

DMSO dissolves cyclotetramethylenetetranitramine (HMX). Waste DMSO is poured into a separate red waste can.

Ethyl alcohol is used to rinse off parts which have been cleaned in acetone or DMSO. Waste alcohol goes into a third waste can.

Valves in the scanning electron microscope are cleaned with Freon. Any waste Freon is kept in a separate waste can for pickup by Waste Management.

Quantities of all wastes are small. It may take more than a year to fill any one 5-gal waste can.

Contact:
Phone #:

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

* Currently there are no ongoing operations or processes, so there are no wastes being generated.

Building Manager's Questionnaire

Building Name: 48 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: 48 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? 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: 48 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)
NONE		

Source: Chemical Inventory 1994

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Building Manager's Questionnaire

Building Name: 48 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?
Waste Mgmt.

22. What janitorial supplies are stored inside or outside of the building?
mops, mop buckets, disinfectant, Soap, cleaner, brooms, + Trash bags.

23. Where do excess janitorial supplies go?
To Custodial Services (Jean Blevins)

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

9.70-46

Building Manager's Questionnaire

Building Name: 48 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.

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
68476-34-6	diesel fuel	30 gal		Y/N	outside
				Y/N	

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
EPOXYLITE 8822 PART A	1.8
EPOXYLITE 8822 PART B	0.7
ETHYL ACETATE	2.4
FREON TF	5.0
FREON WASTE	114.2
LEAD DEBRIS	0.3
LEAD DEBRIS	3.0
MICROPAC GOLD ETCHANT	18.1
~~NITRIC ACID~~ TLH	10.6
SI~~LICA GEL~~ TLH	257.9
SI~~LICA~~ GEL TLH	20.0
~~SILICA~~ GEL TLH	20.9
SI~~LICA GEL~~ TLH	24.0
SI~~LICA~~ GEL TLH	58.8
SILI~~CA GEL PACKE~~TS TLH	30.0
SILI~~CA GEL~~ PACKETS TLH	64.9
SILI~~CA GEL~~ PACKETS TLH	30.0
SILI~~CA GET~~ WASTE TLH	234.0
SILIC~~A GEL~~ WASTE TLH	257.3

9.70-47

Building Manager's Questionnaire

Building Name: 48 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

Materials	Amount
SILICA GEL WASTE TCH	240.5
SILICA GEL WASTE TCH	87.2
SILICA GEL WASTE TCH	250.8
SILICA GEL WASTE TCH	244.3
SILICA GEL WASTE TCH	262.8
EXPLOSIVE PPROCESS WASTE SOLVENTS TCH	95.9
EXPLOSIVE PROCESS WASTE SOLVENTS TCH	123.8

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

9.70-48

Building Manager's Questionnaire

Building Name: 48 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) TLG 1/29/96

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: _____

9.70-49

Building Manager's Questionnaire

Building Name: 48 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: 48 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

9.70-51

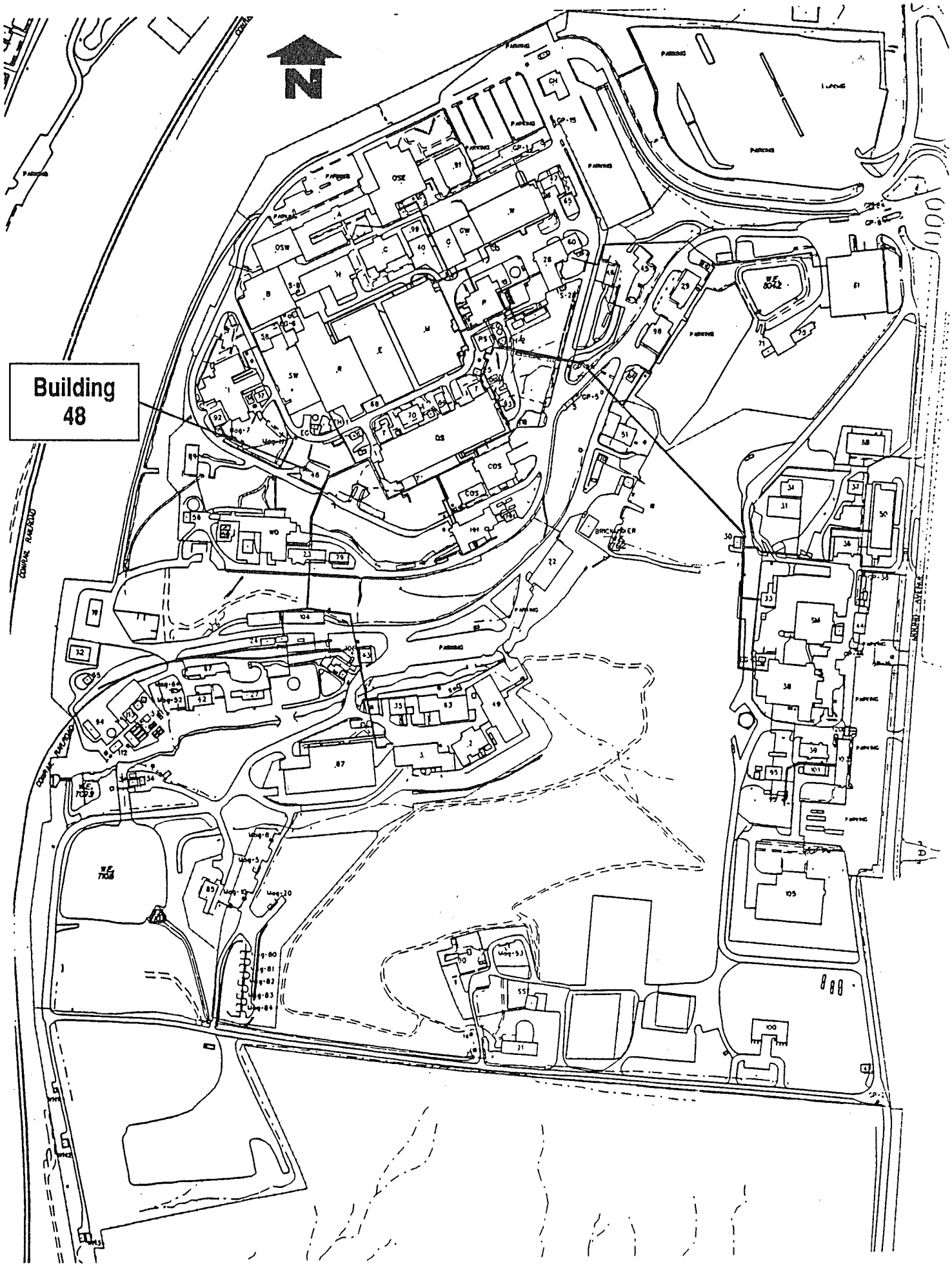
Building Manager's Questionnaire

Building Name: 48 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)

9.70.6.3 Location of Building 48



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

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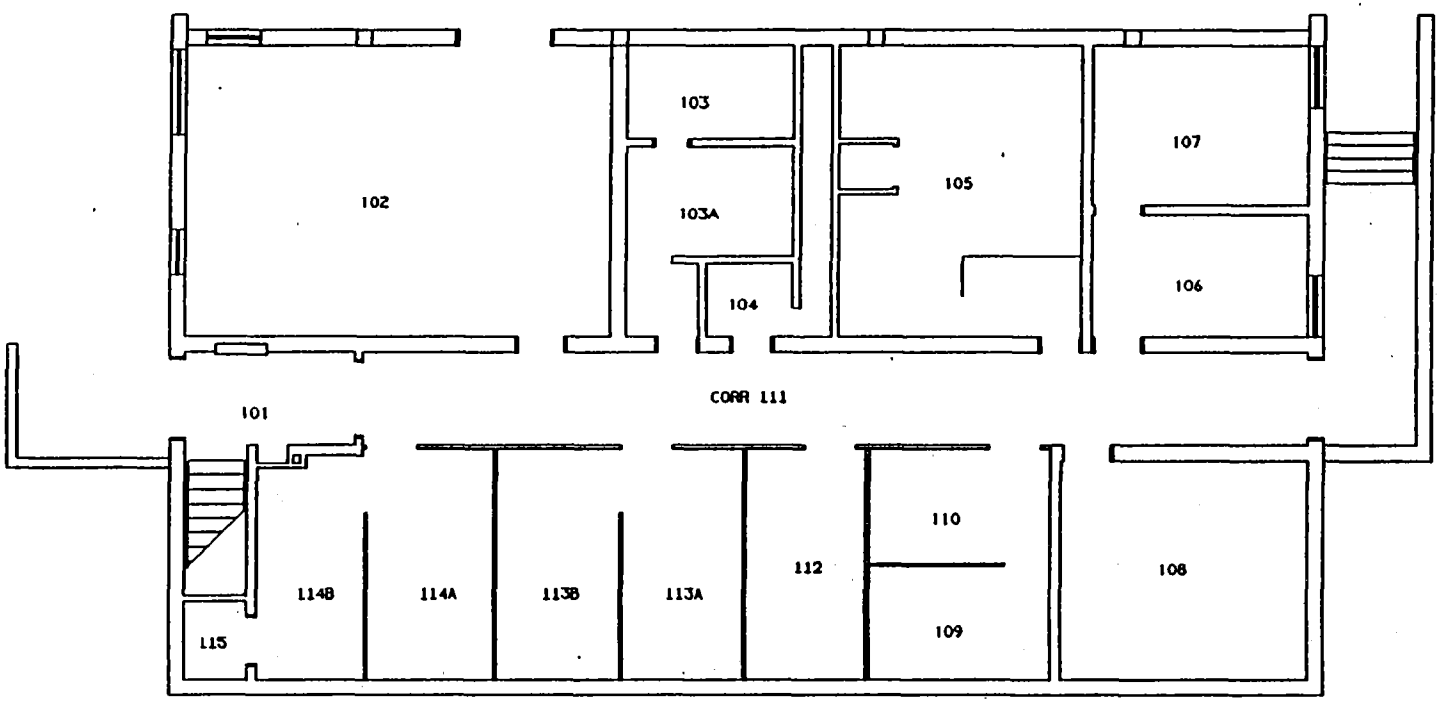
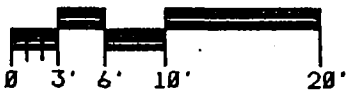
9.70.6.4 Floor Plans for Building 48

ISS	DATE	REVISION	BY	CHKR	DWN	APVD	APVD	R
0	12/12/91	ASBUILT ISSUE	DCW				DVD	





BLDG #48
FIRST FLOOR
BLDG CODE:3048

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED: ___NONE ___TRUEOOC ___TEOOC ___EHOOC	
TECH. REMP.	
GR. MGR.	
TRUEOOC	
TEOOC	
EHOOC	

DESIGN DWG	PROJ MGR
BPCS#	ENG MGR
LP & EC	MODA REV
ENG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	0	0				
PART CLASSIFICATION						

TITLE (U) TITLE CLASSIFICATION
BLDG #48
FLOOR PLANS

DRAWING CLASSIFICATION	SIZE	DRAWING NUMBER	JOB NUMBER
UNCLASSIFIED	C	FSC911258	12335

DWG TYPE	PROJ	CARD	SCALE	SHEET
SFP	BLDG #48	14865	AS NOTED	1 OF 2

STATUS MD-REL-12/12/91 ORIGIN MD-BRJ-V3.0

9.70-59

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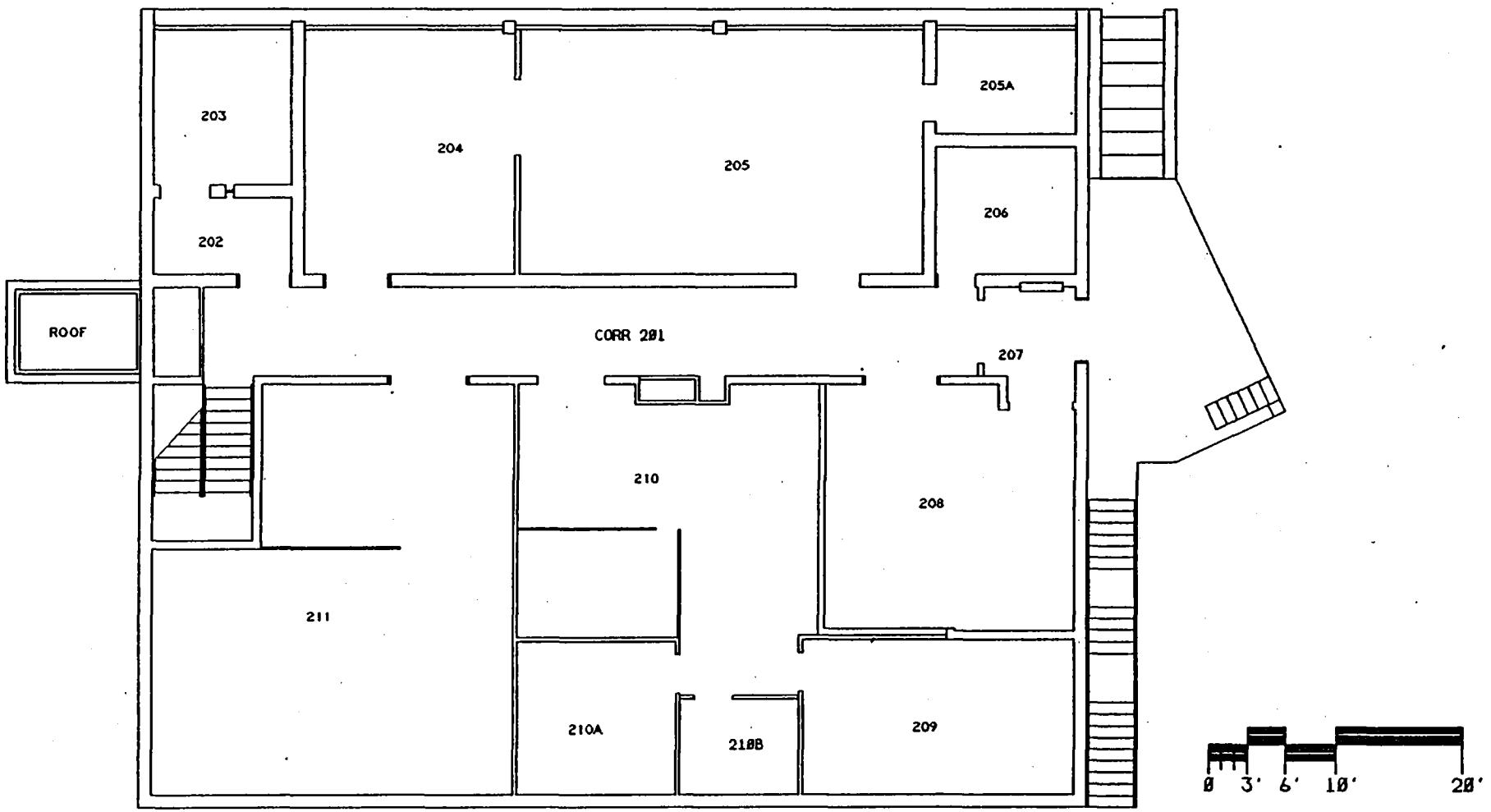

BLDG #48
SECOND FLOOR
BLDG CODE:3048

DRAWING NUMBER FSC911258	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE C / CODE 14065	SCALE AS NOTED
ISSUE 0	SHEET 2
STATUS MD-REL-12/12/91	

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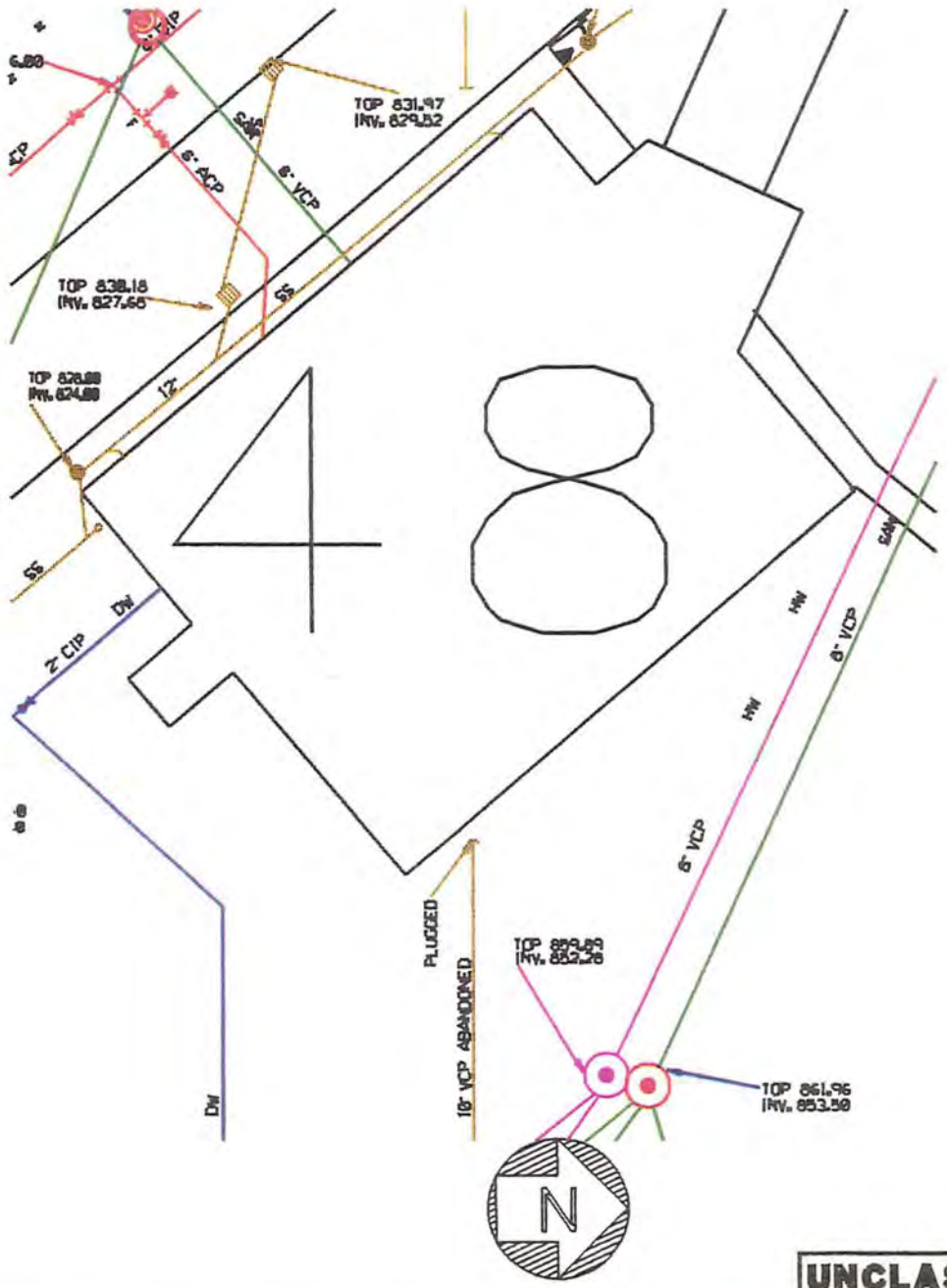
9.70.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 48

DATE: 5-5-96

UNCLASSIFIED

9.70.6.6 Photographs

Mound Plant Building 48

9.70-69

9.71 BUILDING 49

9.71.1 Scope of Building 49 Report

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

The appraisal team prepared to perform a walk-through of Building 49 on the morning of January 29, 1996, however, it was confirmed by the building manager that the building had been leased to the City of Miamisburg. Therefore, an environmental appraisal was not conducted. No Building Manager's Questionnaire (BMQ) was available and the Environmental Appraisal Checklist was not completed since the magazine was leased.

9.71.2 Description of Building 49

Building 49, a production laboratory and staging facility, is a one-story, 14,900-square-foot, reinforced concrete, slab-on-grade structure with a built-up membrane (coal tar) roof. Its location is shown in Attachment 1 (9.71.4.1). The building is bounded by a parking lot to the north, an open gravel area to the east and south, and Building 2 and Building 63 to the west. The building contains production laboratories, an office, lavatories, a locker room, storage, and a large staging area. The building is serviced by sanitary and storm water service lines, heating and air conditioning systems providing central steam and chilled water, a fire sprinkler water main, and electric service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

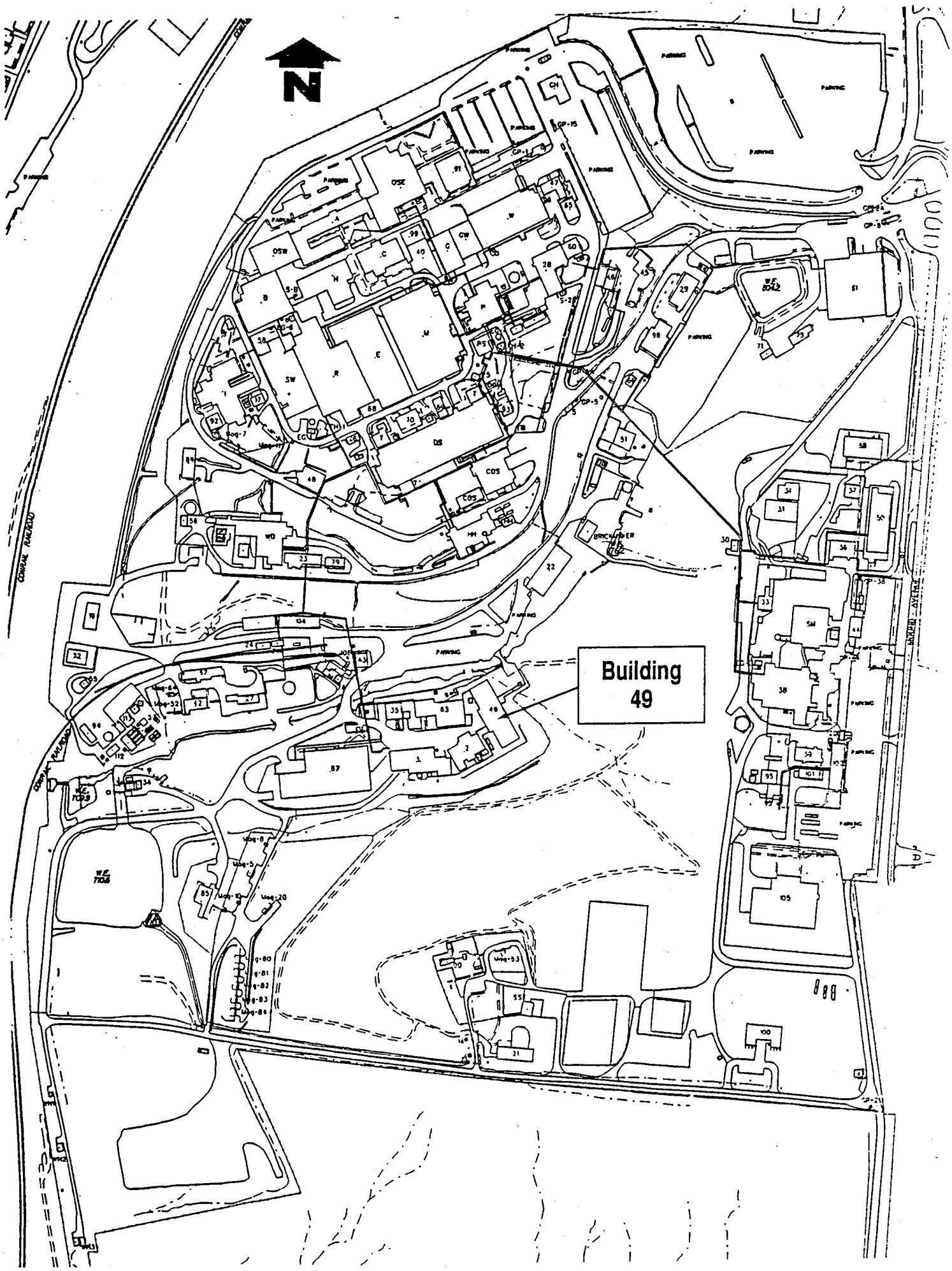
Building 27 was constructed in 1971 (*Capital Assets Management Process, CAMP Report, FY96*). The building has been used for the same purpose since construction. Production activities using energetic materials have occurred in the building. Research, development and testing activities using radioactive materials have not occurred. (*Mound Facility Physical Characterization*, 12-1-93).

9.50.3 Summary of Findings

Building 49 has undergone Safe Shutdown which includes removal of wastes and other materials plus equipment which cannot be released. A health physics safety determination and a liabilities assessment was made. An Environmental Site Assessment (ASTM E 1527-94 or ASTM E 1528-93) was not conducted. The building has been leased by the Department of Energy to the City of Miamisburg which accepted the liabilities assessment. The General Purpose Lease between the DOE and the City of Miamisburg requires the sub-lessee to obtain and comply with regulatory agency permits.

Photographs were taken to document the building. They are included as Attachment 2 (Section 9.71.4.2). Since the building has been leased, an EAC was not prepared and no further action was taken concerning this building.

9.71.4.1 Location of Building 49



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

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9.71.4.2 Photographs

Mound Plant Building 49

9.72 BUILDING 50

9.72.1 Scope of Building 50 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 50 on the morning of January 17, 1996 and made a second visit on March 21, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.72.6.1). The appraisers were accompanied by the building manager and 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 9.72.6.2).

9.72.2 Description of Building 50

Building 50 is the radioisotopic thermoelectric generator (RTG) assembly and testing facility. It is bordered by Building 36 and Building 37 to the north, the site perimeter fence to the south, and Building 88 to the west. There is an electrical substation to the south side of the building. Its location is shown in Attachment 3 (Section 9.72.6.3).

The building is a 14,849-square-foot concrete and concrete block structure with a built-up membrane bituminous material roof. It was constructed in 1971. There is electrical service of 480V. Heating and air conditioning systems are central steam and chilled water. The building has a fire sprinkler system except for cells 108, 109, 110, 111, and 113. The building is supplied with service water and potable water.

The first floor of the structure is a process area for the assembly of RTGs. RTGs are sealed contained radioactive sources. The building is segregated into two areas, a buffer area where RTG assembly and storage is conducted, and a controlled area, where support activities occur. The second floor penthouse houses utility services. A floor plan is presented as Attachment 4 (Section 9.72.6.4) and in Volume 12.

An excellent reference for information about Building 50 is the *Final Safety Analysis Report (SAR) for the Building 50 Radioisotopic Thermoelectric Generator Assembly and Testing Facility,* November 1995. This document provides details related to construction, operations, facility management, ES&H, and QA. Because of the high level of current and accurate documentation which exists for this building, some descriptions in this report are abbreviated. It is suggested that the SAR is reviewed in conjunction with this appraisal report.

9.72.3 Summary of Findings

The building is well-maintained. There were several findings of environmental concern identified during the walk-through and subsequent review of reference materials. Of most concern were issues related to air emissions monitoring and wastewater disposition. These issues are discussed in detail in the following sections of this report.

It should be noted that the RTG process assembly was scheduled to begin the day after the appraisal. Continuing operations related to the RTG project had been ongoing in Building 50.

9.72.4 Observations

9.72.4.1 Air Emissions

There are sources of air emissions, including the RTG process and the ethanol cleaning process conducted in Rooms 109, 110, 111, and 112, 113, 114A, and 116. The building is not included in the Mound Air Emissions Database, 11-30-95. Emissions have not been calculated, and no documentation exists to support the determination by the EG&G MAT environmental monitoring group that emissions are de minimis. No air emissions permit applications have been submitted for activities in this building. There is no fugitive dust generated by process or environmental condition.

Building ventilation, both for the buffer and the controlled area, is routed through high efficiency particulate air (HEPA) filters, then exhausted. Ducts conveying air to the filters and subsequently to discharge points were not labelled by content. The HEPA filters are maintained by a technician in Building 50 in accordance with standards followed at Mound: Nuclear Standard NEF3-45, *Specifications for HEPA filters Used by Department of Energy (DOE) Contractors (DOE, 1986)*, and Nuclear Standard NEF3-43, *Quality Assurance Testing of HEPA Filters (DOE, 1984)*. On a weekly basis, pressure differential is measured across the filters by the technician. A report is provided to the building manager. There is no pollution control equipment other than the HEPA filter bank.

While inspecting the penthouse, the appraisal team noted two stack monitors (CAMs) on effluent ducts. For stack monitor RFB, a warning light was on. An audible alarm was not on. The warning light, a 6-inch red dome light, was mounted at the center top of monitor. Maintenance technicians working in the Building 50 penthouse indicated that the alarm was being repaired. The warning light was called to the attention of the building manager, and he accompanied the appraisal team to the penthouse. The building manager had not been notified by Health Physics technicians that it was non-functional.

Posted beside the alarm was a two-page letter from a member of the EG&G MAT Environmental Monitoring Group, dated June 20, 1995, included as Figure 1. It explained that "alarm levels are now components of the Federal Facility Compliance Agreement (FFCA) between the United States Environmental Protection Agency (EPA) and DOE. For this reason it is mandatory that the monitors use the documented alarm values." The second page of the letter provided direction for the alarm setting in Building 50.

Fax Note			
To	E. WARMOTH	From	P.C. MOLLOY
Co./Dept.	EG&G MO	Co.	EG&G MO
Phone #	4317	Phone #	3869
Fax #	3099	Fax #	3223

MOUND

INTEROFFICE CORRESPONDENCE

DATE: June 20, 1995 cc: Distribution

FROM: B. M. Farmer

SUBJECT: Stack Alarm Settings

TO: R. L. Johnson
T. J. Quale

Staff from ET&M, Tritium and Plutonium Facilities, and Radiological Protection have evaluated the alarm settings for the alpha and tritium stacks. As documented on the attached table, alarm values have been established for each stack. These alarm levels are now components of the Federal Facility Compliance Agreement (FFCA) between the U.S. EPA and DOE. For this reason, it is mandatory that the monitors use the documented alarm values.

Since Radiological Protection personnel perform the daily monitor inspections, it is requested that confirmation of the proper alarm setting be added to the daily checklist for each monitor listed in the table. If any alarm value is not consistent with the table, it is further requested that ET&M management receive immediate notification.

Your cooperation in affecting these changes as soon as possible is greatly appreciated. ET&M must meet a 7/7/95 milestone to complete a Quality Assurance Plan (QAP) for the FFCA; documentation of effective stack alarm controls and procedures will be key sections of the QAP.

If you have any questions, please let me know.

Sincerely,

B. M. Farmer

B. M. Farmer

Figure 1

STACK ALARM SETTINGS

ALPHA EMITTING STACKS	ALARM LEVEL
T-WEST (R BLDG) STACK	50 C/M
WDAHR STACK	100 C/M
WDALR STACK	100 C/M
WDSS STACK	100 C/M
BLDG 38	100 C/M
SM-PP STACK	100 C/M
HEFS STACK	50 C/M
SW1CN STACK	350 C/M
BLDG 50 (RED)	70 C/M
BLDG 50 (YELLOW)	70 C/M

TRITIUM EMITTING STACKS	ALARM LEVEL
HEFS STACK (LOW LEVEL)	10 uCi/M^3
HEFS STACK (HIGH LEVEL)	71 uCi/M^3
NCDPF STACK (LOW LEVEL)	15 uCi/M^3
NCDPF STACK (HIGH LEVEL)	15 uCi/M^3
SW219 STACK (LOW LEVEL)	30 uCi/M^3
SW219 STACK (HIGH LEVEL)	36 uCi/M^3
R STACK (LOW LEVEL)	15 uCi/M^3
R STACK (HIGH LEVEL)	231 uCi/M^3
HH STACK (LOW LEVEL)	10 uCi/M^3
HH STACK (HIGH LEVEL)	100 uCi/M^3
T-WEST KYLE (LOW LEVEL)	10 uCi/M^3
T-WEST KYLE (HIGH LEVEL)	100 uCi/M^3
T-WEST 61/63 (LOW LEVEL)	10 uCi/M^3
T-WEST 61/63 (HIGH LEVEL)	100 uCi/M^3
T-EAST (LOW LEVEL)	10 uCi/M^3
T-EAST (HIGH LEVEL)	100 uCi/M^3

During the debriefing, the red warning light on the stack monitor alarm was also called to the attention of the process manager also. He noted that it was a building manager responsibility to assure that the CAM was functional. The process manager added that in the past, the alarm has had several "false alarms" due to the presence of radon. The process manager understood that the process SAR required that the alarm be functioning, and had not been notified that it was non-functional. During the debriefing, there was discussion as to the requirement for the alarm, i.e., was it necessary as the source was encapsulated.

Neither the building manager nor the process manager had been alerted that the warning light was on prior to the appraisal team's discussions on the day of the walk-through. Neither took immediate action to determine the meaning of the red light. It was of concern to the appraisal team that line management had not been notified that the alarm light was on, indicating that it was non-functional.

Subsequent investigation by the building manager and his supervisor determined that the alarm had been inspected and recorded as functional by the Health Physics technician on the day of the appraisal. It has not been determined what caused the warning light to glow red.

To obtain addition information regarding requirements for effluent gas monitoring at Building 50, the appraisers reviewed the *EG&G MAT NESHAPs FFCA Compliance Work Plan, Feb 20, 1995*. There is no mention in the document of monitoring or alarm requirements or historical data from Building 50. The document states that, "The Compliance Work Plan (CWP) has been prepared as required under Section VI of the FFCA. The purpose of the CWP is to describe and characterize all emission points subject to NESHAPs regulations, identify point sources subject to continuous emission monitoring requirements,...." (p. 1-1). The document also states that, "Areas where radioactive materials are present only in sealed containers, such as soil screening laboratories, and areas where fixed contamination is present (it is not mobile in its present state) were not considered release points" (p. 2-4). As noted earlier in this report, the RTG source is encapsulated.

The letter posted by the alarms, calling for monitoring, is dated after the report. There is inconsistency regarding monitoring requirements between the letter and the NESHAPs report. The SAR requires that emissions be monitored and the alarm be functional; the SAR is the basis for the Segment Readiness Review which is performed prior to initiating RTG processes.

9.72.4.2 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.

9.72.4.2.1 Sanitary Wastewater

According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.72.6.5), the building is serviced by a sanitary wastewater collection line. According to the building manager, water from the controlled area drains to the sanitary system. This includes effluent from the shower room. Confirmation of drainage of sanitary wastewater into sanitary lines was not within the scope of this appraisal, therefore neither dye nor smoke tests were conducted.

9.72.4.2.2 Storm Wastewater

The building is serviced by storm drains according to drawings presented in Attachment 5 (Section 9.72.6.5). There are four storm drains located on the east side of the building exterior, and one on the north side. It was outside the scope of this appraisal to perform tests to confirm drainage patterns. Inspection showed no signs of odors, colored discharges, or scarring which would indicate that any materials other than storm water had entered the drains.

9.72.4.2.3 Process Wastewater

Wastewater from the buffer area, i.e., that area of potential radioactive contamination, drains into a 1,100-gallon sump. The water is tested to measure levels of contamination, and subsequently is released to the sanitary treatment plant or trucked to Building WD for treatment. To date, wastewater has not been contaminated and has been released to the sanitary system.

Process cooling water treated with fungicides has on occasion been "dumped" to the storm or to the sanitary collection system. (The appraisal team received conflicting information from the building manager and the process manager.) This has occurred when temperatures of cooling water exceed acceptable limits to protect the process. According to the building manager and the process manager, this practice occurs infrequently, perhaps six times per year.According to the building manager, water drains to the sanitary treatment plant, and there has been no impact on the sanitary treatment plant. In the past, Dow Therm containing fungicide and ethylene glycol was used instead of the fungicide anacocide. On one occasion reported to the appraisal team, approximately 250 gallons of cooling water containing Dow Therm was discharged. Emergency response action by wastewater treatment personnel caused the wastewater to be contained. There is no monitoring of building effluent.

The sump has never overflowed. If it were to overflow, in-ground lines would carry water to the pond at Building 61. This pond is used for settling of surface runoff. Other sumps which have been designed for the same purpose at other buildings at Mound also overflow to the pond at Building 61. The pond at Building 61 has overflowed its banks during heavy rains. Effluent from

the pond is permitted under an NPDES permit. The sumps and potential for radioactive effluents have not been addressed in the permit application.

The sump was installed approximately 15 years ago. It is a steel tank in a secondary concrete containment pit. Integrity has not been tested. There is no procedure in place for visual inspection, or to verify that the sump is watertight.

9.72.4.2.4 Chemicals

Chemicals related to the RTG process and related maintenance activities are found in Building 50. A list is detailed in the BMQ which is presented in Attachment 2 (Section 9.72.6.2). The information was gathered as part of the chemical inventory which is conducted annually. The inventory information dates to 1994, as 1995 data were not yet available at the time of the walk-through. No attempt was made to confirm the accuracy of the inventory by the appraisal team. However, storage, handling, and disposal of chemicals were reviewed to assure conformance to regulations 40 CFR 122, 40 CFR 26-265, and 29 CFR 1910. There was no visual evidence that chemicals had entered the drainage system in Building 50. Asbestos, a chemical listed as a priority pollutant in the Clean Water Act, is found in Building 50

9.72.4.3 Potable and Service Water

Potable water is supplied to the building from a 100-millimeter water line from the SM area water tower, according to information presented in the site drawing and shown as Attachment 5 (Section 9.72.6.5). Water is distributed through the building, servicing restrooms, showers, eyewash stations, safety showers, equipment rooms, and drinking fountains. A steam water heater located in Room 201 provides hot water for showers and lavatories.

Drinking fountains have not been tested for lead contamination. A program is underway at Mound to identify and replace all lead-contaminated fountains.

The potable water and fire main loop are interconnected in the event of a water supply disruption. Dual backflow preventers are installed in the piping crossover manifold in Room 106. Water sources are marked.

9.72.4.4 Chemical Storage and Hazardous Materials

There were janitorial supplies and chemicals stored in the building. Janitorial supplies were in restrooms and shower rooms. There were no Material Safety Data Sheets (MSDSs) available for janitorial supplies. Chemicals were stored in three different locations. All locations had flammable storage cabinets which met National Fire Protection Association (NFPA) requirements, and chemicals were stored in accordance to 29 CFR 1910. MSDSs were available.

The building is equipped with emergency response equipment such as an eyewash, safety shower, and a fire extinguisher. Inspection tags were current. Emergency Evacuation Plan information and signs were posted in work areas as required in 29 CFR 1910.

There are no aboveground storage tanks in or around the building. There are no separators or catch basins in the building. There is a sump; it was discussed in detail in Section 9.72.4.2.3 of this report.

According to the 1995 PCB Annual Document Log, the building does not contain polychlorinated biphenyls (PCBs). There are a number of capacitors located in the control room. Following the walk-through, the process manager and a utility specialist determined that they are a dry type and do not contain PCBs.

The building was tested and does contain asbestos, based on screening recorded in MD-10391, *Asbestos Program Manual* (9-14-95). There is visual evidence that asbestos insulating material on the HVAC chilled water circulation system requires repair. Appraisers noted that a piece of insulation had fallen into the foyer area. Repair has been scheduled.

Compressed gas cylinders are located in Building 50. All are in use. For some cylinders labelling was not in conformance with 29 CFR 1910.151. The process manager planned to label them properly. Near the entrance to Building 50 a large nitrogen tank obscures from view a small bank of hydrogen cylinders. A No Smoking sign should be posted in the area.

9.72.4.5 Solid, Hazardous, and Radioactive Waste

According to information provided in Attachment 2 (Section 9.72.6.2) on the BMQ, hazardous wastes are generated in Building 50. PCB-related waste is not from the building, but from the electrical substation located by the south door.

According to the process manager, the RTG assembly and testing process does not generate hazardous or radioactive waste. Disposable clothing worn by workers in the controlled area is monitored and is not contaminated. It is disposed as LSA waste, consistent with a management practice of diverting such items from local landfills.

Ethanol is used to wipe parts clean during the RTG testing and assembly process. The solvent is used in small quantities of less than 5 gallons per year. Solvent evaporates from paper wipes used to clean equipment. The paper wipes are disposed of as solid waste.

All waste generated in the buffer area is evaluated by Health Physics prior to disposal to determine if there is radioactive contamination, then handled accordingly.

The solid waste stream is characteristic of office waste. Solid waste is removed by janitorial personnel to a site collection point, where waste streams are segregated and sent to recycle or to a local landfill.

Four drums of waste were located on asphalt and gravel outside of the north door of the building. One was marked oil; the others were unmarked. According to the building manager, the origin and ownership was unknown, and the drums had been at the building for an indeterminate time. Following the walk-through, the building manager identified owners, and requested that they properly characterize, store, and dispose of the waste. The building was revisited 60 days

following the initial walk-through. The drums had not been removed. They had been placed on asphalt, but were not labeled as to characterization, and had no secondary containment. The building manager planned to contact owners again to request disposal.

9.72.4.6 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.

9.72.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. Findings related to the environmental appraisal of Building 50 indicate that the following action items, in priority order, should be planned and scheduled.

50-1 Requirements for monitoring of air emissions and the reporting requirements for the associated alarm system must be clarified for members of the Environmental Monitoring Group (EMG) and line managers. Information directing monitoring requirements should be posted at the source. The Environmental Monitoring Group should inform the process and building managers of requirements for monitoring, in accordance with NESHAPs or other requirements. Inconsistencies between the *NESHAPs Compliance Work Plan*, the June 20, 1995 letter of instruction for monitoring in accordance with NESHAPS, should be resolved. Requirements for investigating and reporting of inconsistent information, such that found at Building 50 on the day of the walk-through, i.e., the red light indicating that an alarm was non-functional, should be delineated.

50-2 Operating procedures for the RTG process should be reviewed to determine why the red light on the stack monitor alarm (CAM) was not called to the attention of line management. The reason for the red light to glow, an indication that the CAM is non-functional, should be determined to avoid confusion in the future.

50-3 Process procedures including the Segment Readiness Review, should include a review and report of environmental monitoring and control equipment function.

50-4 Emissions from Building 50 should be included in the Mound Air Emissions Database, and emissions permits requirements investigated. Even though the RTG is an encapsulated source, since emissions from Building 50 come from a buffer area, a de minimis determination may not be allowed, as OAC 3745-15-05(C)(3) states that a de minimis exemption does not apply if the source emits radionuclides. The state may argue that by building configuration and work practice Mound handles the source as though it may emit radionuclides.

50-4 In the event of a system upset or failure, Building-50 has a sump to contain radioactive contaminated wastewater. Information to support design sizing was not available in the SAR. The design basis should be documented and reviewed to determine if it is an acceptable risk for the system to overflow to the pond at Building 61. It is recommended

that the issue of sitewide handling of overflow from "rad" sumps be reviewed to establish that handling is appropriate, and that the pond is adequate to contain the overflow if it occurs at the same time as a storm event.

50-5 The NPDES application contains details regarding sources of wastewater. In a review of information provided to the state by the EG&G MAT EMG, the "rad" sump overflow was not noted as a source or a potential source. Since many other sources were detailed (the sitewide appraisal has identified some sources not known or detailed at the time of submission of the application), the state could infer that the information was deliberately withheld. As data is currently being developed for submission of a new application. It is recommended that a full disclosure of contributors to the storm drainage system be made.

50-6 The emergency response plan or other appropriate document does not detail plans or procedures for wastewater evaluation, containment onsite, or other appropriate handling in the event of an overflow of radioactive wastewater to the pond at Building 61. There is no alarm in place, or any other system to alert appropriate personnel to an overflow. It would require a telephone call from Building 50 personnel to the emergency response center; they would notify the EMG who would then notify maintenance personnel to close effluent gates. Occasionally in the past, emergency response personnel have not notified the EMG regarding other wastewater issues in a timely fashion.

50-7 A routine inspection of the condition and the integrity of the sump should be instituted. Written records should be maintained.

50-8 Waste improperly stored outside of Building 50 must be properly characterized, stored, and disposed of, in accordance with OAC 3745-52-11. Following the walk-through, the building manager determined the owners of the waste, and requested that it be properly managed. A visit to the building made 60 days after the initial walk-through showed no evidence that action has been taken by owners of the waste.

EG&G MAT Waste Management professionals or other individuals knowledgeable of waste disposal practices and requirements have not performed routine field surveillance to evaluate waste characterization, storage, handling, or assure that the Building 50 generator/process manager is properly managing waste streams. It is recommended that such a review be completed.

Training requirements and records of the process manager were not verified to confirm that he had completed appropriate waste management training. This should be reviewed.

50-9 Air handling systems, red, yellow, and white, should be labelled by type, both for ease of maintenance and for emergency response.

9.72.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 50

Appraisers: Nancy Vyas, civil/environmental engineer
Name Discipline

Name Discipline

Name Discipline

Name Discipline

Building Manager: Paul Molloy

Process Manager: Tim Hoy

Date: 1-17-96 a.m.

Appraisal team:

ENVIRONMENTAL APPRAISAL CHECKLIST

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Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-95 am

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	Confirmed visually 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	to BMQ list add ethanol @ ≈ 5 gal/yr
	Is the building in operation? What are the processes and where do they discharge to?	(Y)/ N _____ _____	RTG assembly & storage
	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	non-buffer area to sanitary buffer area to sump → pond by B-61
	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	contains process/cooling → storm water. 1100 gal steel tank in concrete. Fills ≈ 6 times/yr ~~Water tested + discharged~~ to SD or WI
	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)	Storm drain + grate in N at dock 4 storm drains on E

9.72-15 (AIR)

- Exhaust has alarms which are not functioning. Determine reason + maintenance/repair schedule.
- Letter from Farmer posted by RAD monitors
- Check information about sump overflow to pond by B-61. This is potential cross-connect between RAD WW + Storm WW.

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Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96 am

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	All HVAC vented to HEPA filter. Exhaust to stack on roof.
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	Rad sources not included in inventory
	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)	Documentation to support decision for no permit is needed
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.	(Y)/N	Rad source not included in Mound inventory. Other source: ethanol ≈ 5 gal/yr.
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)	used in Rms 113, 110, 109.
	Has there been any release of air contaminants from this building?	Y/(N)	Several false alarms due to radon

• Rad sources monitored by continuous samplers. Determine RAD NESHAP requirements
• Label air vents by conte...

• Determine if permit application has been filed with OHEPA. Develop demonstrated documentation.

Environmental A[illegible]aisal Checklist

Building Name: 50 Appraisers: Vijas Date: 1-17-96 am

CAA Checklist

Comments: Note the number of sources/hoods per room, the number that are active, and the POC on the reference document.
NONE

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: 50 Appraisers: Vyas Date: 1-17-96

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)	Penthouse flammables cabinet - small red can is full w no label
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	(Y) / N	dated 1993. 2 missing
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	Rm 127 - storeroom; improve housekeeping & storage procedures
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)	Spill in cabinet in penthouse.
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	

- Review MSDS annually
- remove chemicals from storage & store properly

Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96

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)	outside cell III - empty & full together. Segregate
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 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: Appraisers: Date:

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	to fill argon & Nitrogen tanks
	Is there proper containment?	Y / N	gases - not necessary
	Is there an above ground storage tank? If so, complete Table B.	Y / N	gas

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
50	5000	liquid N	unknown	Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
50	3000 (est)	argon	unknown	Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N

* not necessary

Source: Observation

Environmental A[illegible]aisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96 am

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 NA	
	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
50	Corridor by 113	RWM 13A	S # 69605604 Hulsey Taylor Not Working!

Source: observation

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Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vgus Date: 1-17-96 am

RCRA Screening Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was charactarization by analysis or by process knowledge? Are lab results or documentation of process knowledge readily available? Note any uncharacterized material in comment section. Is it waste? If yes, proceed with next section.	Y / (N) analysis / process Y / N Y / N	There are 4 containers outside of N entrance of bldg. Characterize & dispose.
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	

- Update BMQ to reflect that haz waste is not generated in bldg.

- Characterize & dispose of waste outside of N entrance (4 drums)
- Update waste stream documentation for characterization.
- Label + contain all wastes. Dispose of them immediately.

Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96

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	

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Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96

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. 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 _____ 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: 50 Appraisers: Vyas Date: 1-17-96

RCRA Checklist

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

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Environmental Appraisal Checklist

Building Name: 5D Appraisers: Vyas Date: 1-17-96

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: Appraisers: Date:

Asbestos Screening Checklist

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

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos? 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	Work order written & maintenance scheduled for asbestos repair. Investigate mens room, vestibule, mechanical room in penthouse 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	NO CURRENT MAINT.
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: 50 Appraisers: Vyas Date: 1-17-96

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

Does this facility potentially contain any PCB's or PCB contaminated equipment? *	Y / N possible	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	
	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	

* In amplifier room there is a bank of capacitors. Check to see if they contain asbestos. If so, label appropriately.

Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96

TSCA Checklist

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

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9.72-30

Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement?	Y / N	
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: Appraisers: Date:

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? If the answer is no, note. If the answer is yes, proceed with next section.	Y / N	Rad material is encapsulated. There is no contamination. There is a potential for contamination.
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 NA	
	Is the waste stored in a configuration that protects ground-water resources?	Y / N NA	
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 NA	
	Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y / N NA	

Technicians wear rad-type smocks, clothing is handled as LLW.

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Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response NA	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 Appraisal Checklist

Building Name: 50 Appraisers: N Yoes Date: 1-17-96

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response NA	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: 50 Appraisers: V yns Date: 1-17-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response N/A	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: 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.

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y / (N)	
	Are there solvent wastes?	(Y)/ N	Ethanol used @ 5gal/yr volitilizes,
	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? N/A	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: 50 Appraisers: Vyas Date: 1-17-96

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			
	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: 50 Appraisers: Vyas Date: 1-17-96

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?	NA Y / N	
	Is crystallization used to remove corrosives from solution by cooling?	Y / N	
	Is the process of evaporation of liquid wastes by heating used to leave behind a more concentrated solution?	~~Y / N~~	
CYANIDE AND REACTIVE WASTES		NA	
	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		NA	
	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: 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	
OILS			
	What kind of oils are used?		Vacuum pump, refrigerant oil, lube oil, capacitor oil
	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?	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	

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Environmental Appraisal Checklist

Building Name: 50 Appraisers: Vyas Date: 1-17-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?	NA	No oil/water wastes are produced.
	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:	N/A	
	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: 50 Appraisers: Vyas Date: 1-17-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response NA	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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M o u n d Electronic Message/AOS

From :Gary D. Miller
MILLGD
Dept. :Operations
Tel. No :3574
Date :22-Mar-1996 02:51pm EST
Subject :Building 50 Environmental Appraisal

TO :Nancy Vyas (PAPER MAIL)
TO :Eunice Warmoth (WARMEM)

This is to document that I find portions of the Building 50 Environmental Appraisal in conflict with information I have received from the Building Manager and through my own investigations.

While the team noted a nonfuctioning effluent CAM, the Building Manager did not notice it and does not recall it being pointed out on the tour. He also did not come away from the tour with the understanding that there was an unresolved issue regarding the effluent CAM. The Building Manager is very aware that this is designated as building safety equipment in the FSAR and is required to be functional. In fact, its operability is one of the items he independently verifies each workday on his walkthrough as he is verifying that all LCOs are in place.

Facts that have been retrieved since 3/21/96 when this issue came to my attention are:

1. The LCO daily record book shows that the RCT verified the CAMs as being operational the morning of 1/17/96. As well, the Building Manager noted nothing unusual on his tour.

2. The Plan of the Day does not indicate that any CAMs were under maintenance or repair.

3. The Plan of the Day does indicate that there was a maintenance job going on related to the chill water system, in particular the alarms on the part of it that services the IAAC. There should be no connection between this system and the CAMs, but it does explain the presence of maintenance personnel in the penthouse working on alarms.

My investgation leads me to believe that what was seen on the tour was a CAM with its red failure light on. (It is normal for the CAM to cycle between counting and failure.) However an individual on the tour believes he saw the large red light on top of the CAM either constantly lit or flashing. All parties agree that the bell was not ringing. CAM alarms come in to a central location at Mound. Neither I nor the Building Manager was informed of a CAM alarm.

As a follow-up, I will investigate with with experts from Mound Radiological Engineering and the HP Calibrations Laboratory what events might cause a CAM to display a constantly lit warning light or a flashing light with no bell actuation.

Gary Miller
HS/RTG Facility Manager

MAR-25-1996 08:02 EGGE MOUND 5138653485 P.03
TOTAL P.03

Good

- training ~~plans~~ profiles posted
- flammables well managed except in storage room
- Good house keeping except for storage room
- Farmer letter posted by Rad monitoring device on exhaust

General Improvements Suggested

get rid of stuff outside via characterization & disposal

monitoring req? — Farmer's letter posted

alarm to be repaired/removed

check sump overflow to Pond by B61. Reroute if necessary.

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9.72.6.2 Building Manager's Questionnaire

T.C. Molloy 01/16/96

Rec'd 01/02/95

Building Manager's Questionnaire

Building Name: 50 Building Manager: P.C. Molloy Phone: 3869 Date: 12-07-95

Alternate: T.J. GEESLER Phone: 5568

Tim Hoye - Chem E

RWP 500296 500396

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

PER TNC PLAN # B001; COURSE NO. 050041; 056050; 035063; 476103; G001; G002; PRIOR FOR ALL THOSE WHO REQUIRE PERMANENT (UNESCORTED) ACCESS TO BLDG. 50; ALL EMPLOYEES REQUIRE G001 NOTE: SEE ATTACHMENT

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

NORMAL PPE WITHIN THE B0-50 AREA IS SAFETY GLASSES, SAFETY SHOES; PENTHOUSE REQMT FOR HARD HAT, ROOF AREAS REQUIRE HARD HAT, OR AS DIRECTED BY THE RCT ON THE SPECIFIC RADIATION WORK PERMIT (RWP); DOSIMETER IS REQUIRED.

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

Where are they? CELL 112; CELL 108

4. Provide a physical description of the building.

This is a two-story structure containing 14,849 ft^2. It is constructed of reinforced concrete and concrete block with a BUM roof (coal tar). (HEPA) HVAC systems are central steam and chilled water. The building was built in 1971.

(High Efficiency Particulate air)

See Ref: FSAR MLM-ML-91-52-0005 REVISION 02 NOV. 1995

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 to assemble and test RTGs.

Source: Mound Buildings, 5-9-95

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

Originally built as a test laboratory for evaluating the integrity of radioactive heat sources. Later modifications have provided the capability for assembly and testing of RTG's.

Source: Mound Buildings, 5-9-95

9.72-49

Building Manager's Questionnaire

Building Name: 50 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: RTG assembly and testing

How Wastes Are Generated:

Hazardous wastes are not routinely generated in this building. There are three possible sources of occasional wastes.

First, water from the building is collected in a 1,100-gal sump where it is tested for radioactive contamination. If it is not contaminated (the normal condition), it is released to the sewer. If it is contaminated, it is sent to WD for treatment.

Second, the coolant in the closed chilling loop can be released to the sewer if there is a loss of power or other failure of the system. The fluid in that cooling loop previously contained about ~~250 gal of~~ ethylene glycol. That material has been replaced with Dow Therm which is supposed to cause fewer environmental concerns. Several options for modifying the cooling system so that Dow Therm will not be released to the sewer are being considered.

Freon and alcohol are used to wipe parts clean. The solvents are normally used in very small quantities and evaporate, leaving no waste liquids. In the rare instances where larger amounts are needed and wastes are generated, the wastes are collected and Waste Management is asked to pick them up.

No radioactive or explosive wastes are generated in this building.

Contact:
Phone:

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

9.72-50

Building Manager's Questionnaire

Building Name: 50 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
			Y / N					
			Y / N					
			Y / N					
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

Bad records properly voided.

9.72-51

Page 4 of 11 of the Building Manager's Questionnaire was not provided.

Building Manager's Questionnaire

Building Name: 50 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)
OXYGEN	G	5/CF
PUMP OIL	L	1/QT
PUMP OIL 704	L	5/L
TAP MAGIC CUTTING FLUID	L	1/QT
TFE SPRAY	L	16/OZ
TRACIT-600 HARDENING CEMENT	L	2/GA
ABOVE FLOOR FINISH	L	3/GA
AJAX CLEANER	S	4/LB
IRON STONE ACRYLIC SEAL	L	5/GA
NABC BATHROOM CLEANER	L	4/QT
PMQ CLEANER	L	5/GA
POLISH,FURNITURE	L	17/OZ
STRIPPER PROFESSIONAL #237	L	1/GA
WINDOW SHINE GLASS CLEANER	L	2/GA
ARGON		6000/CF
ARGON LIQUID		600/GA
ARGON ULTRA PURI		1125/CF
ARGON(95)HYDROG		3500/CF
ARGON(96)HYDROG		800/CF
COS(1.97%)/CO(1 GON(R)		250/CF
HELIUM		3000/CF
LIQUID NITROGEN		110/GA
ACETYLENE GAS		225/CF
ACTIVATED ALUM		36/LB
ANCOCIDE 4020		3/GA
ANCOCIDE 4070		3/GA
ANCOOL 3310		5/GA
DOWTHERM SR-1,		30/GA
FREON GENETRON		90/LB
3 IN 1 OIL		3/OZ
ACETONE	L	1/L
BUTANE FUEL	G	9/OZ
CHEM GLAZE WASH PRIMER	L	6/GA
DUO SEAL PUMP OIL	L	2/GA
ETHYL ALCOHOL	L	2/GA
LAQUER THINNER	L	0.5/GA
MINERAL SPIRITS	L	2/GA

COORDINATE FROM

MIKE

9.72-53

Building Manager's Questionnaire

Building Name: 50 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?

Normally collected in metal drums and eventually turned over to Waste Mgmt. for proper disposal.

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

General floor & restroom supplies as used at Mound.

23. Where do excess janitorial supplies go?

Normally close to south entry corridor.

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

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Environmental Appraisal of the Mound Plant

Page 7 of 11 of the Building Manager's Questionnaire was not provided.

Building Manager's Questionnaire

Building Name: 50 Building Manager: P.C. Mollov Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

Materials	Amount
ZINC BROMIDE, WATER WASTE	999.9
ZINC BROMIDE, WATER WATE	451.5
ZINC BROMIDE, WATER WASTE	999.9
ZINNC BROMIDE, WATER, ABSORBED IN	849.7
FLUORCO	
ZINC BROMIDE, WATER ABSORBED IN	961.4
FLUORCO	
ZINC BROMIDE, WATER, ABSORBED IN	368.1
FLUORCO	
ZINC BROMIDE, WATER, ABSORBED IN	328.9
FLUORCO	
PCB CAPACITORS(6)>500PM,SN:	345.4
6908-3946,6904-6800,-6794,-6809,800	
4-2465,-0592	
PCB OIL>500PM,FROM SN:G856883	686.4
PCB OIL>500PPM,FROM SN:G856883	499.4
PCB OILL>500PMM, FROM SN:G856883	686.4
PCB TRANSFORMER>500PPM,SN:	495.8
G856883,OUT OF SERVICE DATE	

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

Substation by South door -
capacitors - have failed in ~~Bldg~~ Amplifier Rm.

Cc w Dave Weimer 3323

9.72-56

Environmental Appraisal of the Mound Plant

Page 8 of 11 of the Building Manager's Questionnaire was not provided.

Building Manager's Questionnaire

Building Name: 50 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: _____

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Environmental Appraisal of the Mound Plant

Page 10 of 11 of the Building Manager's Questionnaire was not provided.

Building Manager's Questionnaire

Building Name: 50 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.
Plantwide program exists.

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

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NUCLEAR ENERGY PROGRAMS DEPARTMENT TRAINING PLAN

Issued: December 19, 1995

Section: Nuclear Energy **Training Plan: #B001**

Group: Plutonium Facilities and Quality Engineering **Facility: Building 50**

Course No.	Course Title	Position Affected	Type of Course	Regulatory Requirement	Re-training Period
050041	Building 50 OSR/LCO Orientation	1	Class	Mound	None
050050	Bldg. 50 Sensitivity Training	1	Class	Mound	None
035063	Rad Worker II	1	CBT	10 CFR 835	Biennial
470103	Criticality Alarms and Assembly Area Procedure	1	SS	DOE 5480.24 MD 10038	Biennial
G001	General Employee Training Plan (GET)	5	All Employees are required to complete the training requirements listed in the GET. Refer to training plan #G001.		
G002	Supervisory Training Plan	1 2	Supervisors are also required to complete the training requirements listed in the Supervisory Training Plan. Refer to training plan #G002.		

Radiation Work Permit Training (?)

~~Brian Brumley x4654~~
~~Gogosky x4409~~

— Note: In approval/review process

Updated version, 01/16/96 PLM

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NUCLEAR ENERGY PROGRGAMS DEPARTMENT TRAINING PLAN

Issued: December 18, 1995

Section: **Nuclear Energy** **Training Plan: #B001**

Group: **Plutonium Facilities and Quality Engineering** **Facility: Building 50**

KEY:

Position Affected	Type of Course	Regulatory Requirement	Re-training Period
1 = All those who require permament access (unescorted) to Bldg. 50 5 = All employees 2 = Supervisors	Class = Classroom OJT = On-the-job-training CBT = Computer based training SS = Self study Video = Videotape	DOE order or other Agency requiring the training	None = Course taken once, no re-training is required Annual = Employee must be re-trained every year Biennial = Employee must be re-trained every two years

NOTES:

This training plan lists the minimum required training, by position, for employees working in the facility listed. Individuals may have additional training needs depending on their job responsibilities.

NUCLEAR ENERGY PROGRGAMS DEPARTMENT TRAINING PLAN

Issued: December 18, 1995

Section: **Nuclear Energy** **Training Plan: #B001**

Group: **Plutonium Facilities and Quality Engineering** **Facility: Building 50**

Training and Employee Development is responsible for reviewing this plan for format, providing assistance to the Group/Unit Manager in developing the required course list, and maintaining the approved document in Training Records.

It is the responsibility of the area line supervisor to determine the exact training needs of each employee, approve the plan, and keep the plan up to date through periodic reviews as needed.

Reviewed by:

Training Analyst: Robert E. Abram _____ Date _____
(signature)

Approved by:

Building Manager: Paul C. Molloy _____ Date _____
(signature)

Plutonium Facility Manager: Gary D. Miller _____ Date _____
(signature)

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TOTAL P.007

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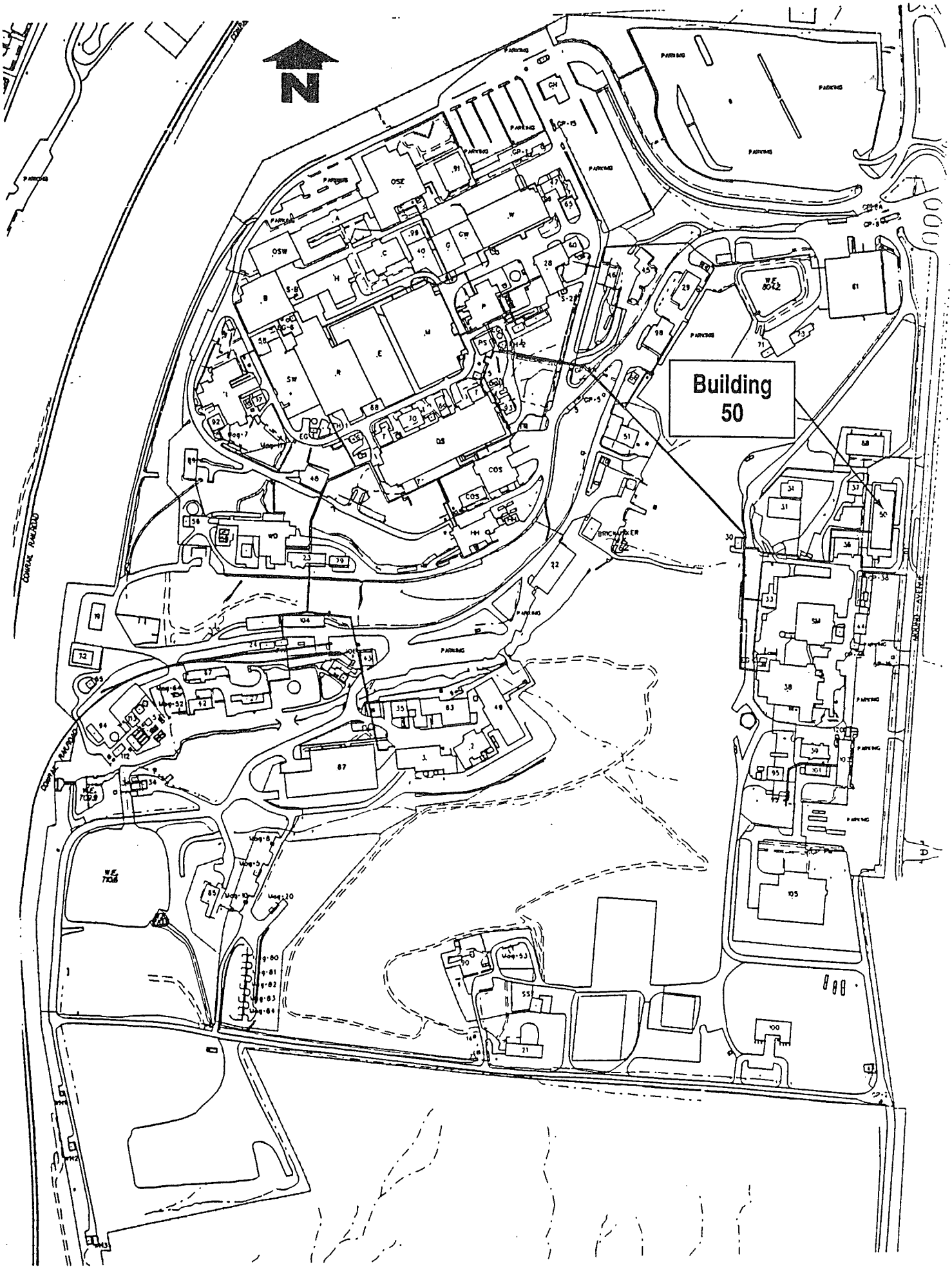
9.72.6.3 Location of Building 50



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

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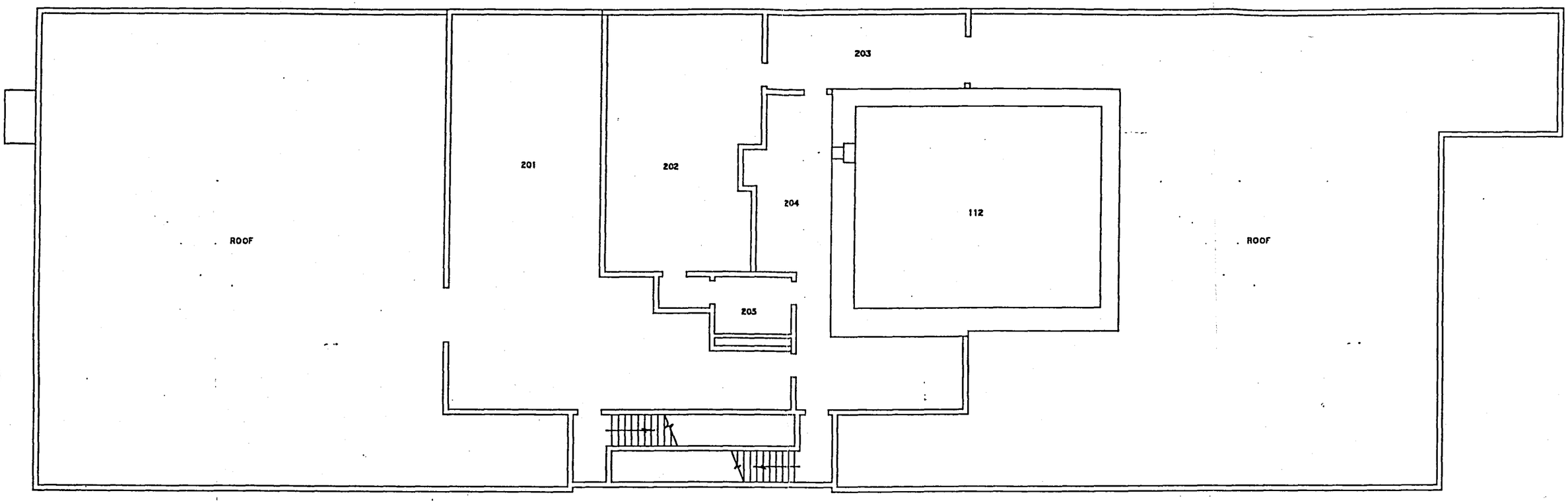
9.72.6.4 Floor Plans for Building 50

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

9.72.6.5 Underground Utility Lines



UNCLASSIFIED

0 3' 6' 10' 20'

DERIVATIVE CLASSIFIER

(Name)

(Title) (Date) 2/29/96

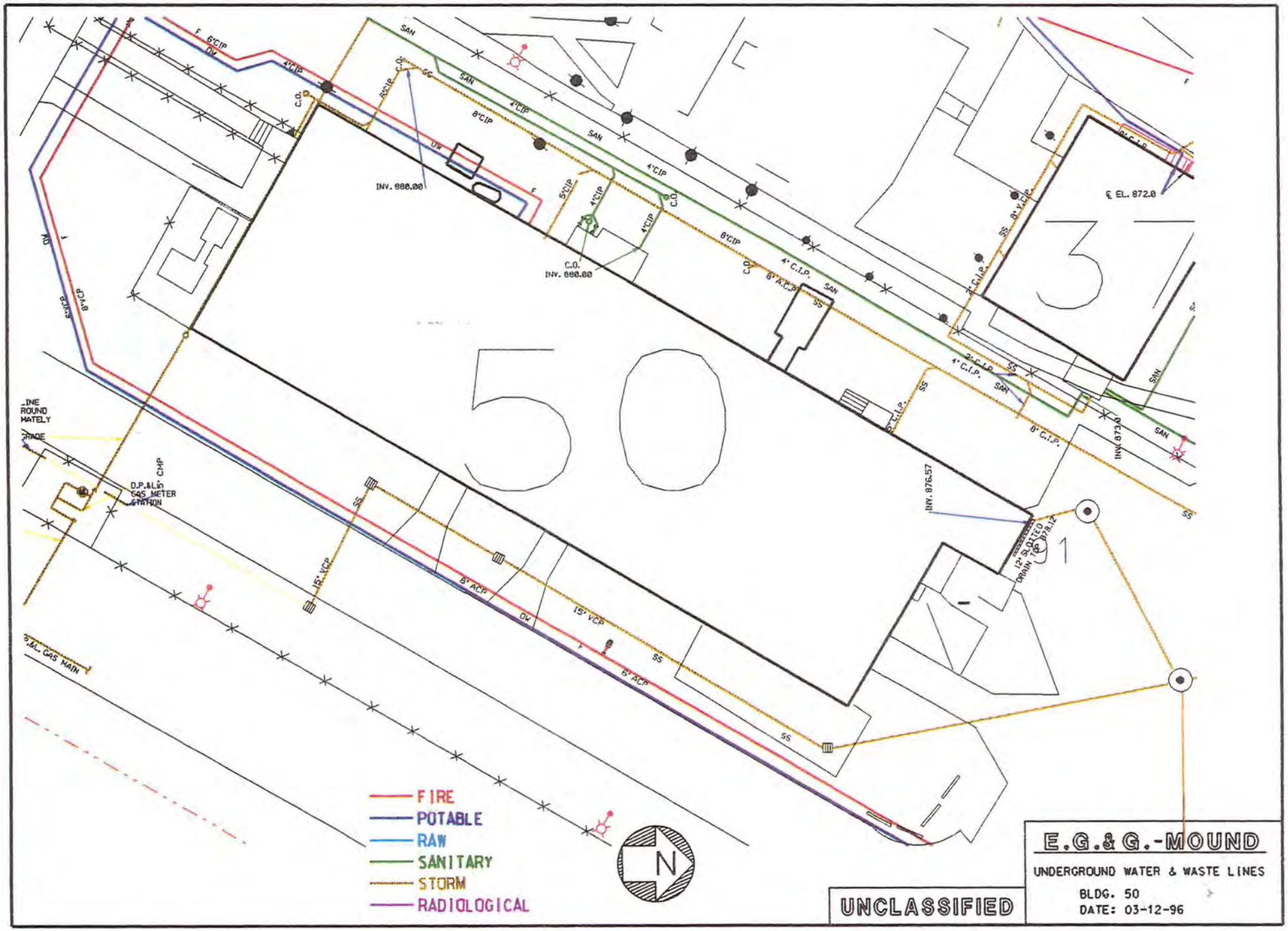
BLDG #50
PENTHOUSE
BLDG CODE:3050

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.

DRAWING NUMBER	FSD911260
JOB NUMBER	12335
DRAWING CLASSIFICATION	UCNI
SIZE	D
CADEC	14065
SCALE	AS NOTED
ISSUE	0
SHEET	2
STATUS	MD-REL-12/12/91

9.72-71


50
37
FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL
N
UNCLASSIFIED
E.G.&G.-MOUND
UNDERGROUND WATER & WASTE LINES
BLDG. 50
DATE: 03-12-96
INV. 880.00
C.O.
INV. 880.00
℄ EL. 872.0
INV. 876.57
INV. 873.0
12" S.D.T.C.D.
DRAIN TIE 878.12
D.P.&L.'S GAS METER STATION
8" ACP
15" VCP
4" C.I.P.
8" C.I.P.
8" A.C.P.
8" CIP
4" CIP
5" CIP
6" CIP
SAN
SS
DW
UW
F
CHP
8" L.P. GAS MAIN

9.72.6.6 Photographs

Mound Plant Building 50

9.72-81

9.73 BUILDING 51

9.73.1 Scope of Building 51 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 51 on the morning of February 22, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.73.6.1). The appraisers were not accompanied by the building manager. The team revisited the building, accompanied by the building manager, on the afternoon of March 18, 1996. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.73.6.2).

9.73.2 Description of Building 51

Building 51 is a 3,541-square-foot, one-story steel frame building with a high bay area and a metal roof. Its location is shown in Attachment 3 (Section 9.73.6.3). The facility is located in the central portion of the valley between the main plant hill and the SM/PP Hill. The building is serviced with central steam and chilled water. Electric service is 480V.

The building was constructed in 1970 with the purpose of providing waste incineration for the Mound Plant. The plant was designed to burn nearly all of the plant's non-radioactive solid wastes and some liquids including paints, oils and solvents. The plant was plagued with problems and never performed at its designed capacity. The incinerator operated at various loading capacities from 1971 until February 15, 1974, when it was completely shut down, (*RI/FS, OU 9, Site Scoping Report: Vol. 7 - Waste Management*). The incinerator was disassembled, and removed from Mound on May 22, 1979. The associated waste oil tank which stored waste oils and waste solvents prior to incineration was removed in November of 1990, (*RI/FS, OU 9, Site Scoping Report: Vol. 7 - Waste Management*).

Building 51 was most recently used in support of thermite production and the production of carbon for a lithium battery capacitor research project. Thermite is an energetic material. All support operations in the facility have been ceased and the facility is currently undergoing Safe Shutdown.

9.73.3 Summary of Findings

As noted, the facility is currently in the process of being shut down with all support operations suspended. Support equipment was found to be in various stages of disassembly on the day of the visit, and upon revisit it was obvious that the Safe Shutdown process was proceeding as additional disassembly and removal of equipment had occurred. There were several issues of environmental concern noted during the facility walk-through.

9.73.4 Observations

9.73.4.1 Air Emissions

The facility has two air emission sources (both fumehoods in Rooms 106 and 107) that are listed in the 1995 Mound Air Emissions Database. The processes which generated air emissions are no longer active in Building 51. No other air emissions sources were noted during the facility walk-through. There was no evidence of fugitive dust. A review of air handling systems for thermite contamination was not conducted.

9.73.4.2 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.

9.73.4.2.1 Sanitary Wastewater

The facility is serviced by a sanitary drain line as shown in the diagram of undergound utility lines presented in Attachment 5 (Section 9.73.6.5). Additionally, there were several floor drains located in corridors and rooms of the facility. One floor drain in the northeast corner of Corridor 108 showed evidence of liquid entering the drain (sorbent dams surrounding the drain). The building manager indicated that there had been a glycol leak and that it had been repaired. A request was generated to have the sorbent dams removed by Waste Management. Additionally, it was noticed that a leak of some unknown fluid from an overhead line, the source of which could not be confirmed, had occurred in Corridor 8. There was evidence of staining on the overhead pipes, mounted air conditioner, and floor below the leak. It was not determined if action was taken to preclude fluids from leaking utility systems to enter surface water collection systems.

9.73.4.2.2 Storm Wastewater

The facility is serviced by a storm sewer according to information shown on drawings presented in Attachment 5 (Section 9.73.6.5). Confirmation of drainage of stormwater into the stormwater system was not within the scope of the project and was therefore not verified with dye or smoke tests. Inspection showed no signs of odors, colored discharges, or scarring which would indicate any hazardous materials entered the storm water system.

9.73.4.2.3 Chemicals

With the exception of hand soap, chemicals have been removed from the facility under the Safe Shutdown Program. It should be noted that utility systems within the building do contain glycol. As discussed above, there was evidence of a previous leak.

9.73.4.3 Potable and Service Water

Potable water and service water are 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 Environmental Protection Agency protocol, annual sampling criteria do not require testing of each fountain.

9.73.4.4 Chemical Storage and Hazardous Materials

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.

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.

All chemicals associated with DOE support work have been removed from the facility. The facility was used to support various thermite (energetic material) production activities. There may be thermite contamination within the rooms and equipment utilized in support of thermite production.

The underground waste oil storage tank was removed in 1990, (*RI/FS, OU 9, Site Scoping Report: Vol. 7 - Waste Management*). On the south side of the building there is a concrete basin extending out and slightly above the dock area. Discussions with the building manager indicate that this basin was used as a flyash cleanout for the incinerator. Engineering drawings of Building 51 were reviewed, but the basin was not located on any of the drawings. The contents of the basin are unknown to the building manager and there is no record of inspection.

Research activities using radioactive materials has not occurred in the building, however, there has been research and production activities using energetic materials (*Mound Facility Physical Characterization, 12-1-93*)

9.73.4.5 Solid, Hazardous and Radioactive Wastes

Idle equipment which may contain hydraulic oil, pump oil, etc. is present in Rooms 106 and 107.

The facility is assumed to contain asbestos (MD-10391, *Asbestos Program Manual, 9-14-95*). No evidence of friable asbestos was noted during the walk-through.

There are no polychlorinated biphenyl (PCB) containing devices in or around the facility, (1995 PCB Annual Document Log).

9.73.4.6 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.

9.73.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.73.6.6). The environmental appraisal of Building 51 indicates that the following action items, in order of priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

51-1 Investigate the potential for thermite contamination in the building and in the air handling systems.

51-2 The nature of the overhead leak which caused the staining of overhead lines, the mounted air conditioner, and the floor should be investigated to determine if the floor drain system has been contaminated. If hazardous material is present appropriate action should be taken. Additionally, determine if the leaking condition has been corrected, and correct as necessary to avoid potential leaks to wastewater collection systems.

51-3 The concrete basin located on the south side of the facility and associated with the dock should be investigated as to the nature of the basin and determine if any hazardous constituents have accumulated inside it.

51-4 Air emission sources in Room 106 and Room 107 of Building 51 are no longer active. An air permit has been issued or an application is on file for this source with RAPCA. RAPCA should be notified of this change in status.

Environmental Appraisal of the Mound Plant

9.73.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 51

Appraisers:

Name	Discipline
MARCIA VANNET	CHEMIST
MARK GILLIAT	ENGINEER
MYRON SMITH	ENGINEER

Building Manager: BOB WARD

Process Manager:

Date: 2/27/96

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 Ap[illegible]sal Checklist

Building Name: 51 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 _____ _____	
	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	**

* all chemicals removed from building

** concrete basin in back of facility - flyash cleanout from historical incinerator

9.73-9

9.73-10

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 / 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	

* Air emission sources on 95 list but now inactive

Environmental A[illegible]aisal Checklist

Building Name: 51 Appraisers: TEAM 4 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
Bd 51 Navigational Depositor	106	51106 0002	(Y) / N	Y / (N)					
			Y / N	Y / N					
PaN Process	107	05110 70001	(Y) / N	Y / (N)					
			Y / N	Y / N					
			Y / N	Y / N					

Source: _____

9.73-11

9.73-12

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	
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y / N	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y / N	

* all chemical removed from facility

Environmental Appraisal Checklist

Building Name: 51 Appraisers: TEAM 4 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	
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	

BLANK

9.73-13

9.73-14

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

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	

*LN_2 tank 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
		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

Source: _____

Environmental Appraisal Checklist

Building Name: 51 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.

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
51	Corridor 8	Oasis	(No Model # could be seen)

Source: _____

9.73-15

9.73-16

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Screening Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was charactarization by analysis or by process knowledge? Are lab results or documentation of process knowledge readily available? Note any uncharacterized material in comment section. Is it waste? If yes, proceed with next section.	Y / N analysis / process Y / N Y / N	
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	

* There is some waste being generated as part of safe shutdown (see report)

Environmental Appraisal Checklist

Building Name: 51 Appraisers: TEAM 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. BLANK 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	

9.73-17

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 _____ 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: 51 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	
	If the answer was no, then proceed with the following:	Y / N	
	Has the tank or piece of equipment had an integrity assessment?	Y / N	
	Is there a sump?	Y / N	
	Is it dry?	Y / N	
	Does the tank or equipment have secondary containment?	Y / N	
	Does the tank or equipment have leak detection device(s)?	Y / N	
	Has spill control prevention been enacted?	Y / N	
	Has any hazardous waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	
	If the answer was no, then proceed with the following:		
	Has the tank or piece of equipment had an integrity assessment?	Y / N	
	Does the tank or equipment have secondary containment?	Y / N	
	Does the tank or equipment have leak detection device(s)?	Y / N	
	Has spill control prevention been enacted?	Y / N	
	Is there a closure plan?	Y / N	
	If yes, then note.		
OAC 3745-67	Has any of the waste been managed in a surface impoundment? If yes, then note. Go to the next section.	Y / N	

BLANK

9.73-19

9.73-20

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	BLANK
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: 51 Appraisers: TEAM 4 Date: 2/27/96

Asbestos Screening Checklist

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

Suspected (Miller, 1995)

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos?	Y / N	
	If no for this building or area note this conclusion in the comment section.		
	Is there any evidence of friable asbestos?	Y / N	
	Is the asbestos removal properly managed? (See questions listed below)	Y / N	If there is no asbestos removal, do not complete the following section.
NESHAPS FOR ASBESTOS FOR ANY ONGOING ASBESTOS REMOVAL:			
40 CFR 61.156	There are no discharges of visible emissions to the outside air from collection, processing, packaging, transporting, or deposition of ACBM during the removal.	Y / N	
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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Building Name: Appraisers: Date:

9.73-22

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

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

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	
	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	

BLANK

Environmental Appraisal Checklist

Building Name: 51 Appraisers: TEAM 4 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	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 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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Building Name: Appraisers: Date:

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

GENERAL COMMENTS:

Building Name: 51 Appraisers: TEAM 4 Date: 2/27/96

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? 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: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: 51 Appraisers: TEAM 4 Date: 2/27/96

Low-Level Waste and Transuranic Waste Checklist

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

9.73-27

Building Name: Appraisers: Date:

9.73-28

Low-Level Waste and Transuranic Waste Checklist

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

Environmental A[illegible]aisal Checklist

Building Name: 5C Appraisers: TEAM 4 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	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:

9.73-29

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.

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y / N	
	Are there solvent wastes?	Y / N	
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	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	

* some waste is generated during safe shutdown

Environmental Appraisal Checklist

Building Name: 51 Appraisers: TEAM 4 Date: 2/27/96

Waste Minimization/Pollution Prevention Activities Checklist

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

BLANK

9.73-31

Building Name: Appraisers: Date:

9.73-32

Waste Minimization/Pollution Prevention Activities Checklist

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

BLANK

Environmental Appraisal Checklist

Building Name: 51 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	
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

BLANK

9.73-33

9.73-34

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	
SOLVENT WASTES			
	Has there been an attempt to reduce volume or toxicity by:		
	Eliminating solvents?	Y / N	
	Reducing the use of solvents?	Y / N	
	Reducing the loss of solvents?	Y / N	
	Increasing recyclability?	Y / N	
	Are solvents segregated?	Y / N	
	Are waste solvents free from water and garbage?	Y / N	
	Are recycled solvent containers labeled as such?	Y / N	
	Are containers kept closed?	Y / N	
	Free and sheltered from the elements?	Y / N	
	Are solvent tanks kept as free from contaminations as possible so that the waste can be recycled?	Y / N	
	Is a method used to minimize the use of new materials such as a countercurrent process?	Y / N	

BLANK

Environmental Appraisal Checklist

Building Name: 51 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	BLANK
	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?	_____ _____	

9.73-35

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9.73.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 51 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.)?

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 building consists of one story with a high bay area and basement. The steel frame building with metal roof was built in ~~1972~~ 1970 and contains 3,541 ft^2. HVAC systems are central steam and chilled water. The building is contaminated with energetic materials but is not contaminated with radiological materials or asbestos contained in the thermal insulation system.

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Building ~~currently supports~~ supported the production of thermites and the production of carbon for a lithium battery capacitor research project funded by Sandia and private industry.
Building now in safe shutdown program

Source: Mound Buildings, 5-9-95

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

WASTE INCINERATOR

Source: Mound Buildings, 5-9-95

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Building Manager's Questionnaire

Building Name: 51 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, low-density foam production

How Wastes Are Generated:

In one section of this building, thermites are pressed, machined, and sometimes deposited in a thin film using a plasma spray facility. The only wastes generated in these operations are small amounts of thermite. They are packaged and transported to the onsite burn facility for destruction.

In the remainder of the building, low-density foams are being produced. In this operation no hazardous wastes are generated. Some non-hazardous wastes generated include: salt brine, 0.4 normal nitric acid neutralized with sodium hydroxide, and small amounts of alcohol from squeeze bottles. All of the materials are flushed down the drain. Acetone is sometimes used on paper or cloth for cleaning. It evaporates. Gaseous phenolic compounds generated when phenolic resins are heated in ovens are released through hoods.

* OLD PROCESSES & WASTES — BUILDING NOW IN SAFE SHUTDOWN PROGRAM

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: 51 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? Yes

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
BD 51 Maurial Depositor	106	51106 0002	Y	particulates	.001		.936	
PaN Process BD 51	107	05110 70001	Y	polyacrylonitrile	.0056		2.8	
			Y / N					
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

9.73-41

Building Manager's Questionnaire

Building Name: 51 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.

Process Source	Emissions	Control Equipment	Functioning
Pan Process		inpingement scrubber	Y / N
Material Disposition		inpingement scrubber	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
Pan Process *	P024/06-26-42	Y / N	Not exceed 0.000045 lbs TFY hydrogen cyanide; 0.00_____ 0.037 TFY _____ PAN not exceed 8 lb. week; weekly records must be maintained. Shall install, operate, and maintain equipment to continuously monitor HCN concentrations in the exhaust stack of source; outlet HCN not exceed 10 ppm; shall maintain records of monitor recalibration and weekly inspections to ensure proper functioning. Shall determine scrubber _____ prior to and at the end of initial source operations; NaOH scrubber solution pH shall not be less than 11. Shall notify RAPCA ___ HCN exceeds 10 ppm, immediately and steps taken to reduce outlet concentration.
Material Disposition	557091196P020	Y / N	Particulate matter (metals) less than 0.19-Py; water cascade in good condition and sludge level less than or equal to 2 inches.

Source: Air Permits 2/4/95

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

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

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

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

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

* OLD PROCESSES - BUILDING NOW IN SAFE SHUTDOWN

9.73-42

Building Manager's Questionnaire

Building Name: 51 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? NO

Source: PCB ANNUAL DOCUMENT LOG

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

Source: PCB ANNUAL DOCUMENT LOG

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

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

9.73-43

Building Manager's Questionnaire

Building Name: 51 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: _____

* see report

Building Manager's Questionnaire

Building Name: 51 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~~	~~500 gal~~		~~Y/N~~	
				Y/N	

TAKEN OUT OF SERVICE

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

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

9.73-45

Building Manager's Questionnaire

Building Name: 51 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: _____

9.73-46

Building Manager's Questionnaire

Building Name: 51 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: _____

9.73-47

Building Manager's Questionnaire

Building Name: 51 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.

9.73-48

Building Manager's Questionnaire

Building Name: 51 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

9.73-49

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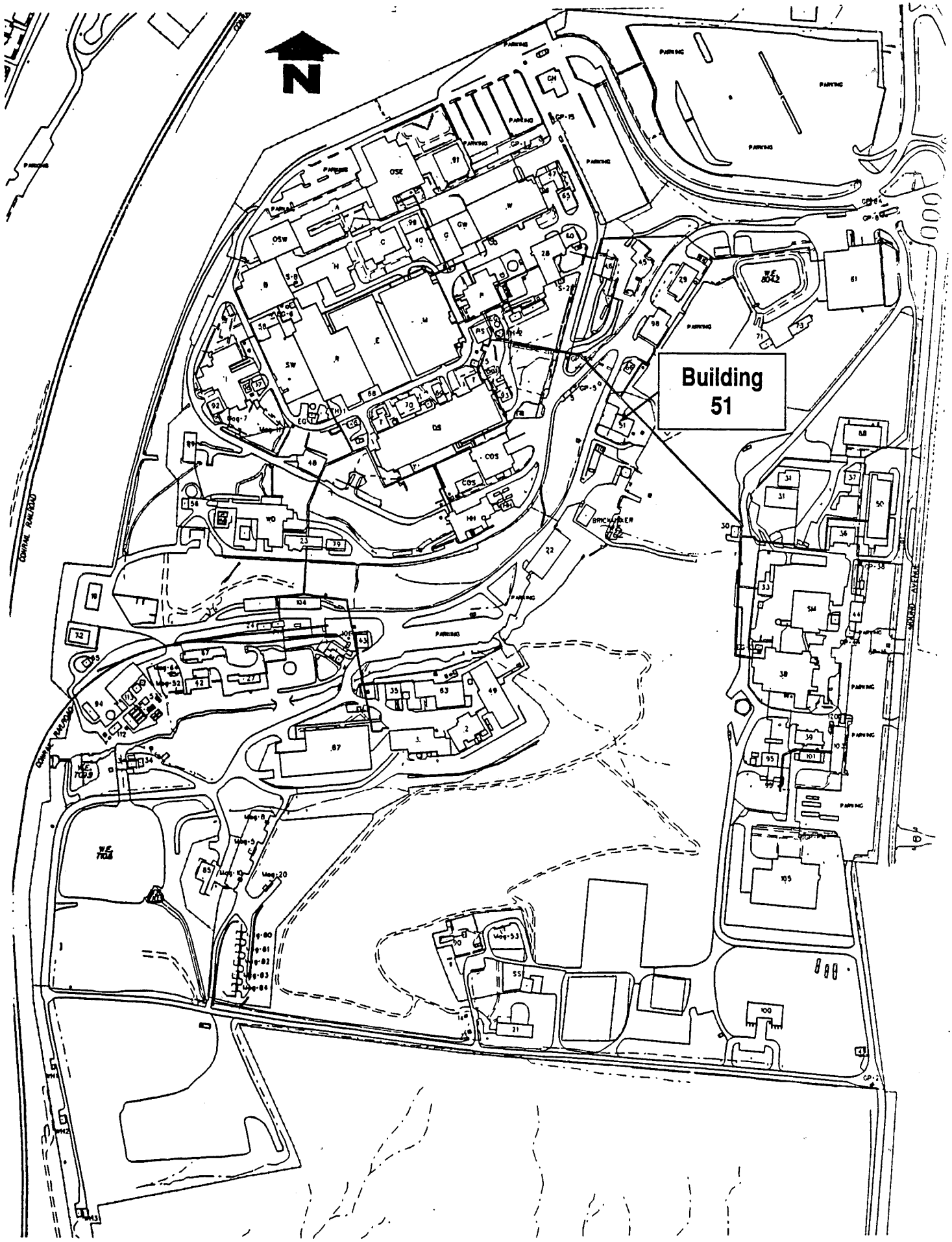
9.73.6.3 Location of Building 51



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

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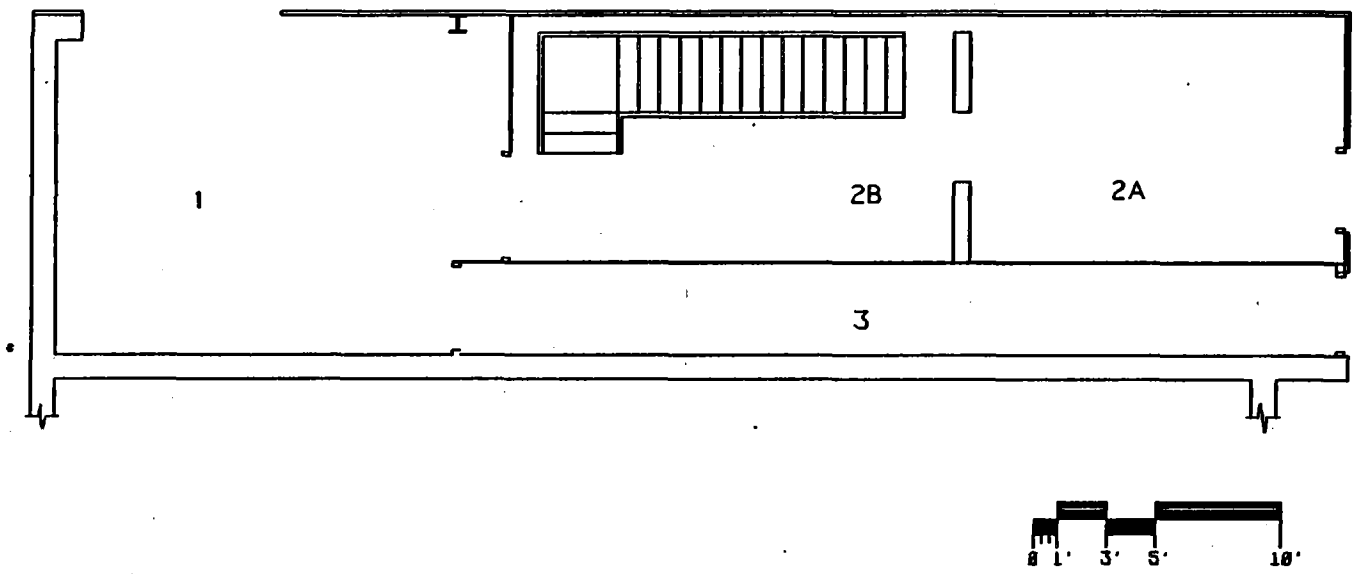
9.73.6.4 Floor Plans for Building 51

ISS	DATE	REVISION	BY	CHKR	DWG	LPMGR	APVD	N
0	12/12/91	ASBUILT ISSUE	DCB				DVD	



BLDG #51
BASEMENT
BLDG CODE:3051

APPROVALS: SAFETY COMMITTEE REQUIRED: ___NONE ___TRUEDOC ___TEDOC ___EDWOC			DATE:
TECH. REVP.			
GR. MGR.			
TRUEDOC			
TEDOC			
EDWOC			

DESIGN DWG	PROJ MGR
GPCM	DWG SUPV
LP & CC	PEER REV
DWG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6	TITLE (U) TITLE CLASSIFICATION
ISSUE	0	0					BLDG #51 FLOOR PLANS
PART CLASSIFICATION							
DRAWING CLASSIFICATION: UNCLASSIFIED	SIZE: C	DRAWING NUMBER: FSC911261	JOB NUMBER: 12335				
DWG TYPE: SFP	PROJ: BLDG #51	CADD: 14865	SCALE: AS NOTED	SHEET 1 OF 2			
STATUS: MD-REL-12/12/91	ORIGIN: MD-BR3-V3.0						

9.73-57

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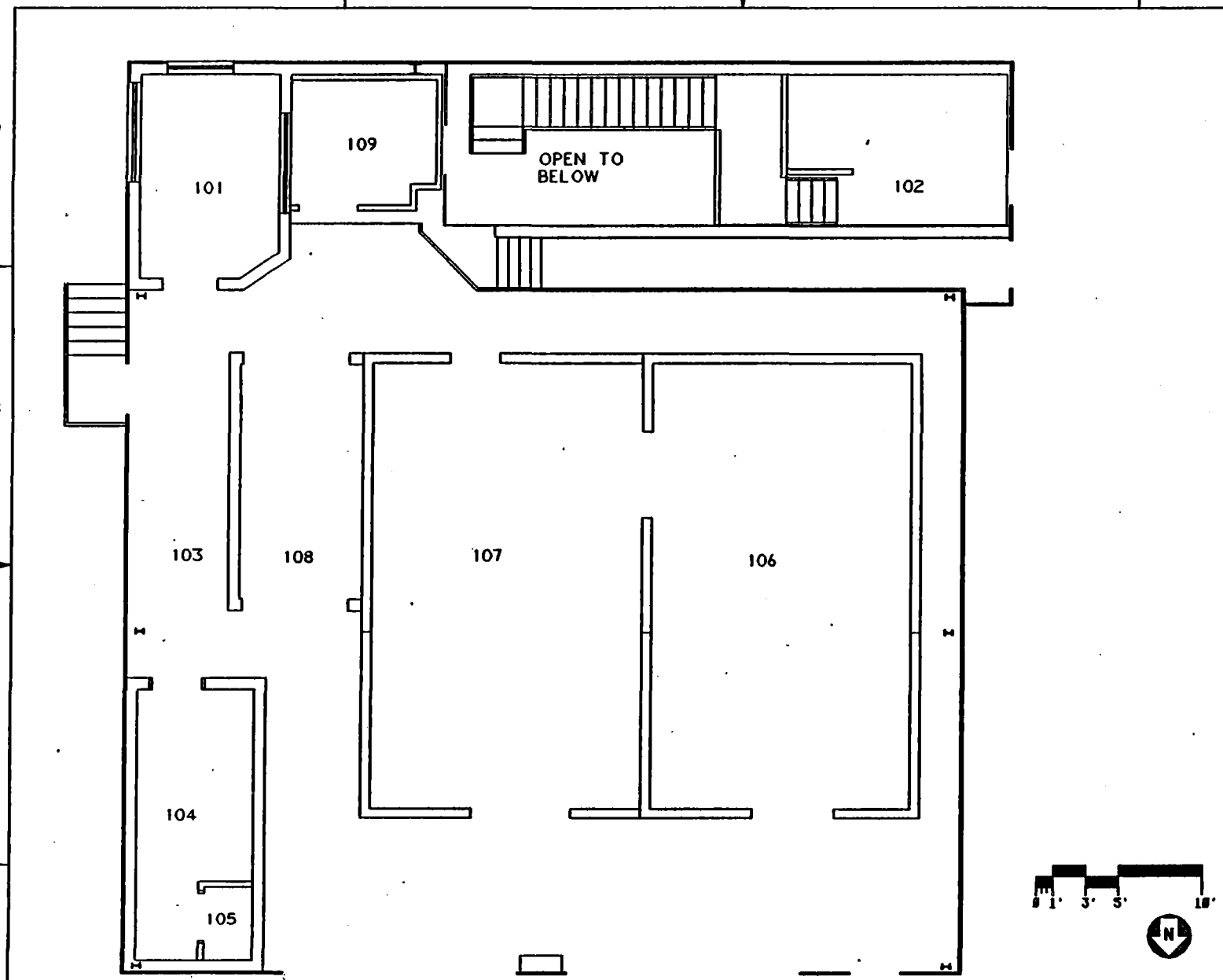

BLDG #51
FIRST FLOOR
BLDG CODE:3051

DRAWING NUMBER FSC911261	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE C / CADD 14065	SCALE AS NOTED
ISSUE 0	SHEET 2
STATUS MD-REL-12/12/91	

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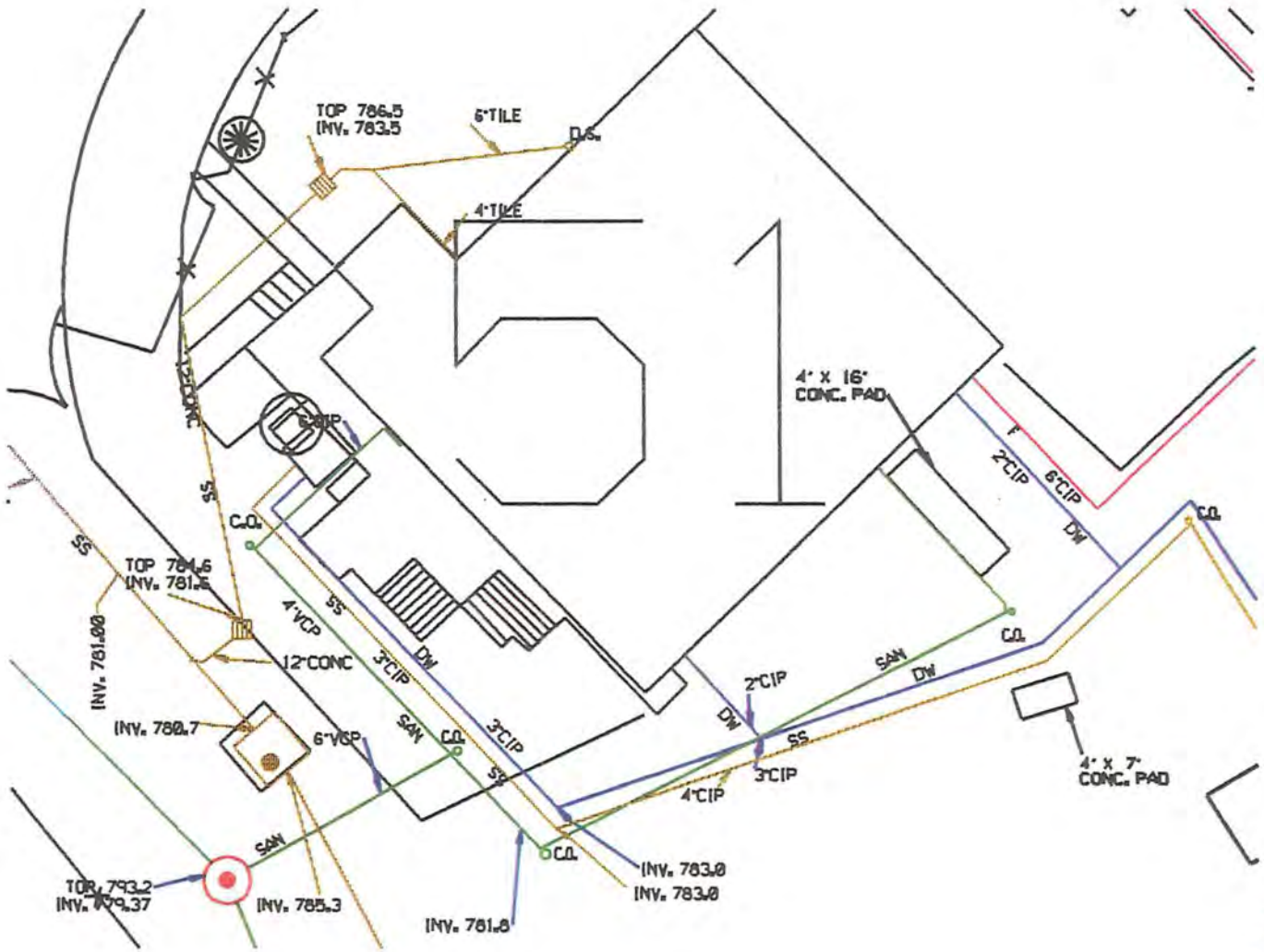
9.73.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 51

DATE: 2/29/96

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9.73.6.6 Photographs

Mound Plant Building 51

9.73-67

9.74 BUILDING 55

9.74.1 Scope of Building 55 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 55 on the afternoon of February 8, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.74.6.1). 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 9.74.6.2).

9.74.2 Description of Building 55

Building 55 is a one-story, 330-square-foot, concrete block, with masonry exterior overlay, structure. It is built slab-on-grade and has a built-up membrane Coaltar roof. Its location is shown in Attachment 3 (Section 9.74.6.3). The building is bordered on three sides by natural terrain with scrub grass and on the fourth side by a gravel road accessway. The nearest structure is Building 72 to the west.

Floor plans are presented as Attachment 4 (Section 9.74.6.4). The two-room structure consists of a former water testing laboratory containing a sink and an electric water heater and a storage/equipment room. The building has electrical service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Building 55 was constructed in 1955 (*Capital Assets Management Process Camp Report, FY 1996*). The building is now used only for storing water sampling equipment, supplies, and containers.

9.74.3 Summary of Findings

Building 55 contains a myriad of sampling equipment. It includes a portable emergency generator and two water sampling/recording instruments, other supplies, and numerous plastic water sampling containers of various sizes. The building is in fair condition, with no issues of environmental concern identified during the walk-through or during review of reference materials. A potential fire hazard exists because of the large amount of materials stored within a small confined space. One item of idle equipment, an electric air compressor, is mounted on the floor in one of the rooms.

9.74.4 Observations

9.74.4.1 Air Emissions

There are no fumehoods or fuel-burning units in the building. There is no evidence of fugitive dust, as the building is used only for storage. There is a self-contained electric room dehumidifier with cooling capability. No air emissions permit applications have been submitted to Ohio Environmental Protection Agency (OEPA) for activities in the building.

9.74.4.2 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.

9.74.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.74.6.5), 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, neither dye tests nor smoke tests were conducted.

Sanitary effluent from the laboratory sink and one floor drain in the original storage/equipment room 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 operations information, supplied by the building manager, effluent from Building 55 does not deviate from that expected by the sanitary treatment plant manager.

9.74.4.2.2 Storm Wastewater

The building is not directly serviced by storm drains. Storm water off the building flows down the gravel roadway to the nearest storm drain system inlet. Inspection showed no sign of odors, colored discharges, or scarring which would indicate that any materials from Building 55 other than storm water has entered the storm drainage system.

9.74.4.2.4 Chemicals

Chemicals are not used nor stored in the building. There is compressor oil in the idle equipment.

9.74.4.3 Potable and Service Water

Potable water is supplied to the building. Water is heated by an electric water heater. Hot and cold water is supplied to the sink which is not currently used. There are no points of potential cross connection. There are no fountains. Service water is not supplied to the building.

9.74.4.4 Chemical Storage and Hazardous Materials

There are no chemicals used, planned to be used, or stored in the building, according to the building manager. The building is not equipped with emergency response equipment nor is there an Emergency Evacuation Plan or posted signs.

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

The building has tested and does not contain asbestos-containing building material inside the building (MD-10391, *Asbestos Program Manual*, 9-14-95).

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).

The idle air compressor in Room 2 contains lubricating oil. A stain on the floor indicates that a small amount had been spilled or dripped some time in the past.

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

9.74.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated are primarily paper boxes and packing materials. There are no trash receptacles in or around the building and janitorial services are not provided to the building. Solid wastes are shipped offsite to a local landfill by a contractor. The disposal permit is maintained by Waste Management.

9.74.4.6 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.

This building is only occupied while storing or removing supplies; hence, there are no active waste minimization or pollution prevention programs associated directly with this facility.

9.74.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.74.6.6).

The environmental appraisal of Building 55 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.

55-1 Resource Conservation and Recovery Act (RCRA) regulations require that waste be removed from idled manufacturing process and waste producing equipment within 90 days (40 CFR 261.4). ("Idle" is defined as occurring either from the cessation of production or idled between production runs). Since the air compressor is no longer used, consideration should be given to processing the unit as idle equipment.

55-2 General housekeeping procedures should be reviewed.

Environmental Appraisal of the Mound Plant

9.74.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 55 Environmental Equipment Storage

Appraisers:

Team #4

Name	Discipline
Mark Gilliat	Engineer
Marcia Vanuet	Chemist
Myron Smith, Jr	Engineer
—	

Building Manager: Bob Ward (x-3821)

Process Manager:

Date: 8 February 1996

ENVIRONMENTAL APPRAISAL CHECKLIST

Table of Contents

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
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Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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	NONE
	Is the building in operation? What are the processes and where do they discharge to?	(Y) / N _____ _____	NO PROCESSES
	Do the floor drains, ~~sinks~~ SIET & ~~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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Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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	
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: 55 Appraisers: Team #4 Date: 2-8-96

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	Blank				
			Y / N	Y / N					
			Y / N	Y / N					

Source: _____

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Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 Date: 2-8-96

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	

Blank

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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.	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	

Blank

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Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N

Blank

Source: _____

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 Date: 2-8-96

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	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y / N	

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead

Blank

Source: _____

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Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 Date: 2-8-96

RCRA Screening Checklist

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

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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?	Y / (N)	
	Is it treated as such?	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	Blank
	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: 55 Appraisers: Team #4 Date: 2-8-96

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

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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	
	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: 55 Appraisers: Team #4 Date: 2-8-96

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	

Blank

General Comments:

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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:			
	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: 55 Appraisers: Team #4 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?	Y / N	If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey.

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	
	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: 55 Appraisers: Team #4 Date: 2-8-96

TSCA Checklist

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

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Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 Date: 2-8-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement?	Y / N	
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	

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GENERAL COMMENTS:

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 Date: 2-8-96

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? 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: 55 Appraisers: Team #4 Date: 2-8-96

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

Building Name: 55 Appraisers: Team #4 Date: 2-8-96

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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	
	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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Building Name: 55 Appraisers: Team #4 Date: 2-8-96

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:

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9.74-30

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 Date: 2-8-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y / (N)	Paper & Cardboard only
	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	

* Idle equipment in one room (air compressor)

Environmental [illegible]aisal Checklist

Building Name: 55 Appraisers: Team #4 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	
	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	

9.74-31

9.74-32

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team # 4 Date: 2-8-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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	
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

9.74-33

9.74-34

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team #4 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?		
	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 A[illegible]aisal Checklist

Building Name: 55 Appraisers: Team #4 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	
	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?	_____ _____	

9.74-35

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9.74.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 55 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.)?

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 building is a 330-ft^2, masonry exterior wall structure built in 1973. It has a BUM roof (coal tar). There is no contamination from radioactive or energetic materials, or asbestos.

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Environmental sampling equipment is stored in the building.

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

9.74-39

Building Manager's Questionnaire

Building Name: 55 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Process(es) Housed: Storage, ~~offices~~, particle sizing

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: 55 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

9.74-41

Building Manager's Questionnaire

Building Name: 55 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?

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? No

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

9.74-42

Building Manager's Questionnaire

Building Name: 55 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? NO

Source: PCB ANNUAL DOCUMENT LOG

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

Source: PCB ANNUAL DOCUMENT LOG

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

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

9.74-43

Building Manager's Questionnaire

Building Name: 55 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: _____

9.74-44

Building Manager's Questionnaire

Building Name: 55 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: _____

9.74-45

Building Manager's Questionnaire

Building Name: 55 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 ENVIROMENTAL SAMPLING 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: 55 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: _____

9.74-47

Building Manager's Questionnaire

Building Name: 55 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.

9.74-48

Building Manager's Questionnaire

Building Name: 55 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

9.74-49

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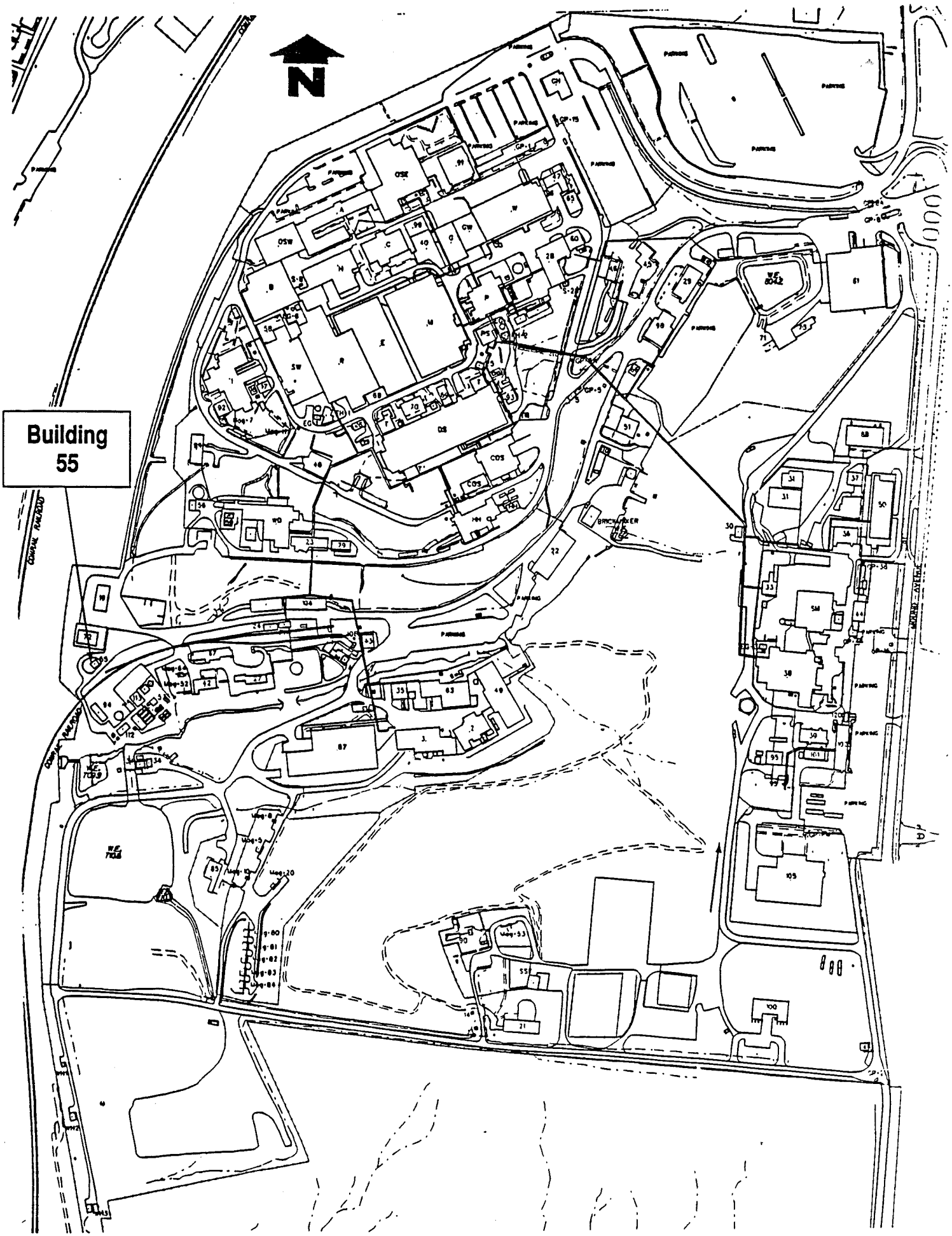
9.74.6.3 Location of Building 55



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

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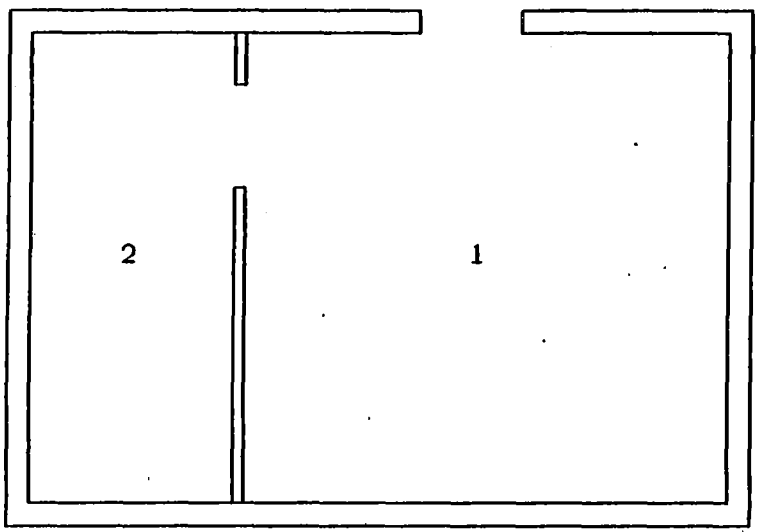
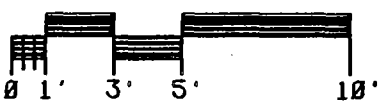
9.74.6.4 Floor Plans for Building 55

ISS	DATE	REVISION	BY	CHKD	DWN	LPMED	APVD	N
Ø	12/12/91	ASBUILT ISSUE	DCB				DVD	





BLDG #55
FIRST FLOOR
BLDG CODE:3055

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ NONE ___ TRUEDOC ___ TEDOC ___ CHDOC
TECH. REMP. ___
SR. MGR. ___
TRUEDOC ___
TEDOC ___
CHDOC ___

DESIGN ENG | PROJ MGR
SPONS | ENG MGR
LP & EC | FEDR REV
DWG MGR
APVD | DATE

SHEET	1	2	3	4	5	6	TITLE (U) TITLE CLASSIFICATION
ISSUE	Ø						BLDG #55 FLOOR PLANS
PART CLASSIFICATION							
DRAWING CLASSIFICATION: UNCLASSIFIED	SIZE: C	DRAWING NUMBER: FSC911262	JOB NUMBER: 12335				
DWG TYPE: SFP	FROM: BLDG #55	CHGE: 14865	SCALE: AS NOTED	SHEET 1 OF 1			
STATUS: MD-REL-12/12/91	ORIGIN: MD-BR3-V3.Ø						

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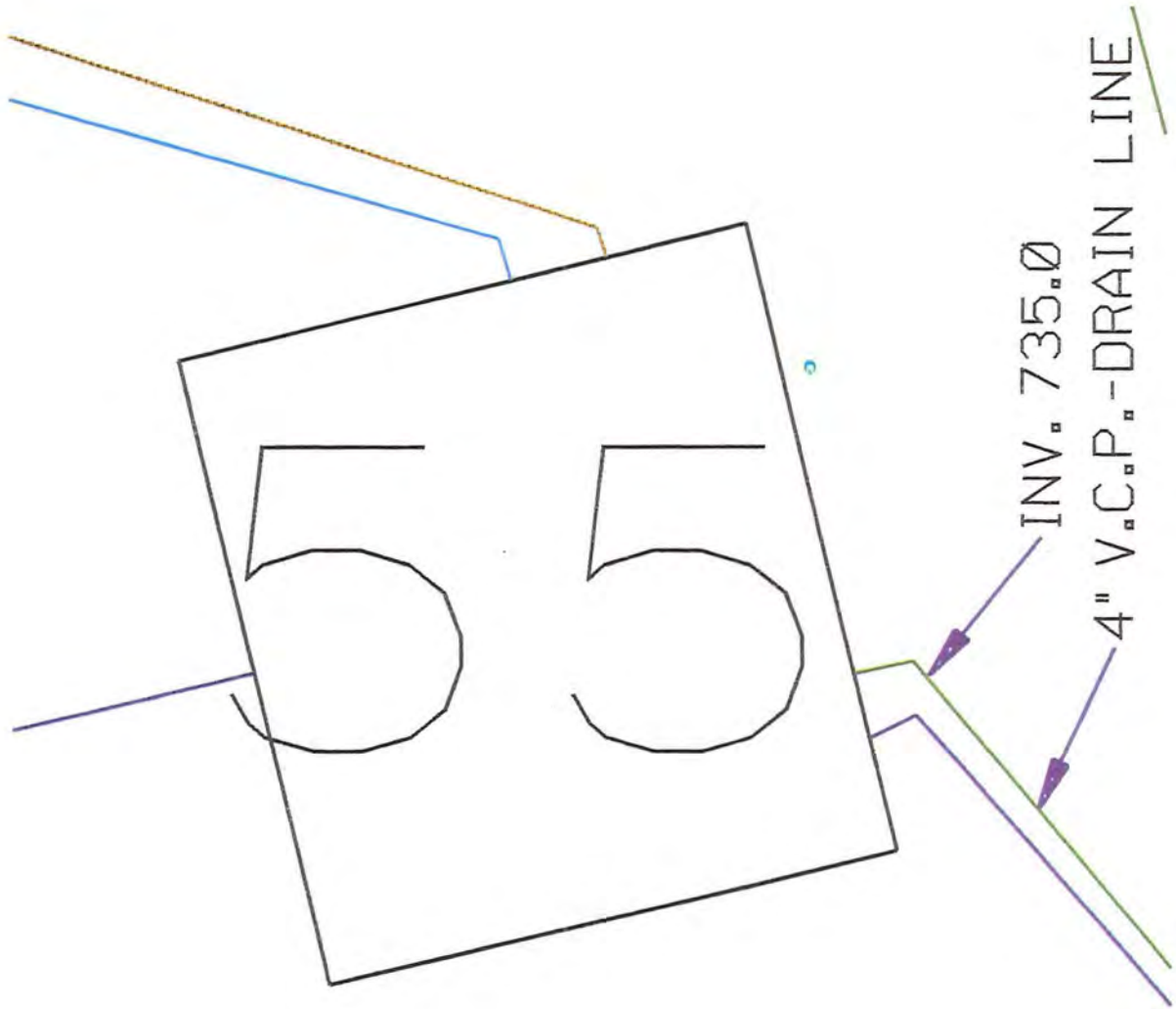
9.74.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 55

DATE: 2/29/96

9.74.6.6 Photographs

Mound Plant Building 55

9.75 Building 56

9.75 BUILDING 56

9.75.1 Scope of Building 56 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 56 on the morning of February 26, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.75.6.1). The appraisers were escorted by 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 9.75.6.2).

9.75.2 Description of Building 56

Building 56 is a one-story, 613 square-foot reinforced concrete building with a built-up membrane roof. Location is shown in Attachment 3 (Section 9.75.6.3). The building is bordered by Building SD to the south, Building SD to the east, a hillside to the west and Building 89 to the north. Floor plans for the building are presented in Attachment 4 (9.75.6.4). 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 56 was constructed in 1973. The building contains asbestos in the thermal insulation (MD-10391, *Asbestos Program Manual*, 9-14-95). The building is not contaminated with radioactive or energetic materials (*Mound Facility Physical Characterization*, 12-1-93)

9.75.3 Summary of Findings

Building 56 houses a pumping station. The building is well-maintained, but has several issues of environmental concern was identified during the walk-through and review of reference materials.

9.75.4 Observations

9.75.4.1 Air Emissions

There is a fuel-burning unit in the building. It is a diesel-powered pump for pumping water from the water tank next to the building. There is no documentation indicating that emissions from the pump have been evaluated. There is a 500-gallon fuel oil storage tank. The tank is considered an air emission source but is exempt from permitting, according to EG&G MAT environmental professionals. The exemption determination is not documented. There is no

evidence of fugitive dust. No air emission permit application have been submitted to the RAPCA for activities in the building.

9.75.4.2 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.

9.75.4.2.1 Sanitary Wastewater

The building does not have sanitary services. According to a diagram of underground lines, presented as Attachment 5 (Section 9.75.6.5), the building is not serviced by a 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.

9.75.4.2.2 Storm Wastewater

The building is serviced by storm drains according to the underground utility diagram located in Attachment 6 (Section 9.75.6.6). There were floor drains in the building. 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.

9.75.4.2.3 Chemicals

A list of chemicals residing in Building 56 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.

Storage, handling, and disposal of chemicals listed in the BMQ, included as Attachment 2 (Section 9.75.6.2), 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 (CWA) priority pollutants, except that there is asbestos in the building. There

is fuel oil tank located in the building and the tank does not have secondary containment. The fuel oil was entered on the BMQ as a chemical. There is no evidence that chemicals stored in the building have entered the wastewater collection system. There have been no reported spills from Building 56.

9.75.4.3 Potable and Service Water

Potable water is not supplied to the building. Service water is supplied to the building.

9.75.4.4 Chemical Storage and Hazardous Materials

Fuel oil and lead-acid batteries are used in Building 56. Fuel oil is also stored in the building. Chemicals are stored in the building in accordance with applicable standards. Material Safety DAta Sheets (MSDS's) for the fuel oil were not readily available in the building.

The building is equipped with appropriate emergency response equipment such as fire extinguishers and sprinklers. There is an Emergency Evacuation Plan, and signs were posted in the areas.

There is a 350,000-gallon groundwater storage tank adjacent to the building but there are no sumps, separators, or catch basins, in or around the building. No underground storage tanks are associated with this building.

The building has been tested and does contain asbestos-containing building materials (MD-10391, *Asbestos Program Manual*, 9-14-95). There was no evidence of friable asbestos.

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

9.75.4.5 Solid, Hazardous, and Radioactive Waste

There are no solid wastes generated in Building 56. Lead-acid batteries are reclaimed/recycled by a contractor. This service contract is maintained by Waste Management. There is no evidence that hazardous materials or wastes are mixed with solid waste streams.

9.75.4.6 Waste Minimization and Pollution Prevention

Mound has an active program to minimize waste streams in accordance with requirements set forth in 40 CFR 265.3002b. Programs for waste minimization in place include reclamation of lead acid batteries.

9.75.5 Findings and Recommendations

The environmental appraisal of Building 56 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 6 (Section 9.75.6.6).

56-1 The emissions from the pump should be evaluated to determine if an air permit application should be submitted to the Regional Air Pollution Control Agency according to OAC 3745-31.

56-2 The fuel oil tank is considered exempt from permitting. This exemption determination should be documented in accordance with OAC-3745-31.

56-3 Provide containment for fuel oil tank, in accordance with 40 CFR 112, Oil Pollution Prevention Act.

56-4 In accordance with 29 CFR 1910.1200, MSDS's 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

9.75.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 56

Appraisers:

Mary E Sizemore
Name Discipline

Name Discipline

Name Discipline

Terry R Glander
Name Discipline

Building Manager: JEFFREY L. BOSTON

Process Manager: DAVID L HEITZ

Date: 2/26/96

ENVIRONMENTAL APPRAISAL CHECKLIST

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Environmental A[illegible]sal Checklist

Building Name: 56

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? 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 _____ _____	PUMPHOUSE FOR FIRE DEPT.
	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)	DITCH
	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	 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 Y / (N) (Y) / N	DRAINS NO SPILL CONTAINMENT TO INSIDE DRAIN FOR FUEL OIL TANK

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Environmental Appraisal Checklist

Building Name: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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	DIESEL PUMP
	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	N/A
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 PUMP 175 hp
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	DIESEL EXHAUST ONLY

Environmental Ap[illegible]isal Checklist

Building Name: 56

Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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
Pump	Building 56	N/A	Y / (N)	(Y) / N	Fuel Oil #2	To Be Determined	Ø	45 minutes a week	NO_x SO_2 Coparticulates VOCs
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

Source: Dave Heitz

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Environmental Appraisal Checklist

Building Name: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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	
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	Y/(N)	NONE AVAILABLE
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	CONGESTED WITH PIPING NEAR BATTERIES; TANK DID NOT APPEAR TO BE LEAKING
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	N/A
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: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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	
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: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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	N/A - DIESEL FUEL USED LOCALLY
	Is there proper containment?	Y / (N)	NO DRIP PANS
	Is there an above ground storage tank? If so, complete Table B.	(Y) / N	SEE TABLE

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
56	500	DIESEL FUEL #2	> 5/8 full	(Y) / N	Y / (N)	Y / (N)	Y / N N/A
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				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: DAVE HEITZ

Environmental Appraisal Checklist

Building Name: 56 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	
	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: _____

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Environmental Appraisal Checklist

Building Name: 56

Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore

Date: 2/26/96

RCRA Screening Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was charactarization by analysis or by process knowledge? Are lab results or documentation of process knowledge readily available? Note any uncharacterized material in comment section. Is it waste? If yes, proceed with next section.	Y / N analysis / process Y / N Y / N	PROCESS KNOWLEDGE N/A - SEE NEXT SECTION
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	2-12 CELL STARTING BATTERIES ARE USED; HOWEVER, THEY ARE CURRENTLY IN SERVICE WHEN DEAD, THE BATTERIES ARE TURNED INTO WASTE MANAGEMENT

Environmental Appraisal Checklist

Building Name: 56

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?	Y / (N)	
	Is it treated as such?	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	
	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: 56

Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore

Date: 2/26/96

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. 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 _____ 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: 56 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	
	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: 56

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	
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:

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Environmental Appraisal Checklist

Building Name: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, Mary Sizemore Date: 2/26/96

Asbestos Screening Checklist

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

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos?	(Y) / N	ANALYSIS AND INSPECTION DONE IN 1992
	If no for this building or area note this conclusion in the comment section.		
	Is there any evidence of friable asbestos?	Y / (N)	
	Is the asbestos removal properly managed? (See questions listed below)	Y / N 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: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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 / N	If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey.

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	
	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: 56 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, 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	
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: 56

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 capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement?	Y / N	
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 A, . .alsal Checklist

Building Name: 56 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, 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.

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: 56

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 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 Appraisal Checklist

Building Name: 56 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			
	Can any waste generated in, or from this building be characterized either through process knowledge or by analyses to determine if it is TRU waste? If no, note and stop. If yes, proceed with the next section.	Y / N	
	Are any of the materials noted as being TRU waste during an inspection? If no, note and stop. If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.	Y / N	
DOE Order 5820.2A, Chapter II, 3.a	Was this material evaluated as soon as possible in the generating process, to determine if it is TRU (>100nCi/g), if it is recoverable, or if it is waste? (Note if the activity level is less than 100nCi/g, the waste is not TRU, and can be managed as LLW.)	Y / N	
	Did the determination of TRU radionuclide concentration include the mass of the container, including shielding? These should be included in calculating the specific activity of the waste.	Y / N	

9.75-27

Environmental Appraisal Checklist

Building Name: 56

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	
	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: 56

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	
	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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9.75-30

Environmental Appraisal Checklist

Building Name: 56

Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist

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

Environmental Appraisal Checklist

Building Name: 56 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	
	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: 56 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	
	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: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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	
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

9.75-33

Environmental Appraisal Checklist

Building Name: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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?		
	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: 56 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, 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	
	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?	_____ _____	

9.75-35

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9.75.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 56 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

1. What are the access requirements (training, clearance, etc.)?
   None

2. What protective equipment is required to enter the building?
   Hearing protection if you spend more than 30 minutes in the building with the fire pump running.

3. Are there any restricted areas? Yes (No)
   Where are they?
   Please understand that the building is restricted, by lock and key, to control ~~use~~ and protect ~~use~~ critical fire protection valves from un-authorized use.

4. Provide a physical description of the building.

This is a one-story, concrete block building with a BUM roof (asphalt). Heating is with central steam. Total area is 613 ft^2. Building has thermal insulation containing asbestos. Building is not contaminated with any radioactive or energetic materials. A 350,000-gal groundwater storage tank is adjacent to the structure.

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 houses a pumping station to provide an emergency supply of water for fire protection. Building also houses a diesel ~~generator for emergency power.~~ fire pump and up to 500 gallons of diesel.

Source: Mound Buildings, 5-9-95

7. What is the history of building use other than that described in #6?
   None

Source: Mound Buildings, 5-9-95

9.75-39

Building Manager's Questionnaire

Building Name: 56 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: ~~Water tank~~ Fire protection pump house

How Wastes Are Generated:

No hazardous wastes are generated in this building.

Contact: David R. Heitz
Phone #: 865-3125

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

9.75-40

Building Manager's Questionnaire

Building Name: 56 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~~ Yes if the diesel engine is considered a source.

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

9.75-41

Building Manager's Questionnaire

Building Name: 56 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 *There is no control equipment.*

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 *There are no permits.*

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? ~~Open ditch [illegible]~~ *Pipe to Bldg 19 area*

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

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

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

9.75-42

Building Manager's Questionnaire

Building Name: 56 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)
NONE		
Diesel Fuel	Liquid	500 gal.

Source: Chemical Inventory 1994

9.75-43

Building Manager's Questionnaire

Building Name: 56 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: David L. Heitz

21. Where do waste chemicals go?
There are none

22. What janitorial supplies are stored inside or outside of the building?
There are none.

23. Where do excess janitorial supplies go?
There are none

Source: David L. Heitz

24. Are pesticides or herbicides stored or used in or around the building? Yes (No)
Qualified by saying that herbicides are used to control vegetation around tank.

Chemical	Amount	Chemical	Amount

Source: David L. Heitz

9.75-44

Building Manager's Questionnaire

Building Name: 56 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.
The diesel fuel storage tank containing up to 500 gallons of fuel. It is looked ~~NONE~~ at at ~~least~~ least weekly. There is no registration #.

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: David R. Hiff

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

Materials	Amount
ETHYLENE GLYCOL	57.4
OIL WASTE	56.8

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

9.75-45

Building Manager's Questionnaire

Building Name: 56 . 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: David L. Heist

Building Manager's Questionnaire

Building Name: 56 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: David L. Hetz

9.75-47

Building Manager's Questionnaire

Building Name: 56 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: David L. Heff

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

There are none.

Building Manager's Questionnaire

Building Name: 56 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. If you consider that there is virtually no waste.

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

9.75-49

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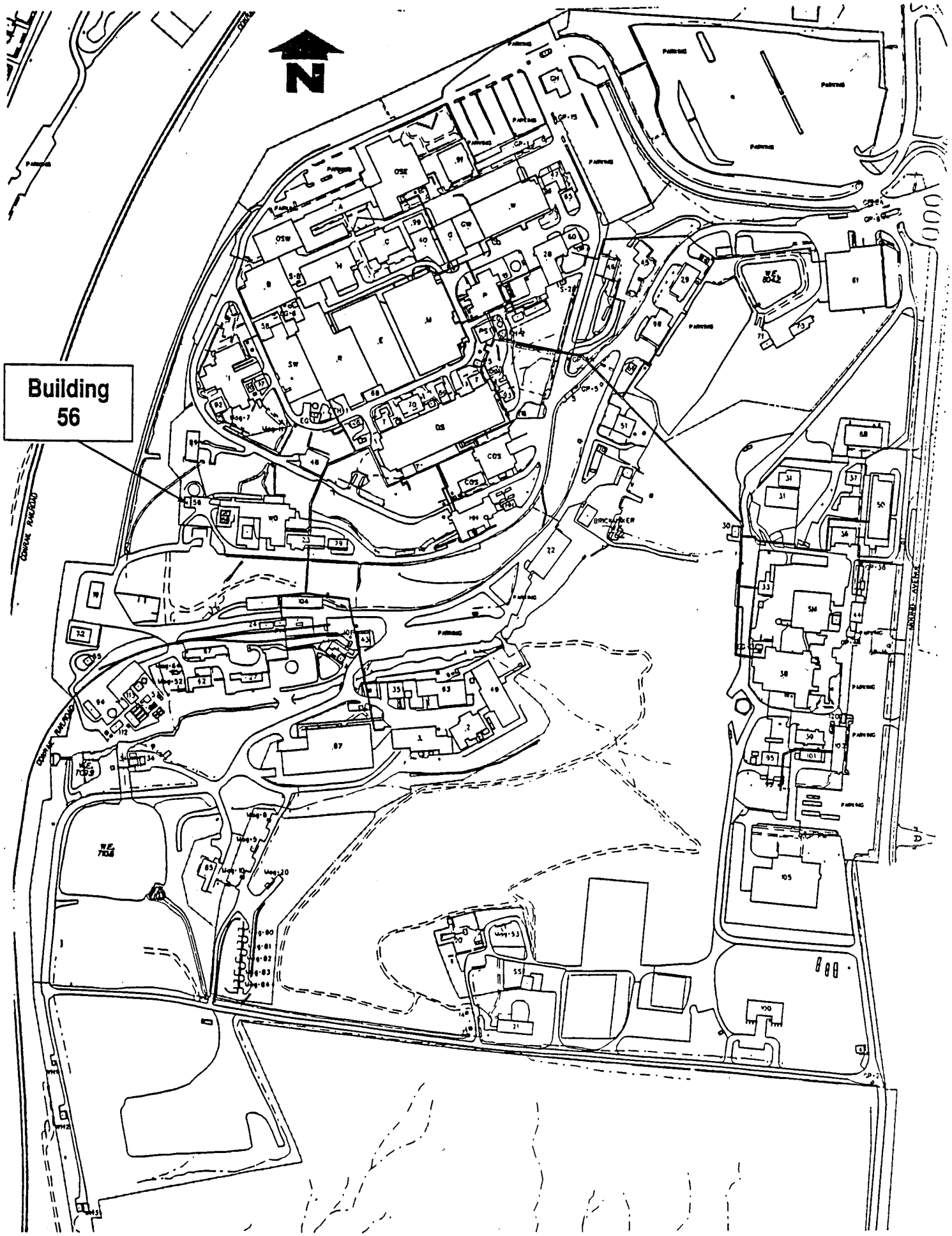
9.75.6.3 Location of Building 56



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

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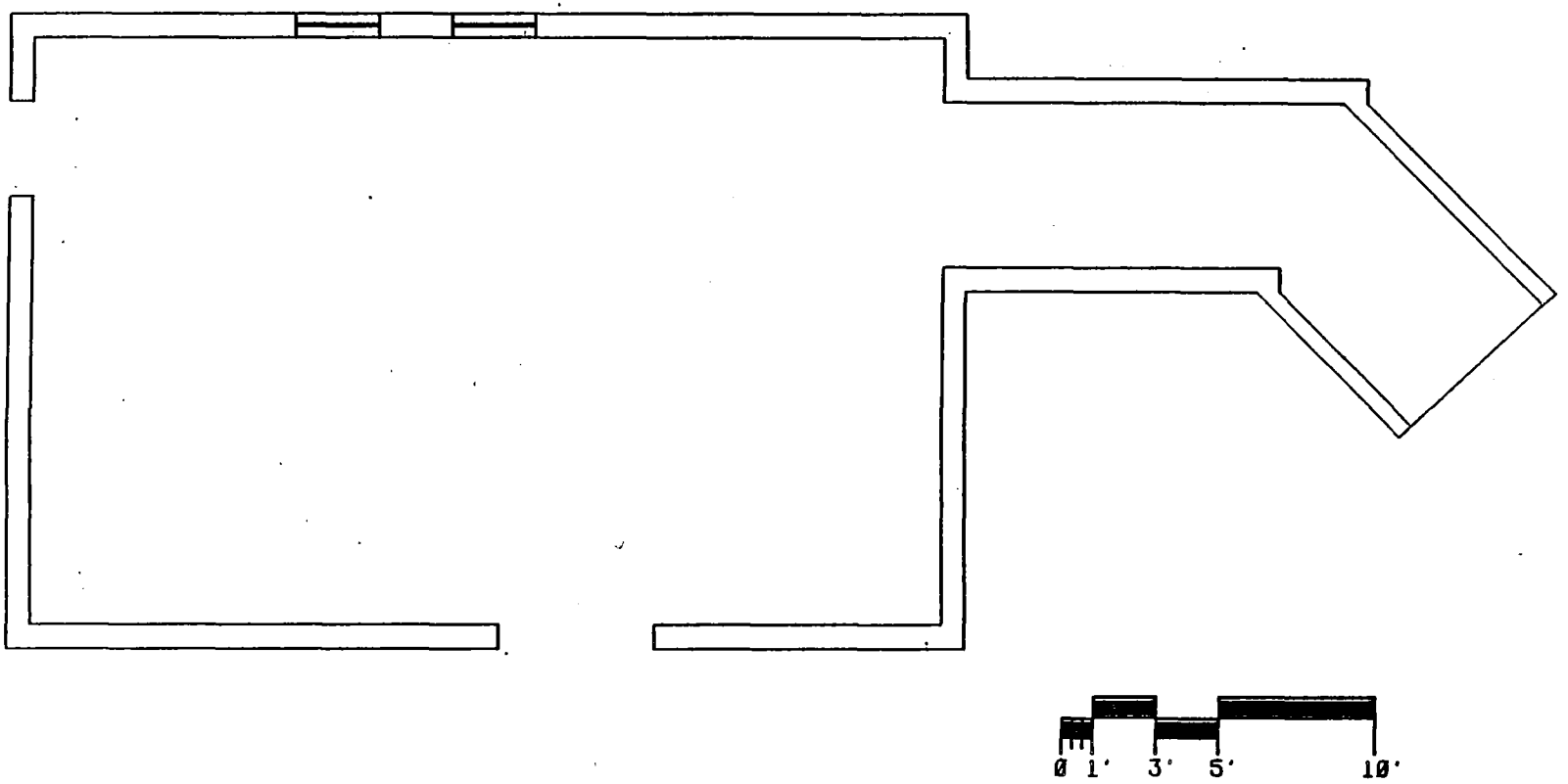
9.75.6.4 Floor Plans for Building 56

ISS	DATE	REVISION	BY	CHKR	DWG	UPKEY	APVD	N
Ø	12/12/91	ASBUILT ISSUE	DCW				DVD	



BLDG #56
FIRST FLOOR
BLDG CODE:3056

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUEDOC ___TEDOC ___EHDOC
TECH. REQ. ___ ___
GR. MGR. ___ ___
TRUEDOC ___ ___
TEDOC ___ ___
EHDOC ___ ___

DESIGN ENG | PROJ MGR
SPGMR | DOB MGRV
LP & EC | PEER REV
DOB MGR
APVD | DATE

SHEET 1 2 3 4 5 6
ISSUE Ø
PART CLASSIFICATION
TITLE (U) TITLE CLASSIFICATION
BLDG #56
FLOOR PLANS
DRAWING CLASSIFICATION UNCLASSIFIED
SIZE C
DRAWING NUMBER FSC911263
JOB NUMBER 12335
DWG TYPE SFP
FROM BLDG #56
CAMEC 14065
SCALE AS NOTED
SHEET 1 OF 1
STATUS MD-REL-12/12/91
ORIGIN MD-BR3-V3.J

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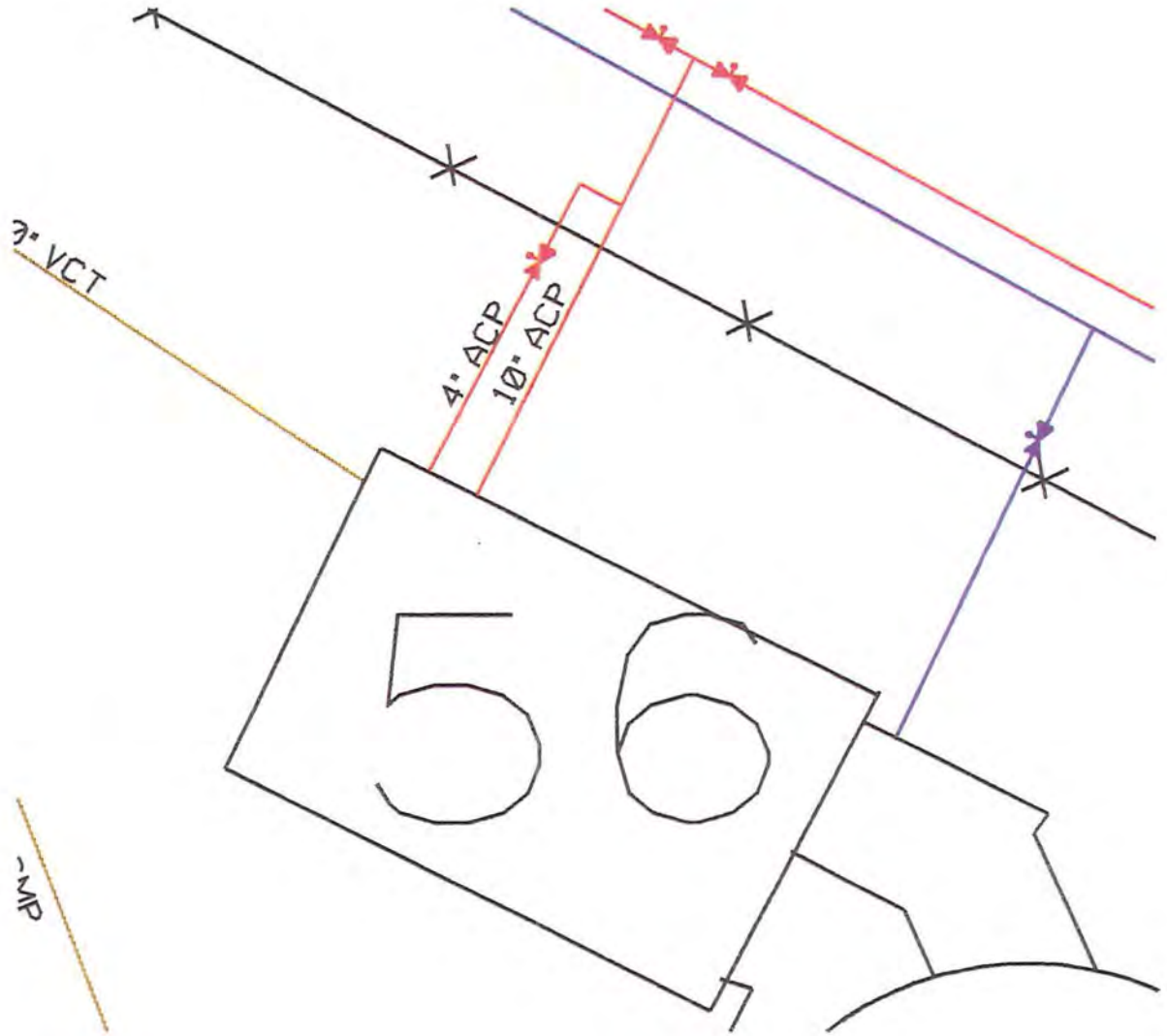
9.75.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 56

DATE: 3-6-96

9.75.6.6 Photographs

Mound Plant Building 56

Mound Plant Building 56
Fuel oil storage tank has no secondary containment.

9.76 Building 57

9.76 BUILDING 57

9.76.1 Scope of Building 57 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 57 on the morning of January 30, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.76.6.1). The appraisers were accompanied by the building manager and 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 9.76.6.2).

9.76.2 Description of Building 57

The Mound Wastewater Treatment Plant (MWWTP), commonly referred to as the Sanitary Disposal (SD) Facility, is comprised of three numbered buildings. Building 57, Sanitary Sewage Treatment, contains the control house and several plant processes. Building 112, two detached structures, provides integrated process support consisting of sand filters, effluent treatment, and testing and monitoring. Building 113, consisting of another two detached structures, houses the dewatering equipment and chemical and equipment storage. The MWWTP is west of the retention basin and Building 34 and east of Buildings 72 and 19. The location is shown in Attachment 3 (Section 9.76.6.3).

The MWWTP is classified as a single-stage system comprised of an advanced secondary treatment plant with two major flow streams: (1) liquid treatment processes; and (2) residual treatment processes. A tertiary treatment stage has been added to the liquid treatment process. These processes are shown schematically in Figure 1.

The average design flow of the facility is 120,000 gallons-per-day (gpd). The current average flow, during Monday through Thursday is 38,000 gpd and on Friday through Sunday, 20,000 gpd. Wastewater from Mound sanitary facilities collects and flows by gravity into the influent wet well, the grit chamber or concrete tank No. 101. Plant influent is normally pumped through fine screens that remove debris, including grit and discharges directly into the first flow equalization tank (No. 103). During cleaning and maintenance of the grit chamber, influent is rerouted into the comminutor, concrete tank No. 102, and then to the first flow equalization tank. Influent is measured for pH as it passes into the equalization basins, concrete tanks Nos. 103-106, where mechanical mixers and aeration prevents settling in the tanks. From this stage, the flow is pumped to the aeration process pits, steel tanks 107 and 108, where the principal secondary

treatment process takes place. A new concrete clarifier with a sludge withdrawal scraper completes the secondary settling process.

Secondary settling tank liquid effluent is discharged to a wet well, an unnumbered concrete tank in Fig. 1, where it is pumped through sand filters for tertiary treatment. Sand filter discharge flows by gravity to the chlorine contact tank, four in-line, steel-lined concrete tanks, No. 111-114, where it is disinfected with sodium hypochlorite. This stage is normally limited to May through September operation under the NPDES permit. Effluent from this step is dechlorinated using sodium bisulfite. Effluent from the chlorine contact tank is then metered and monitored before discharge (Outfall 001) through a common outfall line with discharge from the Mound Retention Basin into the Great Miami River (Outfall 001).

Sludge from the aeration tanks and the new clarifier is periodically pumped into one of two sludge-holding, concrete tanks where fly ash is added. The supernatant is returned to the plant influent for retreatment and the sludge is pumped to the belt filter press. Stranco polymer is added to the sludge as it is passed to the filter press. Filtrate from the filter press is returned to the plant influent for further treatment. A Sorband post mixer unit completes the sludge treatment prior to testing, characterization, and bagging as low-level waste (LLW).

This environmental appraisal addresses Building 57. It is a one-story building which houses portions of the sanitary wastewater treatment unit operations including the wet well, screens, flow equalization tanks, aeration tanks, and clarifier. Wastewater treatment unit operations are related to sludge handling. They are described with their respective Buildings 112 or 113, reports 9.112 and 9.113, respectively.

Building 57 is a concrete block structure with a built-up membrane roof. The 510-square-foot building has electric heat, potable water, and window air conditioning. Floor plans for the building are presented in Attachment 4 (Section 9.76.6.4). The building contains the plant operator control and testing facilities, a lavatory, a change room, and an emergency generator. The fine screen process facility is an above and below ground metal and metal/concrete tank plant, covered by a polyethene canvas tent. The four flow equalization tanks and the two aeration tanks are in-ground processing tanks, open to the atmosphere. Construction of these facilities was completed in 1976. An aboveground 1,000-gallon fuel storage tank (rated at 850 gallons), fiberglass reinforced plastic tank with secondary containment is associated with Building 57 and was installed in 1974.

The building and facilities have been used for the same purpose since construction.

9.76.3 Summary of Findings

During the walk-through, review of reference materials, and discussions with the process manager and primary licensed operator, it was noted that the building and process support treatment facilities appeared to be well-maintained with proper housekeeping procedures. All piping was properly color coded and labeled; records and logs are complete and up-to-date; Material Safety Data Sheets (MSDSs) are available; Emergency Response Plans posted; and no regulatory or

permit deficiencies were observed. With the addition of the sand filters, in Building 112, the plant works as designed and the treatment process equals or exceeds 95 percent removals.

Process tanks 101 through 108 were found to be in compliance in 1993 (UST Inspection Sheets, DOE, 1993).

Building 57 contains asbestos (MD-10391, *Asbestos Program Manual*). The adjacent 1,000-gallon emergency diesel storage tank has the proper secondary containment and there were no visible signs of leaks or spills; plant operators exceed license requirements; alarm systems are functioning and relay alarms to Building P are being installed; and the last plant upset (CBOD5) occurred in February 1991.

The MWWTP meets the Ohio Environmental Protection Agency (OEPA) definition of a Publicly Owned Treatment Works (POTW). As such, a POTW is exempt from the Resource Conservation and Recovery Act (RCRA) under Part 260.10. The Clean Water Act (CWA) and SDWA apply to the liquid effluent and under the NPDES Permit (OEPA Permit 1I000005*DF) is properly monitored at Sampling Station 1I000005601, located at the end of the liquid treatment process. The monitoring equipment is located Building 112 annex).

Large items and materials removed from the influent at the initial grit chamber area are considered to be contaminated with LLW and the solid sludge removed from the sludge-holding tanks and/or standby aeration tank is considered LLW.

Plant operator licenses were posted, and a copy of these, as well as copies of the NPDES permit and LLW procedures were found within the utility foreman's office, Building P.

Four potential best management practice review items were noted for Building 57.

9.76.4 Observations

9.76.4.1 Air Emissions

Buildings 57 is serviced by a small heating unit and window air conditioner. All process treatment areas have only natural flow ventilation or are directly exposed to the weather except for the polyethene canvas tent enclosing tanks 101 and 102 and their associated equipment.

The primary process air emission source is the emergency diesel generator located in Building 57. The Mound Air Emissions Database (11-30-95) contains the identification of the fuels consumed in pounds/hour during operations. A copy of the air permit is maintained both by the Maintenance Department and the utility foreman. A record of operation is maintained at Building 57. The source is operated and maintained in compliance with the permit conditions. There is no evidence of fugitive dust or unusual odors at or around Building 57 and its associated processes.

9.76.4.2 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.

Building 57 and its associated process tanks have only a sanitary wastewater collection system which cycles into the influent intake side of the treatment process.

9.76.4.2.1 Sanitary Wastewater

Building 57 and its associated processes are part of the sanitary wastewater treatment plant. All building drains, runoffs, blowdown discharge lines, backwash systems, the lavatory, the shower, and catch basins are connected to the raw influent inlet to the plant, according to the diagram presented as Attachment 5 (Section 9.76.6.5). Exterior grates and drains were not tested to confirm that they connect to the sanitary system though a number are connected by covered trenches which could be seen to return to the influent intake. Inspection showed no signs of odors, colored discharges, or scarring which would indicate that any materials were not being collected into the system. Confirmation of drainage of sanitary wastewater into the MWWTP intake was not within the scope of the effort, therefore, neither dye tests nor smoke tests were conducted.

9.76.4.2.2 Storm Wastewater

Building 57 is not directly serviced by storm drains. Storm water off the building flows to the nearest open grate collection system and is added to the plant influent.

9.76.4.2.3 Process Wastewater

Small concentrates of radioactive wastewater from other buildings sometimes is contained within the influent. Therefore, large items and grit removed in the grit chamber are handled as LLW. Radioactive particles are removed as part of the plant sludge and the sludge is processed as LLW for disposal. This process is described in the appraisal report for Building 113. To ensure compliance with the NPDES permit, industrial hygiene personnel monitor the plant liquid effluent

to ensure acceptable limits are not exceeded. This part of the plant system is discussed in the appraisal report on Building 112.

9.76.4.2.4 Chemicals

Six different chemicals are stored and used in the MWWTP. None are stored in Building 57. (The list is included in the BMQs, Attachments 3, for Buildings 112 and 113. In the event there is an influent pH adjustment required, the chemicals are obtained from Building P. Chemical storage and handling procedures are in place for proper disposal of chemicals. The quantity and type of chemicals, as well as their respective ages, was found to be compatible with daily and annual plant requirements. There is no evidence that chemicals have, or can be discharged into surface runoff water. There have been no reported diesel fuel spills from either filling the storage tank or in line transfer to the emergency generator.

9.76.4.3 Potable and Service Water

Potable water is supplied to Building 57. There are no visible points of potential cross connection in Building 57 There are no mechanical drinking water fountains. Potable water spigots have not been tested for lead; however, according to Environmental Protection Agency (EPA) protocol annual sampling criteria do not require testing of spigots.

9.76.4.4 Chemical Storage and Hazardous Materials

There are no chemicals stored in Building 57. A flammable storage cabinet is not required. Chemicals used with the plant process of effluent treatment are stored and properly labeled on their respective drums. Up-to-date MSDSs are available at the operator's office in Building 57 for those chemicals stored within Buildings 112 and 113.

All chlorine gas cylinders have been removed and no other cylinders are within or outside the MWWTP.

Building 57 is equipped with a properly located eye wash and charged fire extinguishers. Each extinguisher is bar-coded. The inspection date database is maintained in the Fire Station, Building 98.

The aboveground 1,000-gallon diesel fuel oil storage tank has proper secondary containment. In-ground process tanks and pits include: the influent wet well, the four interconnected flow equalization tanks, aeration tanks Nos. 1 and 2, and the clarifier. All are classified as Underground Storage Tanks (USTs) as 10 percent or more of the structures are underground.

Building 57 contains asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There is no evidence of friable asbestos. Repair work is not being conducted on piping containing asbestos insulation. Visual inspection indicated repairs are not required.

There are no capacitors or transformers containing polychlorinated biphenyls (PCBs) located within the building. In the substation serving Building 57 there were capacitors and a transformer containing PCBs which have now been removed by a licensed vendor. The PCB was first removed from the capacitors and transformer, put into containers, characterized, manifested, and removed from Mound. The casing was then handled separately by the same vendor.

Research, development, and production activities, using radioactive or energetic materials, do have sanitary service to the MWWTP.

9.76.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated are primarily paper. There is paper recycling to minimize solid waste. Paper is removed by janitorial personnel to a local collection point, then shipped offsite to a local landfill by a contractor. The disposal permit is maintained by Waste Management. There is no evidence that hazardous materials or LLW are mixed with solid wastes.

The plant processes do not generate hazardous or explosive wastes. A hazardous waste could be generated if lubricating oil or diesel fuel from the emergency generator were released. Routine maintenance and inspection of this equipment has precluded such an event from occurring. Waste oil removed during normal maintenance procedures is placed in a waste drum in Building G and subsequently picked up by Waste Management for disposition. Records are maintained by the heavy equipment maintenance foreman and Waste Management.

Influent is considered to contain heavy metals and radionuclides. Backwash, process drains, and supernatant filtrate are assumed to contain LLW which is returned to the plant raw influent intake for retreatment. Heavy and large objects removed during the fine screening process are considered to be contaminated with LLW and are removed, dewatered, tested for low specific activity (LSA), characterized, and packed in containers. Waste Management removes the containers at the same time sludge is removed. (This is discussed in the appraisal report on Building 113, Report 9.113). Records are maintained in the utility foreman's office in Building P, as well as at Waste Management.

9.76.4.6 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.

The plant process design which includes the collection and retreatment of all plant unit discharges plus a minimal use of chemicals for effluent treatment comprises the MWWTP waste minimization and pollution prevention programs.

9.76.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.76.6.6).

The environmental appraisal of Building 57 as part of the MWWTP 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. These findings address only issues related to Building 57 and the system processes described herein. To determine all action items related to the MWWTP, please review the appraisal reports, located in Volume 10 of this report, for Buildings 112 and 113, Reports 9.112 and 9.113, respectively.

57-1 Review to ensure that all active USTs are listed in the Mound active UST Plan and are periodically inspected.

57-2 There is a formerly used Mound Sanitary Disposal Facility referred to as the "SD." This nomenclature has been passed on to the current MWWTP, resulting in some descriptive errors in Mound literature such as, MD 81240 and RCRA Permit Part A submission. Consideration should be given to using the term "MWWTP" for this facility to eliminate confusion and inconsistencies in reference and standard operating procedures. The MWWTP is correctly described in plant maintenance, operating, and processing documents within the utilities and maintenance groups.

57-3 While outside testing of discharge sludge over the past five years has not indicated that the contents of heavy metals and hazardous chemicals exceed regulatory threshold limits and Health Physics data does not indicate that the MREM/HR presents a health hazard, consideration should be given to posting an LSA warning sign at the entrance to the MWWTP.

57-4 While there has not been a sudden drop in the processing effectiveness of the MWWTP since February 1991, with the significant change in Mound personnel and the outleasing of building to the private sector by DOE, consideration should be given to periodically publishing a Management Awareness Article similar to No. 8: March 1991, entitled: "Lessons Learned: Sewage Treatment is a Delicate Process."

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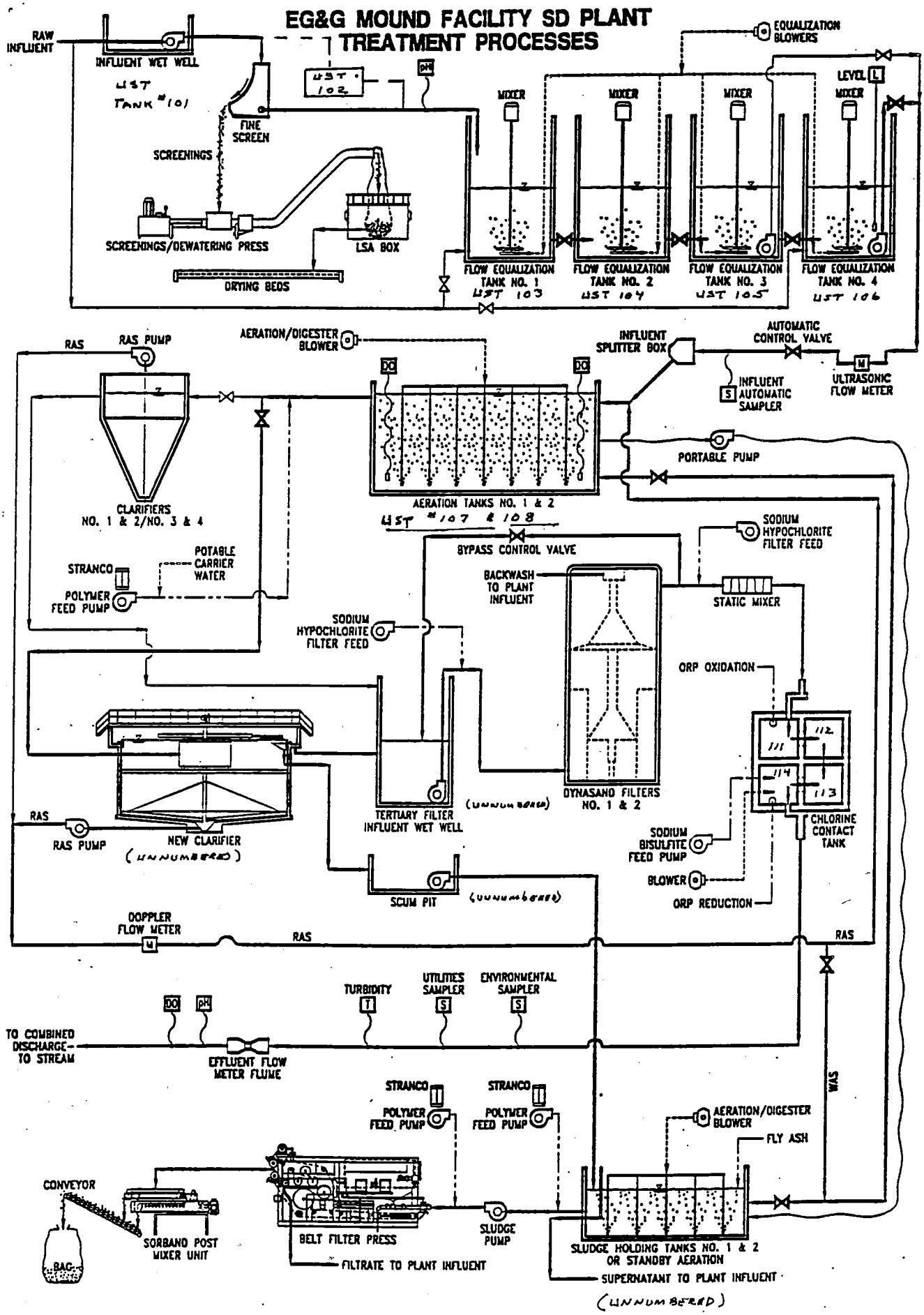

Figure 1

FIGURE 1

REVISION 2 10/30/95

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Environmental Appraisal of the Mound Plant

9.76.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 57 SANITARY SEWAGE TREATMENT

Appraisers:

TEAM #4

Name	Discipline
MARK GILLIAT	ENGINEER
MARCIA VANNET	CHEMIST
MYRON SMITH, JR	ENGINEER
—	

Building Manager: A. W. WOSHAW (x 4994), ALT F. RAKER (x-3438)

Process Manager: John "MIKE" WORRELL PRIMARY LICENSED OPERATOR

Date: 30 JANUARY 1996

ENVIRONMENTAL APPRAISAL CHECKLIST

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Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Environmental Ap[illegible]sal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-96

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 INTAKE INFLUENT	WASTE WATER SANITARY TREATMENT
	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	WATER TREATMENT CHEMICALS only

9.76-15

Environmental Appraisal Checklist

Building Name: 57 Appraisers: Team #4 Date: 1-30-96

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	Emergency Diesel Generator
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: 57 Appraisers: Team # 4 Date: 1-30-96

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: _____

9.76-17

Environmental Appraisal Checklist

Building Name: 37 Appraisers: TEAM #4 Date: 1-30-96

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	MSDS in Bldg 37 & AT THE UTILITIES FOREMAN'S OFFICE, Bldg "P"
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	NO FLAMMABLE MATERIALS
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: 57 Appraisers: Team #4 Date: 1-30-96

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	NO STORAGE AREAS. FIRE EXTINGUISHERS PROPERLY POSITIONED & CHARGED
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	NONE REMAINING
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	NONE
	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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9.76-20

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	DIRECT LINE TO EMERGENCY GEN.
	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
57	1000	DIESEL FUEL	850	(Y)/ N	(Y)/ N	Y/(N)	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				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: VISUAL, DISCUSSION WITH Bldg Mgr AND ON ACTIVE TANK INVENTORY

Environmental Appraisal Checklist

Building Name: 57 Appraisers: Team #4 Date: 1-30-96

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	
	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: _____

9.76-21

Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-96

RCRA Screening Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was charactarization by analysis or by process knowledge? Are lab results or documentation of process knowledge readily available? Note any uncharacterized material in comment section. Is it waste? If yes, proceed with next section.	Y / (N) (analysis) / process (Y) / N Y / N	SUSPENDED SOLIDS in EFFLUENT CONTAINS HEAVY METALS & HAZARDOUS CHEMICALS ALSO CONSIDERED LLW, SEE BLDG 113 for SLUDGE REMOVAL.
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 Name: 57 Appraisers: Team #4 Date: 1-30-96

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	Refer to Bldg 113
OAC 3475-52-34 (C)	Has any of the RCRA hazardous waste in this building been managed in Satellite Accumulation Areas? If no, proceed to the next section. If yes, answer the following.	Y / N	N/A
	Are the containers marked with the words hazardous waste, or other words denoting the hazard?	Y / N	
	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	

9.76-23

Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-96

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. 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? BLANK Where is the log? Is it properly completed, dated, and signed?	Y / N Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the facility boundary?	Y / N	
	Are incompatible wastes managed in such a way that they will not react with another incompatible waste?	Y / N	
OAC 3745-52-34(B)	Has any of the waste (except in Building 23, Building 72 and the Burn Area) been managed in excess of 90-days?	Y / N	
	If no go to next section.		
	If yes, note.		
	For Building 23, Building 72 & Burn Area use special checklist.		

Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM #4 Date: 1-30-96

RCRA Checklist

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

Blank

9.76-25

Building Name: 57 Appraisers: Team #4 Date: 1-30-96

RCRA Checklist

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

General Comments:

9.76-26

Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-96

Asbestos Screening Checklist

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

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos? 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)	THERE IS NO WORK IN PROGRESS.
	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~~ sealants 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	

9.76-27

Building Name: 57 Appraisers: Team # 4 Date: 1-30-96

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

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

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	
	Based on an inspection, are any of the materials or equipment potentially PCB contaminated? If no, note and stop here. If yes, note the location of the management unit, and the method of management, and proceed.	Y / N	Could be in THE INFLUENT in MINUTE QUANTITIES <500ppm
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	

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Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-96

TSCA Checklist

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

BLANK

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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 capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement?	Y / N	
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: 57 Appraisers: TEAM #4 Date: 1-30-96

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? If the answer is no, note. If the answer is yes, proceed with next section.	Y / N	LLW IS NOT GENERATED IN THIS FACILITY. IT ENTERS AS PART OF THE SUSPENDED SOLIDS IN THE INFLUENT FROM OTHER MOUND FACILITIES. REFER TO BLDG 113.
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~~ Blank 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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Building Name: 57 Appraisers: Team # 4 Date: 1-30-96

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 REFER TO BUILDING 113 FOR LLW SHUDGE	
	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: 57 Appraisers: Team #4 Date: 1-30-96

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 57 Appraisers: Team #4 Date: 1-30-96

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? Blank	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: 57 Appraisers: Team # 4 Date: 1-30-96

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:

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Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-97

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y / (N)	
	Are there solvent wastes?	Y / N	
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	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? Blank	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: 57 Appraisers: TEAM # 4 Date: 1-30-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

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Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	(Y) / N	Emergency Generator maintained by others, oil removed & processed by W.M.
	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	used & removed by others
	Rags and absorbants used to their limit?	Y / N	N/A

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Environmental Appraisal Checklist

Building Name: 57 Appraisers: TEAM # 4 Date: 1-30-96

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? Blank	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: 57 Appraisers: TEAM #4 Date: 1-30-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

9.76-41

MOUND CHEMICAL INVENTORY
1995 CALENDAR YEAR

CHEMICAL	MANUFACTURER	MAX. DAY AMOUNT	APPROX. 1995 USE	TYPICAL AMOUNT	# OF DAYS Held	BLDG. and ROOM	CHEM FORM	CHEM STATE	STORAGE CODE	PRESSURE CONDITION	TEMP COND	MSDS?
FLY Ash	TRANS-Ash		650 SOLB-86	2 DRUMS	180	113	P	P.S	A	1	4	✓
SORBOND			575 SOLB-86			113	P	P.S	A.	1	4	✓
REDUCITE	H.V.C. Inc		(55-G) 4 DRS			112.	M	M.L	E	1	4	✓

[redacted] 1/7/96

SUPERVISOR H.P.I. DATE

AUTHORIZED DERIVATIVE CLASSIFIER DATE

PLEASE ASSURE THAT ONLY VALID QUANTITY UNITS REPORTED AS DESCRIBED ON BACK OF FORM

The Authorized Derivative Classifier certifies that the information contained on this form is UNCLASSIFIED (if applicable for use)

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1994
CHEMICAL INVENTORY
FOR SUPERVISORS

CHEMICAL	SUPERVISOR	1994 MAXIMUM AMOUNT	1994 APPROX USE	1994 TYPICAL AMOUNT	1994 NO. DAYS	BLDG	ROOM	CHEM FORM	CHEM STATE	STORAGE CODE	PRESS COND	TEMP COND	MSDS
D.P.D. TOTAL-CHLORINE REAGENT	FRANK RAKER	4.00 L	18.00 L	4.00 L	365	POW. HOUS		M	S	N	1	4	Y
D.P.D. FREE-CHLORINE REAGENT	FRANK RAKER	4.00 L	18.00 L	4.00 L	365	POW. HOUS		M	S	N	1	4	Y
BROMTHYMOL BLUE INDICATOR	FRANK RAKER	0.00	8.00 OZ	4.00 OZ	365	POW. HOUS		M	L	N	1	4	Y
CRESOL RED	FRANK RAKER	0.00	8.00 OZ	4.00 OZ	365	POW. HOUS		M	L	N	1	4	Y
MOLYBDENUM INDICATOR POWDER	FRANK RAKER	0.00	200.00 G	50.00 G	365	POW. HOUS		M	L	N	1	4	Y
MOLYBDENUM OXIDIZING REAGENT	FRANK RAKER	0.00	8.00 OZ	4.00 OZ	365	POW. HOUS		M	L	N	1	4	Y
MOLYBDENUM BUFFER REAGENT	FRANK RAKER	0.00	18.00 OZ	6.00 OZ	365	POW. HOUS		M	L	N	1	4	Y
BUFFER PH 7.0	FRANK RAKER	0.00	2.00 QT	1.00 QT	365	POW. HOUS		M	L	N	1	4	Y
BUFFER PH 10.0	FRANK RAKER	0.00	2.00 QT	1.00 QT	365	POW. HOUS		M	L	N	1	4	Y
FERROZINE IRON	FRANK RAKER	0.00	10.00 OZ	2.00 OZ	365	POW. HOUS		M	S	N	1	4	Y
REAGENT SOLUTION PILLOWS	FRANK RAKER	0.00	10.00 G	2.00 G	365	POW. HOUS		M	S	K	1	4	Y

1994
CHEMICAL INVENTORY
FOR SUPERVISORS

CHEMICAL	SUPERVISOR		1994 MAXIMUM AMOUNT	1994 APPROX USE	1994 TYPICAL AMOUNT	1994 NO. DAYS	BLDG	ROOM	CHEM FORM	CHEM STATE	STORAGE CODE	PRESS COND	TEMP COND	MSDS
SULFURIC ACID N/50	FRANK	RAKER	0.50 GA	2.00 GA	0.50 GA	365	POW. HOUS		M	L	N	1	4	Y
HARDNESS TITRATING SOLUTION	FRANK	RAKER	0.50 GA	1.00 GA	0.50 GA	365	POW. HOUS		M	L	N	1	4	Y
TOTAL HARDNESS INDICATOR	FRANK	RAKER	50.00 G	300.00 G	50.00 G	365	POW. HOUS		M	S	N	1	4	Y
TOTAL HARDNESS BUFFER	FRANK	RAKER	200.00 G	800.00 G	200.00 G	365	POW. HOUS		M	S	N	1	4	Y
IODIDE IODATE	FRANK	RAKER	0.50 GA	1.00 GA	0.50 GA	365	POW. HOUS		M	L	N	1	4	Y
SULFIFE INDICATOR POWDER	FRANK	RAKER	25.00 G	100.00 G	25.00 G	365	POW. HOUS		M	S	N	1	4	Y
MOLYBDATE	FRANK	RAKER	2.00 QT	1.00 GA	2.00 QT	365	POW. HOUS		M	L	N	1	4	Y
STANNOUS-CHLORIDE POWDER	FRANK	RAKER	50.00 G	100.00 G	50.00 G	365	POW. HOUS		M	S	N	1	4	Y
NEUTRALIZING SOLUTION	FRANK	RAKER	0.50 PT	1.00 PT	0.50 PT	365	POW. HOUS		M	L	N	1	4	Y
CONDUCTIVITY STANDARD	FRANK	RAKER	0.50 GA	1.00 GA	0.50 GA	365	POW. HOUS		M	L	N	1	4	Y
C.A.N. SOLUTION	FRANK	RAKER	6.00 OZ	16.00 OZ	6.00 OZ	365	POW. HOUS		M	L	N	1	4	Y

1994
CHEMICAL INVENTORY
FOR SUPERVISORS

CHEMICAL	SUPERVISOR	1994 MAXIMUM AMOUNT	1994 APPROX USE	1994 TYPICAL AMOUNT	1994 NO. DAYS	BLDG	ROOM	CHEM FORM	CHEM STATE	STORAGE CODE	PRESS COND	TEMP COND	N S D S
✓C.O.D. SOLUTION (SA)	FRANK RAKER	900.00 ML	2700.00 ML	900.00 ML	365	POW. HOUS		N	L		1	4	Y
ANCOSTEAM 2010(CONDENSATE)	FRANK RAKER	1.00 GA	275.00 GA	100.00 GA	365	POW. HOUS		N	L	E	1	4	Y
BRAXON #2 (PHOSPHATE)	FRANK RAKER	10.00 GA	15.00 GA	10.00 GA	365	POW. HOUS		N	L	E	1	4	Y
ANCOTREAT 1310	FRANK RAKER	3.00 GA	715.00 GA	150.00 GA	365	POW. HOUS		N	L	E	1	4	Y
OX-GEN (SULFITE)	FRANK RAKER	200.00 LB	400.00 LB	200.00 LB	365	POW. HOUS		N	S	I	1	4	Y
ANCOOL 3710	FRANK RAKER	30.00 GA	60.00 GA	30.00 GA	365	POW. HOUS		N	L	E	1	4	Y
SILVER NITRATE	FRANK RAKER	0.50 GA	1.00 GA	0.50 OZ	365	POW. HOUS		N	L	N	1	4	Y
PHENOLPHTHALEIN	FRANK RAKER	6.00 OZ	14.00 OZ	6.00 OZ	365	POW. HOUS		N	L	N	1	4	Y
SODIUM CARBONATE N/10	FRANK RAKER	6.00 OZ	14.00 OZ	6.00 OZ	365	POW. HOUS		N	L	N	1	4	Y
METHYL ORANGE	FRANK RAKER	6.00 OZ	10.00 OZ	6.00 OZ	365	POW. HOUS		N	L	N	1	4	Y
HYDROGEN-PEROXIDE	FRANK RAKER	1.00 QT	2.00 QT	1.00 QT	365	POW. HOUS		N	L	N	1	4	Y

1994
CHEMICAL INVENTORY
FOR SUPERVISORS

CHEMICAL	SUPERVISOR		1994 MAXIMUM AMOUNT	1994 APPROX USE	1994 TYPICAL AMOUNT	1994 NO. DAYS	BLDG	ROOM	CHEM FORM	CHEM STATE	STORAGE CODE	PRESS COND	TEMP COND	M S D S
M519 CS TEAR GAS HAN-BALL GRENADE	RON	PARR	414.00 G	0.00 G	414.00 G	365	GP-1	21	N	L	R	1	4	Y
MODEL SGA-300 1.50" TEAR GAS PROJECTILE	RON	PARR	68.40 G	0.00 G	68.40 G	365	GP-1	21	N	L	R	1	4	Y
ANTIFOAM BW	FRANK	RAKER	15.00 GA	5.00 GA	15.00 GA	365	POW. HOUS		N	L	E	1	4	Y
LIQUID NEUTRALIZER	FRANK	RAKER	30.00 GA	20.00 GA	30.00 GA	365	POW. HOUS		N	L	D	1	4	Y
ANCOCIDE 4070	FRANK	RAKER	60.00 GA	145.00 GA	60.00 GA	365	POW. HOUS		N	L	E	1	4	Y
ANCOCIDE 4020	FRANK	RAKER	60.00 GA	145.00 GA	60.00 GA	365	POW. HOUS		N	L	E	1	4	Y
ANCO 3310	FRANK	RAKER	300.00 GA	1420.00 GA	300.00 GA	365	POW. HOUS		N	L	J	1	4	Y
✓GENCLOR 12.5 HYPOCHLORITE (CHLORINE) sb/PH	FRANK	RAKER	330.00 GA	2310.00 GA	330.00 GA	365	POW. HOUS		P	L	E	1	4	Y
DOWTHERM SRI (GLYCOL)	FRANK	RAKER	825.00 GA	275.00 GA	825.00 GA	365	POW. HOUS		N	L	D	1	4	Y
✓ANCO 8510	FRANK	RAKER	1650.00 GA	1825.00 GA	165.00 GA	365	POW. HOUS		N	L	E	1	4	Y
✓ANCO 8007	FRANK	RAKER	110.00 GA	165.00 GA	110.00 GA	365	POW. HOUS		N	L	E	1	4	Y

1994
CHEMICAL INVENTORY
FOR SUPERVISORS

CHEMICAL	SUPERVISOR		1994 MAXIMUM AMOUNT	1994 APPROX USE	1994 TYPICAL AMOUNT	1994 NO. DAYS	BLDG	ROOM	CHEM FORM	CHEM STATE	STORAGE CODE	PRESS COND	TEMP COND	N S D S
STANDARD ZERO	FRANK	RAKER	0.00	4.00 QT	2.00 QT	365	POW. HOUS		M	L	N	1	4	Y
BUFFER REAGENT	FRANK	RAKER	0.00	48.00 QT	12.00 QT	365	POW. HOUS		M	L	N	1	4	Y
INDICATOR REAGENT	FRANK	RAKER	0.00	40.00 G	8.00 G	365	POW. HOUS		M	L	N	1	4	Y
CALCIUM CHLORIDE STANDARD SOLUTION	FRANK	RAKER	0.00	4.00 QT	2.00 QT	365	POW. HOUS		M	L	N	1	4	Y
POTASSIUM CHROMATE INDICATOR	FRANK	RAKER	0.00	14.00 OZ	6.00 OZ	365	POW. HOUS		M	L	N	1	4	Y
REDUCITE	FRANK	RAKER	0.00	4.00 GA	1.00 GA	365	POW. HOUS		M	L	N	1	4	Y
ANCOOL (~~8400~~ 3400)	FRANK	RAKER	1100.00 GA	0.00 LB	825.00 GA	365	POW. HOUS	24	M	L	N	1	4	Y
FUEL OIL #2	FRANK	RAKER	30075.30 GA	1000.00 GA	30075.30 GA	365	POW. HOUS	CUTS D	P	L	N	1	4	Y
SODIUM CHROMATE TETRAHYDRATE	ROY	SCHUMACHER	100.00 G	0.10 G	100.00 G	365	E	167		PS	N	1	4	Y
OXYGEN	ROY	SCHUMACHER	200.00 CF	100.00 CF	200.00 CF	365	E	167		PG	L	1	4	Y
GLYCERIN	ROY	SCHUMACHER	500.00 ML	0.00	500.00 ML	365	E	23		PL	N	1	4	Y
1-AMINO-2-NAPHTOL-4-SULFONIC ACID	ROY	SCHUMACHER	100.00 G	1.00 G	100.00 G	365	E	167		PS	N	1	4	Y

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9.76.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. BAKER Phone: 865-34

1. What are the access requirements (training, clearance, etc.)?
Applicable to BLDG 113 { NVO-325 Training is required if Sludge Press is in operation. This is typically Fall and Spring one weekend. Uncleared area. A phone call to myself or Frank Baker is appreciated in order that the operator can be informed of any visitor

2. What protective equipment is required to enter the building?
Safety glasses and safety shoes are a good idea in case some maintenance is in progress

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

4. Provide a physical description of the building.

Building 57 is a concrete block structure with a BUM roof (asphalt). The 510-ft² building has electric heat and window air conditioning. The building contains asbestos but is not contaminated with any 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~~ contains the control board for monitoring the sewage treatment plant and used for the analysis of sewage before its disposal a wet lab
Room 104 houses a standby generator.

Source: Mound Buildings, 5-9-95

7. What is the history of building use other than that described in #6?
None that I am aware of.

Source: Mound Buildings, 5-9-95

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Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. BAKER Phone: 865-3438

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: Sanitary sewage disposal

How Wastes Are Generated:

BIDG 113

Waste to be disposed of is dewatered sludge from the sewage treatment plant.

Contact: A. Upshaw / F. Baker
Phone #: 4894 / 3438

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

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. RAKER Phone: 865-3438

9. In the last six months, have any modifications been made to the building or to processes in the building? Yes No
COMPLETION OF CHLORINATION/DE-CHLORINATION PROJECT.

10. Does the building have air emission sources? Yes Bldg 112

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
Standby DG	104		Y	particulates sulfurdioxide VOCS nitrogen oxides carbon monoxide	.0431 .0403 .05 .6129 .132		10.96464 10.25232 12.72 155.92176 33.5808	
			Y / N					
			Y / N					
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

9.76-53

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. RALEE Phone: 865-3439

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

9.76-54

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw 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~~ SEE ATTACHED		
CHEMICAL INVENTORY		

Source: Chemical Inventory 1994

9.76-55

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw 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?

Processed through waste management.
This is a rare occurance.

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

23. Where do excess janitorial supplies go?

NOT AWARE OF ANY EXCESS.

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: Pesticide use is controlled by Industrial Hygiene and is only requested when some infestation is observed.
Herbicides are applied by Grounds Crews during summer months.

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: E. RAKER Phone: 865-3438

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~~ Diesel Fuel for Standby generator.

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	Sanitary Infulent	365	Y / N	Y / N

Source: _____

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

Materials	Amount
COD SOLUTION IN SMALL	~1200 VIALS
SAMPLE VIALS	PER YEAR

Source: _____

9.76-57

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw 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: _____

9.76-58

Environmental Appraisal of the Mound Plant

Page 9 of the Building Manager's Questionnaire was not provided.

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw 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.

9.76-60

Building Manager's Questionnaire

Building Name: 57 Building Manager: A.W. Upshaw Phone: 865-4844 Date: 12-07-95
Alternate: F. BAKER Phone: 865-3438

36. Is there a waste minimization program in the building? (Yes) No
Discuss your ideas about how to minimize waste.
ALL DRUMS ARE RECYCLED.
The sludge dewatering operation is a waste minimization process.

37. Has a pollution prevention program been developed for the building? Yes No
Unsure exactly what this is.
This facility and it's operations are required to adhere to Mound's NPDES permit requirements which necessitates pollution prevention.

9.76-61

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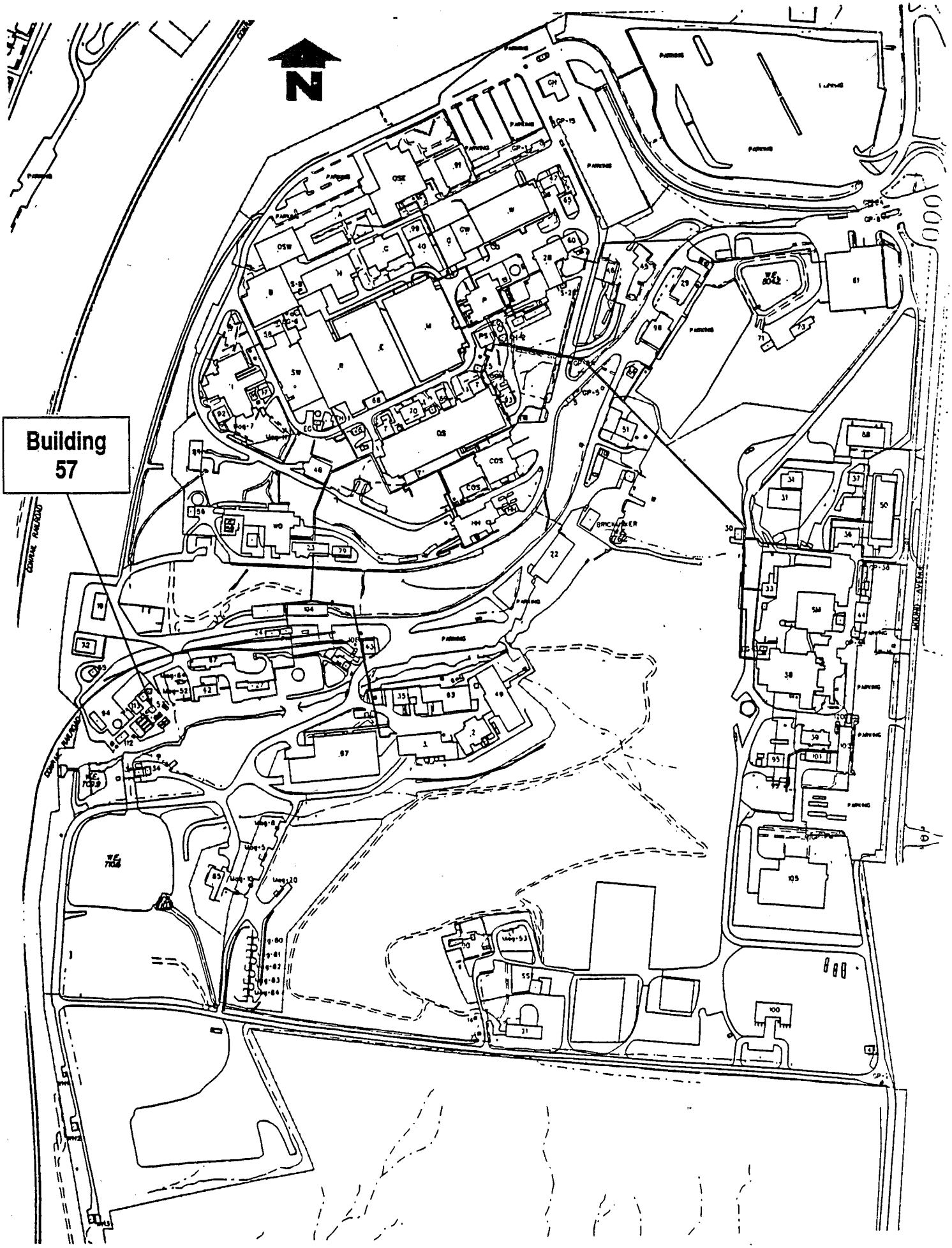
9.76.6.3 Location of Building 57



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

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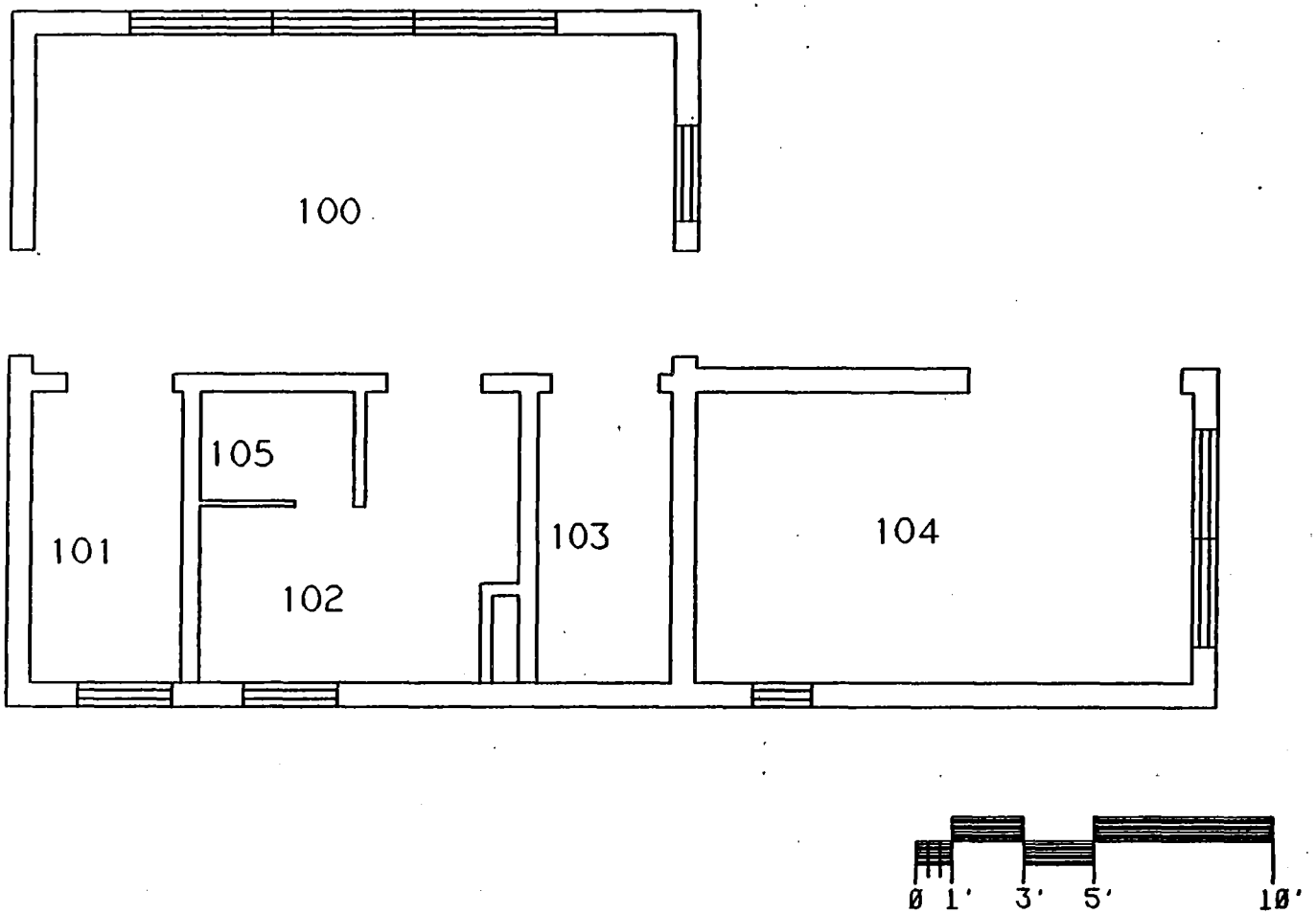
9.76.6.4 Floor Plans for Building 57

ISS	DATE	REVISION	BY	CHKR	ENG	LPREC	APVD	R
Ø	12/12/91	ASBUILT ISSUE	DCW				DVD	



BLDG #57
FIRST FLOOR
BLDG CODE:3057

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUE90C ___TE90C ___CH90C
TECH. REP. ___
GR. MGR. ___
TRUE90C ___
TE90C ___
CH90C ___

DESIGN ENG	PROJ MGR
SPONS	ENG SUPV
LP & EC	PEER REV
ENG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	Ø					

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
BLDG #57
FLOOR PLANS

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: C
DRAWING NUMBER: FSC911264
JOB NUMBER: 12335
DWG TYPE: SFP
PROJ: BLDG #57
CHRG: 14065
SCALE: AS NOTED
SHEET 1 OF 1
STATUS: MD-REL-12/12/91
ORIGIN: MD-BR3-V3.Ø

9.76-69

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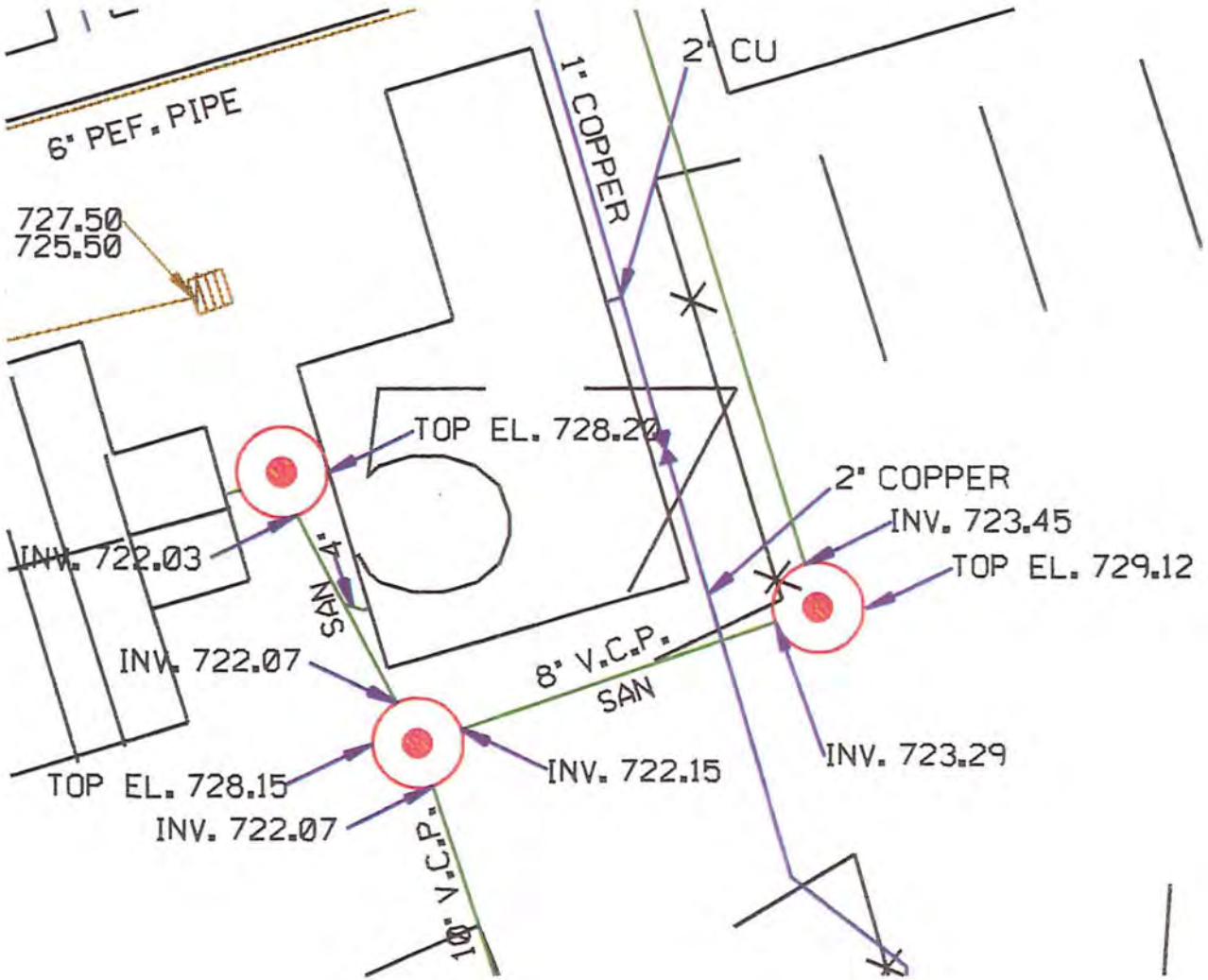
9.76.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 57

DATE: 3-4-96

9.76.6.6 Photographs

Mound Plant Building 57

9.76-77

Aeration tanks at the wastewater treatment plant are well-maintained.

9.77 BUILDING 58

9.77.1 Scope of Building 58 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 58 on February 6, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.77.6.1). The appraisers were accompanied by the building manager who is also responsible for the operations of Building 58. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.77.6.2).

9.77.2 Description of Building 58

Building 58 is an elevated one-story, steel frame building with brick face exterior. The roof is a metal built-up membrane with asphalt. This building was erected in 1977 and contains 6,110 square feet. The location is shown in Attachment 3 (Section 9.77.6.3). Access to the building is from the roof of Building SW or by a staircase from the roof of Building B. Adjacent buildings are Building B to the north, Building SW to the south, and Generator 6 directly below Building 58. The building is serviced by central steam for heat and chilled water, and electrical service of 480V. Electrical service of 12,470V is provided to SW substation which is part of Building 58 (*Mound Facility Physical Characterization*, 12-1-93).

Building 58 is the alpha and beta filter bank and plenum exhaust for Building SW. A high efficiency particulate air (HEPA) filtration system is used to filter out alpha and beta particulates from the exhaust of several rooms in Building SW. Floor plans, including a crawl space, are presented in Attachment 4 (Section 9.77.6.4). The building has been used for the same purpose since construction. The building contains equipment possibly contaminated with radioactive materials (*Mound Facility Physical Characterization*, 12-1-93).

9.77.3 Summary of Findings

Building 58 is well-maintained. There are no established Resource Conservation and Recovery Act (RCRA) regulated waste streams for Building 58. The only waste stream is radioactive waste which is managed as low specific activity (LSA) waste. Very little plutonium is now handled in Buildings R and SW. The filter banks still show levels of alpha and beta contamination. Records of filter bank level readings can be found in Health Physics records. The concerns identified during the walk-through were the lack of waste identification forms and the use of some chemicals in an radiation buffer area (RBA).

9.77.4 Observations

9.77.4.1 Air Emissions

There is no application on file with the Regional Air Pollution Control Agency (RAPCA) as there are no processes that generate any air emissions. The building houses the filter banks for the plenum exhaust to the HEFS stack from Buildings R and SW. Emissions from the HEFS stack are monitored for radionuclides in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Federal Facility Compliance Agreement (FFCA) Compliance Work Plan, 2-20-95. The air emission listed for Building 58 in Mound's air emission inventory database is for Generator 6. There are no fuel-burning units in the building. There was no visual evidence of fugitive dust.

9.4.2.2 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.

9.77.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.77.6.5), no sanitary lines directly service Building 58. Discharge from the toilet is routed to the sanitary system through Building SW. Chemicals would not be expected to enter the sanitary system as no floor drains discharge to the sanitary system. 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 58 should not deviate from that expected by the sanitary treatment plant manager.

9.77.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to Attachment 5 (Section 9.77.6.5). In particular, roof drains discharge to the storm sewer. There are no exterior grates and drains associated with this building.

9.77.4.2.3 Process Wastewater

This building discharges potentially radioactive wastewater to the WD facility. The diagram of underground utility lines presented in Attachment 5 (Section 9.77.6.5) shows there is no direct connection between Building 58 and the radioactive waste lines. Discharges to the radioactive wastewater system are routed through Building SW to the WD facility. According to building drawings, the sink, shower, and all floor drains, except those in the filter bank area, discharge to the radioactive wastewater system. The drains in the filter bank are part of the fire sprinkler system. These drains funnel water from the filter banks to a holding tank in Building SW. Although never used, water collected in this tank would be tested before it would be pumped out.

9.77.4.2.4 Chemicals

Maintenance related products and chemicals were observed in Building 58 and are identified in the BMQ which is present as Attachment 2 (Section 9.77.6.2). None of the chemicals are considered 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 58. There is no evidence that chemicals have entered any of the three wastewater collection systems.

9.77.4.3 Potable and Service Water

Potable water is supplied from Building SW to the lavatory and shower. There are no water fountains in Building 58. No cross-connections were observed in the building. Backflow prevention devices are on the spigots in the fan room.

9.77.4.4 Chemical Storage and Hazardous Materials

Chemicals used in the building are maintenance related; WD-40, cutting oil, graphite lubricants and trisodium phosphate. An aerosol can of 1,1,1-trichloroethane was on the work bench. This aerosol solvent is probably used to clean parts. Depending upon its use, mixed waste could be generated using this RCRA-regulated chemical in an RBA. The building manager took immediate action to have this aerosol can of 1,1,1-trichloroethane removed from the building. All chemicals were observed to be stored in the building in accordance with applicable standards. Material Safety Data Sheets (MSDS's) are available in the maintenance foreman's office in Building W, however, none of them were listed in the chemical inventory.

The building does not have an eyewash station or safety showers. A shower stall is available but it is not tested. The building is equipped with emergency response equipment for fire protection such as a wall-mounted Halon 1211 fire extinguisher and a sprinkler system. Inspection tags

were present and current. There is an Emergency Evacuation Plan, and signs were posted in work areas.

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

The building has tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in the building. However, a substation incorporated into the crawl space of Building 58 had PCB capacitors, transformers, and oil removed in 1990 (*Characterization of Mounds Hazardous, Radioactive, and Mixed Wastes,* 8-15-90).

9.77.4.5 Solid, Hazardous, and Radioactive Wastes

All waste generated in Building 58 is considered radioactive and is treated as LSA waste. There are primarily two sources of radioactive wastes. One is the filters in the filter bank area. They are bagged and boxed. The other is the associated material required to perform general work duties and to change the filters. This includes bubble suits, personal protective clothing and plastic booties. Disposition of these waste streams are managed by the Waste Management Group. At the time of the inspection, several drums and yellow bags of waste did not have generator forms to identify the waste. The area is under the administrative control of the generator.

9.77.4.6 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.

9.77.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.77.6.6).

The environmental appraisal of Building 58 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.

58-1 Building personnel need to characterize radiological waste generated and properly pack it into containers. Drums should have generator forms and be sealed as soon as they are filled. LSA waste must be controlled from the point of generation.

58-2 Although corrective action was immediate, personnel should be knowledgeable of the consequences of using RCRA-regulated chemicals in a radiation area. The appropriate training should be re-emphasized to reduce the possibility of creating mixed waste.

58-3 Chemicals observed during the walk-through were not on the BMQ which is presented as Attachment 2 (Section 9.58.6.5). Chemical inventory records for the building should be updated.

58-4 MSDS's should be available in the building.

58-5 Mound's air emission inventory database needs to be updated to reflect that there are no air emissions from Building 58.

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Environmental Appraisal of the Mound Plant

9.77.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 58

Appraisers:

Ronald Paulick
Name Discipline

Billie J. Allison
Name Discipline

John F. Ross
Name Discipline

Name Discipline

Building Manager: Jerry J Allison 3/6/96

Process Manager:

Date: 2-6-96

ENVIRONMENTAL APPRAISAL CHECKLIST

Table of Contents

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 Appraisal Checklist

Building Name: 58 Appraisers: Pawlick/Adkins/Ross Date: 2-6-96

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 _____ _____	plenum exhaust & filter bank for SLW
	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 are part of the fire deluge collection system that goes to a 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 Y / N	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) Y / (N) Y / (N)	Building is elevated two stories high, no manholes associated with this building

9.77-11

9.77-12

Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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	N/A
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: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

CAA Checklist Page left intentionally blank.

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:_____

9.77-13

9.77-14

Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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	MSDS in maintenance foreman's office
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 of chemicals
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	No flammable cabinet
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: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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 N/A	Not a flammable storage area. Halon 1211 fire ext. available.
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	Y / N	No eye wash/safety shower. shower stall available
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	No gas cylinders
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: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	(Y)/N	air filtration system
	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 Appraisal Checklist

Building Name: 58 Appraisers: Paulick / Adkins / Ross Date: 2-6-96

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	BFP installed on several spigots.
	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	

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead

Source: _____

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Environmental Appraisal Checklist

Building Name: 58 Appraisers: Pawlick/Adkins/Ross Date: 2-6-96

RCRA Screening Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was charactarization by analysis or by process knowledge? Are lab results or documentation of process knowledge readily available? Note any uncharacterized material in comment section. Is it waste? If yes, proceed with next section.	Y / (N) analysis / process (Y) / N (Y) / N	No generator forms on 3 LSA drums & 3 LSA bags
OAC 3745 52-11	Are any of the materials noted RCRA hazardous waste? If no, note and stop here. If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.	Y / (N)	

Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 3-6-96

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?	Y / N	
	Is it treated as such?	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	

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Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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. 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? Where is the log? Is it properly completed, dated, and signed?	Y / N _____ Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the facility boundary?	Y / N	
	Are incompatible wastes managed in such a way that they will not react with another incompatible waste?	Y / N	
OAC 3745-52-34(B)	Has any of the waste (except in Building 23, Building 72 and the Burn Area) been managed in excess of 90-days?	(Y) / N	
	If no go to next section.		
	If yes, note.		Non-RCRA LSA waste may be staged more than 90 days until sufficient quantities is available to be lowered to a LSA box.
	For Building 23, Building 72 & Burn Area use special checklist.		

Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	
	If the answer was no, then proceed with the following:	Y / N	
	Has the tank or piece of equipment had an integrity assessment?	Y / N	No tank
	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: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

Asbestos Screening Checklist

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

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos? If no for this building or area note this conclusion in the comment section.	Y / N	No asbestos containing materials
	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	No asbestos
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: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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

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

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	
	Based on an inspection, are any of the materials or equipment potentially PCB contaminated? If no, note and stop here. If yes, note the location of the management unit, and the method of management, and proceed.	Y / N	PCB related transformers & capacitors were removed from the substation in 1990.
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	No PCB's
	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 A[illegible]aisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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	No PCB's
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: 58 Appraisers: Pavlick/Adkins/Ross Date: 2-6-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's capacitators and PCB-containing electrical equipment are allowed to be stored outside of PCB storage areas, on pallets if stored outside, with containment for 10 percent of the volume of the equipment. Do all PCB's stored in this configuration conform with this requirement?	Y / N	No PCBs
40 CFR 761.45 and .65	Are all PCB storage areas marked with a large PCB mark as described in 40 CFR 761.45 (a)?	Y / N	
40 CFR 761.65 (c) (5)	Have all leaking PCB articles and containers been transferred to non-leaking containers?	Y / N	
40 CFR 761.65 (c) (6)	Do all PCB storage containers for the storage of liquid and non-liquid PCB's comply with DOT shipping container specifications?	Y / N	

GENERAL COMMENTS:

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? If the answer is no, note. If the answer is yes, proceed with next section.	(Y)/ N	
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	Smocks, shoe covers, filters Building 58
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	25 mrem/yr dose not possible
	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: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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)	Waste generator forms were not ~~also~~ available or on drums & bags
	Do characterization data include the following:		
	Physical and chemical characteristics of the waste?	(Y) / N	All information is on waste generator form. Forms were not available or on the drums / bags for review.
	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?	_____	Assumed
	How were the concentrations of radionuclides determined? Indirect methods?	_____	Assumed
DOE Order 5820.2A Chapter III, 3.h	Is the storage configuration in long term storage sufficient to meet the performance standard?	Y / N	There is no long term storage.
	Are records maintained at the facility enabling this waste to be traced from its origin?	(Y) / N	

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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	

Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

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	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:

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Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y (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: 58 Appraisers: Paulak/Adkins/Ross Date: 2-6-96

Waste Minimization/Pollution Prevention Activities Checklist Page intentionally left blank.

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

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Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick / Adkins / Ross Date: 2-6-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

Waste Minimization/Pollution Prevention Activities Checklist Page intentionally left blank

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

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Environmental Appraisal Checklist

Building Name: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

Waste Minimization/Pollution Prevention Activities Checklist Page intentionally left blank

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: 58 Appraisers: Paulick/Adkins/Ross Date: 2-6-96

Waste Minimization/Pollution Prevention Activities Checklist Page intentionally left blank

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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9.77.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

1. What are the access requirements (training, clearance, etc.)?
   RAD WORKER II, CRITICALITY
   RWP

2. What protective equipment is required to enter the building?
   SHOE COVERS, SMOCK, BUBBLE SUIT FOR FILTER BANK
   gloves, waers Dosimeter

3. Are there any restricted areas? Yes No
   Where are they?
   FILTER BANK RESTRICTED BECAUSE IT IS HIGH CONTAMINATIO
   AREA
   Bldg itself Contamination AREA

4. Provide a physical description of the building.

This elevated, one-story, steel frame building contains 6,110 ft². It was built in 1977. The roof is BUM (asphalt); HVAC systems are central steam and chilled water. The building ~~does not have any~~ doesn't have asbestos-containing material, ~~and does not contain~~ equipment contaminated with radiological ~~and mixed waste materials~~. POSSIBLY THE BUILDING CONTAINS

with masonry outside walls

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

FILTER BANK AND EXHAUST SYSTEM FOR SW BUILDING

Source: Mound Buildings, 5-9-95

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

Building ~~was~~ is the alpha & BETA filter bank for SW Building. A HEPA filtration system ~~was used~~ is used to filter out any alpha & BETA contaminants from the exhaust of several rooms in the SW Building.

The building has been used for the same purpose since construction.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison 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: Filter banks

How Wastes Are Generated:

This building houses the filters ~~that~~ that clean the air leaving SW Building. The filters were designed to capture any ~~plutonium~~ Alpha-Beta particles in the air. (1) ~~Very little plutonium is now handled in SW, and the alpha contamination level [illegible]. The filters also trap any particles which may be carrying tritium. They generally show low levels of beta contamination,~~ BUT CAN ALSO SHOW VERY HIGH LEVELS ~~LSA waste~~
All filters are boxed and shipped ~~to Nevada Test Site~~ as LSA waste for disposal.

Contact:
Phone #:

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

(1) Very little plutonium is now handled in SW Building. The filter banks still shows alpha & beta contamination levels. Records of filter banks level reading can be found in Health Physics records.

9.77-42

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison 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.
plenum exhaust for SW Building

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
~~Stanby DG~~			~~Y~~	~~particulates~~ ~~sulfurdioxide~~ ~~VOCS~~ ~~nitrogen oxides~~ ~~carbon monoxide~~	~~.0347~~ ~~.0163~~ ~~.0123~~ ~~.431~~ ~~.114~~		~~19.2664~~ ~~9.3528~~ ~~6.88~~ ~~237.5672~~ ~~62.8368~~	
			Y / N					
			Y / N					
			Y / N					
			Y / N					

Source: ~~Mound Air Emissions Database 11/30/95~~

~~Air~~ Air emission listed is for Generator 6.

9.77-43

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison 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

14. Does the building discharge to the storm sewer? Yes No
Where? ~~Frank Rector 3/30~~ ~~settling Pond~~ roof drains

~~Bill Burns~~ 15. Does the building discharge to the sanitary sewer? Yes No
~~X 3309~~ Where? SD Bldg. toilet

16. Has an asbestos survey been conducted? Yes
What are the results? NONE ~~[illegible]~~

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

SW - sump to WD
142-20, R. corridor

9.77-44

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? NO

Source: PCB ANNNUAL DOCUMNET LOG

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

Source: PCB ANNUAL DOCUMENT LOG PCB related items removed from Sub Station attached to BD-58 crawl space

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~~ WD-40	L	
Trisodium phosphate	S	
Cutting oil	L	
graphite lubricant		
1,1,1-Trichloroethane	G	

Source: ~~Chemical Inventory 1994~~

Chemical inventory needs updating.

1,1,1-Trichloroethane was removed from area after the ~~walkthrough~~ walk-through.

9.77-45

Form #22.

MOUND

INTEROFFICE CORRESPONDENCE

DATE: June 1, 1995

FROM: Matthew W. Uelen, Industrial Hygiene

SUBJECT: Approved Decon Chemicals

TO: Robert Bernheisel

Industrial Hygiene has reviewed all present Material Safety Data Sheets (MSDSs) associated with Mound decontamination chemicals and finds them acceptable for use as employee information. Please insure that all chemicals are used as intended by the manufacturer. Also, please ensure that the your employees have been trained (documented) on how to use these products and that they understand the information within the MSDSs. The following chemicals were reviewed:

BP95 Glybet Disinfectant/Deodorant 1/94
Winda Shine 9/24/93
DMQ Damp Mop-Neutral Disinfectant Cleaner 12/16/92
Formula 473 11/93
Formula 484 7/90
Odor-Bane 12/16/94
Conquest 5/23/91
DC-13 7/13/93
Scouring Powder-Glass Cleaning 12/11/90
Duo (TM) Aluminum Jelly (R) Corrosion Remover 1/3/95
NJ1 Naval Jelly Rust Dissolver 1/3/95
Sassy Citrus #09305 10/10/94
Big D Organic Gel 6/28/94
Big D Organic Gel, (Sunburst) 6/28/94
ABC Non-Acid Disinfectant Bathroom Cleaner 2/10/94
MSA Fogpruf Lens Solution 9/91
Sure-Bet 1/91
Li'l Brother Sam 10/93
Scrub Ender 12/90
Rinse Free Strip 2/10/94
Burn Out Spray Floor Cleaner 2/29/88
Above Floor Finish 5/93
MSA P/N 5607 Ventilation Smoke Tubes & Assembly 7/92
RTV102 Silicone Rubber Mix 4/21/95

Florco 1/195
WD-40 (Aerosol) 10/93
WD-40 (Bulk Liquid) 8/92
Grease B Gone 2/93
Ultima Gold 10/94
One-Step 1/90
SBS-61 Lotion Soap 10/1/90
Kindest Kare 7/24/87
Lava Toilet Soap 8/93

9.77-46

P.O. Box 3000 Miamisburg, Ohio 45343-3000 (513) 865-4020

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison 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 MANAGEMENT

No excess chemicals in building

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

~~mop heads~~ ~~SBS lo~~ SBS Lotion Soap
NABC Bottles ~~Lotion soap (Hard Soap)~~
~~Toilet paper~~
~~Kim wipes~~ See Attached form #22
scouring powder

23. Where do excess janitorial supplies go?

~~LSA Drum Liners~~ Waste Management
~~Cartons~~

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

9.77-47

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison 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.

No above ground storage tanks.

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

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

fire deluge recovery tank is in SW-1490

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

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 1990 Amount	Amount
~~OIL WASTE~~	400.5
~~PCB CAPACITORS~~>500PPM, SN	356.4
~~14185725,50K-2223CC,-2403MM,2225~~cc,-2245~~cc,2242~~cc	
~~PCB CAPACITORS>500PPM~~, SN:	356.4
~~50K-2239CO,-1974A,-2243CC,-2241CC,-2~~234CC,-2231CC	
~~PCB DEBRIS>500PPM, FROM SN: H882029~~	173.8
~~PCB OIL> 500PPM, FROM SN:H882029~~	730.4
~~PCB OIL>500PPM, FROM SN:H882029~~	730.4
~~PCB OIL>500PPM, FRROM SNH882029~~	730.4
~~PCB TRANSFORMER~~>500PPM, SN:	4958.8

Bruce Wilkinson x3323
x Jeff Beaver x3500
Bruce Anderson
Bill Thurs

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

PCB related material was removed from the Substation attached to BD-58 Crawl space

9-77-48

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

28. Does the building have abandoned process equipment such as tanks, piping, containers, etc.? Yes (No)
~~Nitrogen used to check Absolute filter for differential pressure (Passed)~~

29. Is waste material stored in or around the building for more than 90 days?
(Yes) (No)
Non-RCRA rad-waste is collected & staged until sufficient material is available to fill LSA box

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? Waste Managment

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: _____

9.77-49

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

33. Is TRU radioactive waste generated, stored, or disposed of from the building?

Yes No filters are LSA waste (LLW)

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: 58 Building Manager: J.L. Allison 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
NORMAL Bldg routines	LSA	(Y) / N	(Y) / N	Y / (N) generator forms
Filtration of SW Bldg. filter changes	Alpha; Beta	(Y) / N	(Y) / N	Y / (N) generator forms.
		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 know of

9.77-51

Building Manager's Questionnaire

Building Name: 58 Building Manager: J.L. Allison 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

9-77-52

MOUND ASBESTOS SURVEY
BUILDING SUMMARY

BUILDING 58

FLOORS:	Two	PIPE CHASES:	None
DATE BUILT:	1977	PENTHOUSE:	None
CRAWLSPACE:	Yes	GROSS AREA, SQ. FT.:	6,110
SUSPENDED CEILING:	None	ADDITIONS:	None

No asbestos was found in Building 58. The homogeneous areas for the suspect Asbestos Containing Materials are shown below. Refer to the Mound Asbestos Survey Sample Data Report for specific information on sample constituents.

HOMOGENEOUS AREAS
Sample Numbers: 1.564-1.569

No.	Description	Result
1	Plaster	Negative
2	Fireproofing (Sprayed)	Negative

Assumed ACM:	Amount	Location
None Located	N/A	N/A

Drawing Reference: P45, P46

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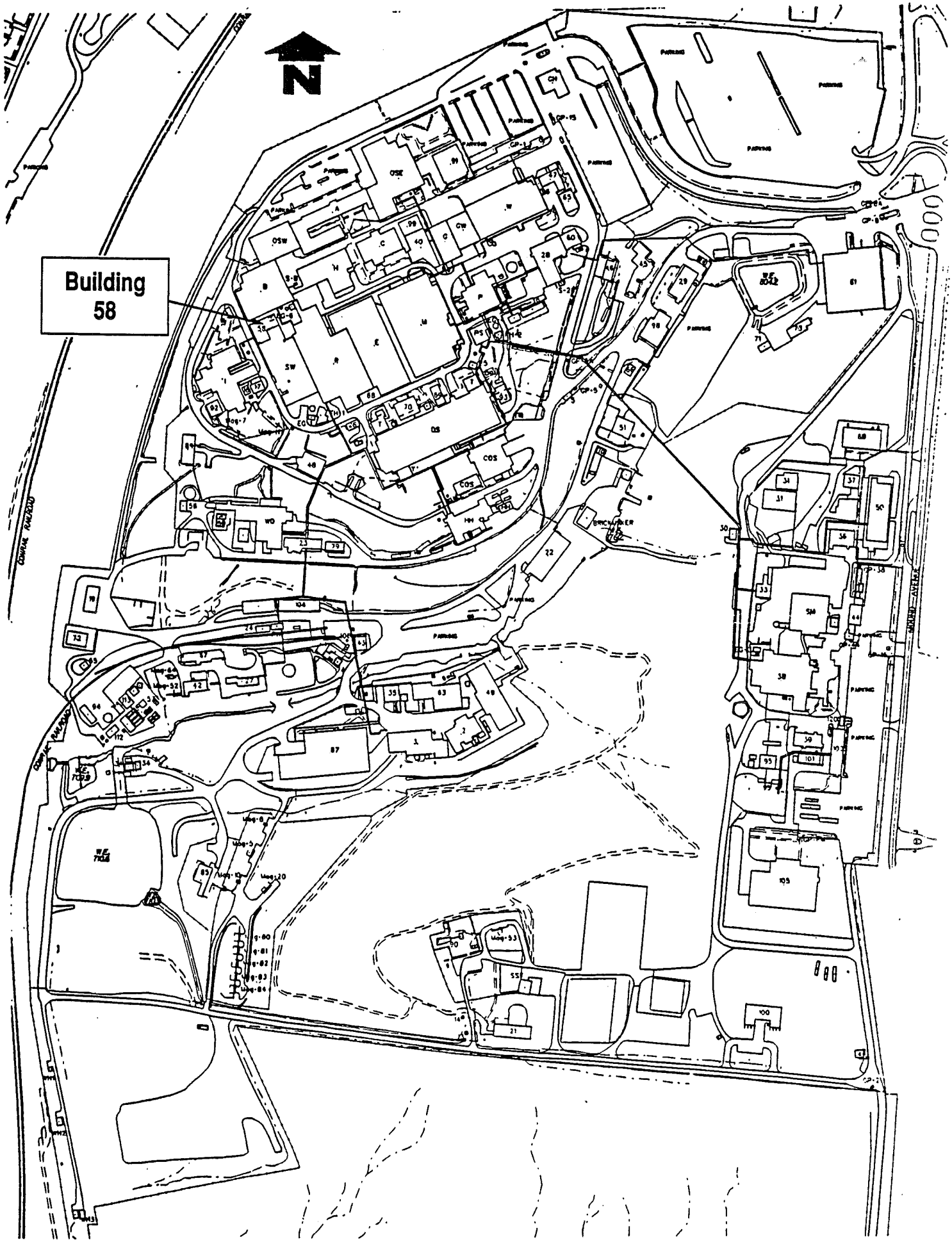
9.77.6.3 Location of Building 58



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

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9.77.6.4 Floor Plans for Building 58

ISS	DATE	REVISION	BY	CHKD	ENG	LEAD	APVD	N
Ø	12/12/91	ASBUILT ISSUE	DCW				DVD	

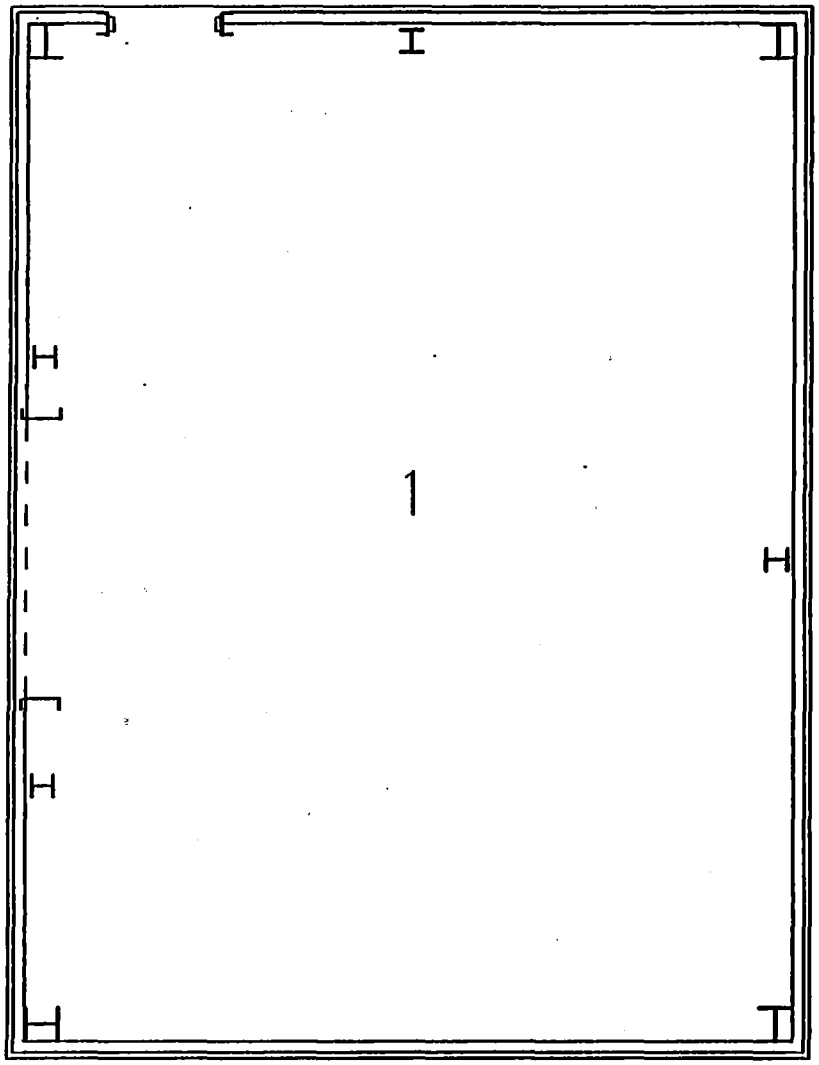
UNCLASSIFIED

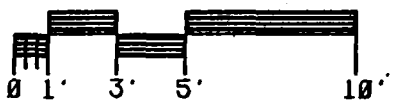
DERIVATIVE CLASSIFIER

A D Myers

Classif Anal. 2/20/96

(Title) (Date)





BLDG #58
FIRST FLOOR
BLDG CODE:3058

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.

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ NONE ___ TRUEBOC ___ TEBOC ___ EMBOC
TECH. REP. ___
MR. MGR. ___
TRUEBOC ___
TEBOC ___
EMBOC ___

DESIGN ENG	PROJ MGR
SPONS	ENG MGR
LP & EE	PROD REV
ENG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	Ø	Ø				

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
BLDG #58
FLOOR PLANS

DRAWING CLASSIFICATION: UCNI

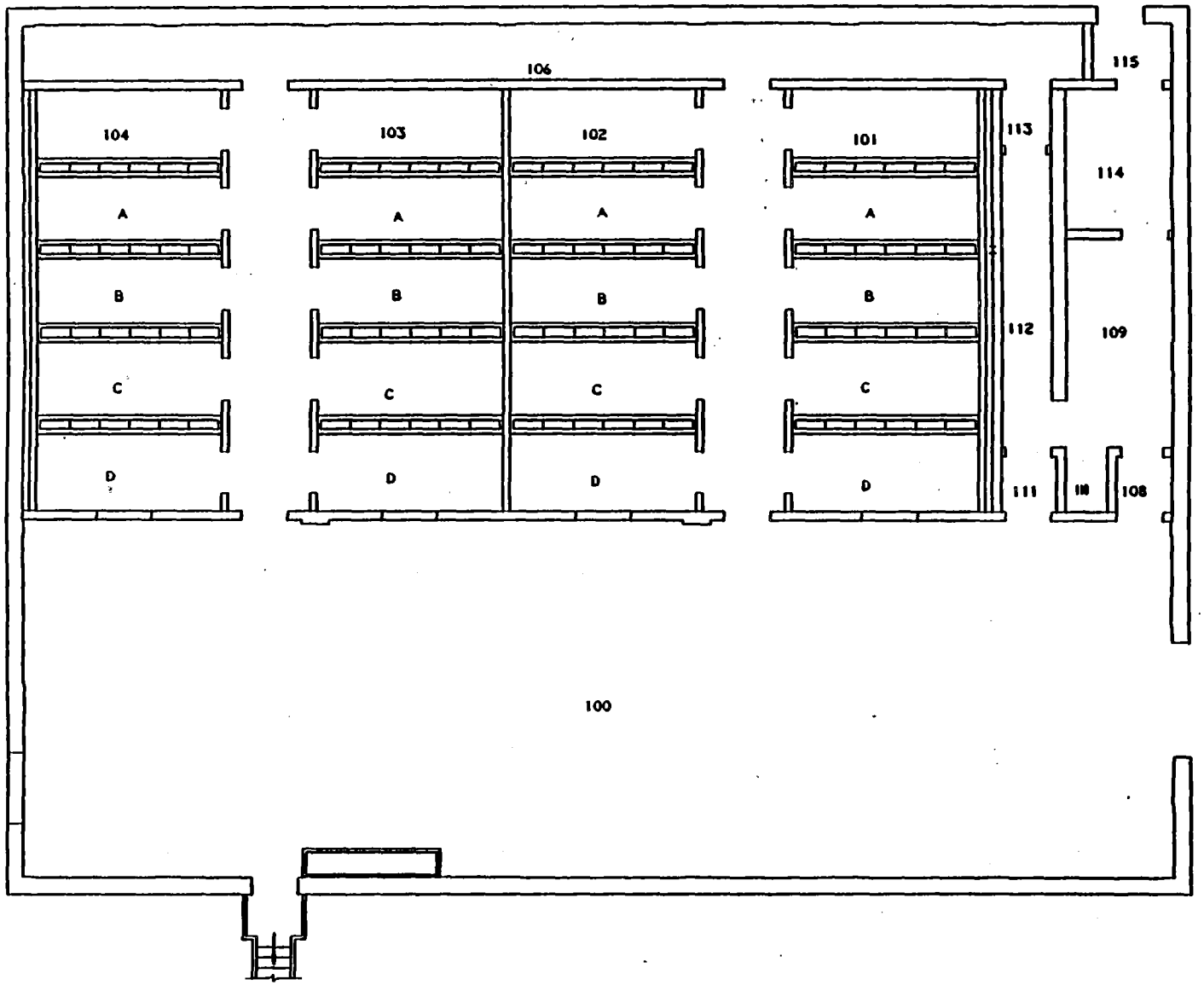
SIZE C | DRAWING NUMBER FSC911265 | JOB NUMBER 12335

DWG TYPE SFP | PROJ BLDG #58 | CHKD 14865 | SCALE AS NOTED | SHEET 1 OF 2

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

9.77-61

9-77-62



UNCLASSIFIED

DERIVATIVE CLASSIFIER

(Title) (Date)

0 3' 6' 10' 20'

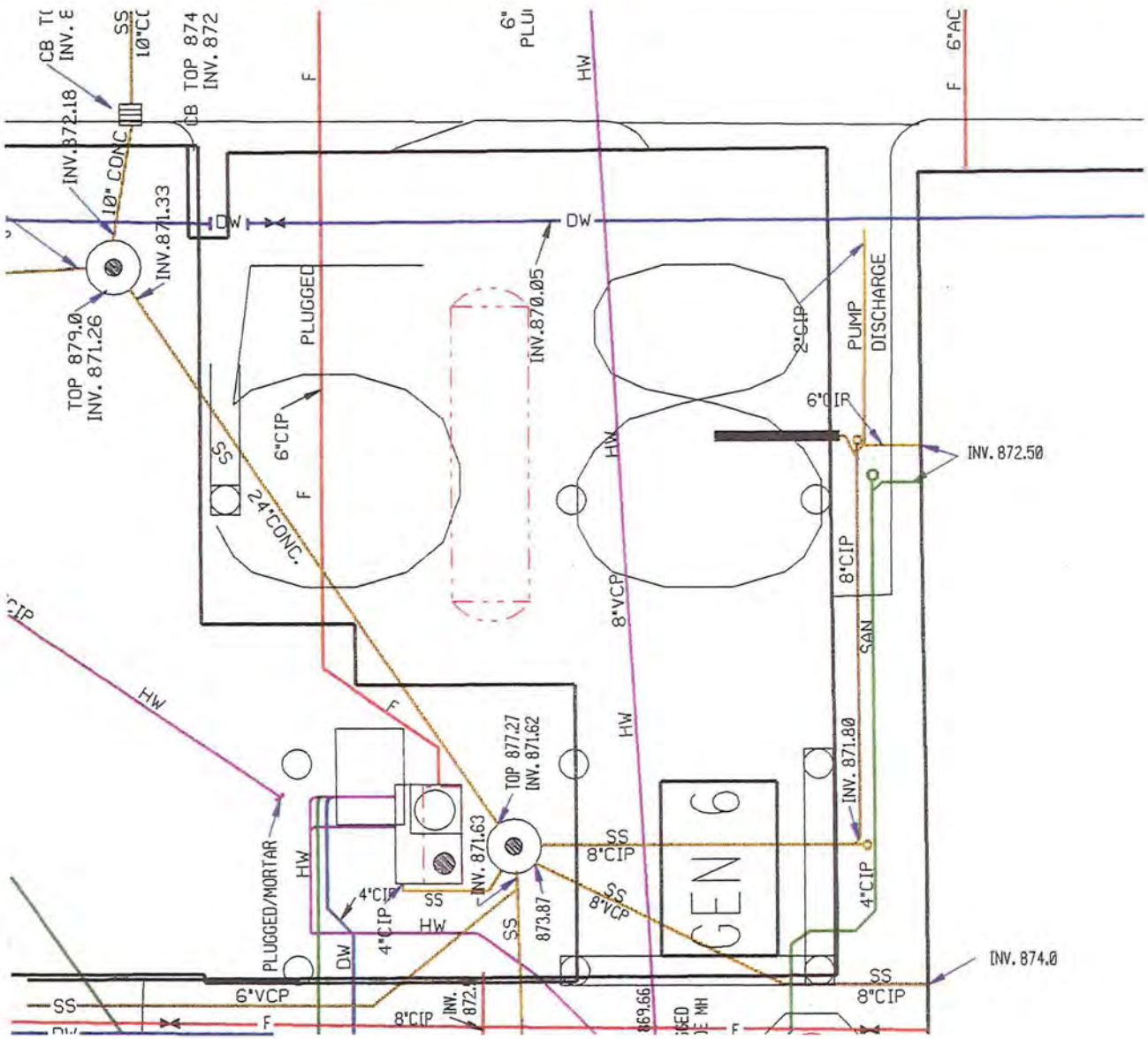
BLDG #58
SECOND FLOOR
BLDG CODE:3058

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.

DRAWING NUMBER FSC911265	JOB NUMBER 12335
DRAWING CLASSIFICATION UCNI	
SIZE C / CODE 14065	SCALE AS NOTED
ISSUE 0	SHEET 2
STATUS MO-RE[illegible]/12/91	

9.77.6.5 Underground Utility Lines



UNCLASSIFIED

E.G.& G.-MOUND

UNDERGROUND WATER & WASTE LINES

BLDG. 58

DATE: 03-12-96

9.77.6.6 Photographs

Mound Plant Building 58

9.77-69

9.78 BUILDING 59

9.78.1 Scope of Building 59 Report

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

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

9.78.2 Description of Building 59

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

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

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

9.78.3 Summary of Findings

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

9.78.4 Observations

9.78.4.1 Air Emissions

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

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

9.78.4.2 Wastewater Emissions

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

9.78.4.2.1 Sanitary Wastewater

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

9.78.4.2.2 Storm Wastewater

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

9.78.4.2.3 Process Wastewater

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

9.78.4.2.4 Chemicals

There are no chemicals used or stored in the facility.

9.78.4.3 Potable and Service Water

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

9.78.4.4 Chemical Storage and Hazardous Materials

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

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

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

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

9.78.4.5 Solid, Hazardous and Radioactive Wastes

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

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

9.78.4.6 Waste Minimization and Pollution Prevention

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

9.78.5 Findings and Recommendations

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

Environmental Appraisal of the Mound Plant

9.78.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 59

Appraisers:

Name	Discipline
MARCIA VANNET	CHEMIST
MARK GILLIAT	ENGINEER
MYRON SMITH	ENGINEER

Building Manager: Bob Ward

Process Manager: Bill HERALD

Date: 2/21/96

ENVIRONMENTAL APPRAISAL CHECKLIST

Table of Contents

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 Appraisal Checklist

Building Name: 59 Appraisers: TEAM 4 Date: 2/21/96

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 _____ _____	
	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	

9.78-9

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 / 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: 59 Appraisers: TEAM 4 Date: 2/21/96

CAA Checklist

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

TABLE A

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

Source:_____

9.78-11

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	
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: 59 Appraisers: TEAM 4 Date: 2/21/96

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

9.78-13

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

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

BLANK

Source: _____

Environmental Appraisal Checklist

Building Name: 59 Appraisers: TEAM 4 Date: 2/21/96

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	
	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: _____

9.78-15

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Screening Checklist

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

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: 59 Appraisers: TEAM 4 Date: 2/21/96

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

9.78-17

9.78-18

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 _____ 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: 59 Appraisers: Team 4 Date: 2/21/96

RCRA Checklist

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

BLANK

9.78-19

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	BLANK
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: 59 Appraisers: TEAM 4 Date: 2/21/96

Asbestos Screening Checklist

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

Asbestos Checklist * suspected MD 10391, Issue 3, 9/6/95

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	

9.78-21

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 / N	If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey.

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? If the answer is no, note . If the answer is yes, proceed with next section.	Y / N	
	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: 59 Appraisers: TEAM 4 Date: 2/21/96

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	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 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: Appraisers: Date:

TSCA Checklist

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

GENERAL COMMENTS:

Environmental Appraisal Checklist

Building Name: 59 Appraisers: Team 4 Date: 2/2/96

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? 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	

* circulated core water has not been tested but may contain low level tritium contamination.

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Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: ~~TEAM 4~~ 59 Appraisers: TEAM 4 Date: 2/21/94

Low-Level Waste and Transuranic Waste Checklist

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

9.78-27

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: 59 Appraisers: TEAM 4 Date: 2/4/96

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:

9.78-29

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.

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y / N	
	Are there solvent wastes?	Y / N	
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	
	Are these corrosive wastes?	Y / N	
	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: 59 Appraisers: TEAM 4 Date: 2/22/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	
	Are baghouse filters used to collect pesticides and pesticide intermediates?	Y / N	BLANK
	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	

9.78-31

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	
CYANIDE AND REACTIVE WASTES			
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y / N	
	Are any of these processes used to recycle cyanide wastes?	Y / N	
	Refrigeration/crystallization?	Y / N	
	Evaporation?	Y / N	
	Ion exchange?	Y / N	
	Membrane separation which includes reverse osmosis or electrodialysis?	Y / N	
VEHICLE MAINTENANCE			
	How are auto parts cleaned?	Y / N	
	Solvent sink?	Y / N	
	Solvent dunk bucket?	Y / N	
	Solvent dip tank?	Y / N	
	Are parts cleaning solvents used for anything else besides cleaning parts?	Y / N	
	Are spills reduced by locating sinks or dunk buckets near auto service bays?	Y / N	

BLANK

Environmental Appraisal Checklist

Building Name: 59 Appraisers: Team 4 Date: 2/21/96

Waste Minimization/Pollution Prevention Activities Checklist

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

BLANK

9.78-33

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	
SOLVENT WASTES			
	Has there been an attempt to reduce volume or toxicity by:		
	Eliminating solvents?	Y / N	
	Reducing the use of solvents?	Y / N	
	Reducing the loss of solvents?	Y / N	
	Increasing recyclability?	Y / N	
	Are solvents segregated?	Y / N	
	Are waste solvents free from water and garbage?	Y / N	
	Are recycled solvent containers labeled as such?	Y / N	
	Are containers kept closed?	Y / N	
	Free and sheltered from the elements?	Y / N	
	Are solvent tanks kept as free from contaminations as possible so that the waste can be recycled?	Y / N	
	Is a method used to minimize the use of new materials such as a countercurrent process?	Y / N	

BLANK

Environmental Appraisal Checklist

Building Name: 59 Appraisers: TEAM 4 Date: 2/21/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.78-35

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9.78.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 59 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.)?

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

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

4. Provide a physical description of the building.

This ~~one-story~~ TWO building (with a high bay area) was built in 1978 and contains 668 ft². It is constructed of reinforced concrete with a rolled roof. The building's radiological materials were contained.

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?

This building housed the californium-252, multiplier, (CFX) neutron radiography facility.

Source: Mound Buildings, 5-9-95

9.78-39

Building Manager's Questionnaire

Building Name: 59 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: Neutron radiography facility

How Wastes Are Generated:

This building house~~s~~d a Cf-232 neutron source which ~~is~~ WAS multiplied by highly enriched U-235 plates. The neutron source is WAS upstairs, and samples to be irradiated ~~are put downstairs~~ WERE. No radioactive wastes are generated. The U-235 plates will not be changed during the facility lifetime. Oak Ridge leased the Cf-232 source to Mound, and it ~~is~~ WAS replaced approximately every four years. Oak Ridge is responsible for handling the old source. Samples are irradiated for various Mound personnel who take the irradiated samples with them.

No explosive or chemical wastes are generated in this building.

Contact:
Phone #:

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

EXPOSED TO THE SOURCE VIA THE USE OF PNEUMATIC TRANSFER SYSTEM WHOSE PORT WAS LOCATED IN BLDG 35 Rm 3.

9.78-40

Building Manager's Questionnaire

Building Name: 59 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
SOURCE REMOVED

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

9.78-41

Building Manager's Questionnaire

Building Name: 59 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? SUSPECTED

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

Building Manager's Questionnaire

Building Name: 59 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? No

Source: PCB ANNUAL DOCUMENT LOG

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

Source: PCB ANNUAL DOCUMENT LOG

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

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

9.78-43

Building Manager's Questionnaire

Building Name: 59 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? NA

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

23. Where do excess janitorial supplies go? NA

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: 59 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

WATER IN RM101

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: _____

9.78-45

Building Manager's Questionnaire

Building Name: 59 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: _____

9.78-46

Building Manager's Questionnaire

Building Name: 59 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: _____

9.78-47

Building Manager's Questionnaire

Building Name: 59 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.

SHUT DOWN DUE TO DOE AUDIT IN 89

9.78-48

Building Manager's Questionnaire

Building Name: 59 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

9.78-49

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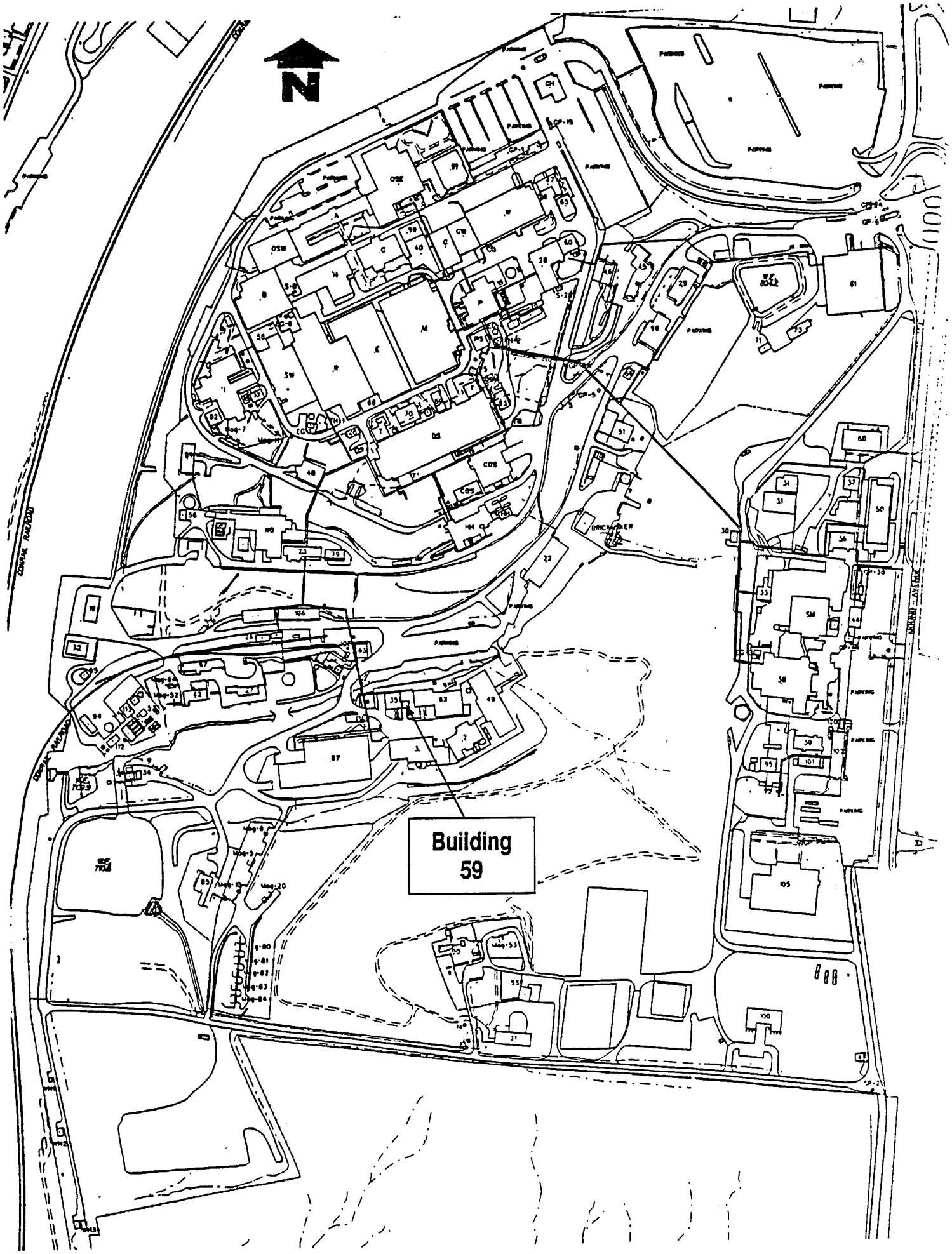
9.78.6.3 Location of Building 59



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

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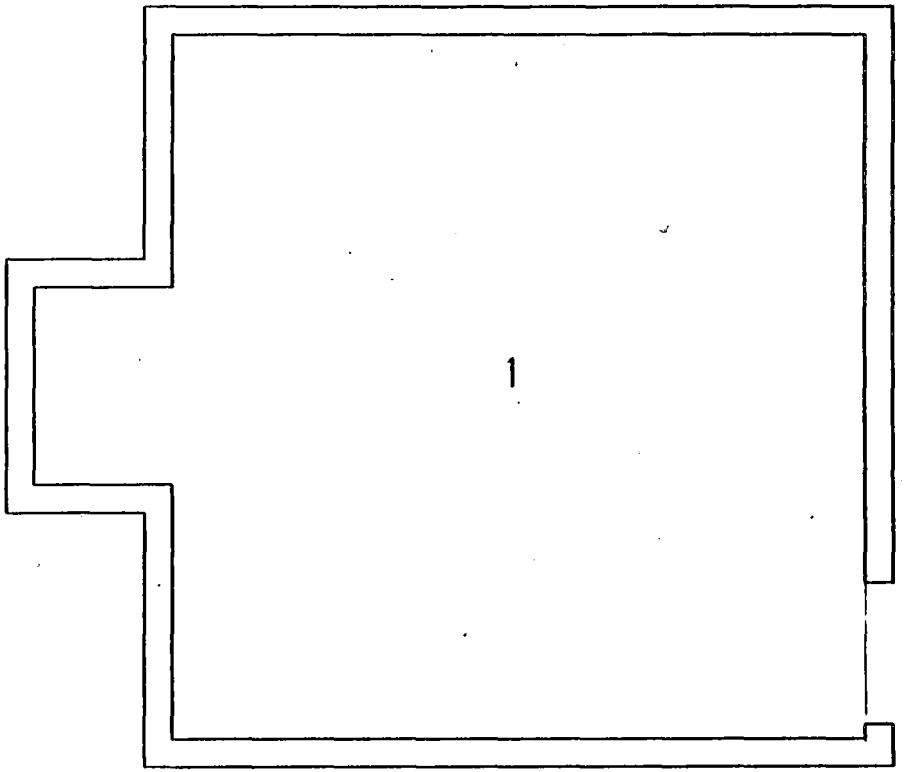
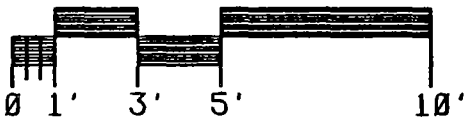
9.78.6.4 Floor Plans for Building 59

ISS	DATE	REVISION	BY	CHKR	DWN	UPRED	APVD	N
0	12/12/91	ASBUILT ISSUE	DCW				DVD	





BLDG #59
FIRST FLOOR
BLDG CODE:3059

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUE30C ___TE60C ___EM60C
TECH. REMP. ___
GR. MGR. ___
TRUE30C ___
TE60C ___
EM60C ___

DESIGN ENG	PROJ ENG
SPONS	ENG SUPV
LP & EC	PCER REV
CHG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	0	0				

FINAL CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
BLDG #59
FLOOR PLANS

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: C
DRAWING NUMBER: FSC911266
JOB NUMBER: 12335
DWG TYPE: SFP
FROM: BLDG #59
CADD: 14865
SCALE AS NOTED
SHEET 1 OF 2
STATUS: MD-REL-12/12/91
ORIGIN: MD-BR3-V3.0

9.78-57

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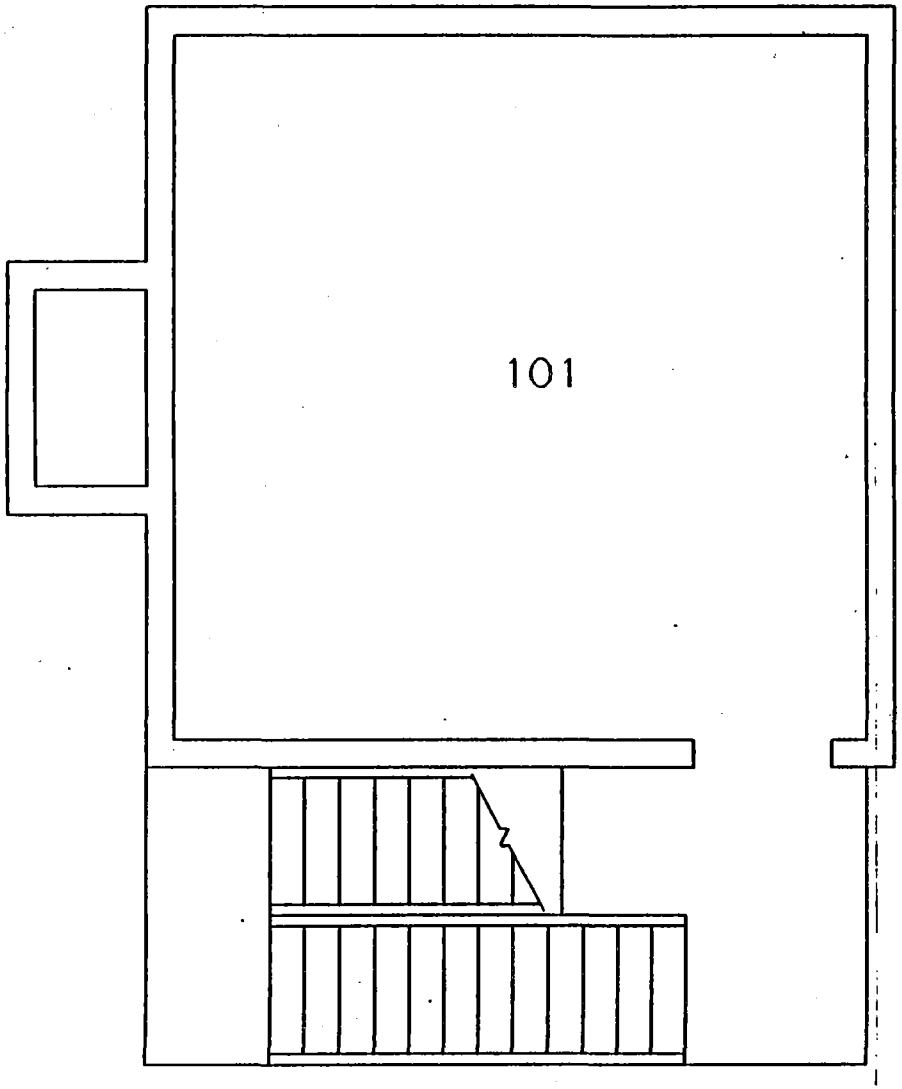

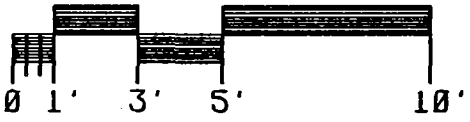

BLDG #59
SECOND FLOOR
BLDG CODE:3059

DRAWING NUMBER FSC911266	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE C	CADD 14065 / SCALE AS NOTED
	IMAGE 0 / SHEET 2
STATUS MO-REL-12/12/91	

9:78-59

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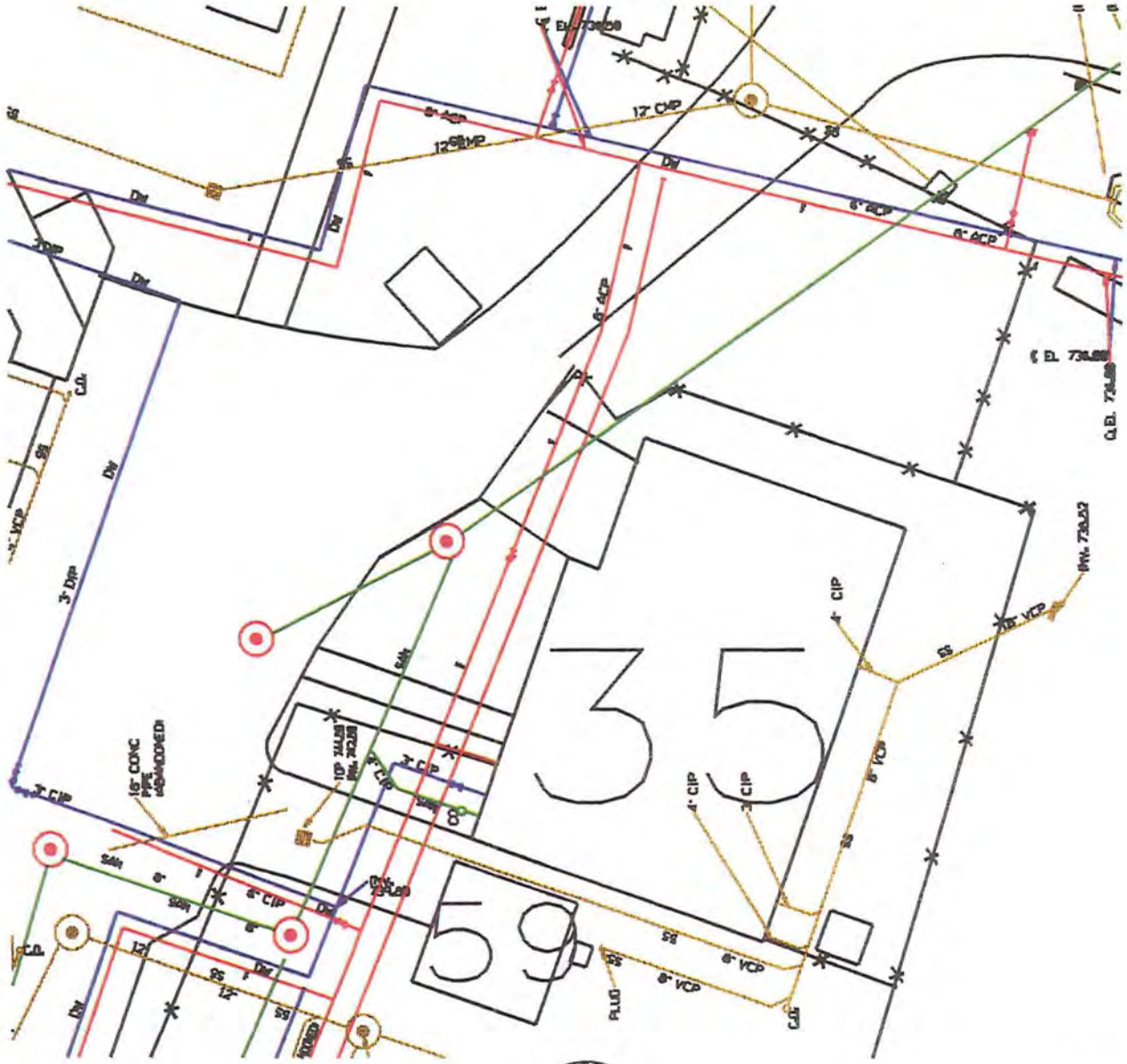
9.78.6.5 Underground Utility Lines



E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 59

DATE: 3-14-96

UNCLASSIFIED

9.78-63

9.78.6.6 Photographs

Mound Plant Building 59

9.78-67

The neutron radiography facility in Building 59 is about to undergo Safe Shutdown.

Utilities and controls feed from Building 35.

9.79 BUILDING 60

9.79.1 Scope of Building 60 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 did not perform an environmental appraisal on Building 60 because it is a leased building.

9.79.2 Description of Building

Building 60 is a 3,958-squar-foot building that was used for ceramic development and nondestructive testing. The building is bordered by Building 47 to the north, Building 28 to the west, and roadways to the east and south. Location is shown in Attachment 1 (Section 9.79.4.1).

The building was leased in 1995. The building had been used for the same purpose since construction. The building was not contaminated with energetic or radioactive material (*Mound Facility Physical Characterization*, 12-1-93).

9.79.3 Summary of Findings

Photographs were taken to document the building. They are included as Attachment 2 (Section 9.79.4.2). Building 60 has undergone Safe Shutdown which includes removal of wastes and other materials plus equipment which cannot be released. A Health Physics safety determination and a liabilities assessment were made. ESA's (ASTM E 1527-94 or ASTM E 1528-93) were not conducted. The building has been leased by DOE to the City of Miamisburg, which accepted the liabilities assessment. The General Purpose Lease between the DOE and the City of Miamisburg requires the sub-lessee to obtain and comply with regulatory agency permits.

Since the building has been leased, an EAC was not prepared and no further action was taken concerning this building.

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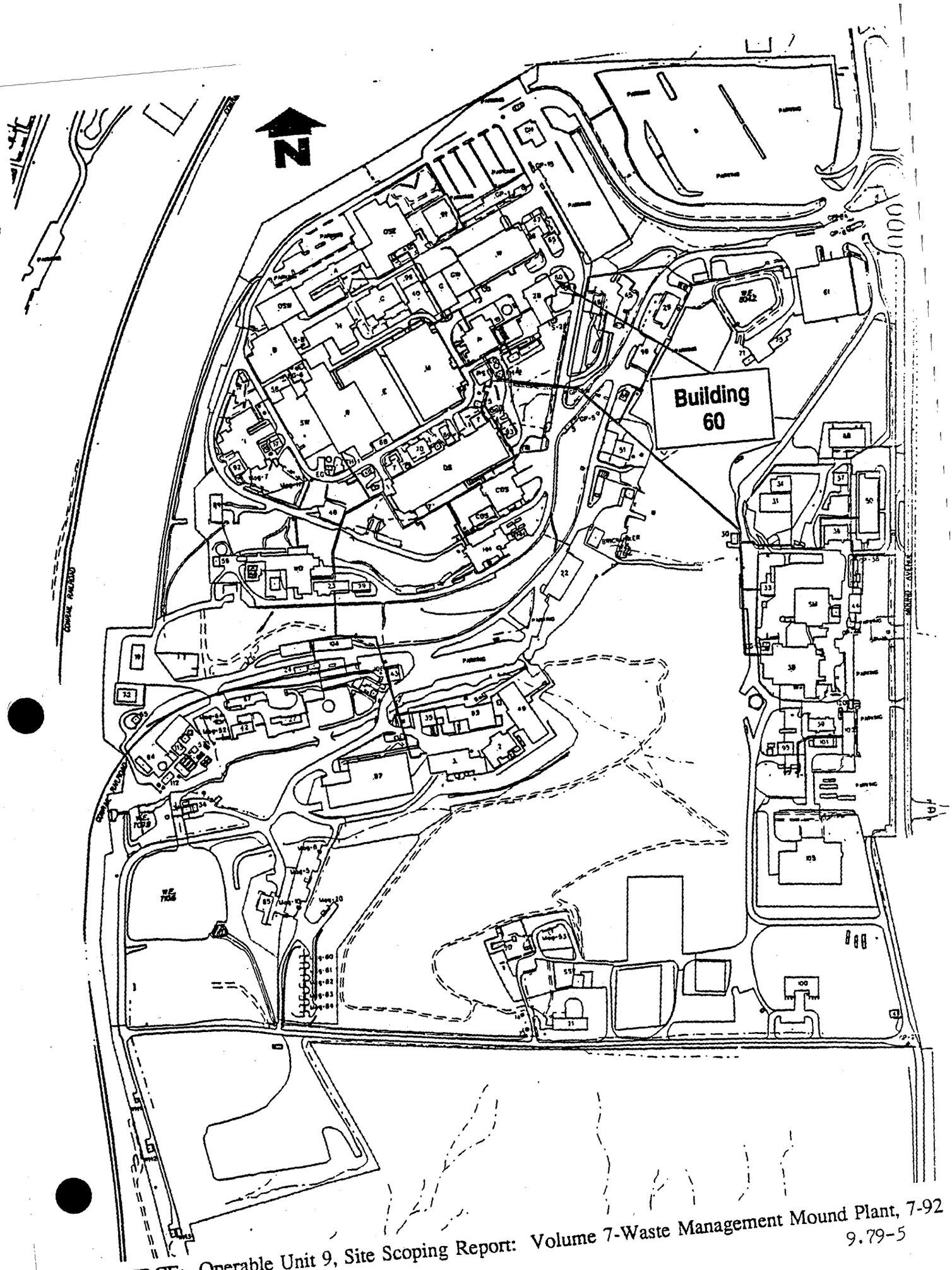
9.79.4.1 Location of Building 60



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

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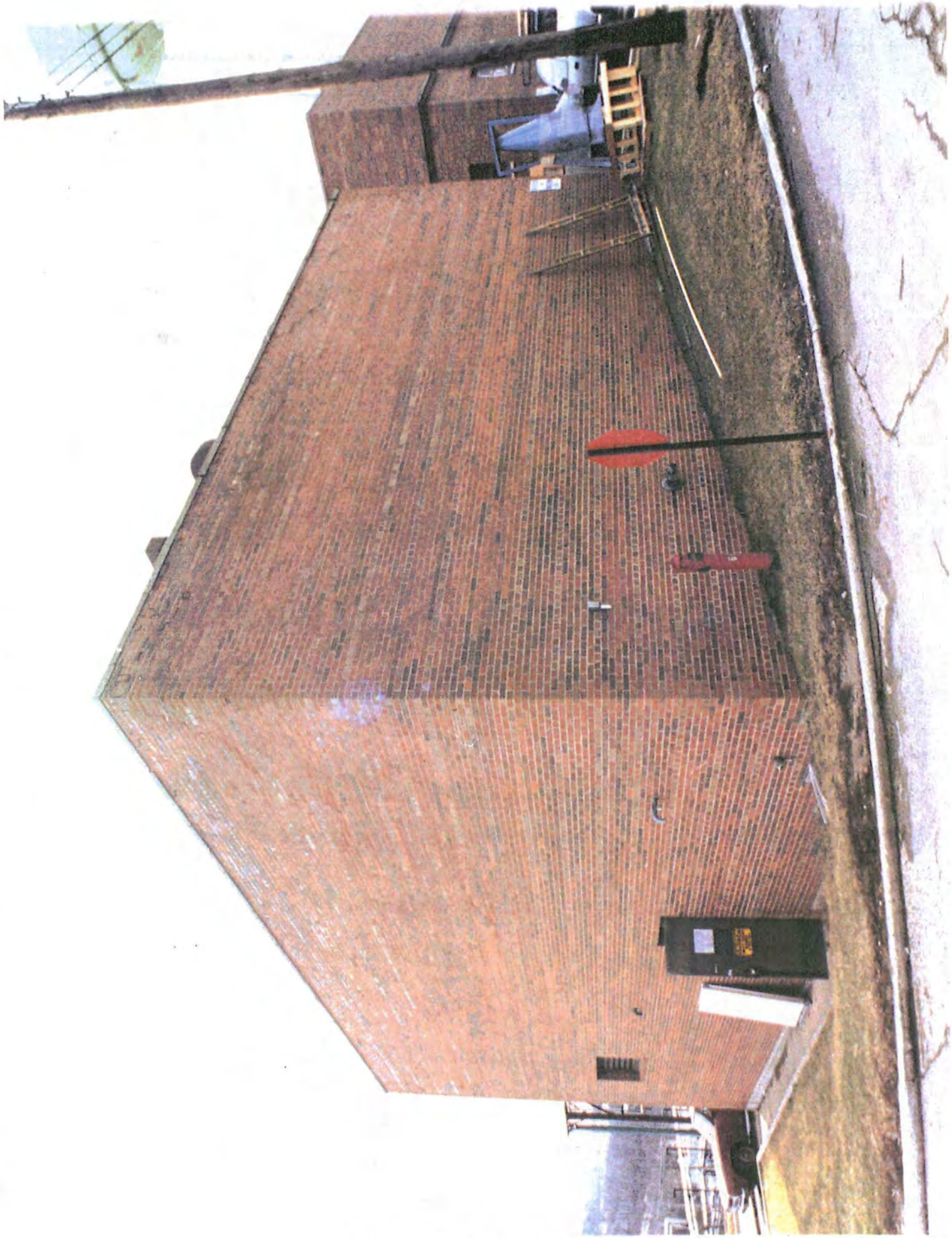
9.79.4.2 Photographs



Mound Plant Building 60

9.80 BUILDING 61

9.80.1 Scope of Building 61 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 61 on the afternoon of January 22, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.80.6.1). The appraisers were accompanied by the building manager and 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 9.80.6.2).

9.80.2 Description of Building 61

Building 61 is the central warehouse facility at Mound. It is located west of the perimeter fence, and east of Building 73, a gas cylinder storage area, Building 71, a flammable chemical storage building, and an 800,000-gallon impoundment, built to contain storm runoff. Location is shown in Attachment 3 (Section 9.80.6.3).

The building is a 45,490-square-foot reinforced concrete structure with a metal roof. It was constructed in 1980. A floor plan is presented as Attachment 4 (Section 9.80.6.4). One-half of the building is offices, the other one-half is high, open bays for materials handling. Heating and air conditioning is by is central steam and chilled water. There is electrical service of 240V. No research, development, or production activities using radioactive or energetic materials have occurred in the building (*Mound Facilities Physical Characterization*, 12-1-93).

9.80.3 Summary of Findings

The warehouse appeared to be a clean, well-run facility. Some issues of environmental concern were identified during the walk-through or review of reference materials. They were discussed with the building manager and the process manager. Also, several suggestions were made related for improvement of management practices.

9.80.4 Observations

9.80.4.1 Air Emissions

Emissions from the chemical storage vaults exhaust on the roof. No air emissions permit application has been submitted to the Ohio Environmental Protection Agency (OEPA) for activities in Building 61. There is no evidence that emission loadings have been calculated or that emissions are *de minimis*. There is no evidence of fugitive dust.

9.80.4.2 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.

9.80.4.2.1 Sanitary Wastewater

The building has sanitary service. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.80.6.5), the building is serviced by a sanitary 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 61 does not deviate from that expected by the sanitary treatment plant manager.

9.80.4.2.2 Storm Wastewater

The building is serviced by storm drains according to drawings presented in Attachment 5 (Section 9.80.6.5). 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.

9.80.4.3 Potable and Service Water

Potable and service water are supplied to the building. Sources are properly posted. Backflow preventors are in place as appropriate.

9.80.4.4 Chemical Storage and Hazardous Materials

A 3,000-gallon tank of liquid nitrogen is located outside of the building. It is used to supply dewars throughout the site. Chemical storage vaults are located on the first floor of the building. It was not within the scope of this project to determine if ventilation was adequate in the chemical vaults, however, observation showed ventilators to be in service and drawing air. In the flammables storage room, air flow appeared to draw most strongly from the floor. Flooring was intact, with no cracks.

Storage and handling procedures for chemicals have been developed to comply with applicable standards. However, there is no evidence of a routine inspection program of the vaults to assure that contents are stored correctly, or to limit the holding time of chemicals in the vault. One chemical had been stored for more than three years.

Occupants of the building believed that a sump was located under the chemical storage vaults. By reviewing a building design drawing (Production Support Facilities Building 61 Addition, Plumbing Second Floor Plan, Building Code 306102, Sheet No. 03003303), the process manager determined that there is an "acid waste sump neutralizing basin" which drains the vaults, but not the flammables room. Drawings show that contents of the sump should be neutralized prior to discharge to the sanitary system. There has been no maintenance or inspection of the sump. The sump is not included in The Mound Active Underground Storage Tank Plan.

9.80.4.5 Solid, Hazardous, and Radioactive Wastes

No processes in Building 61 generate solid, hazardous, or radioactive wastes.

9.80.4.6 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. Recycling is conducted for toners, cardboard, metals, and paper. Supplies and some equipment no longer required by requisitioners are returned to the warehouse for redistribution. Prior to disposal of equipment, an attempt is made to excess or sell it. In a unique arrangement with a software supplier, warehouse personnel return thousands of floppy discs no longer in use at Mound for reimbursement.

9.80.5 <u>Findings and Recommendations</u>

The environmental appraisal of Building 61 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.

61-1 An analysis of air emissions has not been conducted in accordance with OAC 3745-31. Documentation is not available to determine if the source is *de minimis*. Action should be taken to quantify emissions and provide adequate documentation .

61-2 Chemical vaults drain to a sump, according to design drawings. Procedures should be developed to test sump integrity, and confirm the effectiveness of treatment systems.

61-3 There is no procedure for routine inspection of chemical storage in vaults to assure that chemicals are used in a timely fashion, and that quantities ordered are appropriate to use.

61-4 If chemical storage continues to be limited at Mound, Building 71 may no longer be needed. Consideration should be given to moving chemicals from Building 71 to chemical storage vaults in the warehouse, Building 61. A review of the ventilation system is necessary to assure that adequate ventilation is available.

Environmental Appraisal of the Mound Plant

9.80.6.1 Environmental Appraisal Checklist

Check BUSTR report

ENVIRONMENTAL APPRAISAL CHECKLIST

Tank under bldg? Checklist not.

Office 2nd + 3rd

Building Name 61

Appraisers:

Name	Discipline
John Hansfold	E.N.V.
Nancy Uyas	P.E. Env
Mike Meeker	DOE/RCRA

Karen - watches out for dirty emp

Building Manager: Kathy Koehler

Process Manager: Karen Zimmerman

recycling: lines cardboard metals paper

Date: 1-22-95

Trapping Cm. 153 Cells Doc #

dumpster

proc tri not recycling

9.80-7

ENVIRONMENTAL APPRAISAL CHECKLIST

Table of Contents

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 Appraisal Checklist

Building Name: 61 Appraisers: Vyas Date: 1-22-96 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?	(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	Chemicals stored in vaults + storage cabinets
	Is the building in operation? What are the processes and where do they discharge to?	(Y)/ N _____ _____	warehouse storage & procurement office
	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	Check BUSTR Report for details about sump
	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)	

ACTIVE UST PROGRAM PLAN

NO-ACTIVE UST PROGRAM MANAGER NOT BM

• Bldg/process manager should learn about sump — develop a PM program test integrity, check content & level.

9.80-9

9.80-10

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) / N	Exhaust fan vent in room 5 to roof from chemical storage 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)	"

WHAT

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	Y / (N)	~~Not~~ Demolition has documentation available not available.
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	

WHAT

- Confirm that documentation is in place to determine emissions levels & support de minimus determination

Environmental Appraisal Checklist

Building Name: 61 Appraisers: Vyas Date: 1-22-96 pm

CAA Checklist

this page is not completed

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:_____

9.80-11

9.80-12

Environmental Appraisal Checklist

Building Name: 61 Appraisers: Vyas Date: 1-22-96

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.

Chemicals are stored in vaults for distribution around the site

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	No routine inspection of vaults
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	exhaust was not measured, but observed.

*Process manager/supervisor should develop & implement a routine inspection program to confirm appropriate storage of chemicals.

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	
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	Cylinders stored in B73
CGA P-1 3.5.3	Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers.	Y / N	
CGA P-1 3.5.8	All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured.	Y / N	
CGA P-1 4.2.2	Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high.	Y / N	
29 CFR 1910.104(2)(10)	Oxygen stored as a liquid shall be on a noncombustible surface. Asphalt is considered combustible. Wood and long dry grass shall be cut back 15 ft. from the container.	Y / N	
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	Y / N	
	Is there an emergency response plan available?	Y / N	

9.80-13

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

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: Appraisers: Date:

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	
	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
61	2nd floor 234	Oasis	
	" " lobby	Oasis	8327-093670
	1st floor 153	Oasis	~~no no~~
	Shipping rec dock	Oasis	no no.

Source: _____

9.80-15

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

RCRA Screening Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? Was charactarization by analysis or by process knowledge? Are lab results or documentation of process knowledge readily available? Note any uncharacterized material in comment section. Is it waste? If yes, proceed with next section.	Y / N analysis / process Y / N Y / N	
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 Name: Appraisers: Date:

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	

9.80-17

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:		
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are the containers kept closed except during filling?	Y / N	
	Are the containers managed in such a way, that they are not ruptured, or leaks caused?	Y / N	
	Is the area inspected at least once weekly?	Y / N	
	Is the inspection recorded? Where is the log? Is it properly completed, dated, and signed?	Y / N _____ Y / N	
	Are containers managing ignitable hazardous waste stored at least 50 feet from the facility boundary?	Y / N	
	Are incompatible wastes managed in such a way that they will not react with another incompatible waste?	Y / N	
OAC 3745-52-34(B)	Has any of the waste (except in Building 23, Building 72 and the Burn Area) been managed in excess of 90-days?	Y / N	
	If no go to next section.		
	If yes, note.		
	For Building 23, Building 72 & Burn Area use special checklist.		

Building Name: Appraisers: Date:

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	

9.80-19

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	
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: Appraisers: Date:

Asbestos Screening Checklist

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

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos? 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	

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 / N	If yes, are transformers labeled (Blue or Yellow stickers)? If yes, conduct the following survey.

TSCA Checklist

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

Building Name: 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	
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y / N	
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N	
40 CFR 761.62 (b) (1) (i)	Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items?	Y / N	
40 CFR 761.62 (b) (1) (iv)	Are storage are floors curbed and constructed of continuous smooth and impervious materials?	Y / N	
40 CFR 761.62 (b) (1) (i)	Are the curbs at least 6 inches high?	Y / N	
40 CFR 761.62 (b) (1) (iii)	No drains are allowed in storage areas. Are there drains in the storage areas?	Y / N	

9.80-23

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

TSCA Checklist

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

GENERAL COMMENTS:

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? If the answer is no, note. If the answer is yes, proceed with next section.	Y / N	
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	

9.80-25

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

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	

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

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

9.80-27

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

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	

Building Name: Appraisers: Date:

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

9.80-29

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.

Waste Minimiaztion/Pollution Prevention Activities Checklist

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

Building Name: Appraisers: Date:

Waste Minimization/Pollution Prevention Activities Checklist

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

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	
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: 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	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

9.80-33

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	
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	

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	
	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?	_____ _____	

9.80-35

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M o u n d Electronic Message/AOS

From :K. ZIMMERMAN
ZIMMKL
Dept. :C & P
Tel. No :865-4585
Date :24-Jan-1996 08:52am EST
Subject :Response to Environmental Self-Assessment

TO :Eunice Warmoth (WARMEM)

CC :CHARLES EVANS (EVANCD)

Eunice:

Please pass this information along to Nancy Vyas. These are items that have been addressed since the self-assessment of 1/22/96 was conducted on Bldg. 61, 71 and 73.

1. All maintenance repairs and sign requests have been forwarded to Facilities Maintenance (see attached AOS messages).

2. Meeting was held on 1/23/96 with all Material Handlers and Traffic Mgt. personnel to discuss the results of the environmental self-assessment and actions that needed to be taken.

   --Provided copy of "Safe Handling of Compressed Gases In Containers" to all applicable personnel.
   --Provided copy of "Reactivity Group Numbers for Chemical Substances" to all applicable personnel.
   --Emphasized need to use FIFO system for issuing chemicals.

3. Notified Industrial Hygiene of need for animal trap for Bldg. 73 and set of new MSDS sheets for chemicals/gases handled through Bldg. 61, 71 and 73.

4. Removed chair, paper and corrosives from flammables room in Bldg. 61.

5. Inventorying cyliders in Bldg. 73 to determine:
   --contents/size for excess to auctioneer
   --empty cylinders to be returned to supplier(s)
   --unmarked cylinders to be returned to supplier(s)
   --Matheson will pickup their cylinders on 1/25/96
   --Air Products scheduled to pickup their cylinders next week

6. Removed non-brass/plastic tools from Bldg. 73

7. Cylinders that were laying horizontally along side of bldg. have been set vertically and chained

8. Notified Waste Mgt. that waste cylinders needed to be picked up weekly in lieu of quarterly. There is resistence to this request and will need further discussion/documentation to support.

9. Talked to Fire Safety Engineer who is going to meet with me next week to assess bringing chemical stocks back into Bldg. 61 storage areas and looking at shutdown of Bldg. 71.

10. Inventory Mgt. is assessing usage on all stock chemicals, looking at frequency of turns, and determining if older chemicals should be excessed to Waste Mgt. We are going to try to make chemicals an order on request which would get us out of the longterm storage business.

Action Items Yet To Be Pursued:

1. Create Self Inspection Program for Bldg. 61, 71 & 73

2. Post cylinder handling procedures

3. Write procedures for gas cylinder deliveries

4. Work with Waste Mgt. on obtaining profile sheets for chemicals/gases stored in Bldg. 61, 71 & 73

I N T E R O F F I C E M E M O R A N D U M

Date: 24-Jan-1996 07:17am EST
From: K. ZIMMERMAN
ZIMMKL
Dept: C & P
Tel No: 865-4585

TO: See Below

Subject:Information for Work Required for Bldg. 61, 71 and 73

Joe:

Below are items that were identified during an Environmental Self-Assessment on Monday that need to be addressed as soon as possible. When we meet, these are the items I would like to discuss with you:

Bldg. 61

--Repair dock safety chain
--Lift on dock #2 is malfunctioning
--Repair all lights that are motion-sensored on Property Mgt. side of building. This has been a safety concern of mine for several months.
--Repair two lights located in Flammables Room.
--First floor of Bldg. 61 has no load limit signs
--Need A-frame signs made that read "Metals Only" and "Wood Only" for area around dumpsters on west side of building.

Bldg. 71

--Drill holes in MSDS box in Bldg. 71 for water drainage
--Check placarding on building
--Inspect/repair lights
--Fabricate and place sign between bldg. 71 and 73 - "Do Not Discard Skids At This Location"

Bldg. 73

--Fabricate/install sign designating location of MSDS sheets (Refer to Kathy Koehler AOS message)
--Install MSDS station & drill holes in tray for water drainage
--Install No Smoking signs
--Fabricate/install a sign alerting personnel of location of fire extinguisher
--Repair dock safety chain
--Inspect/repair lights

Distribution:

TO: George Fudge (FUDGGJ)

CC: AMMO, MSR - Responses (AMMO)
CC: CHARLES EVANS (EVANCD)

9.80-39

CC: Katherine Koehler (KOEHKG)

Title: Building 71, Repair Floor cracks.

Please caulk all concrete floor cracks on the Building 71 concrete slab. Use a caulk that is fairly resistant to flammable liquids which include ethylene glycol, alcohol 200 proof, acetone, etc.

MSR 3:

Title: Building 61, Clean Exhaust Air louvers/grills in Rooms 115, 114, 113, and 112.

Clean exhaust louvers/grills in rooms 115, 114, 113, and 112. Clean exhaust Duct work. Confirm that each room is under negative pressure.

MSR 4:

Title: Building 71 and 73 Signs

Make 2 of each of the following signs which state (or something comparable) the italicized text below. The signs should be large enough to be noticeable but not too large to be in the operators way.

"In case of emergency, call 911"

"No Smoking"

Install one of each sign in building 71 and building 73.

This completes the Building Managers action items.

Note: John Hausfeld and Nancy were going to inquire about the Sump at building 61. There are presently no action items for the building manager associated with the sump at 61 which supports the temporary storages areas in room 115, room 114, and room 113.

Kathy Koehler

Distribution:

TO: Margaret Sticklen (STICMA2)

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M O U N D Electronic Message

Date: 23-Jan-1996 08:46am EST
From: Katherine Koehler
KOEHKG
Dept: ENGINEERING
Tel No: 865-4886

TO: See Below

Subject:MSR's for Environmental Audit Response

Margie, January 23, 1996

Please enter the following MSR's on the AMMO system. This work requires a high priority for completion to ensure that it will not show up as a potential environmental concern in the final Environmental Audit report hired by EG&G.

The audit was conducted the afternoon of January 22, 1996. Building managers and Operations managers were told that response actions must be initiated within 72 hours of the audit close-out meeting to ensure that the Environmental Deficiencies would not be included in the final Environmental Assessment Report.

My HP is [redacted].
My extension is 4886.
Please use the building repair charge numbers.

MSR 1:

Title: Drain and Inspect Building 71 floor drain collection tank

Please dispose of water in the collection tank located below the floor drain at building 71. The water may be discharged to the storm sewer upon verbal approval of John Hausfeld. John will conduct any necessary sampling/analysis prior to the discharge to the storm sewer.

Once the tank is drained, please inspect the tank to verify that there are no leaks. If visual inspection is not possible, do the following:
1) Ensure that there will be minimal change of rain through the next two working days.
2.) Fill the tank with water. Remove the floor drain and mark the water level with a grease pencil. Check the water level the following business day, approximately 24 hours. Measure drop in water level and inform Kathy Koehler.
3.) Drain Tank. Discharge water to storm sewer.

MSR 2:

Title: Building 71, Repair Floor cracks.

Please caulk all concrete floor cracks on the Building 71 concrete slab. Use a caulk that is fairly resistant to flammable liquids which include ethylene glycol, alcohol 200 proof, acetone, etc.

MSR 3:

Title: Building 61, Clean Exhaust Air louvers/grills in Rooms 115, 114, 113, and 112.

Clean exhaust louvers/grills in rooms 115, 114, 113, and 112. Clean exhaust Duct work. Confirm that each room is under negative pressure.

MSR 4:

Title: Building 71 and 73 Signs

Make 2 of each of the following signs which state (or something comparable) the italicized text below. The signs should be large enough to be noticeable but not too large to be in the operators way.

"In case of emergency, call 911"

"No Smoking"

Install one of each sign in building 71 and building 73.

This completes the Building Managers action items.

Note: John Hausfeld and Nancy were going to inquire about the Sump at building 61. There are presently no action items for the building manager associated with the sump at 61 which supports the temporary storages areas in room 115, room 114, and room 113.

Kathy Koehler

Distribution:

TO: Margaret Sticklen (STICMA2)

9.80-44

CC:	John Hausfeld	(HAUSJR)
CC:	JON D. YONKO	(YONKJD)
CC:	ALLEN W. UPSHAW	(UPSHAW)
CC:	Johnny V. Adams	(ADAMJV)
CC:	George Fudge	(FUDGGJ)
CC:	W. B. Clark	(CLARWB)
CC:	Dave B. Armstrong	(ARMSDB)
CC:	K. ZIMMERMAN	(ZIMMKL)
CC:	CHARLES EVANS	(EVANCD)
CC:	Eunice Warmoth	(WARMEM)

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I N T E R O F F I C E M E M O R A N D U M

Date: 24-Jan-1996 08:15am EST
From: K. ZIMMERMAN
ZIMMKL
Dept: C & P
Tel No: 865-4585

TO: See Below

Subject:Request for Trap

Randy:

This is to document my TAMI message to you on 1/23/96. As a result of a self-assessment environmental audit of Bldg. 73 on 1/22/96, it appears our racoon friend has returned. Would Ind. Hygiene please set a trap to see if we can get our friend removed? We will be locking the gates to the building which may help deter the visitor(s), but the building has openings that I'm sure they will find their way in if the weather drives them to it.

Also, would you please produce one set of MSDS sheets for the chemicals and gases we have in Bldg. 61, 71 and 73? I will duplicate them and get them posted when they are received. I want to make sure the set(s) we have in Bldg. 61 and 71 are up-to-date.

Thanks for your assistance!

Karen Zimmerman
Distribution:

TO: Randall Wood (WOODRL)

CC: Katherine Koehler (KOEHKG)

Distribution:

TO:	Margaret Sticklen	(STICMA2)
CC:	John Hausfeld	(HAUSJR)
CC:	JON D. YONKO	(YONKJD)
CC:	ALLEN W. UPSHAW	(UPSHAW)
CC:	Johnny V. Adams	(ADAMJV)
CC:	George Fudge	(FUDGGJ)
CC:	W. B. Clark	(CLARWB)
CC:	Dave B. Armstrong	(ARMSDB)
CC:	K. ZIMMERMAN	(ZIMMKL)
CC:	CHARLES EVANS	(EVANCD)
CC:	Eunice Warmoth	(WARMEM)

Distribution:

TO:	PAUL C. MOLLOY	(MOLLPC)
TO:	Gary D. Miller	(MILLGD)
TO:	DOUG GABRIEL	(GABRDM)
TO:	Francis A. Koehler	(KOEHFA)
TO:	GARY L. MORRIS	(MORRGL)
CC:	Eunice Warmoth	(WARMEM)

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M o u n d Electronic Message/AOS

From :Timothy J. Hoye
HOYETJ
Dept. :Technology
Tel. No :(513)865-4847; hoyetj@doe-md.gov
Date :19-Jan-1996 06:13am EST
Subject :Environmental Assessment Update

Current status of Observations from the Wednesday Tour:

1. The un-labled bag of waste liquid has been labeled and placed into a protective container. HP survey of the liquid is in process. (CLOSED)

2. Housekeeping in storage area has been addressed. Paint and adhesive will be transferred to maintenance for storage or disposed of with Waste Management. No ethanol was noted in the area as previously reported. (CLOSED)

3. The MSDS listing for the building has been properly labeled indicating that the last update was in 6/95. (CLOSED)

Concern over the building sump are being reviewed.

5. All discussions to date indicate that PCB containing transformers and capacitors were removed from the building/substation during a project engineered by John Lyons, approximately 3 years ago. T. Geesner has information to assist in locating project files if that is required. (CLOSED?)

6. (drums on N. side) No Status.

7. Steve Romage indicated that the crane bridge and trolley should be labeled with capacity. An MSR is being initiated to assure that this is completed. Since the crane has been inspected and approved by Mound personnel, its use will continue as needed.

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TO: DOUG GABRIEL (GABRDM)
TO: William A. Bohne (BOHNWA)
TO: EDWIN I. HOWELL (HOWEEI)
TO: Francis A. Koehler (KOEHFA)
TO: GARY L. MORRIS (MORRGL)

M O U N D Electronic Message

Date: 17-Jan-1996 02:41pm EST
From: Timothy J. Hoye
HOYETJ
Dept: Technology
Tel No: (513)865-4847; hoyetj@doe-md

TO: See Below

Subject: Environmental Assessment - Bld. 50

The following issues were noted during the Environmental Assessment conducted in Building 50 today:

1. An un-labeled bag of waste oil was observed. Discussions with HP personnel indicated that the oil was in the process of being surveyed for release from the area. Bag should be labeled and placed inside of a protective container. (Hoye)

2. Poor housekeeping was noted in one area. In addition, flammable materials (paint and ethanol) were stored in this area. (Hoye)

3. MSDS book appeared to be (and is) up to date, but the last recorded date on the cover sheet was 1993. The cover sheet will be updated to reflect the update performed by IH in 1995. (Hoye)

4. Building sump concerns: Is it an in-ground tank.... Is it leak tight.... has it been tested..... how is fill level determined.... etc. (Molloy, Eisenhauer, Hoye, Hausfeld).

5. PCBs in building, in transformers and capacitors. J. Lyons contacted - think that all were removed. Robert Maine has also been contacted as he is currently working related projects. (Molloy, Hoye)

6. Drums on north side of Bld. 50 need to be turned over to waste management. (Molloy)

7. Crane beams in cell 113 not properly labeled. This crane has the required Mound certifications, I will check with S. Romage. (Hoye)

Positive Notes:

Good Safety Practices.....

Good attention to exposure minimization.....

Generally good housekeeping.....

Excellent training records/posting of qualifications.....
Distribution:

TO: PAUL C. MOLLOY (MOLLPC)
TO: Gary D. Miller (MILLGD)

9.80-54

9.80-53

M o u n d Electronic Message/AOS

From :Katherine Koehler

KOEHKG

Dept. :ENGINEERING

Tel. No :865-4886

Date :23-Jan-1996 08:46am EST

Subject :MSR's for Environmental Audit Response

Margie, January 23, 1996

Please enter the following MSR's on the AMMO system. This work requires a high priority for completion to ensure that it will not show up as a potential environmental concern in the final Environmental Audit report hired by EG&G.

The audit was conducted the afternoon of January 22, 1996. Building managers and Operations managers were told that response actions must be initiated within 72 hours of the audit close-out meeting to ensure that the Environmental Deficiencies would not be included in the final Environmental Assessment Report.

My HP is [redacted].

My extension is 4886.

Please use the building repair charge numbers.

MSR 1:

Title: Drain and Inspect Building 71 floor drain collection tank

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1) Ensure that there will be minimal change of rain through the next two working days.

2.) Fill the tank with water. Remove the floor drain and mark the water level with a grease pencil. Check the water level the following business day, approximately 24 hours. Measure drop in water level and inform Kathy Koehler.

3.) Drain Tank. Discharge water to storm sewer.

MSR 2:

Title: Building 71, Repair Floor cracks.

Please caulk all concrete floor cracks on the Building 71 concrete slab. Use a caulk that is fairly resistant to flammable liquids which include ethylene glycol, alcohol 200 proof, acetone, etc.

MSR 3:

Title: Building 61, Clean Exhaust Air louvers/grills in Rooms 115, 114, 113, and 112.

Clean exhaust louvers/grills in rooms 115, 114, 113, and 112. Clean exhaust Duct work. Confirm that each room is under negative pressure.

MSR 4:

Title: Building 71 and 73 Signs

Make 2 of each of the following signs which state (or something comparable) the italicized text below. The signs should be large enough to be noticeable but not too large to be in the operators way.

"In case of emergency, call 911"

"No Smoking"

Install one of each sign in building 71 and building 73.

This completes the Building Managers action items.

Note: John Hausfeld and Nancy were going to inquire about the Sump at building 61. There are presently no action items for the building manager associated with the sump at 61 which supports the temporary storages areas in room 115, room 114, and room 113.

Kathy Koehler

9.80.6.2 Building Manager's Questionnaire

COMPLETED BY ORA SIMPSON W/HELP FROM BILL ABNEY

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler Phone: 4886 Date: 12-07-95
Alternate: Phone:

Post-it® Fax Note 7671 Date 12/13/95 # of pages ▶ 33
To CHUCK EVANS From KATHY KOEHLER
Co./Dept. Co.
Phone # 4760 Phone # 4886
Fax # 4803 Fax #

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

Manual of the Power

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

none

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

Banding [illegible] shipping - [illegible]
and [illegible] - [illegible]

4. Provide a physical description of the building.

Building is a 45,490-ft² structure of reinforced concrete with a metal roof. One-half the building is in offices, the other one-half is high, open bays for warehouse and materials handling. HVAC is central steam and chilled water. The 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?

Property Management storage, warehouse, ~~and~~ mail services, isotopes group, & construction inspection groups Offices

Building is used for contracting and procurement, shipping and receiving, and transportation services. Building contains both office and warehousing areas. A large tank of liquid nitrogen outside the building supplies dewars throughout the Mound site.

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

9.80-61

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler 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: Materials management — Karen Zimmerman

How Wastes Are Generated:

No hazardous wastes are generated in this building.

Contact: Karen Zimmerman
Phone #: 4585

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

9.80-62

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler 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: 61 Building Manager: K.G. Koehler 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 UNKNOWN
Where? Check with Frank Baker 3438

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

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

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

9.80-64

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler 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.

NO CURRENT SEE NOTE

Chemical Name	State	Amount (MAX)
ANCO TREAT	L	330 GA
CLEANER/CONQUEST	L	180 GA
CLEANER,DAMP MOP	L	246 GA
CLEANER,SPARTAN	L	2400 QT
CLEANER,WINDOW	L	408 GA
FLOOR, FINISH	L	270 GA
GREASE-B-GONE	L	90 GA
ODOR BANE	L	90 QT
SEALER	L	90 GA
SOAP	L	
SOAP,LOTION	L	12 GA
STRIPPER	L	486 GA
STRIPPER	L	162 GA
WASP KILLER	L	2584 OZ
ANCO FLOC	L	55 GA
ANCO STEAM	L	55 GA
HYDROCHLORIC ACID	L	780 LB
HYDROFLUORIC ACID	L	24 L
HYDROGEN PEROXIDE	L	36 PT
NITRIC ACID ARGON(R)	L	288 L
PHOSPHORIC ACID	L	12 LB
SULFURIC ACID	L	15 L
AMMONIUM HYDROXIDE	L	1152 LB
AQUA AMMONIA	L	188 GA
CHLORETHANE	L	576 OZ
LIQUID PLUMBER	L	72 QT
REFRIGERANT #22	L	1800 LB
REFRIGERANT # 502	L	90 LB
REFRGERANAT # 12	L	60 LB
SODIUM HYDROXIDE	S	160 LB
ULTIMA GOLD	L	150 GA
ULTIMA GOLD AB	L	60 GA
ULTIMA GOLD EXTENDED RANGE	L	24 GA
MARKING PAINT	L	600 OZ
MARKING PAINT	L	144 OZ

NOTE: Source: Chemical Inventory 1994 – The 1995 Chemical Inventory should be used and was submitted to Industrial Hygiene

9.80-65

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler 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
mercury spill	blood pressure cuff	Fire department

Source: Fire Department Report Oct-Nov 1995

21. Where do waste chemicals go?

Waste Management

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

all normal janitorial supplies are located in southeast corner of Bldg 61 (first floor)

23. Where do excess janitorial supplies go?

Property management or Waste Management

Source: N/A

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

Chemical	Amount	Chemical	Amount

Source: _____

9.80-66

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler 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	3000 gal		Y/N	
7697-37-2	Nutric acid	02C		Y/N	
7664-93-9	sulfuric acid	01C		Y/N	
7782-37-9	nitrogen	04C		Y/N	outside
				Y/N	

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

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

9.80-67

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

28. Does the building have abandoned process equipment such as tanks, piping, containers, etc.? Yes No
Property management has abandoned process 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
Scrap metal and recyclable cardboard
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: _____

9.80-68

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler 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: _____

9.80-69

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler 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.

9.80-70

Building Manager's Questionnaire

Building Name: 61 Building Manager: K.G. Koehler 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.

Scrap metal, toner cartridges, paper recycling

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

9.80-71

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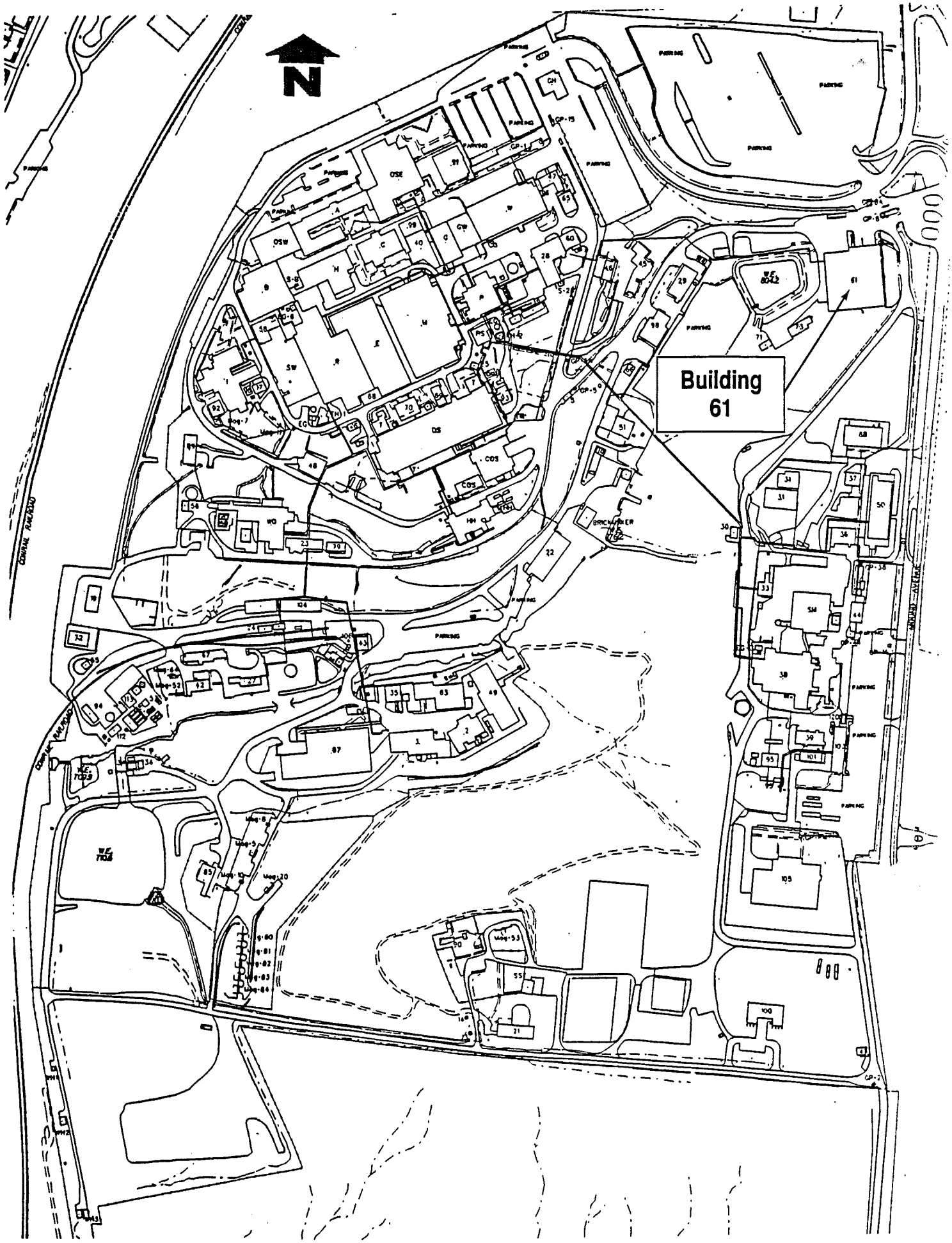
9.80.6.3 Location of Building 61



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

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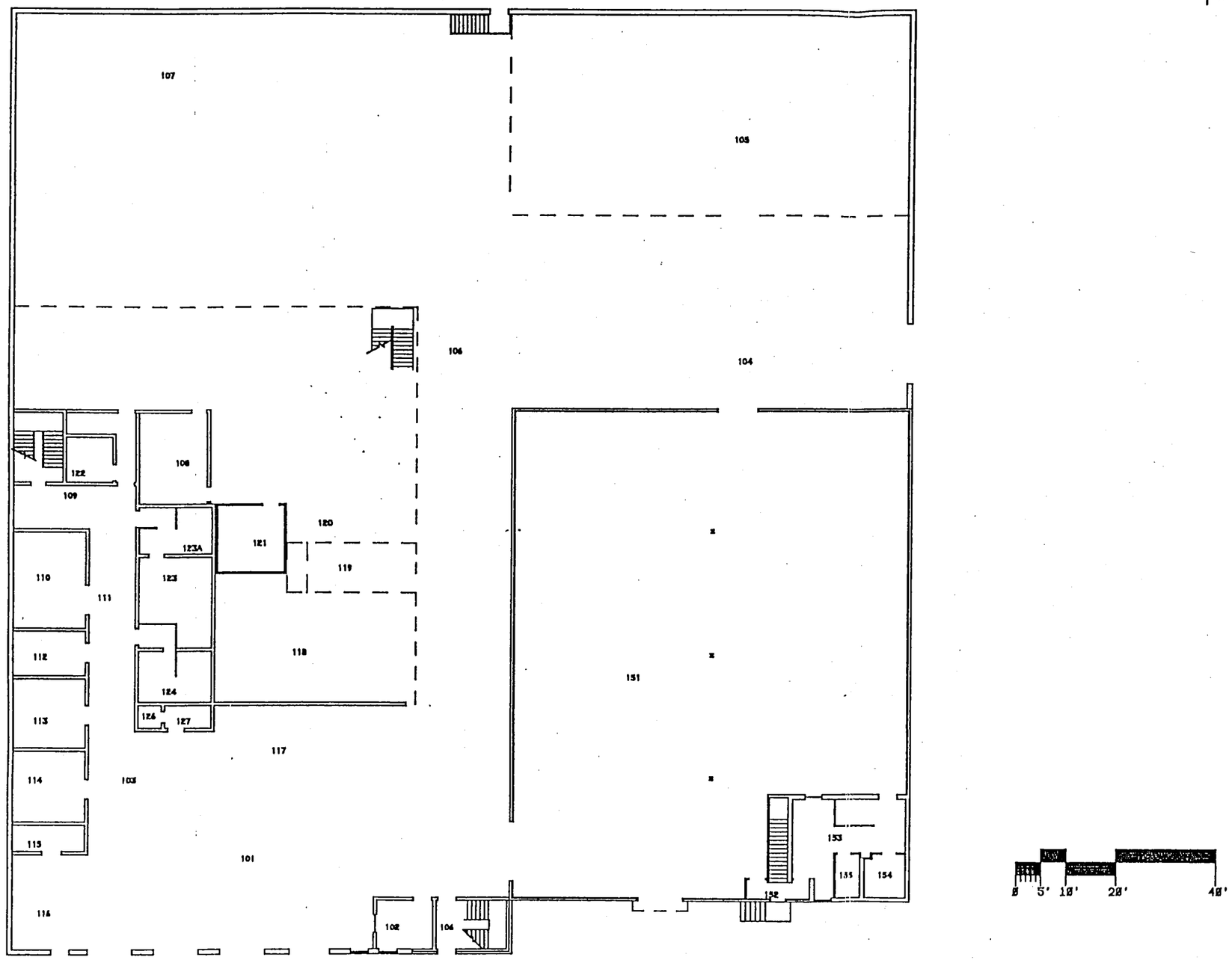
9.80.6.4 Floor Plans for Building 61

ISS	DATE	REVISION	BY	CHKR	ENG	LPAEI	APVD	M
Ø	12/12/91	ASBUILT ISSUE	DCW				DVD	



BLDG #61
FIRST FLOOR
BLDG CODE:3061

DESIGN ENG	PROJ MGR
SPONS	ENG SUPV
LP & EC	PEER REV
ENG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	Ø	Ø				

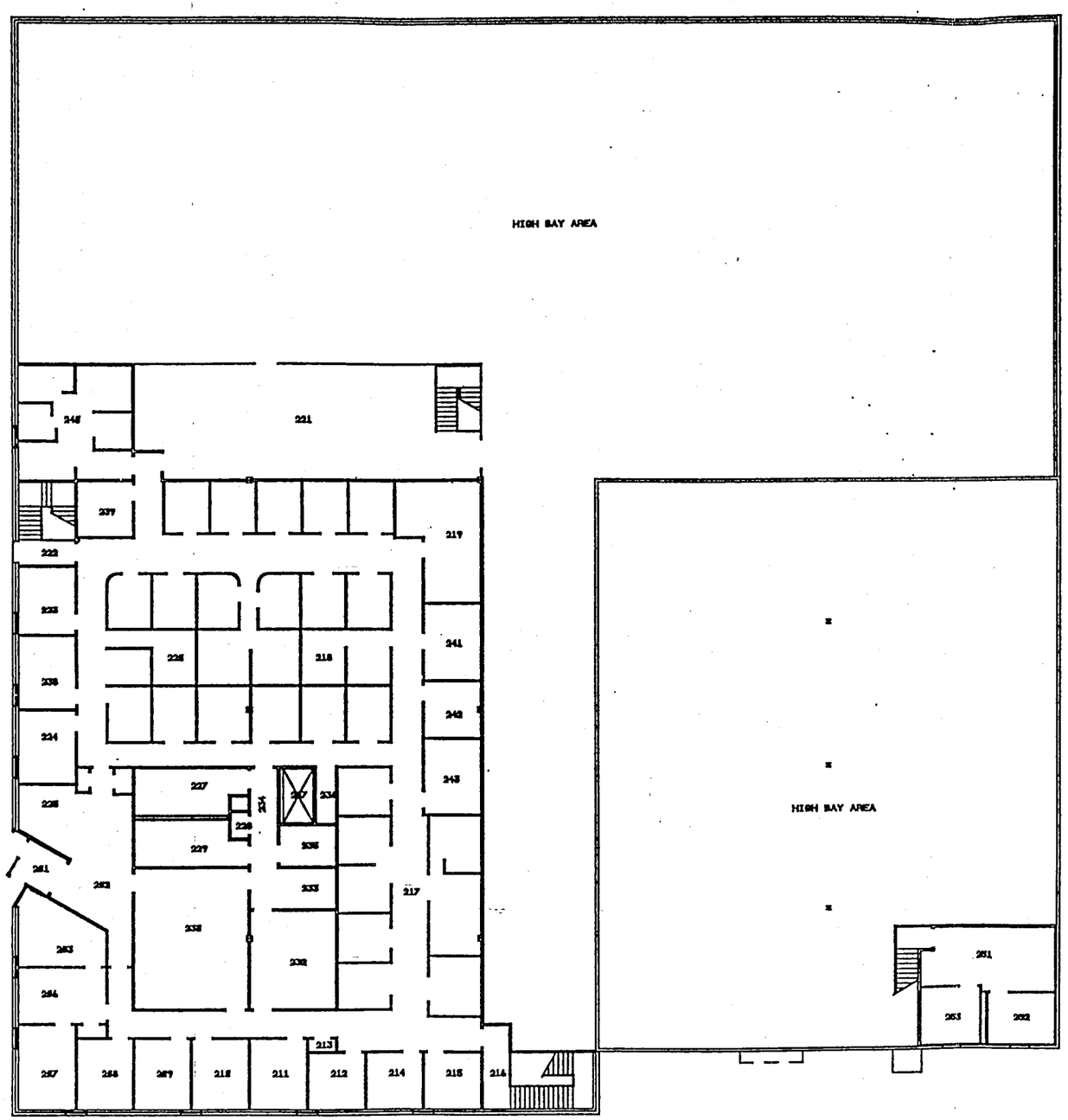
PART CLASSIFICATION

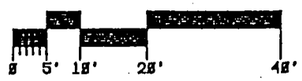
TITLE (U) TITLE CLASSIFICATION
BLDG #61
FLOOR PLANS

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: D
DRAWING NUMBER: FSD911268
JOB NUMBER: 12335
DWG TYPE: SFP
PROM: BLDG #61
CABEC: 14065
SCALE: AS NOTED
SHEET 1 OF 2
STATUS: MD-REL-12/12/91
ORIGIN: MD-BRJ-V3.Ø

DATE:
COMMITTEE REQUIRED:
NONE TRUEBOC TEBOC EMBOC
TECH. REPR.
BR. MGR.
TRUEBOC
TEBOC
EMBOC

9.80-79



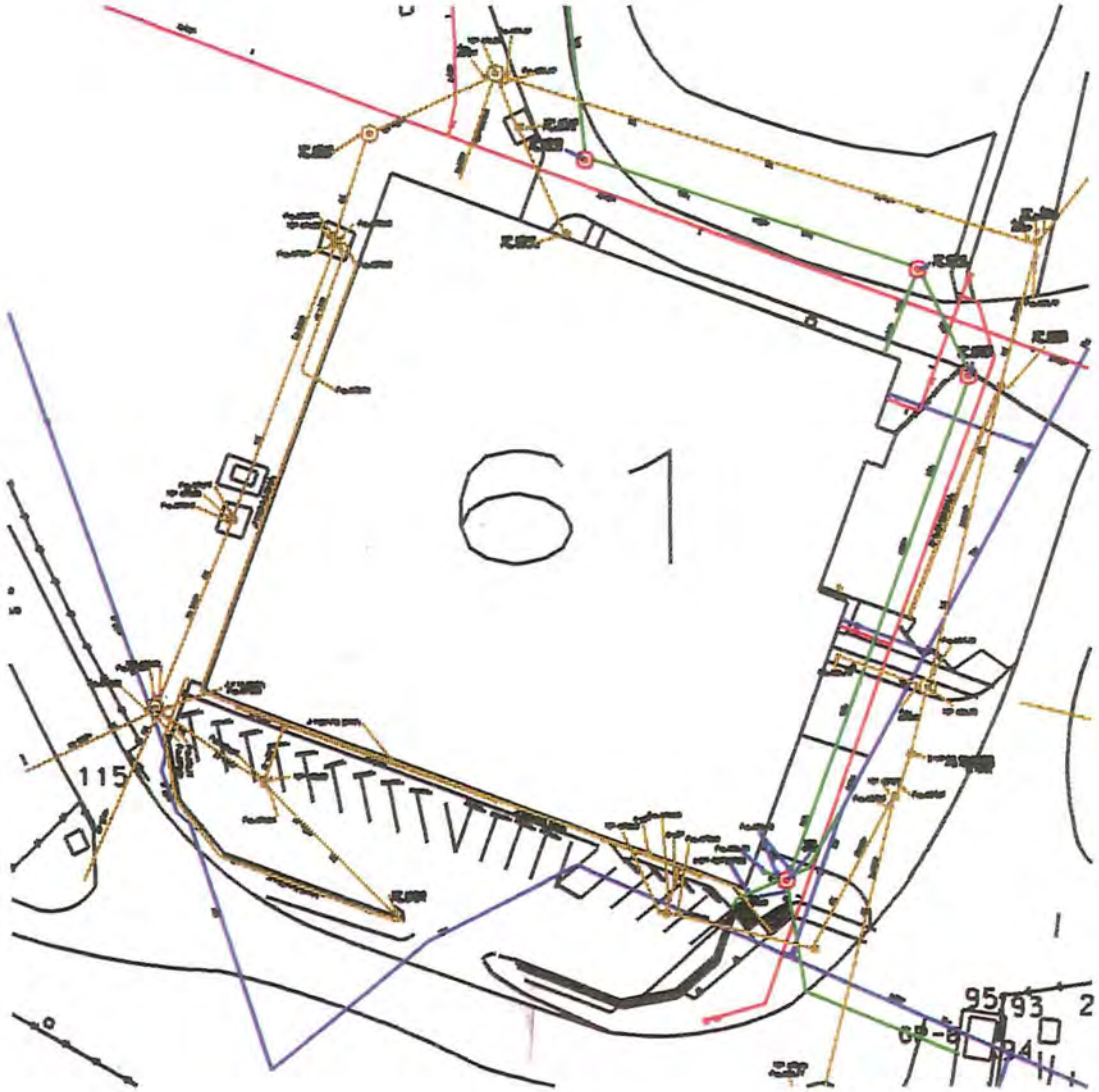


BLDG #81
SECOND FLOOR
BLDG CODE:3061

DRAWING NUMBER FSD911268		JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED		
SIZE D	CAGEC 14065	SCALE AS NOTED
	ISSUE 0	SHEET 2
STATUS MD-REL-12/12/91		

9.80-81

9.80.6.5 Underground Utility Lines



E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 61

DATE: 5-4-96

UNCLASSIFIED

9.80.6.6 Photographs

Mound Plant Building 61

9.80-89

9.81 Building 63-E/63-W

9.81 BUILDING 63-E/63-W

9.81.1 Scope of Building 63-E/63-W Report

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

The appraisal team prepared to perform a walk-through of Building 63-E/63-W on the morning of January 29, 1996; however, it was confirmed by the building manager that the building had been leased to the City of Miamisburg. Therefore, an environmental appraisal was not conducted. No Building Manager's Questionnaire (BMQ) was available and the Environmental Appraisal Checklist (EAC) was not completed since the building was leased.

9.81.2 Description of Building 63-E/63-W

Building 63 is comprised of two structures connected together: Building 63-E, quality product testing laboratory, is a two-story, 13,400-square-foot, concrete block, slab-on-grade structure with a built-up membrane (coal tar) roof. This portion of the building contains quality product testing laboratories on the first floor and offices and lavatory facilities on the second. Building 63-W, an environmental storage and spin test facility, is a one-story, 3,100-square-foot, concrete block, slab-on-grade structure with a built-up membrane (coal tar) roof. This portion of the building contains offices, environmental storage chambers, a spin test facility and lavatory. The location is shown in Attachment 1 (9.81.4.1). The building is bounded by a parking lot to the north, Building 49 to the east, a roadway to the south, and Building 59 to the west. Both sections of the building are serviced by sanitary and storm water service lines, heating and air conditioning systems providing central steam heat and chilled water, a fire sprinkler water main, and electric service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

Building 63-E/63-W was constructed in 1981 (*Capital Assets Management Process, CAMP Report, FY96*). The building has been used for the same purposes since construction. Research and testing activities using energetic materials have occurred in the building. Research, development and testing activities using radioactive materials have not occurred. (*Mound Facility Physical Characterization*, 12-1-93).

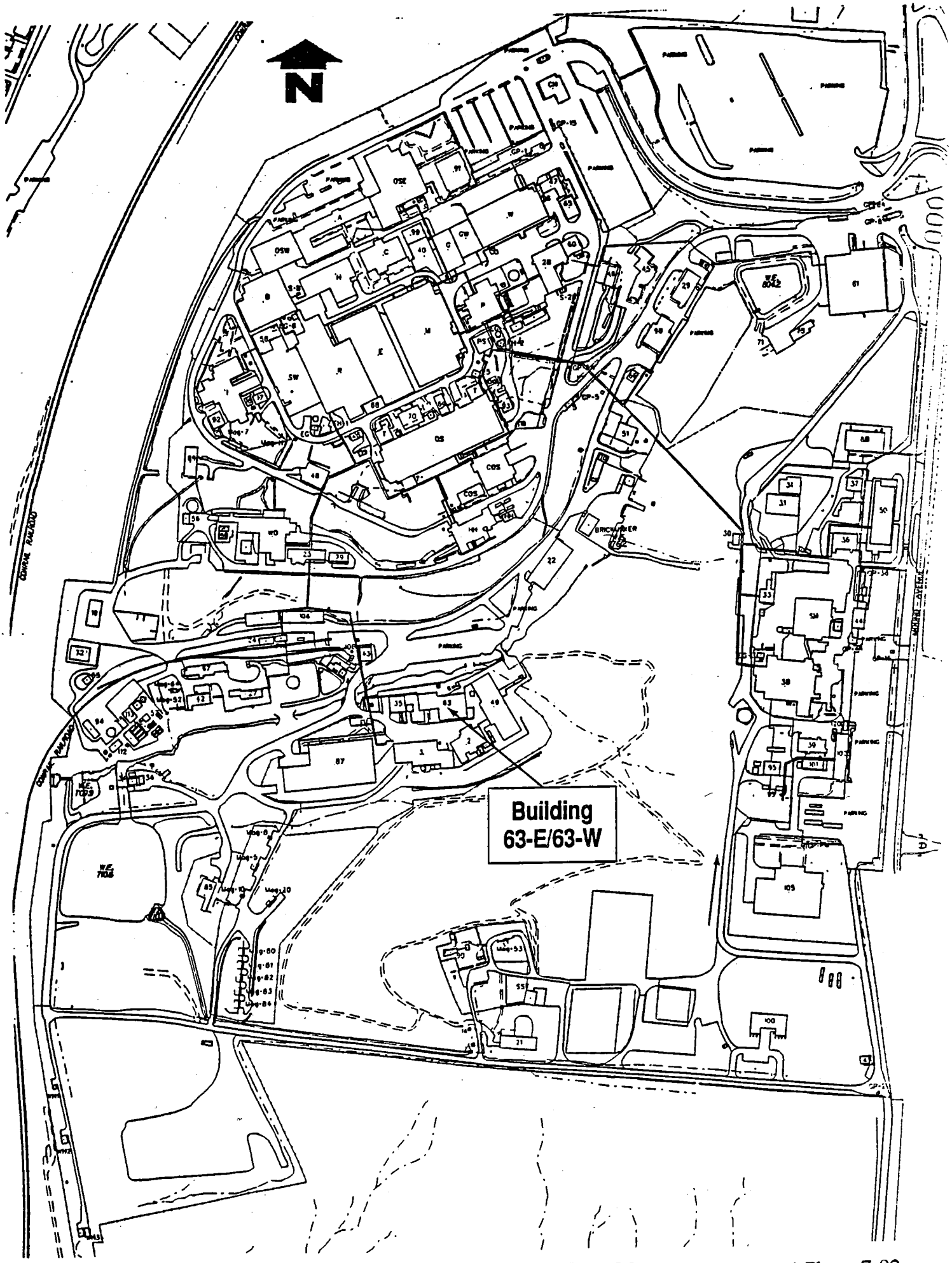
9.81.3 Summary of Findings

Building 63-E/63-W has undergone Safe Shutdown which includes removal of wastes and other materials plus equipment which cannot be released. A health physics safety determination and a liabilities assessment were made. An Environmental Site Assessment (ASTM E 1527-94 or ASTM E 1528-93) was not conducted. The building has been leased by the Department of Energy (DOE) to the City of Miamisburg which accepted the liabilities assessment. The General

Purpose Lease between the DOE and the City of Miamisburg requires the sub-lessee to obtain and comply with regulatory agency permits.

Photographs were taken to document the building. They are included as Attachment 2 (Section 9.81.4.2). Since the building has been leased, an EAC was not prepared and no further action was taken concerning this building.

9.81.4.1 Location of Building 63E/63W



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

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9.81.4.2 Photographs

Mound Plant Building 63-E/63-W

9.82 BUILDING 65

9.82.1 Scope of Building 65 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 site-wide 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 did not perform an environmental appraisal on Building 65 because the building was sold.

9.82.2 Description of Building 65

Building 65 was a one-story, 2,400-square-foot wooden modular structure. Its location is shown in Attachment 1 (Section 9.82.6.1). The building was bordered by Building GP-1 (north), Building 28 (south), a parking lot (east), and Building W (west).

Building 65 was constructed in 1979 for use as an office area. The building was emptied and dismantled in 1996. It was used for the same purpose since construction. The building was not contaminated with radiological or energetic material (Mound Facility Physical Characterization, 12-1-93).

9.82.3 Summary of Findings

Building 65 has undergone Safe Shutdown which includes removal of wastes, materials and equipment. A Health Physics safety determination and a liabilities assessment were made. An ESA (ASTM E 1527-94 or ASTM E 1528-93) was not conducted. The building has been sold and scheduled to be moved from Mound.

Since the building has been sold, an EAC was not prepared and no further action was taken concerning this building.

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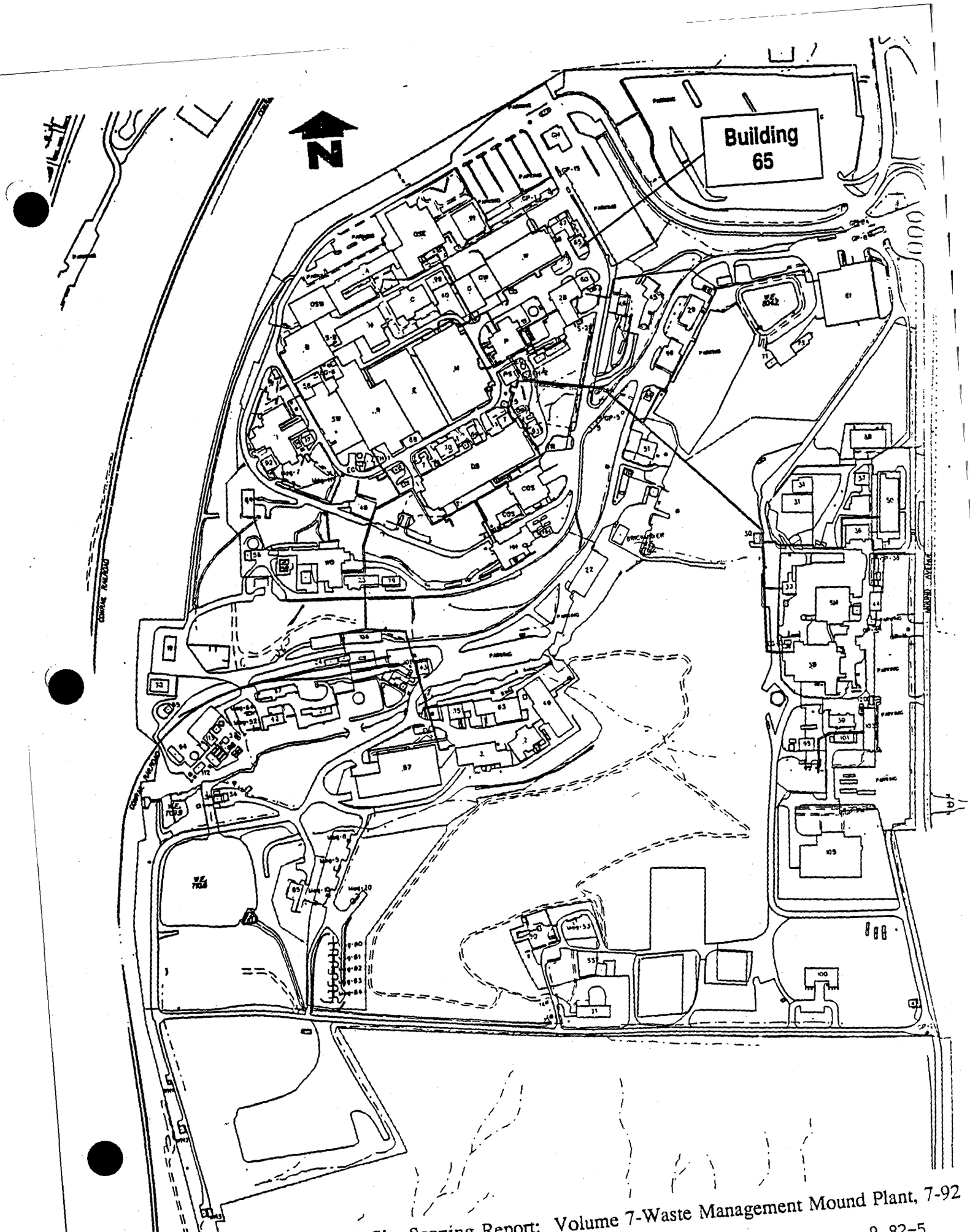
9.82.6.1 Location of Building 65



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

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9.83 BUILDING 66

9.83.1 Scope of Building 66 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 site-wide 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 site visit to the location of the former Building 66 on the afternoon of February 21, 1996. A BMQ was not made available to the appraisal team and the EAC was not used to record findings since the building has been removed. The appraisers were not accompanied by either the building manager or former process manager.

9.83.2 Description of Building 66

Building 66, an office building, was a 650-square-foot, one-story wood-sided structure. It was a modular structure, setting on concrete footings, and having a Hypalon roof. Its structural features were confirmed by a review of the original construction drawings. Its location is shown in Attachment 1 (Section 9.83.6.1). The building was bounded by a parking lot (south), Building 98 to the east, a dirt area leading to a street (north), and Building 51 (west). Floor plans are presented in Attachment 2 (Section 9.83.6.2). The facility was serviced by 240V, three-phase power.

Building 66 was constructed in 1980 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building was built for a supply support office. No research, development, or production activities using radioactive or energetic materials have occurred in the building (*Mound Facility Physical Characterization*, 12-1-93).

9.83.3 Summary of Findings

Building 66 has undergone Safe Shutdown which includes removal of wastes, materials, and equipment. A Health Physics safety determination and a liabilities assessment were made. An ESA (ASTM E 1527-94 or ASTM E 1528-93) was not conducted. The building has been sold and removed from Mound.

Since the building has been sold, an EAC was not prepared and no further action was taken concerning this building. At the time of the site visit, the building (two sections) had been loaded aboard flatbed trucks and was being removed from Mound. After the building was removed, the appraisal team returned to view the site on February 23, 1996. Only the concrete footings remained.

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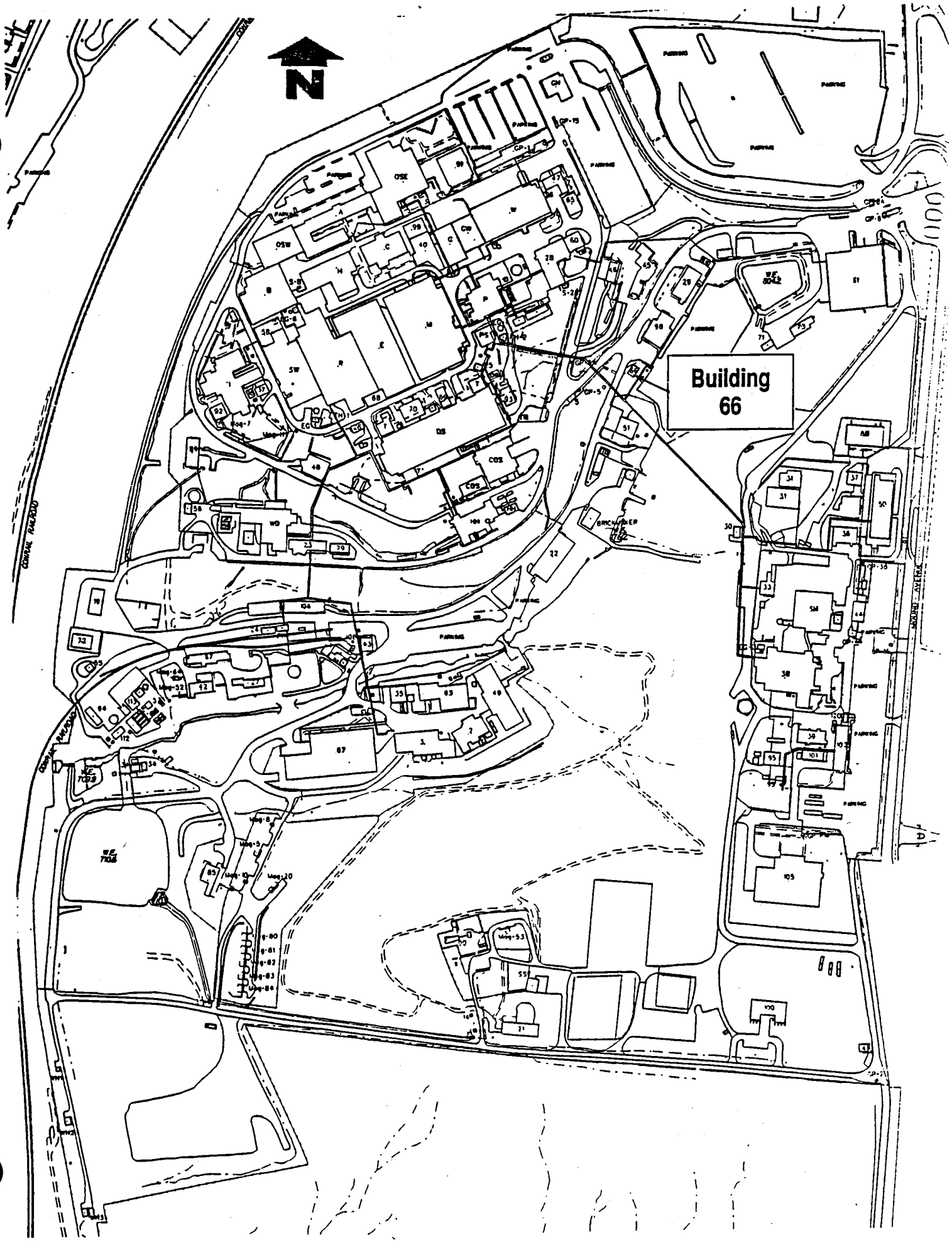
9.83.6.1 Location of Building 66



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

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9.84 BUILDING 67

9.84.1 Scope of Building 67 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 67 on the morning of February 7, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.84.6.1). 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 9.84.6.2).

9.84.2 Description of Building 67

Building 67 is a one-story, 3,787-square-foot structure. Built slab-on-grade, it is a concrete-covered, polystyrene foam building with a metal roof. Its location is shown in Attachment 3 (Section 9.84.6.3). The building, located on a wedge parcel of land, is bordered by the Mound railroad spur, a grassed area, and a hardstand gravel parking area. Opposite the parking area, to the south, are Buildings 27, 42, 52 and 64.

The building previously served as office space for energetic materials support staff. Floor plans are presented as Attachment 4 (Section 9.84.6.4). The building contains open office space with relocatable partitions, a lavatory, storage closets for office supplies and records, and a mechanical room with exterior entrance. There is interstitial space between the ceiling and the roof for utility duct work. 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 67 was constructed in 1983 (MD-10391, *Asbestos Program Manual*, 9-14-95). Mound personnel familiar with its construction indicated that approximately 15 feet of the site was removed and replaced with select fill prior to construction because of possible contamination involving a classified hazardous material. Records were not available to indicate whether or not all of the contamination had been removed. The building has been used for the same purpose since construction.

The building is not contaminated with any radioactive, energetic, or asbestos-containing building materials.

The building is undergoing Safe Shutdown and is no longer occupied. Relocatable office partitions have been disassembled and all office materials and equipment removed.

9.84.3 Summary of Findings

Building 67 appears in fair condition and is listed as such in the *Capital Assets Management Process, Camp Report, FY 1996.* There were no issues of environmental concern identified during the walk-through or during review of reference materials. The building manager and a member of the appraisal team familiar with the building's construction were familiar with a condition which required soil to be replaced prior to the construction.

9.84.4 Observations

9.84.4.1 Air Emissions

There are no fumehoods or fuel-burning units in the building. There is no evidence of fugitive dust or other fugitive materials caused by the Safe Shutdown process. No air emission permit applications have been submitted to the Regional Air Protection Control Agency (RAPCA) for activities in the building.

9.84.4.2 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.

9.84.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.84.6.5), 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, neither dye tests nor smoke tests 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 67 does not deviate from that expected by the sanitary treatment plant manager.

9.84.4.2.2 Storm Wastewater

The building is serviced by a storm drain according to Attachment 5 (Section 9.84.6.5). Interior floor drains are limited to one each in the lavatory and one in the mechanical room. Inspection showed no sign of odors, colored discharges, or scarring which would indicate that any hazardous material entered the storm water system. Storm water runoff from the building is absorbed in the ground or enters the storm drainage system at the end of the parking area.

9.84.4.2.3 Chemicals

If chemicals for office equipment and cleaning had been stored in the building, there is no physical evidence and none currently exist. None were listed in the Chemical Inventory, 1994. There was no evidence of chemicals within the mechanical room. There is no evidence that chemicals entered the sanitary drains. There have been no reported spills from Building 67.

9.84.4.3 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 supplied to the building; it is not distributed within the building except within the fire sprinkler system.

9.84.4.4 Chemical Storage and Hazardous Materials

Records indicate that chemicals were not used in the building, however, it is assumed that janitorial cleaning materials were stored in the janitor closet.

The building is equipped with appropriate charged fire extinguishers. Each extinguisher is bar-coded. The inspection date database is maintained within the Fire Station, Building 98. There is an emergency evacuation plan, and signs were posted within the administrative office spaces.

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 was tested and does not contain asbestos-containing building material (MD-10391, *Asbestos Program Manual*, 9-14-95).

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).

9.84.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes previously generated were 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 contractor. The disposal permit is maintained by the Waste Management Group. There is no evidence that hazardous materials or wastes are mixed with solid waste streams during the Safe Shutdown process.

9.84.4.6 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.

9.84.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.84.6.6).

The environmental appraisal of Building 67 indicates that the following action items should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

67-1 Since records are not available to indicate the extent or type of contamination which required removal of soil before the building was constructed, prior to the sale or disposal of Building 67, an investigation should be conducted to determine whether or not soil under and around the building has hazardous substances remaining.

Environmental Appraisal of the Mound Plant

9.84.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 67 ADMINISTRATIVE OFFICES (ENERGETIC MATERIALS)

Appraisers:
TEAM B W

Name	Discipline
MARK GILLIAT	ENGINEER
MARCIA VANNET	CHEMIST
MYRON SMITH JR	ENGINEER
—	

Building Manager: Bob Ward (x-3831)

Process Manager: Brady Barnhart (SBB Shutdown)

Date: 7 February 1996

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 Appraisal Checklist

Building Name: 67 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	no chemicals
	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	

Fire Deluge System

9.84-9

9.84-10

Environmental Appraisal Checklist

Building Name: 67 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	Blank
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: 67 Appraisers: Team #4 Date: 2-7-96

CAA Checklist

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

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

Source:_____

9.84-11

9.84-12

Environmental Appraisal Checklist

Building Name: L7 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	
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	Y / N	Blank
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y / N	
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y / N	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y / N	

Environmental Appraisal Checklist

Building Name: 67 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	Blank
CGA P-1 3.5.3	Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers.	Y / N	
CGA P-1 3.5.8	All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured.	Y / N	
CGA P-1 4.2.2	Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high.	Y / N	
29 CFR 1910.104(2)(10)	Oxygen stored as a liquid shall be on a noncombustible surface. Asphalt is considered combustible. Wood and long dry grass shall be cut back 15 ft. from the container.	Y / N	
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	Y / N	
	Is there an emergency response plan available?	Y / N	

9.84-13

9.84-14

Environmental Appraisal Checklist

Building Name: 67 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
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
			Blank	Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N

Source: _____

Environmental Appraisal Checklist

Building Name: 67 Appraisers: Team #4 Date: 2-7-94

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	Y / (N)	
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	Y / N	None required -
	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)	FOUNTAIN IS LEAD FREE MAKE & YR MANUFACTURED

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
67	OUTSIDE RM 106	UNKNOWN	MAKE ELKAY

Source: VISUAL / EPA PROTOCOL

9.84-15

Environmental Appraisal Checklist

Building Name: 67 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.

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: 67 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?	Y / N	
	Is it treated as such?	Y / N	Blank
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	

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Environmental Appraisal Checklist

Building Name: 47 Appraisers: Team # 4 Date: 2-7-96

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: 47 Appraisers: Team #4 Date: 2-7-96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	
	If the answer was no, then proceed with the following:	Y / N	
	Has the tank or piece of equipment had an integrity assessment?	Y / N	
	Is there a sump?	Y / N	Blank
	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: 67 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	Blank
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section	Y / N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then not. Go to the next section.	Y / N	
OAC 3745-56	Has any of the waste been managed in a Waste Pile? If yes, then note. Go to the next section.	Y / N	

General Comments:

Environmental Appraisal Checklist

Building Name: 67 Appraisers: Team #4 Date: 2-7-96

Asbestos Screening Checklist

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

Asbestos Checklist

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

Regulatory Guideline	Question	Response	Comments
ADAPTED FROM TSCA ACBM IN SCHOOLS:			
	Has this building been characterized either through process knowledge, by analyses, or by inspection to determine if it contains asbestos? 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	NONE If there is no asbestos removal, do not complete the following section.
NESHAPS FOR ASBESTOS FOR ANY ONGOING ASBESTOS REMOVAL:			
40 CFR 61.156	There are no discharges of visible emissions to the outside air from collection, processing, packaging, transporting, or deposition of ACBM during the removal.	Y / N	Blank
40 CFR 61.152(b) (1)	ACBM is treated with water in accordance with 40 CFR 152(b)?	Y / N	
40 CFR 61.154	Is friable asbestos adequately wetted during stripping? Or, has an adequate ventilation and collection system been installed?	Y / N	
40 CFR 61.152	Is wetting continued until the waste friable asbestos is collected for disposal?	Y / N	

* BMQ indicates survey, NONE IDENTIFIED BUT ASSUMED.
VISUAL INSPECTION INDICATES NONE INSIDE BUILDING.
IN MECHANICAL ROOM, LAGGING ON STEAM LINES/PIPING DOES NOT APPEAR TO CONTAIN

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Environmental Appraisal Checklist

Building Name: 47 Appraisers: Team #4 Date: 2-7-96

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

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

TSCA Checklist

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

Environmental Appraisal Checklist

Building Name: 67 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	Blank
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N	
40 CFR 761.62 (b) (1) (i)	Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items?	Y / N	
40 CFR 761.62 (b) (1) (iv)	Are storage are floors curbed and constructed of continuous smooth and impervious materials?	Y / N	
40 CFR 761.62 (b) (1) (i)	Are the curbs at least 6 inches high?	Y / N	
40 CFR 761.62 (b) (1) (iii)	No drains are allowed in storage areas. Are there drains in the storage areas?	Y / N	

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Environmental Appraisal Checklist

Building Name: 47 Appraisers: Team # 4 Date: 2-7-96

TSCA Checklist

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

GENERAL COMMENTS:

Environmental Appraisal Checklist

Building Name: 47 Appraisers: Team # 4 Date: 2-7-94

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

Prior Ground condition according To Building Manager & Employees occupying Trailers during Building Construction. Approx 10 feet of soil removed & Replaced with Select fill, Possible prior contamination. Records. not available To indicate possible contaminant.

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Environmental Appraisal Checklist

Building Name: 47 Appraisers: Team #4 Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: 67 Appraisers: Team #4 Date: 2-7-96

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

Building Name: 67 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	Blank
	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: 67 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	Blank
	Has the TRU waste been protected from unauthorized access?	Y / N	
	Has the TRU waste been monitored periodically to ensure that it is not releasing its radioactive and/or hazardous constituents?	Y / N	
	Has this TRU waste storage area been designed, constructed, maintained, and operated to minimize the possibility of fire, explosion, or accidental release of its radioactive and/or hazardous constituents?	Y / N	
	Does the facility have a contingency plan designed to minimize the adverse impacts of fire, explosion, or accidental release of its radioactive and/or hazardous constituents?	Y / N	

GENERAL COMMENTS:

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Environmental Appraisal Checklist

Building Name: 67 Appraisers: Team #4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	Y / N	Blank
	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: 67 Appraisers: Team #4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

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

Blank

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Environmental Appraisal Checklist

Building Name: 67 Appraisers: Team # 4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	
	Is crystallization used to remove corrosives from solution by cooling?	Y / N	
	Is the process of evaporation of liquid wastes by heating used to leave behind a more concentrated solution?	Y / N	
CYANIDE AND REACTIVE WASTES			Blank
	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: 47 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	Blank
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

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9.84-34

Environmental Appraisal Checklist

Building Name: 67 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	Blank
	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: 67 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	Blank
	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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9.84.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 67 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.)?

None

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

None

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

4. Provide a physical description of the building.

Building is a concrete-covered, polystyrene foam building with a metal roof. Total area is 3,787 ft^2. The building is not contaminated with any radioactive, energetic, or asbestos materials. However, the ground under the building may have been contaminated from prior activities.

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

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

Building consists of operational support offices for Building 27 and Building 42.

Source: Mound Buildings, 5-9-95

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

None

Source: Mound Buildings, 5-9-95

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Building Manager's Questionnaire

Building Name: 67 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: Offices

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).

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Building Manager's Questionnaire

Building Name: 67 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)

Safe Shutdown

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

9.84-41

Building Manager's Questionnaire

Building Name: 67 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

9.84-42

Building Manager's Questionnaire

Building Name: 67 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

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Building Manager's Questionnaire

Building Name: 67 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: _____

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Building Manager's Questionnaire

Building Name: 67 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

27. 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

Source: _____

9.84-45

Building Manager's Questionnaire

Building Name: 67 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: _____

9.84-46

Building Manager's Questionnaire

Building Name: 67 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: _____

9.84-47

Building Manager's Questionnaire

Building Name: 67 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.

9.84-48

Building Manager's Questionnaire

Building Name: 67 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)

9.84-49

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TRANSITION PROGRAMS - EM AREA SAFE SHUTDOWN

BUILDING 67 LOW VALUE PROPERTY INVENTORY
1/4/96

9.84-51

67 ROOM ID	TRANSITION INVENTORY NUMBER	PROPERTY DESCRIPTION	TRANSFER TAG NUMBER	DISPOSITION	CONDITION CODE
115	4200	BIN, WALL HUNG OFFICE BINDER	24879	Excess	4 - Used, good
115	4201	BIN, WALL HUNG OFFICE BINDER	24820	Excess	4 - Used, good
115	4202	BIN, WALL HUNG OFFICE BINDER	24821	Excess	4 - Used, good
115	4203	BIN, WALL HUNG OFFICE BINDER	24816	Excess	4 - Used, good
115	4204	BIN, WALL HUNG OFFICE BINDER	24858	Excess	4 - Used, good
115	4205	BIN, WALL HUNG OFFICE BINDER	24857	Excess	4 - Used, good
115	4206	BIN, WALL HUNG OFFICE BINDER	24855	Excess	4 - Used, good
115	4207	BIN, WALL HUNG OFFICE BINDER	24856	Excess	4 - Used, good
115	4208	BIN, WALL HUNG OFFICE BINDER	24875	Excess	4 - Used, good
115	4209	SHELF, WALL HUNG OFFICE BOOK	24859	Excess	4 - Used, good
115	4210	SHELF, WALL HUNG OFFICE BOOK	24822	Excess	4 - Used, good
115	4211	SHELF, WALL HUNG OFFICE BOOK	24823	Excess	4 - Used, good
115	4212	SHELF, WALL HUNG OFFICE BOOK	24874	Excess	4 - Used, good
115	4213	SHELF, WALL HUNG OFFICE BOOK	24873	Excess	4 - Used, good
115	4214	SHELF, WALL HUNG OFFICE BOOK	24880	Excess	4 - Used, good
115	4215	SHELF, WALL HUNG OFFICE BOOK	24827	Excess	4 - Used, good
115	4216	SHELF, WALL HUNG OFFICE BOOK	24817	Excess	4 - Used, good
115	4217	SHELF, WALL HUNG OFFICE BOOK	24860	Excess	4 - Used, good
115	4218	SHELF, WALL HUNG OFFICE BOOK	24861	Excess	4 - Used, good
115	4219	SHELF, WALL HUNG OFFICE BOOK	24862	Excess	4 - Used, good
115	4220	BOOKCASE, 60-INCH	24836	Excess	4 - Used, good
115	4221	BOOKCASE, 60-INCH	24841	Excess	4 - Used, good
115	4222	BOOKCASE, 60-INCH	24866	Excess	4 - Used, good
115	4223	BOOKCASE, 38-INCH	24881	Excess	4 - Used, good
115	4224	BOOKCASE, 42-INCH	24840	Excess	4 - Used, good
115	4225	BOOKCASE, 38-INCH	4867	Excess	4 - Used, good
115	4226	BOOKCASE, STACKABLE	24829	Excess	4 - Used, good
115	4227	DESK, 5 DRAWER	24838	Excess	4 - Used, good
115	4228	DESK, 5 DRAWER	24846	Excess	4 - Used, good
115	4229	DESK, 5 DRAWER	24845	Excess	4 - Used, good
115	4230	CABINET, 5-DRAWER FILE	24831	Excess	4 - Used, good
115	4231	CABINET, 4-DRAWER FILE	24864	Excess	4 - Used, good
115	4232	CABINET, 2-DRAWER FILE	24868	Excess	4 - Used, good
115	4233	CABINET, 2-DRAWER LATERAL FILE	24863	Excess	4 - Used, good
115	4234	SAFE, 4-DRAWER	24872	Excess	4 - Used, good
115	4235	DESK, DRAFTING	24869	Excess	4 - Used, good
115	4236	STAND, PRINTER	24852	Excess	4 - Used, good
115	4237	STAND, PRINTER	24871	Excess	4 - Used, good
115	4238	DESK, 3-DRAWER	24870	Excess	4 - Used, good
115	4239	CHAIR, STACKABLE	28252	Excess	4 - Used, good
115	4240	CHAIR, STACKABLE	28251	Excess	4 - Used, good
115	4241	CHAIR, STACKABLE	28248	Excess	4 - Used, good

TRANSITION PROGRAMS - EM AREA SAFE SHUTDOWN

BUILDING 67 LOW VALUE PROPERTY INVENTORY
1/4/96

67 ROOM ID	TRANSITION INVENTORY NUMBER	PROPERTY DESCRIPTION	TRANSFER TAG NUMBER	DISPOSITION	CONDITION CODE
115	4242	CHAIR, STACKABLE	28278	Excess	4 - Used, good
115	4243	CHAIR, STACKABLE	28277	Excess	4 - Used, good
115	4244	CHAIR, STACKABLE	28279	Excess	4 - Used, good
115	4245	CHAIR, STACKABLE	28280	Excess	4 - Used, good
115	4246	CHAIR, STACKABLE	28250	Excess	4 - Used, good
115	4247	CHAIR, STACKABLE	28242	Excess	4 - Used, good
115	4248	CHAIR, STACKABLE	28243	Excess	4 - Used, good
115	4249	CHAIR, STACKABLE	28256	Excess	4 - Used, good
115	4250	CHAIR, STACKABLE	28257	Excess	4 - Used, good
115	4251	CHAIR, STACKABLE	28258	Excess	4 - Used, good
115	4252	CHAIR, STACKABLE	28261	Excess	4 - Used, good
115	4253	CHAIR, STACKABLE	28260	Excess	4 - Used, good
115	4254	CHAIR, STACKABLE	28259	Excess	4 - Used, good
115	4255	BOARD, BULLETIN	24891	Excess	4 - Used, good
115	4256	TABLE, COMPUTER	24892	Excess	4 - Used, good
115	4257	CABINET, 5-DRAWER FILE	24894	Excess	4 - Used, good
115	4258	SAFE, 4 DRAWER	24895	excess	4 - Used, good
115	4259	DESK, 6-DRAWER	24890	Excess	4 - Used, good
115	4260	CABINET, CARDFILE	4260	Excess	4 - Used, good
115	4261	CABINET, CARDFILE	24696	Excess	4 - Used, good
115	4262	CABINET, 5-DRAWER FILE	24888	Excess	4 - Used, good
115	4263	CART, COMPUTER	24687	Excess	4 - Used, good
115	4264	BOOKCASE, 60-INCH	24885	Excess	4 - Used, good
115	4265	BIN, DESK FILE	24886	Excess	4 - Used, good
115	4266	PANEL(S), 2 OFFICE PARTITION	4266	Excess	4 - Used, good
115	4267	PANEL(S), 7 OFFICE PARTITION	4267	Excess	4 - Used, good
115	4268	BIN, OFFICE WALL MOUNT BINDER	24912	Excess	4 - Used, good
115	4269	BIN, OFFICE WALL MOUNT BINDER	24913	Excess	4 - Used, good
115	4270	BIN, OFFICE WALL MOUNT BINDER	24914	Excess	4 - Used, good
115	4271	BIN, OFFICE WALL MOUNT BINDER	24899	Excess	4 - Used, good
115	4272	SHELF, OFFICE WALL MOUNT BOOK W/LIGHT	24915	Excess	4 - Used, good
115	4273	SHELF, OFFICE WALL MOUNT BOOK W/LIGHT	4273	Excess	4 - Used, good
115	4274	TABLE, CRADENZA	24908	Excess	4 - Used, good
115	4275	CABINET, 2-DRAWER LATERAL FILE	24909	Excess	4 - Used, good
115	4276	CABINET, 2-DRAWER LATERAL FILE	24911	Excess	4 - Used, good
115	4277	BOOKCASE, STACKABLE	24916	Excess	4 - Used, good
115	4278	ORGANIZER, DESK FILE	24917	Excess	4 - Used, good
115	4279	PANEL(S), 6 OFFICE PARTITION	4279	Excess	4 - Used, good
115	4280	BOOKCASE, 60-INCH	24924	Excess	4 - Used, good
115	4281	DESK, 5-DRAWER	24922	Excess	4 - Used, good
115	4282	ORGANIZER, DESK FILE	24923	Excess	4 - Used, good
115	4283	TABLE, 6-FOOT CONFERENCE	24921	Excess	4 - Used, good

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TRANSITION PROGRAMS - EM AREA SAFE SHUTDOWN

BUILDING 67 LOW VALUE PROPERTY INVENTORY
1/4/96

67 ROOM ID	TRANSITION INVENTORY NUMBER	PROPERTY DESCRIPTION	TRANSFER TAG NUMBER	DISPOSITION	CONDITION CODE
104	4326	CHAIR, CONFERENCE ROOM	28254	Excess	4 - Used, good
104	4327	CHAIR, CONFERENCE ROOM	11457	Excess	4 - Used, good
104	4328	CHAIR, CONFERENCE ROOM	28249	Excess	4 - Used, good
104	4329	CHAIR, CONFERENCE ROOM	28201	Excess	4 - Used, good
104	4330	CHAIR, CONFERENCE ROOM	4330	Excess	4 - Used, good
104	4331	CHAIR, CONFERENCE ROOM	4331	Excess	4 - Used, good
104	4332	CHAIR, CONFERENCE ROOM	28244	Excess	4 - Used, good
104	4333	CHAIR, CONFERENCE ROOM	4333	Excess	4 - Used, good
104	4334	CHAIR, CONFERENCE ROOM	24884	Excess	4 - Used, good
104	4335	CHAIR, CONFERENCE ROOM	24865	Excess	4 - Used, good
104	4336	CHAIR, CONFERENCE ROOM	4336	Excess	4 - Used, good
104	4337	CHAIR, CONFERENCE ROOM	4337	Excess	4 - Used, good
104	4338	CHAIR, CONFERENCE ROOM	28272	Excess	4 - Used, good
104	4339	CHAIR, CONFERENCE ROOM	28270	Excess	4 - Used, good
104	4340	CHAIR, CONFERENCE ROOM	28274	Excess	4 - Used, good
104	4341	CHAIR, CONFERENCE ROOM	28273	Excess	4 - Used, good
104	4342	CHAIR, CONFERENCE ROOM	24830	Excess	4 - Used, good
104	4343	CHAIR, CONFERENCE ROOM	28245	Excess	4 - Used, good
104	4344	CHAIR, OFFICE SWIVEL	11487	Excess	4 - Used, good
104	4345	CHAIR, OFFICE SWIVEL	4345	Excess	4 - Used, good
104	4346	TABLE, 8-FOOT CONFERENCE	28231	Excess	4 - Used, good
104	4347	TABLE, 8-FOOT CONFERENCE	28233	Excess	4 - Used, good
104	4348	TABLE, 8-FOOT CONFERENCE	28232	Excess	4 - Used, good
104	4349	BOARD, ERASEABLE MARKER	28237	Excess	4 - Used, good
104	4350	BOARD, ERASEABLE MARKER	28239	Excess	4 - Used, good
104	4351	TABLE, ROUND CONFERENCE	28236	Excess	4 - Used, good
104	4352	BLACKBOARD	28238	Excess	4 - Used, good
104	4353	CRADENZA	28228	Excess	4 - Used, good
104	4354	BOOKCASE, 7-FOOT WOODEN	28229	Excess	4 - Used, good
104	4355	BOOKCASE, 7-FOOT WOODEN	28230	Excess	4 - Used, good
107	4356	CABINET, WALL MOUNT STORAGE	28277	Excess	4 - Used, good
107	4357	CABINET, 38-INCH STORAGE	28226	Excess	4 - Used, good
103	4358	DESK, 6-DRAWER	28282	Excess	4 - Used, good
103	4359	CHAIR, OFFICE SWIVEL	28286	Excess	4 - Used, good
103	4360	TABLE, COMPUTER	28283	Excess	4 - Used, good
103	4361	STAND, TYPEWRITER	28284	Excess	4 - Used, good
103	4362	BOOKCASE, 36-INCH	28285	Excess	4 - Used, good
103	4363	STAND, PRINTER	28281	Excess	4 - Used, good
103	4364	CHAIR, OFFICE SWIVEL	28306	Excess	4 - Used, good
102	4365	CHAIR, OFFICE SWIVEL	28304	Excess	4 - Used, good
102	4366	CHAIR, OFFICE SWIVEL	4366	Excess	4 - Used, good
102	4367	CHAIR, OFFICE SWIVEL	24825	Excess	4 - Used, good

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TRANSITION PROGRAMS - EM AREA SAFE SHUTDOWN

BUILDING 67 LOW VALUE PROPERTY INVENTORY
1/4/96

67 ROOM ID	TRANSITION INVENTORY NUMBER	PROPERTY DESCRIPTION	TRANSFER TAG NUMBER	DISPOSITION	CONDITION CODE
102	4368	CHAIR, OFFICE SWIVEL	24834	Excess	4 - Used, good
102	4369	CHAIR, OFFICE SWIVEL	24883	Excess	4 - Used, good
102	4370	CHAIR, OFFICE SWIVEL	28309	Excess	4 - Used, good
102	4371	CABINET, PORTABLE FILE	28240	Excess	4 - Used, good
102	4372	BOOKCASE, 36-INCH	28288	Excess	4 - Used, good
102	4373	CABINET, 2-DRAWER FILE	28292	Excess	4 - Used, good
102	4374	TABLE, SMALL	28300	Excess	4 - Used, good
102	4375	TABLE, SMALL	28294	Excess	4 - Used, good
102	4376	DESK, 3-DRAWER	28295	Excess	4 - Used, good
102	4377	CABINET, 5-DRAWER FILE	28296	Excess	4 - Used, good
102	4378	DESK, 6-DRAWER	28299	Excess	4 - Used, good
102	4379	ORGANIZER, DESK FILE	28298	Excess	4 - Used, good
102	4380	TABLE, COMPUTER	28301	Excess	4 - Used, good
102	4381	BOARD, BULLETIN	28303	Excess	4 - Used, good

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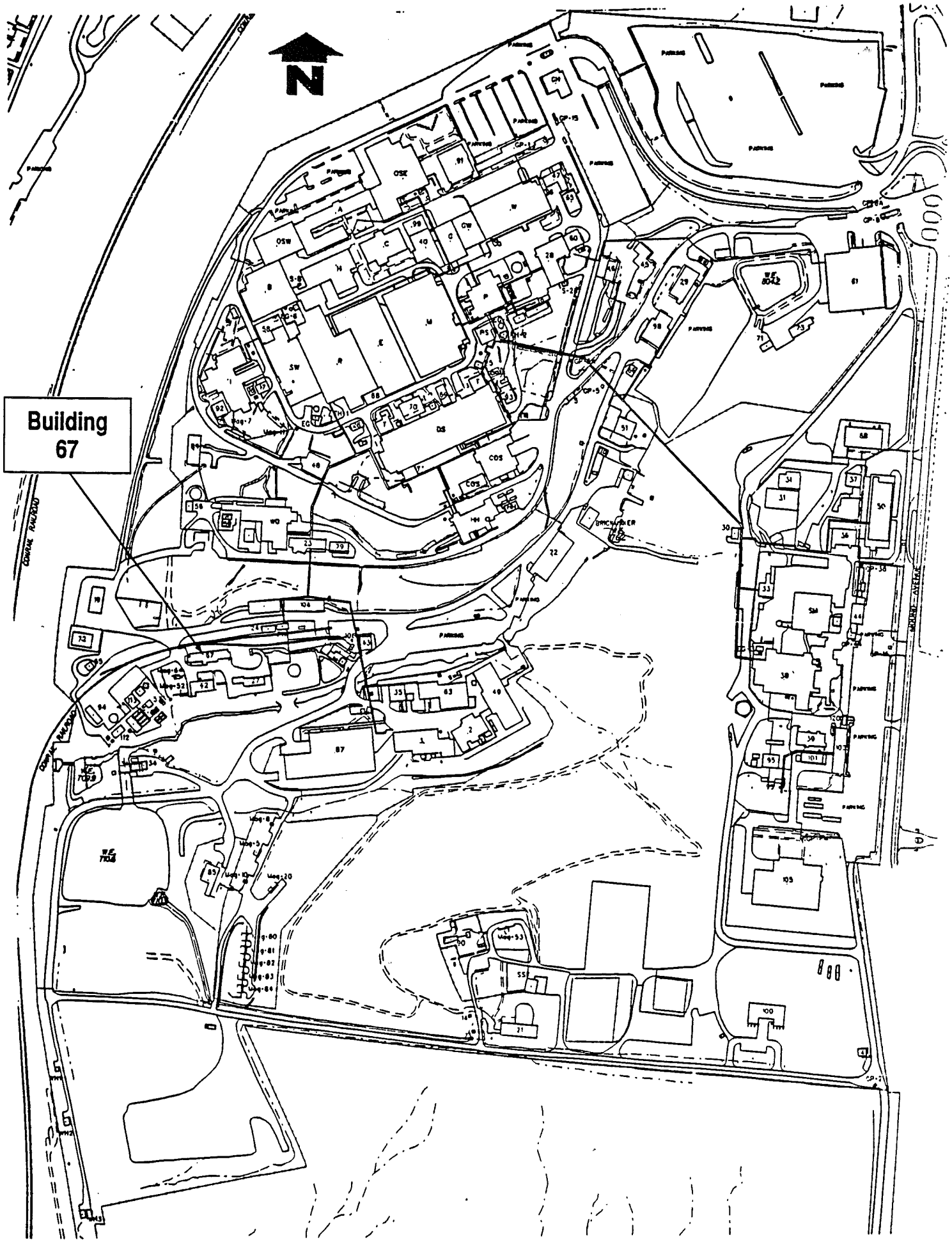
9.84.6.3 Location of Building 67



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

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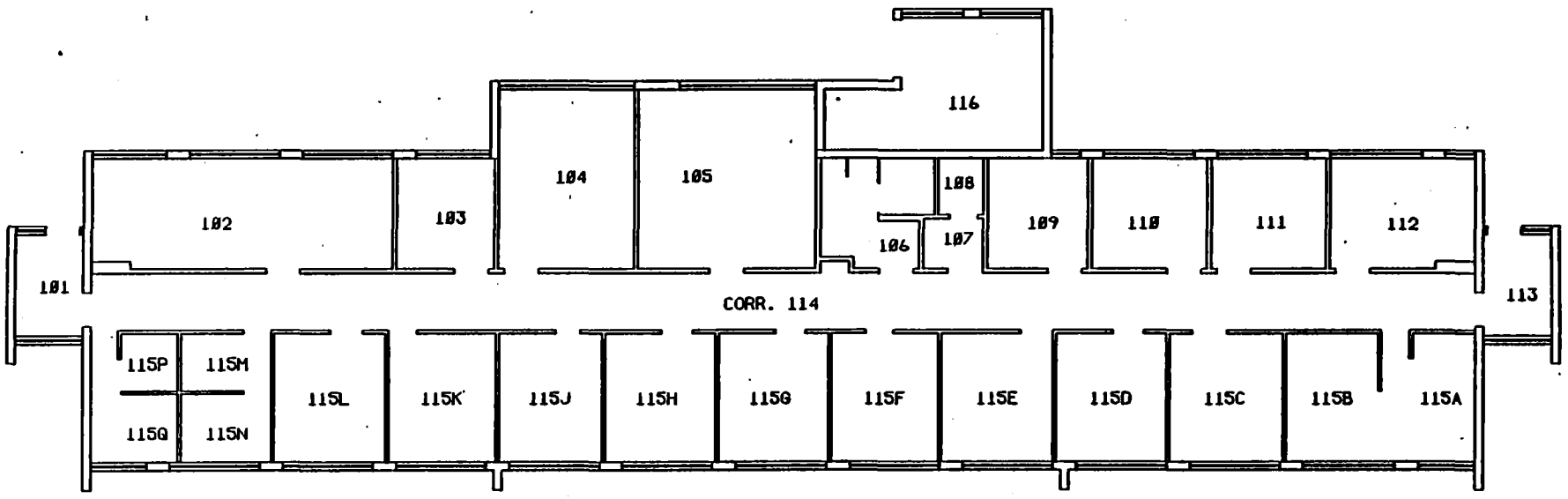
9.84.6.4 Floor Plans for Building 67

ISS	DATE	REVISION	BY	CHKR	ENG	LPRED	APVD	N
0	12/12/91	ASBUILT ISSUE	DCW				DVD	



DERIVATIVE CLASSIFIER

Sr. Class. Anal. 2/20/96

(Title) (Date)

0 3' 6' 10' 20'

N

BLDG #67
FIRST FLOOR
BLDG CODE:3067

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUEBOC ___TEBOC ___EMBOC
TECH. REVP. ___
GR. MGR. ___
TRUEBOC ___
TEBOC ___
EMBOC ___

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.

SECTION ENG	PROJ MGR
SPECIALIST	ENG SUPV
LP & CC	PROD REV
ENG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6	TITLE (U) TITLE CLASSIFICATION
ISSUE	0						BLDG #67 FLOOR PLANS
PART CLASSIFICATION							
GRADING CLASSIFICATION UCNI							SIZE C / DRAWING NUMBER FSC911272 / JOB NUMBER 12335
DWG TYPE SFP	PROJ BLDG #67	CHKR 14865	SCALE AS NOTED	SHEET 1 OF 1			
STATUS MD-REL-12/12/91		ORIGIN MD-BR3-V3.0					

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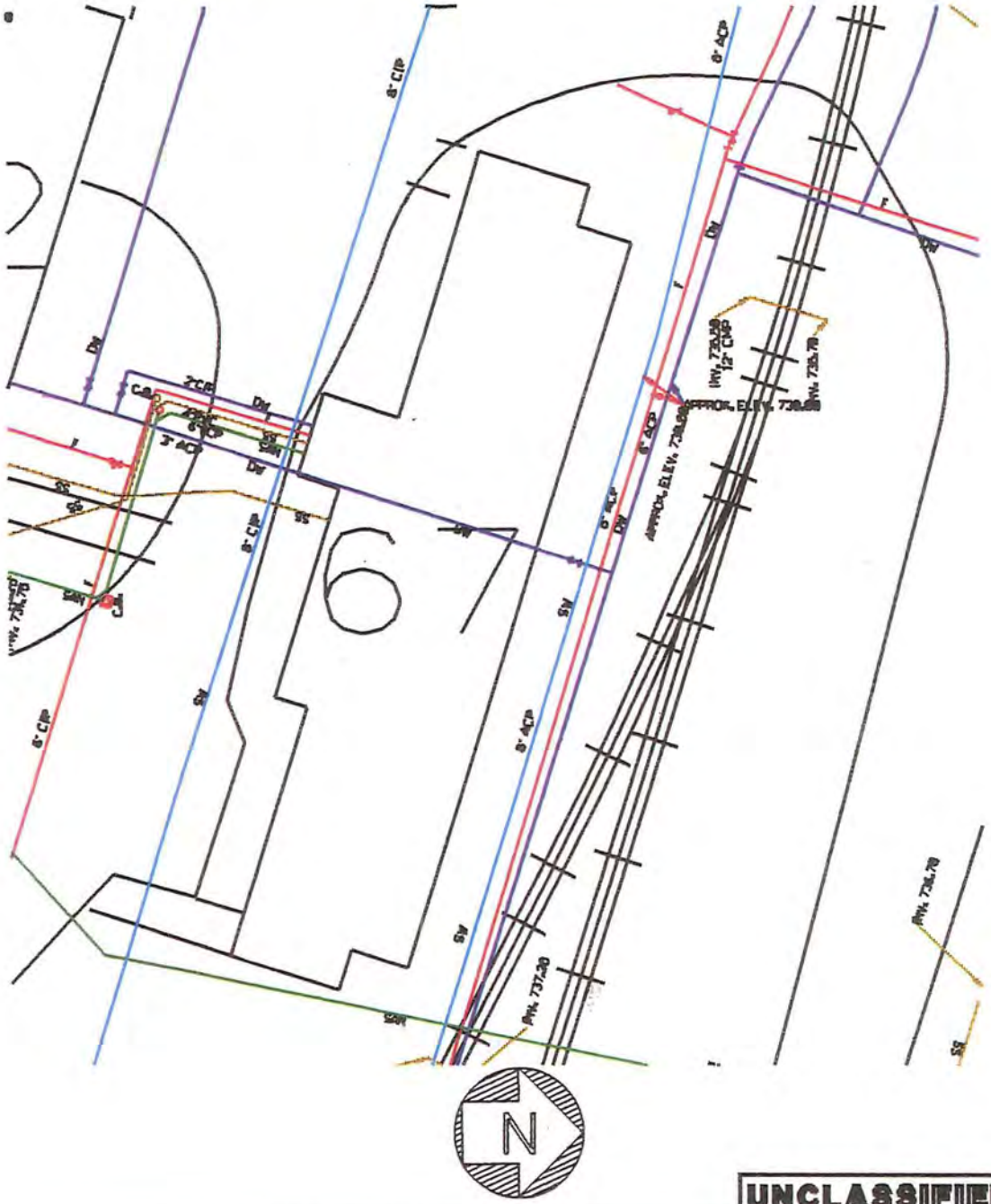
9.84.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 67

DATE: 2/29/96

9.84-65

9.84.6.6 Photographs

Mound Plant Building 67