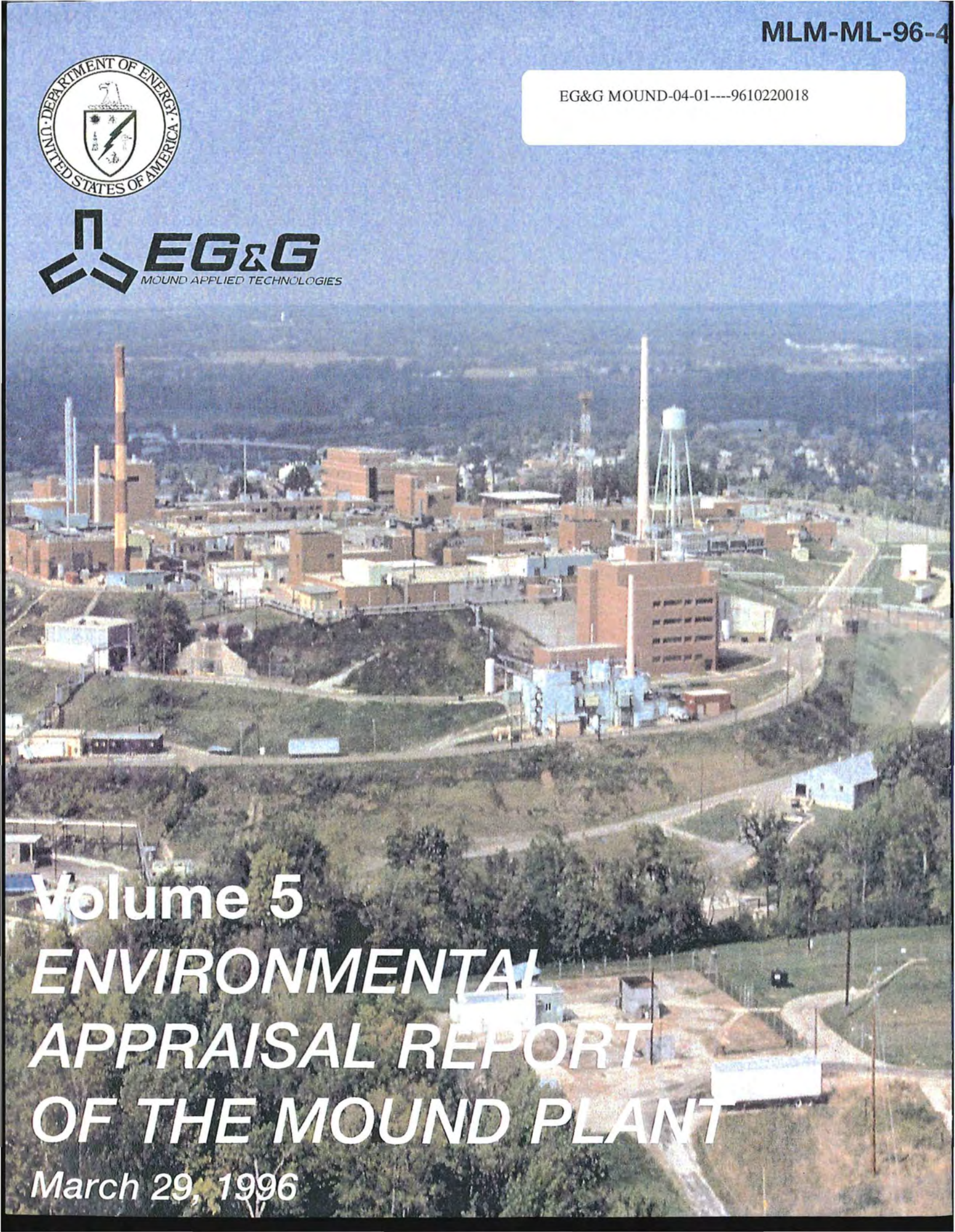
MLM-ML-96-4

EG&G MOUND-04-01----9610220018

EG&G
MOUND APPLIED TECHNOLOGIES



Volume 5
ENVIRONMENTAL APPRAISAL REPORT OF THE MOUND PLANT

March 29, 1996

MLM-ML-96-43-0001

ENVIRONMENTAL APPRAISAL REPORT OF THE MOUND PLANT

Volume 5

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Environmental Appraisal of the Mound Plant

Report Layout

Section	Title	Volume
1.0	EXECUTIVE SUMMARY	1
2.0	SCOPE OF REPORT	1
3.0	HISTORY OF THE MOUND PLANT	1
4.0	CURRENT STATUS OF THE MOUND PLANT	1
5.0	APPRAISAL METHODOLOGY	1
6.0	SITEWIDE OVERVIEW	1
7.0	REFERENCES	1
8.0	EXHIBITS	1
9.0	BUILDING APPRAISALS (A, B, C, COS, DS, E/E Annex, G (Garage), GH, GIS, GP-1)	2
	BUILDING APPRAISALS (GP-5, GP-8, GP-44, GW, H, HH, I, M, Modular 4, OSE)	3
	BUILDING APPRAISALS (OSW, P, PH, PS, R, SD, SM, SST, SW, T)	4
	BUILDING APPRAISALS (W, WD/WDA, WH-1, WH-2, WH-3, 1, 2, 3, 13, 14, 16, 17, 19, 21, 22)	5
	BUILDING APPRAISALS (23, 24, 25, 26, 27, 28, 29, 30, 31, 31-A, 33, 34, 35, 36)	6
	BUILDING APPRAISALS (37, 38, 39, 40, 42, 43, 44, 45, 46, 47)	7
	BUILDING APPRAISALS (48, 49, 50, 51, 55, 56, 57, 58, 59, 60, 61, 63-E/63-W, 65, 66, 67)	8
	BUILDING APPRAISALS (68, 69, 70, 71, 72, 73, 74, 79, 85, 87, 88, 89, 90, 91, 92)	9
	BUILDING APPRAISALS (93, 94, 95, 96, 98, 99, 100, 101, 102, 104, 105, 106, 112, 113, 120)	10
	BUILDING APPRAISALS (Generator 1, 6; Magazines 5, 6, 7, 8, 10, 11, 20, 52, 53, 54, 64, 80, 81, 82, 83, 84)	11
10.0	APPENDIX I (Unclassified Controlled Nuclear Information (UCNI))	12

Environmental Appraisal of the Mound Plant
Table of Contents for Volume 5

Section	Title	Page
9.0	**BUILDING APPRAISALS**	
9.31	**Building W**	**9.31-1**
9.31.1	Scope of Building W Report	9.31-1
9.31.2	Description of Building W	9.31-1
9.31.3	Summary of Findings	9.31-1
9.31.4	Observations	9.31-2
9.31.5	Findings and Recommendations	9.31-5
9.31.6	Attachments	9.31-7
9.32	**Building WD/WDA**	**9.32-1**
9.32.1	Scope of Building WD/WDA Report	9.32-1
9.32.2	Description of Building WD/WDA	9.32-1
9.32.3	Summary of Findings	9.32-2
9.32.4	Observations	9.32-2
9.32.5	Findings and Recommendations	9.32-8
9.32.6	Attachments	9.32-11
9.33	**Building WH-1**	**9.33-1**
9.33.1	Scope of Building WH-1 Report	9.33-1
9.33.2	Description of Building WH-1	9.33-1
9.33.3	Summary of Findings	9.33-1
9.33.4	Observations	9.33-1
9.33.5	Findings and Recommendations	9.33-3
9.33.6	Attachments	9.33-5
9.34	**Building WH-2**	**9.34-1**
9.34.1	Scope of Building WH-2 Report	9.34-1
9.34.2	Description of Building WH-2	9.34-1
9.34.3	Summary of Findings	9.34-1
9.34.4	Observations	9.34-1
9.34.5	Findings and Recommendations	9.34-3
9.34.6	Attachments	9.34-5
9.35	**Building WH-3**	**9.35-1**
9.35.1	Scope of Building WH-3 Report	9.35-1
9.35.2	Description of Building WH-3	9.35-1
9.35.3	Summary of Findings	9.35-1
9.35.4	Observations	9.35-2
9.35.5	Findings and Recommendations	9.35-3
9.35.6	Attachments	9.35-5

Environmental Appraisal of the Mound Plant
Table of Contents for Volume 5

(Continued)

			Page
9.36	**Building 1**		**9.36-1**
	9.36.1	Scope of Building 1 Report	9.36-1
	9.36.2	Description of Building 1	9.36-1
	9.36.3	Summary of Findings	9.36-1
	9.36.4	Observations	9.36-1
	9.36.5	Findings and Recommendations	9.36-4
	9.36.6	Attachments	9.36-5
9.37	**Building 2**		**9.37-1**
	9.37.1	Scope of Building 2 Report	9.37-1
	9.37.2	Description of Building 2	9.37-1
	9.37.3	Summary of Findings	9.37-1
	9.37.4	Observations	9.37-2
	9.37.5	Findings and Recommendations	9.37-4
	9.37.6	Attachments	9.37-7
9.38	**Building 3**		**9.38-1**
	9.38.1	Scope of Building 3 Report	9.38-1
	9.38.2	Description of Building 3	9.38.1
	9.38.3	Summary of Findings	9.38.1
	9.38.4	Attachments	9.38-3
9.39	**Building 13**		**9.39-1**
	9.39.1	Scope of Building 13 Report	9.39-1
	9.39.2	Description of Building 13	9.39-1
	9.39.3	Summary of Findings	9.39-1
	9.39.4	Observations	9.39-1
	9.39.5	Findings and Recommendations	9.39-3
	9.39.6	Attachments	9.39-5
9.40	**Building 14**		**9.40-1**
	9.40.1	Scope of Building 14 Report	9.40-1
	9.40.2	Description of Building 14	9.40.1
	9.40.3	Summary of Findings	9.40.1
	9.40.4	Attachment	9.40-3
9.41	**Building 16**		**9.41-1**
	9.41.1	Scope of Building 16 Report	9.41-1
	9.41.2	Description of Building 16	9.41.1
	9.41.3	Summary of Findings	9.41.1
	9.41.4	Attachment	9.41-3

Environmental Appraisal of the Mound Plant
Table of Contents for Volume 5

(Continued)

			Page
9.42	**Building 17**		**9.42-1**
	9.42.1	Scope of Building 17 Report	9.42-1
	9.42.2	Description of Building 17	9.42.1
	9.42.3	Summary of Findings	9.42.1
	9.42.4	Attachment	9.42-3
9.43	**Building 19**		**9.43-1**
	9.43.1	Scope of Building 19 Report	9.43-1
	9.43.2	Description of Building 19	9.43-1
	9.43.3	Summary of Findings	9.43-1
	9.43.4	Observations	9.43-2
	9.43.5	Findings and Recommendations	9.43-5
	9.43.6	Attachments	9.43-7
9.44	**Building 21**		**9.44-1**
	9.44.1	Scope of Building 21 Report	9.44-1
	9.44.2	Description of Building 21	9.44-1
	9.44.3	Summary of Findings	9.44-1
	9.44.4	Attachments	9.44-3
9.45	**Building 22**		**9.45-1**
	9.45.1	Scope of Building 22 Report	9.45-1
	9.45.2	Description of Building 22	9.45-1
	9.45.3	Summary of Findings	9.45-1
	9.45.4	Observations	9.45-2
	9.45.5	Findings and Recommendations	9.45-5
	9.45.6	Attachments	9.45-7

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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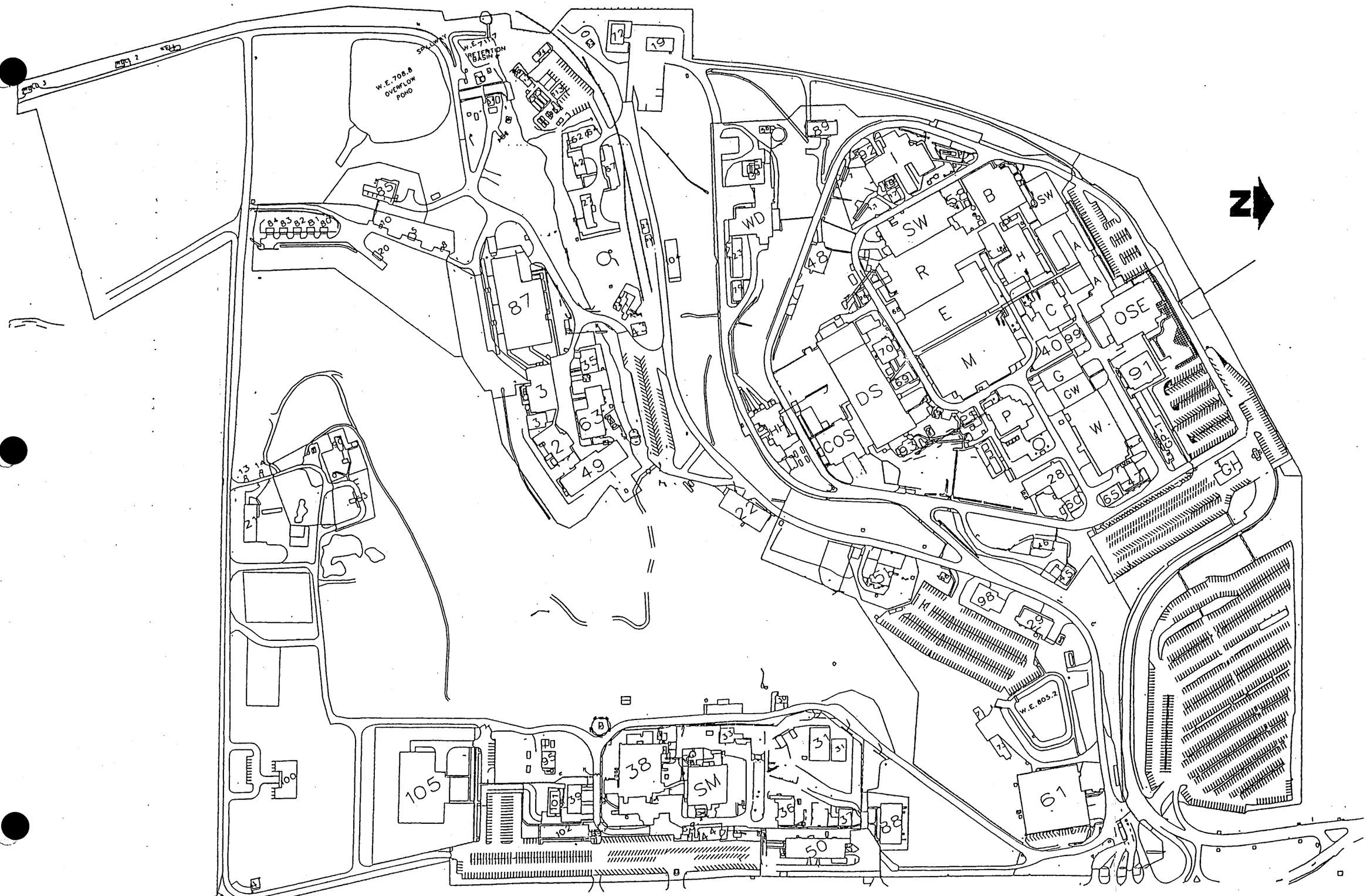

BUILDING LOCATION MAP

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9.31 BUILDING W

9.31.1 Scope of Building 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 performed a walk-through of Building W on February 21, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.31.6.1). The appraisers were accompanied by the building manager and other knowledgeable personnel such as the process owner. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.31.6.2).

9.31.2 Description of Building W

Building W is a two-story 32,484 square feet reinforced concrete building with brick facing and a built-up membrane roof. Its location is shown in Attachment 3 (Section 9.31.6.3). The building is bordered by Building P to the south, Building 47 to the east, Building G to the west and Building 91 to the north. Floor plans for the building are presented in Attachment 4 (Section 9.31.6.4). Offices are located on the first and second floors. The first floor consists of the following trade shops: carpenter, sheet metal/mechanic, pipefitter/welding, electrical and heating, ventilation and air conditioning, and a tool crib. Lavatories are located on both floors. The building is serviced with central steam, chilled water, and electrical service. The building has a fire sprinkler system *(Mound Physical Facility Characterization*, 12-1-93).

Building W was constructed in 1948. The building contains asbestos in the thermal insulation and building materials (MD-10391, *Asbestos Program Manual*, 9-14-95). The building is not contaminated with radioactive or energetic materials *(Mound Physical Facility Characterization*, 12-1-93).

9.31.3 Summary of Findings

Building W contains office areas and trade shops. The building is well-maintained, but has several issues of environmental concern that were identified during the walk-through or review of reference materials.

9.31.4 Observations

9.31.4.1 Air Emissions

The air emission sources are identified on the EAC in Attachment 2 (Section 9.31.6.2). Emissions from the sandblaster, the carpentry shop, and the recirculating parts cleaner should be evaluated to determine if an air permit application should be submitted. If an application does not have to be submitted, the determination should be documented.

There is an existing air permit for the building (No. 0857091196P011). Most of the terms and conditions of the permit are being followed. Chemical usage is being documented. However in Room 117, and for pump maintenance, alcohol, mineral spirits, and pump oil are used in addition to the chemicals specified in the permit application. In accordance with the permit, the Regional Air Pollution Control Agency (RAPCA) should be notified of the usage of these additional chemicals.

There are no fuel-burning units in the building. Fugitive dust emissions were not evident. Sawdust from the carpentry shop is swept into exhaust vents or exhausted directly from the woodworking equipment to an outside filter; the sawdust captured by the filter is forced from the filter into waste boxes.

9.31.4.2 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.

9.31.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.31.6.5), 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 W does not deviate from that expected by the sanitary treatment plant manager.

9.31.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to the underground diagram located in Attachment 5 (Section 9.31.6.5). 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.

9.31.4.2.3 Chemicals

Construction trade materials and janitorial supplies are stored and used in Building W. A list of chemicals found in Building W 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 in the BMQ were reviewed to assure conformance to regulations related to 40 CFR 122, 40 CFR 261-265, 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. The list is included in Attachment 2 (Section 9.31.6.2), the BMQ. Chemical storage and handling procedures are in place for proper disposal of chemicals. There is no evidence that chemicals enter the storm or sanitary drains. There have been no reported spills from Building W.

9.31.4.3 Potable and Service Water

Potable water is supplied to the building. There are five water fountains located in the building. The water fountains sources are identified on the EAC in Attachment 1 (Section 9.31.6.1). 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.

9.31.4.4 Chemical Storage and Hazardous Materials

Chemicals used in construction trades and janitorial services are stored in Building W. There are flammable storage cabinets inside and outside the facility which meet standard National Fire Protection Agency (NFPA) requirements. Some chemicals in the flammable storage cabinets appear to be unused and/or outdated. Nonflammable chemicals are stored in the cabinets designated for flammable chemicals. Several products such as Micro-cleaner and Magnaflux

contain 1,1,1-trichloroethane. Oxygen, acetylene and other compressed gases listed in the BMQ are used and properly stored and maintained. Material Safety Data Sheets (MSDS's) are available in the building, and are prominently displayed and readily accessible to employees. Some MSDS's were not current and MSDS's from different manufacturer's other than the manufacturer on the label were in use.

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

The building was tested and does contain asbestos-containing building 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 (1995 PCB Annual Document Log).

9.31.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated are primarily paper. There is metal, paper and glass recycling to minimize solid waste. Solid wastes, i.e., trash, paper, glass, and cardboard are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill or recycling center by a contractor. Scrap metal is collected at specific sites, then sent offsite for recycling by a contractor. Lead-acid batteries are recycled by a contractor. 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.

Some materials required for the construction trades and janitorial services are stored in Building W. If partially used containers of these materials need to be disposed of, Waste Management is contacted. Some cutting oils and aerosols used in the shops contain 1,1,1-trichloroethane and methylene chloride. Small quantities are sprayed on to either remain on the metal or are wiped off with rags. The rags are thrown into the trash. Further investigation into the disposal of the rags should be performed.

Hazardous wastes generated by the processes are stored in a satellite accumulation area (SAA) located inside the building near to and within eye contact of the work area. The SAA procedures and appearance conform to the Resource Conservation and Recovery Act (RCRA) requirements. Wastes are collected and transported by a representative of the EG&G Waste Management Group, and are stored in Building 72 for ultimate disposal. There is no onsite treatment of waste. Hazardous wastes are disposed of under a contract. Waste disposal manifests and Certificates

of Disposal are maintained by the EG&G Waste Management Group. They conform to RCRA requirements.

9.31.4.6 Waste Minimization and Pollution Prevention

At Mound, there is an active program to minimize waste streams, in accordance with state and federal requirements and Executive Order 12856. Programs for waste minimization in place including aluminum can and paper recycling, scrap metal recycling, and selling scrap wood. 1,1,1-trichloroethane, the ozone-depleting compound could also be evaluated for nonessential use. A large supply of common compressed gas cylinders, including oxygen, acetylene, and argon, etc., could be evaluated to determine the feasibility of reduction of use.

Evaluation of Findings and Recommendations

The environmental appraisal of Building W 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 to document environmental appraisal activities. They are included as Attachment 6 (Section 9.31.6.6).

W-1 Notify RAPCA of additional chemical usage if usage is planned to continue.

W-2 Disposal practices of cleaning rags needs to be reviewed. Some of the materials include trichloroethane and methylene chloride. This waste stream should be stored and disposed of in accordance with OAC 3745-52-11, OAC 3745-52-34 (c), and OAC 3745-59.

W-3 Evaluate air sources that are not permitted and document *de minimis* determinations in accordance with OAC 3745-15.

W-4 MSDS displays should be updated to include only materials that are currently in the building along with current manufacturers.

W-5 Evaluate the chemical inventory and remove chemicals not in use or outdated as waste in accordance with 40 CFR 261-265,268.

W-6 Evaluate the flammable chemical storage cabinets to determine chemical compatibility.

W-7 Evaluate gas cylinders for reduction in use.

W-8 Restrict the use of products containing 1,1,1-trichloroethane, an ozone-depleting chemical.

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Environmental Appraisal of the Mound Plant

9.31.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name W

Appraisers:

Name Discipline

Name Discipline

Name Discipline

Name Discipline

Building Manager: JEFFREY L. BOSTON

Process Manager: JEFFREY M BAVER

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: W

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

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	SANITARY AND 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	 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 ONLY IN BUILDING

9.31-11

9.31-12

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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: W

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

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 #/h
PLASMA TORCH	131	REMOVED	Y/N	Y/N	N/A				
PIPE CLEANING	135	W135 0001 " 2 3 (CANNOT SEPARATE hood)	Y/N	Y/N	MICRO OIL METALS	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	0.42 TRACE TRACE
PARTS CLEANER	135	W135 0004	Y/N	Y/N	MICRO OIL METALS	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TRACE TRACE
SANDBLASTER	125	N/A	Y/N	Y/N	SAND	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
CARPENTRY SHOP	121	N/A	Y/N	Y/N	WOOD	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED

Source: JEFFREY M. BAVER

9.31-13

CONT'D

9.31-14

Environmental Appraisal Checklist

Building Name: W

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

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 #/h
BATTERY MAINTENANCE	136	W136.0001	(Y)/N	(Y)/N	SULFUR ACID	TO BE DETERMINED	TO BE DETERMINED	12	0.057
* RECIRCULATING PARTS CLEANER	124	N/A	Y/(N)	(Y)/N	UNOCAL MINERAL SPIRITS (NAPTHA)	~ϕ	ϕ	<10	ϕ
			Y/N	Y/N					
			Y/N	Y/N					
			Y/N	Y/N					

* THIS UNIT HAS NOT BEEN IN USE FOR A COUPLE OF YEARS

Source: JEFFREY M BAVER

Environmental Appraisal Checklist

Building Name: W

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

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 #/h
PUMP MAINTENANCE	117	W1170001	(Y)/N	(Y)/N	WD-40 1,1,1,-TCA. VACUUM OIL MINERAL SPIRITS ALCOHOL	TO BE DETERMINED	TO BE DETERMINED	~10-20	0.0114 0.0385
SOLDERING STATION	125	REMOVED	(Y)/N	Y/(N)	N/A				
WELDING STATION	130	W1300001	Y/(N)	(Y)/N	SILVER SOLDER SOLDER FLUX	NEGLIGBLE	TO BE DETERMINED	TO BE DETERMINED	0 0
WELDING STATION	130	W1300002	Y/(N)	(Y)/N	ARC WELD ROD MIG " " TIG " "	NEGLIGBLE	TO BE DETERMINED	TO BE DETERMINED	0 0 0
WELDING STATION	130	W1300003 4 5 6 7	(Y)/N	(Y)/N	ISOPROPANOL TIG ACETYLENE OXYGEN	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED	0.006

Source: JEFFREY M. BAVER

9.31-15

CONT'D

9.31-16

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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	EXCELLENT MSDS MAINTENANCE
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	WELL-MAINTAINED GOOD STORAGE - SEE PHOTO UNOBSTRUCTED AISLES GOOD SHOP
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)	SOME INCOMPATIBLES STORED TOGETHER
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: W

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

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	ROOM 101
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	(Y) / N	TESTED ON QUARTERLY BASIS BY Pipefitters
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	GAS STORAGE AREA 73
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	PHOTO TAKEN
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	PHOTO TAKEN
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	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	STANDARD RANTRAN

9.31-17

9.31-18

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

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

Source: _____

Environmental Appraisal Checklist

Building Name: W

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

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	SEE BELOW

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
W	110	FGDF 710-10-1	ELKAY
W	124	EHFS-8-1	ELKAY
W	136	FGDF 710-10-1	ELKAY
W	202	ESRC-13-1	ELKAY

Source: _____

9.31-19

9.31-20

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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?	(Y) / N	
	Was charactarization by analysis or by process knowledge?	(analysis / process)	
	Are lab results or documentation of process knowledge readily available?	Y / N	N/A
	Note any uncharacterized material in comment section.		N/A
	Is it waste?	Y / N	
	If yes, proceed with next section.		
OAC 3745 52-11	Are any of the materials noted RCRA hazardous waste?	(Y) / N	
	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.		

Environmental Appraisal Checklist

Building Name: W

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

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?	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	

9.31-21

9.31-22

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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: W

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

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	NO
	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	

9.31-23

9.31-24

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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: W

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

Date: 2/21/96

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	inspection & analysis
	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	

9.31-25

9.31-26

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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: W

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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	
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	

9.31-27

9.31-28

Environmental Appraisal Checklist

Building Name: W

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Date: 2/21/96

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: W

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

Date: 2/21/96

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	TRITIUM IS CONTAINED IN THE EXIT SIGNS AND THE OLD SMOKE DETECTORS HAVE SMALL AMOUNTS OF RADIOACTIVITY - .008 CURIE (PROCESS KNOWLEDGE)
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	LABELLED AS SUCH OLD TRITIUM EXIT SIGNS ARE RETURNED TO MANUFACTURER FOR RECYCLING
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	N/A
	Is the waste stored in a configuration that protects ground-water resources?	Y / N	N/A
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	N/A
	Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y / N	N/A

9.31-29

9.31-30

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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?	_____	mfgr. label
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: W

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

Date: 2/21/96

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	

9.31-31

9.31-32

Environmental Appraisal Checklist

Building Name: W

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Date: 2/21/96

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: W

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Date: 2/21/96

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

9.31-33

9.31-34

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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	1, 1, 1, TCA HAS TCE ON INVENTORY . NONE OBSERVED IN SHOP
	Are there solvent wastes?	Y / N	SOLVENT - MINERAL SPIRITS
	Is vehicle maintenance performed?	Y / N	
	Are oils used ?	Y / N	VACUUM PUMP OIL, CUTTING FLUID
	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: W

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

Date: 2/21/96

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	SOME HCL AND H_2SO_4 USED FOR PH ADJUSTMENT FOR BATTERY MAINTENANCE

9.31-35

9.31-36

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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: W

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

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	AGAINST A METAL BREAK FOR SHEET METAL FORMING
	Oil soaked rags laundered?	Y / (N)	
	Rags and absorbants used to their limit?	Y / N	N/A

9.31-37

9.31-38

Environmental Appraisal Checklist

Building Name: W

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

Date: 2/21/96

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: W

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

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	
	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	COULD BE REEVALUATED
	How long is solvent waste stored and where?	_____	STORED IN CABINETS UNTIL USED UP

9.31-39

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9.31.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: W Building Manager: J.L. Boston 3262 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?

Safety Glasses

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

4. Provide a physical description of the building.

This two-story building contains 32,484 ft^2 and includes a high-bay area. The structure is concrete block with brick facing, with a BUM roof (coal tar, carboline, asphalt, and metal). HVAC systems are central steam and chilled water. Building is not contaminated with any radioactive or energetic materials.

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Building houses trade shops and offices. Shops include: mechanical, sheet metal, carpenters, pipefitter/welder, and electrical.

Source: Mound Buildings, 5-9-95

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

Warehouse

Source: Mound Buildings, 5-9-95

9.31-43

Building Manager's Questionnaire

Building Name: W 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: Trade shops (carpenter, electrical, machine, welding, pipefitting, etc.), offices

How Wastes Are Generated:

Some materials required for the construction trades are stored in Building W. If a partially used container of one of these materials needed to be disposed of, Waste Management would be called.

In the past, acid was used to clean pipes. Now pipes are cleaned with "Micro" solution which is non-toxic.

Some cutting oils are used in the Fabrication Mechanics Shop. They are sprayed on in small quantities and either remain on the metal or are wiped off with paper. The paper goes in trash.

Residues of hardened adhesives used in the carpenter shop are put in the trash.

Small amounts of acid are kept in the electrical shop to top off batteries, but no wastes are generated.

Contact:
Phone #:

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

9.31-44

Building Manager's Questionnaire

Building Name: W 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? Yes

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
W-BD-EF-E	117	W1170001	Y	WD-40 1,1,1-tri-chloroethane	0.0114 1.54		0.456 1.54	
W-BD-EF-1	125	W1250001	Y	lead tin hydrochloric acid	0.0214 0.0087 0.0392		0.2568 0.1044 0.4704	
W-BD-EF-1	130	W1300003	Y	isopropanol	0.0018		0.7488	
W-BD-EF-1	130	W1300004	Y	isopropanol	0.0018		0.7488	
W-BD-EF-1	130	W1300005	Y	isopropanol	0.006		7.488	
W-BD-EF-1	130	W1300006	Y	isopropanol	0.006		7.488	
W-BD-EF-1	130	W1300007	Y	isopropanol	0.006		7.488	
W-BD-EF-1	131	W1310001	Y	acetylene	3		36	
W-BD-EF-B	135	W1310001, 2,3	Y	MICRO	0.42		420	
W-BD-EF-C	136	W1360001	Y	sulfuric acid	0.057		0.684	

Source: _____

9.31-45

Building Manager's Questionnaire

Building Name: W 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.

Process Source	Emissions	Control Equipment	Functioning
Hoods: 1, B, C, D, E		None	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
Hoods: 1, B, C, D, E	857091196P011	Y / N	Notify RAPCA of proposed usage increase more than 25% for process constituents and new substances.
		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? SEE Floor Plan

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

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

9.31-46

Building Manager's Questionnaire

Building Name: W 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)
Attached		

Source: Chemical Inventory 1994

9.31-47

Building Manager's Questionnaire

Building Name: 25 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? 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: _____

9.31-48

HEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
IOBART NICKEL CAST ELECTRODES	HOBART BROTHERS CO., TROY, OHIO	10	(L	100	(L	1	(L	W	SHOP	MS	F	1	4	CLAWSON
IOBART RUTILE COATED (TITANIA)	HOBART BROTHERS CO., TROY,	10	(L	300	(L	1	(L	W	SHOP	MS	F	1	4	CLAWSON
IOBART SMAW CARBON STEEL	HOBART BROTHERS CO., TROY, OHIO	50	(L	250	(L	5	(L	W	SHOP	MS	F	1	4	CLAWSON
IOBART SMAW HARDSURFACING:BUILD-UP	HOBART BROTHERS CO., TROY, OHIO	50	(L	250	(L	5	(L	W	SHOP	MS	F	1	4	CLAWSON
IOBART SMAW LOW HYDROGEN CARBON	HOBART BROTHERS, CO., TROY, OHIO	50	(L	250	(L	5	(L	W	SHOP	MS	F	1	4	CLAWSON
IOBART SMAW LOW HYDROGEN, LOW	HOBART BROTHERS,CO., TROY OHIO	50	(L	250	(L	5	(L	W	SHOP	MS	F	1	4	CLAWSON
IYDROGEN	AIR PRODUCTS AND CHEMICLS, INC.,	1500	(C	1500	(C	5	(C	W	SHOP	PG	L	2	4	CLAWSON
INDEST KARE HAND SOAP	CALGON VESTAL LABORATORIES, ST.	12	(O	48	(O	0.5	(O	W	SHOP	ML	N	1	4	CLAWSON
IQUID PLUMBER	THE CLOROX COMPANY, PLEASANTON,	1	(G	15	(G	0.5	(G	W	SHOP	ML	N	1	4	CLAWSON
IQUID PLUMBER PROFESSIONAL	THE CLOROX COMPANY, PLEASANTON,	1	(G	15	(G	0.5	(G	W	SHOP	ML	N	1	4	CLAWSON
IQUID WRENCH NO. 1 PENETRANT	RADIATOR SPECIALTY COMPANY	12	(O	144	(O	1	(O	W	SHOP	ML	F	1	4	CLAWSON
IICRO	INTERNATIONAL PRODUCTS CORP.,	1	(G	10	(G	0.5	(G	W	SHOP	ML	N	1	4	CLAWSON
IIDACO CRYSTAL CLEAR VISOR CLEANER	MIDACO CORP., ELK GROVE VILLAGE, IL	12	(O	12	(O	0.1	(O	W	SHOP	ML	L	2	4	CLAWSON
IILLER WELDING SYSTEM COOLANT		1	(G	10	(G	0.5	(G	W	SHOP				4	CLAWSON
IOBIL 1, 15 W 50 SYN. OIL	MOBIL OIL CORP., FAIRFAX, VA 22037	5	(G	5	(G	5	(G	W	SHOP	ML	F	1	4	CLAWSON
IORTITE NO-DRIP PLASTIC COATING	MORTITE, INC., KANKAKEE, IL 60901-0431	1	(L	5	(L	0.5	(L	W	SHOP	MS	R	1	4	CLAWSON
IORTITE NO-DRIP TAPE	MORTITE, INC., KANKAKEE, IL 60901-0431	1	(L	15	(L	0.5	(L	W	SHOP	MS	R	1	4	CLAWSON
IURIATIC ACID	HERBERT-VERKAMP-CALVERT	1	(G	5	(G	0.1	(G	W	SHOP	ML	N	1	4	CLAWSON
ASCO HEAT FENCE		12	(O	24	(O	0.5	(O	W	SHOP				4	CLAWSON
EV-SZ-REG	BOSTIK, MIDDLETON, MA 01949	0	(G	0	(G	0	(G	W	SHOP	ML	F	1	4	CLAWSON
IKAL ANTI SEIZE LUBRICANT		12	(O	48	(O	0.1	(O	W	SHOP				4	CLAWSON
ITROGEN	AIR PRODUCTS AND CHEMICAL, INC.,	1500	(C	35000	(C	5	(C	W	SHOP	PG	L	2	4	CLAWSON
ATEY NO. 5 FLUX	OATEY CO., CLEVELAND, OH 44135	7	(O	70	(O	0.1	(O	W	SHOP	ML	F	1	4	CLAWSON
ATEY PVC CEMENT	OATEY CO., CLEVELAND OH 44135	12	(O	72	(O	0.5	(O	W	SHOP	ML	F	1	4	CLAWSON
ATEY PVC CLEANER	OATEY CO., CLEVELAND, OH 44135	12	(O	72	(O	0.2	(O	W	SHOP	ML	F	1	4	CLAWSON
DORBUSTER FRAGRANCE, REFILL	TOKAI CORP., JAPAN	4	(O	12	(O	48	(O	W	SHOP	ML	R	1	4	CLAWSON
XYGEN	AIR PRODUCTS AND CHEMICALS INC.,	1500	(C	35000	(C	5	(C	W	SHOP	PG	L	2	4	CLAWSON
.S.T. PIPE SEALANT		12	(O	144	(O	0.1	(O	W	SHOP				4	CLAWSON
ROPANE	MATHESON GAS PRODUCTS,	20	(C	350	(C	0.5	(C	W	SHOP	MG	L	2	4	CLAWSON
UMMEL SKIN CLEANER	STATE CHEMICAL MANUFACTURING	24	(O	144	(O	0.1	(O	W	SHOP	ML	N	1	4	CLAWSON
UICK METAL LOCTITE	LOCTITE CORP., FAIRFAX, VA 22037	6	(O	18	(O	30	(O	W	SHOP	ML	R	1	4	CLAWSON
ECTORSEAL NO. 2	RECTORSEAL CORP., HOUSTON, TX	12	(O	48	(O	1	(O	W	SHOP	ML		1	4	CLAWSON
ECTORSEAL NO. 5	THE RECTORSEAL CORP., HOUSTON,	12	(O	48	(O	1	(O	W	SHOP	ML		1	4	CLAWSON
EZ-N-BOND #1	SCHWARTZ CHEMICAL CO., INC., LONG	1	(G	3	(G	0.1	(G	W	SHOP	ML	F	1	4	CLAWSON
UBY FLUID SOLDERING FLUX	RUBY CHEMICAL CO., COLUMBUS, OHIO	12	(O	48	(O	0.1	(O	W	SHOP	ML		1	4	CLAWSON
ERPIFLEX SHIELD	INTERNATIONAL PROTECTIVE	1	(O	5	(G	0.1	(G	W	SHOP	ML	F	1	4	CLAWSON
ERPILOC	INTERNATIONAL PROTECTIVE	1	(O	5	(G	0.1	(G	W	SHOP	ML	F	1	4	CLAWSON
ERPIMASTIC	INTERNATIONAL COATINGS CORP.,	1	(O	5	(G	0.1	(G	W	SHOP	ML	F	1	4	CLAWSON
ILICONE RUBBER SEAL RTV 102	GENERAL ELECTRIC CO.,	12	(O	144	(O	0.1	(O	W	SHOP	ML	R	1	4	CLAWSON
ILICONE RUBBER SEAL RTV 102-5PI	GENERAL ELECTRIC CO., WATERFORD,	12	(O	144	(O	0.1	(O	W	SHOP	ML	R	1	4	CLAWSON
ILICONE RUBBER SEAL RTV 108	GENERAL ELECTRIC CO.,	12	(O	144	(O	0.1	(0	W	SHOP	ML	R	1	4	CLAWSON
ILICONE RUBBER SEAL RTV 108-5PI	GENERAL ELECTRIC CO., WATERFORD,	12	(O	144	(O	0.1	(O	W	SHOP	ML	R	1	4	CLAWSON
ILICONE SPRAY	IMS COMPANY, CHAGRIN FALLS, OH	12	(O	144	(O	0.1	(O	W	SHOP	ML	L	2	4	CLAWSON
KC-NF/ZC-7 (AERO	MAGNAFLUX CORP., CHICAGO, IL. 60656	12		144	(O	0.1	(O	W	SHOP	ML	L	2		CLAWSON
KD-NF/ZP9B DEV ER (AEROSOL)	MAGNAFLUX CORP., CHICAGO, IL. 60656	12		144	(O	0.1	(O	W	SHOP	ML	L	2		CLAWSON
KL-HF/S SPOTCHECK PENETRANT	MAGNAFLUX CORP., CHICAGO,IL. 60656	12	(O	144	(O	0.1	(O	W	SHOP	ML	L	2	4	CLAWSON

9.31-49

PCZ

NV

1,1-TRICHLORETHANE SOLVENT MS-170	MILLER-STEPHENSON CHEM. CO.,	12	(O	24	(O	16	(O	W	ML	L	2	4	WEIMER
AKING SODA	ARM & HAMMER (CHURCH & DWIGHT	1		12	(L	4	(O	W	MS	K	1		WEIMER
ATTERY ACID, SULFU ACID-UN2796	COLONIAL CHEMICAL CO.,	5	(G	10	(G	20	(O	W	ML	N	1	4	WEIMER
ATTERY TERMINAL CLEANER AND	CRC CHEMICALS, WARMINSTER, PA	60	(O	720	(O	12	(O	W	ML	L	2	4	WEIMER
UTANE GAS	BLAZER CORP., NEW YORK, NY	5	(C	25	(C	1	(C	W	PG	L	2	4	WEIMER
ELVACENE HIGH VAC. GREASE	CVC PRODUCTS, INC., ROCHESTER, NY	2	(L	5	(L	5	(O	W	MS		1	4	WEIMER
HESTERTON CUTTING OIL 390	A.W. CHESTERTON COMPANY,	60	(O	720	(O	12	(O	W	ML	L	2	4	WEIMER
LEAR URETHANE SEAL COAT	CRC CHEMICALS, WARMINISTER, PA	12	(O	60	(O	12	(O	W	ML	L	2	4	WEIMER
OOL-AMP SILVER PLATING POWDER	COOL-AMP CONDUCTO-LUBE CO.,	1	(L	5	(L	4	(O	W	MS		1	4	WEIMER
OOL-TOOL II CUTTING & TAPPING FLUID	MONROE FLUID TECHNOLOGY, HILTON,	12	(O	60	(O	2	(O	W	ML	F	1	4	WEIMER
E-OX-ID ELECTRICAL CONTACT CLEANER	GC ELECTRONICS, ROCKFORD, IL 61101	12	(O	144	(O	12	(O	W	ML	L	2	4	WEIMER
YNA-BLUE CABLE LUBRICANT	AMERICAN POLYWATER CORP.,	5	(G	10	(G	1	(G	W	ML	N	1	4	WEIMER
.ECTRICAL CONTACT CLEANER, AEROSOL	CALGON VESTAL LABORATORIES, ST.	12	(O	144	(O	12	(O	W	ML	L	2	4	WEIMER
.ECTROLYTE 2X	ENGELHARD CORP., NEWARK, NJ 07029	5	(G	10	(G	1	(G	W	ML		1	4	WEIMER
.ECTRONIC COMPONENTS CLEANER	SEA COAST IND. CHEMICAL,	16	(O	160	(O	16	(O	W				4	WEIMER
NFORCER WASP AND HORNET KILLER	ENFORCER PRODUCTS, INC.,	16	(O	160	(O	16	(O	W	ML	L	2	4	WEIMER
ERRI-FLOC	TENNESSEE CHEMICAL COMPANY,	5	(L	10	(L	5	(O	W	MS		1	4	WEIMER
RE BARRIER CAULK CP-25	3M COMPANY,	32	(O	320	(O	16	(O	W	ML	R	1	4	WEIMER
OG PRUF LENS SOLUTION	MINE SAFETY APPLIANCE CO.,	4	(O	12	(O	0	(O	W	ML	N	1	4	WEIMER
RAPHITE POWDER, FIBERS	ALFA PRODUCTS, DANVERS, MA 01923	16	(O	32	(O	1	(O	W	PS	F	1	4	WEIMER
RAY PAINT, MRO	SEYMOUR OF SYCAMORE, INC.,	16	(O	160	(O	16	(O	W	ML	L	2	4	WEIMER
AD FREE PLUMBING SOLDERS	J.W. HARRIS COMPANY, CINCINNATI, OH	5	(L	10	(L	1	(O	W	MS	R	1	4	WEIMER
MON FURNITURE POLISH	VARIOUS	16	(O	72	(O	1	(O	W	ML	L	2	4	WEIMER
QUID PAPER CORRECTION FLUID ALL	GILLETTE MEDICAL EVALUTION LAB.,	1	(O	4	(O	0	(O	W	ML	N	1	4	WEIMER
QUID PAPER PEN ANDINK CORRECTION	GILLETTE MEDICAL EVALUATION LAB.,	1	(O	4	(O	0	(O	W	ML	N	1	4	WEIMER
QUID WRENCH	RADIATOR SPECIALTY CO.,	16	(O	72	(O	1	(O	W	ML	L	2	4	WEIMER
OCK-EASE LE-5	AGS COMPANY, MUSKEGON HTS, MI	2	(O	10	(O	0	(O	W	ML	L	2	4	WEIMER
OCK-EASE NO. LE-4 & LE-18	AMERICAN GREASE STICK CO.,	2	(O	10	(O	0	(O	W	ML	F	1	4	WEIMER
UBRICANT J	AMERICAN POLYWATER CORP.,	2	(G	10	(G	1	(G	W	ML		1	4	WEIMER
ARKER BOARD CLEANER NO. 202	CHEMICAL PACKAGING CORP., NORTH	8	(O	16	(O	1	(O	W	ML	N	1	4	WEIMER
ARKER BOARD CLEANER NO. 404	CHEMICAL PACKAGING CORP., NORTH	8	(O	16	(O	1	(O	W	ML	N	1	4	WEIMER
ETAL WORKING OIL, GULF CUT 11D	GULF OIL, W ORO ,MASSACHUSETTS	2	(G	8	(G	1	(G	W	ML		1	4	WEIMER

9.31-50

CHEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	TOR	PRES	TMP	SUPER
NEATSFOOT OIL AND PETROLEUM	HUB STATES CORP.(BLUE RIBBON),	12	(O	48	(O	1	(O	W		ML			4	WEIMER
PAX-OSOLV, WATERLESS HAND CLEANER	CALGON VESTAL LABORATORIES, ST.	2	(L	5	(L	1	(L	W		ML				WEIMER
PLASTIC PIPE CEMENT, WELD-ON	INDUSTRIAL POLY CHEMICAL SERVICE,	8	(O	40	(O	4	(O	W		ML				WEIMER
POLYCHLORINATED BIPHENYLS	MONSANTO CO., ST. LOUIS, MO. 63167	55	(G	55	(G	5	(G	W		ML			4	WEIMER
PVC CLEANER	OATEY COMPANY, CLEVELAND, OH	8	(O	40	(O	4	(O	W		ML	F	1	4	WEIMER
QUICK METAL LOCTITE	LOCTITE CORP., NEWINGTON, CT 06111	2	(O	20	(O	1	(O	W		ML	R	1	4	WEIMER
RTV 102 SILICONE RUBBER SEAL	GENERAL ELECTRIC CO., WATERFORD,	24	(O	240	(O	10	(O	W		ML	R	1	4	WEIMER
RTV 102-5P1 SILICONE RUBBER SEAL	GENERAL ELECTRIC CO., WATERFORD,	24	(O	240	(O	10	(O	W		ML	R	1	4	WEIMER
RTV 108 SILICONE RUBBER SEAL	GENERAL ELECTRIC CO., WATERFORD,	24	(O	240	(O	10	(O	W		ML	R	1	4	WEIMER
RTV 108-5P1 SILICONE RUBBER SEAL	GENERAL ELECTRIC CO., WATERFORD,	24	(O	240	(O	10	(O	W		ML	R	1	4	WEIMER
RUBY FLUID SOLDERING PASTE	RUBY CHEMICAL CO., COLUMBUS, OH	3	(O	12	(O	1	(O	W		ML		1	4	WEIMER
SADDLE SOAP	BLUE RIBBON PRODUCTS DIV.,	4	(O	48	(O	1	(O	W		MS	F	1	4	WEIMER
SEALING COMPOUND SC-80Z	KILLARK	12	(O	48	(O	1	(O	W					4	WEIMER
SKIN SCREEN HAND PROTECTION	CONTACT IND., INC., ELIZABETH, NJ	7	(O	49	(O	1	(O	W		ML	L	2	4	WEIMER
SKIN-SO-SOFT	AVON PRODUCTS, INC., NEW YORK,NY	20	(O	100	(O	1	(O	W		ML	N	1	4	WEIMER
SMOKE DETECTOR TESTOR	HOME SAFEGUARD & SECURITY PROD.	1	(O	10	(O	1	(O	W		ML	L	2	4	WEIMER
STAY CLEAN SOLDERING & TINNING FLUX	J.W. HARRIS CO., CINCINNATI, OH 45242	20	(O	100	(O	1	(O	W		ML		1	4	WEIMER
TAP MAGIC CUTTING FLUID	STECO CORP., LITTLE ROCK,	12	(O	120	(O	1	(O	W		ML	F	1	4	WEIMER
THREE-IN-ONE HOUSEHOLD OIL	BOYLE-MIDWAY, CRANFORD,NJ 07016	2	(O	10	(O	11	(O	W		ML	F	1	4	WEIMER
THREE-IN-ONE MOTOR OIL SAE 20	BOYLE-MIDWAY INC., NEW YORK, NY	2	(Q	12	(Q	1	(Q	W		ML	F	1	4	WEIMER
TOOL COOL-CUTTING FLUID 74102	RED LION RESEARCH CORP., BOHEMIC,	12	(O	120	(O	1	(O	W		ML	L	2	4	WEIMER
TRICHLORETHLENE	J.T. BAKER CHEMICAL CO.,	12	(O	120	(O	1	(O	W		ML		1	4	WEIMER
UNLEADED GASOLINE	ASHLAND OIL CO., ASHLAND, KY 41101	5	(G	10	(G	1	(G	W		ML	F	1	4	WEIMER
VASELINE INTENSIVE CARE LOTION	CHESEBROUGH PONDS INC.,	10	(O	100	(O	1	(O	W		ML	N	1	4	WEIMER
WD-40	WD-40 COMPANY, SAN DIEGO, CA	9	(O	90	(O	1	(O	W		ML	L	2	4	WEIMER
BEARING GREASE	DOW CORNING CORP.	96	OZ	96	OZ	200	OZ	W	125	PS	R	1	4	FIELDS
GENETRON 12	ALLIED SIGNAL INC.	60	LB	120	LB	500	LB	W	125	PL	L	2	4	FIELDS
GENETRON 22	ALLIED SIGNAL INC.	180	LB	240	LB	1600	LB	W	125	PL	L	2	4	FIELDS
GENETRON 502	ALLIED SIGNAL INC.	60	LB	60	LB	270	LB	W	125	PL	L	2	4	FIELDS
MASTIC WEATHER COATING	VIMASCO CORP.	30	LB	30	LB	60	LB	W	125	PS	N	1	4	FIELDS
3 IN 1 OIL	BOYLE-MIDWAY INC.	21	OZ	30	OZ	21	OZ	W	135	PL	F	1	4	FIELDS
BEARING GREASE, MEDIUM	DOW CORNING CORP., MIDLAND, MI	96	(O	200	(O	96	(O	W	135	ML		1	4	FIELDS
CALGON SPRAY ADHESIVE (4080)	CALGON-VESTAL KLABORATORIES, ST.	66	(O	77	(O	66	(O	W	135	ML	L	2	4	FIELDS
DIAS-AID	DIAS INCORPORATED	3	GA	5	GA	50	GA	W	135	PL	N	1	4	FIELDS
DIAS-AID CONCENTRATE	DIAS INC., KALAMAZOO, MI 49003	5	(G	50	(G	3	(G	W	135	ML		1	4	FIELDS
ELECT. CONTACT CLEANER	SEA COAST IND.	80	OZ	120	OZ	32	OZ	W	135	PL	F	2	4	FIELDS
ELECTRIC CONTACT CLEANER	MILLER-STEPHENSON CHEMICAL CO.,	120	(O	32	(O	80	(O	W	135	ML	L	2	4	FIELDS
ELECTRICAL CONTACT CLEANER (4082)	CALGON-VESTAL LABORATORIES, ST.	120	(O	32	(O	80	(O	W	135	ML	L	2	4	FIELDS
GAS LEAK DETECTOR(BUBBLE TYPE)	HIGHSIDE CHEMICALS INC., GULFPORT,	40	(O	60	(O	40	(O	W	135	ML	N	1	4	FIELDS
GENETRON 12	ALLIED CORPORATION, CHEMICAL	120	(L	500	(L	60	(L	W	135	PG	L	2	4	FIELDS
GENETRON 22 CHLORODIFLUOROMETHANE	ALLIED-SIGNAL, INC., MORRISTOWN, NJ	240	(L	1600	(L	180	(L	W	135	PG	L	2	4	FIELDS
GENETRON 502 AZEOTROPE	ALLIED CORP., MORRISTOWN, NJ 07960	60	(L	270	(L	60	(L	W	135	MG	L	2	4	FIELDS
ICE MACHINE CLEANER	CALGON CORP.	48	OZ	80	OZ	80	OZ	W	135	PL	N	1	4	FIELDS
JOINT SEALING COMPOUND	HIGHSIDE CHEMICALS	15	OZ	15	OZ	6	OZ	W	135	PS	N		4	FIELDS
LEAK LOCK J[illegible] EALING COMPOUND	HIGHSIDE CHEMICALS, INC., GULFPORT,	1[illegible]	(O	6	(O	15	(O	W	135	ML			4	FIELDS
LEAK-TEC	AMERICAN GAS & CHEM	40	OZ	40	OZ	60	OZ	W	135	PL	N	1	4	FIELDS
LIQUID ICE MACHINE CLEANER 4207-47	CALGON VESTAL LABORATORIES, ST.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								

HEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRE		SUPER
OCTITE ANTI-SEIZE LUBRICANT 767	LOCTITE CORP., NEWINGTON, CT 06111	48	(O	12	(O	24	(O	W	135	ML	L	2	4	FIELDS
OCTITE ANTI-SEIZE THREAD COMPOUND	LOCTITE CORPORATION,	4	(L	4	(L	2	(L	W	135	ML		1	4	FIELDS
OCTITE LUBRICANT	LOCTITE CORP.	24	OZ	48	OZ	12	OZ	W	135	PL	F	2	4	FIELDS
OCTITE THREAD COMPOUND	LOCTITE CORP.	2	LB	4	LB	1	LB	W	135	PS	F	1	4	FIELDS
RTV SEALANT	GENERAL ELECTRIC	48	OZ	80	OZ	80	OZ	W	135	PS	R	1	4	FIELDS
RTV SILICONE RUBBER SEALANT 102	GENERAL ELECTRIC COMPANY,	80	(O	80	(O	48	(O	W	135	ML	R	1	4	FIELDS
RTV SILICONE RUBBER SEALANT 102 5P1	GENERAL ELECTRIC CO., WATERFORD	80	(O	80	(O	48	(O	W	135	ML	R	1	4	FIELDS
RTV SILICONE RUBBER SEALANT 108	GENERAL ELECTRIC CO., WATERFORD,	80	(O	80	(O	48	(O	W	135	ML	R	1	4	FIELDS
RTV SILICONE RUBBER SEALANT 108 5P1	GENERAL ELECTRIC CO., WATERFORD,	80	(O	80	(O	48	(O	W	135	ML	R	1	4	FIELDS
SOLDERING FLUX	J.W. HARRIS INC.	32	OZ	32	OZ	16	OZ	W	135	PS	N	1	4	FIELDS
SPRAY ADHESIVE	CALGON	66	OZ	66	OZ	77	OZ	W	135	PL	F	2	4	FIELDS
STAYCLEAN SOLDERING FLUXES	J.W. HARRIS CO., INC., CINCINNATI,	32	(O	16	(O	32	(O	W	135	ML		1	4	FIELDS
SUNISO REFRIGERATION OIL 3GS L316	VIRGINIA KMP CORP., DALLAS, TX 75237	5	(G	3	(G	5	(G	W	135	ML		1	4	FIELDS
THERMO-TRAP	CALGON CORP.	44	OZ	55	OZ	11	OZ	W	135	PS	N	1	4	FIELDS
THERMO-TRAP PROTECTIVE HEAT SINK	CALGON-VESTAL LABORATORIES,ST.	55	(O	11	(O	44	(O	W	135	ML		1	4	FIELDS
VIMASCO, WC-5 WHITE VINYL-ACRYLIC	VIMASCO CORP., NITRO, WV 25143	30	(L	60	(L	30	(L	W	135	ML	F	1	4	FIELDS
ALMAGARD VARI-PURPOSE GREASE #3752	LUBRICATING ENG. INC.,	13	(O	244	(O	39	(O	W	FABM	ML	R	1	4	CLAWSON
APIEZON VAC. GREASE	JAMES G. BIDDLE CO., BLUE BELL, PA	2	(O	24	(O	24	(O	W	FABM	ML	N	1	4	CLAWSON
BELT DRESSING-CLING SURFACE	DOW CORNING CORP., MIDLAND, MI	12	(O	144	(O	144	(O	W	FABM	ML	L	2	4	CLAWSON
BLUE TOOLMAKER'S INK #6001,16001	CROWN INDUSTRIAL PRODUCTS CO.,	12	(O	144	(O	144	(O	W	FABM	ML	L	2	4	CLAWSON
BREAK-FREE CLP, AEROSOL	BREAK-FREE CORP., 1035 S. LINWOOD	12	(O	36	(O	36	(O	W	FABM	ML	L	2	4	CLAWSON
CELVACENE VACUUM GREASE	CVC PRODUCTS, INC., ROCHESTER, NY	2	(O	24	(O	24	(O	W	FABM	ML	N	1	4	CLAWSON
CHESTERTON NR. 390 CUTTING OIL	A. W. CHESTERTON COMPANY,	12	(O	144	(O	432	(O	W	FABM	ML	L	2	4	CLAWSON
CONVOIL 20	CVC PRODUCTS, INC., 525 LEE RD.,	1	(G	3	(G	3	(G	W	FABM	ML	N	1	4	CLAWSON
DOW CORNING GENERAL PURPOSE	DOW CORNING CORP., MIDLAND, MI	10.3	(O	103	(O	206	(O	W	FABM	ML	R	1	4	CLAWSON
DRY FILM LUBRICANT	CROWN INDUSTRIAL	12	(O	12	(O	12	(O	W	FABM	ML	L	2	4	CLAWSON
DUO SEAL OIL, CAT. NO. 1407K	SARGENT-WELCH SCIENTIFIC	20	(G	40	(G	240	(G	W	FABM	ML	N	1	4	CLAWSON
FISHER BRAND 19 MECHANICAL PUMP OIL	INLAND VACUUM INDUSTRIES,	4	(G	8	(G	16	(G	W	FABM	ML	N	1	4	CLAWSON
FOGPRUF LENS SOLUTION	MINE SAFETY APPLIANCE	4	(O	16	(O	48	(O	W	FABM	ML	N	1	4	CLAWSON
IMS SILICONE SPRAY #512	IMS COMPANY, CHAGRIN FALLS, OH	12	(O	12	(O	12	(O	W	FABM	ML	L	2	4	CLAWSON
INLAND 19	INLAND VACUUM IND., 35 HOWARD AVE.,	4	(G	4	(G	8	(G	W	FABM	ML	N	1	4	CLAWSON
LIQUID WRENCH NO. 1 (AEROSOL)	RADIATOR SPECIALTY COMPANY	12	(O	120	(O	240	(O	W	FABM	ML	L	2	4	CLAWSON
LIQUID WRENCH NO. 1 PENETRANT	RADIATOR SPECIALTY COMPANY	4	(O	80	(O	320	(O	W	FABM	ML	F	1	4	CLAWSON
LOCTITE #242 THREADLOCKER	LOCTITE CORP., CLEVELAND, OHIO	1	(O	24	(O	96	(O	W	FABM	ML	N	1	4	CLAWSON
MINERAL OIL	TOTAL PETROLEUM, INC., ALMA, MI	1	(P	12	(P	4	(P	W	FABM	ML	N	1	4	CLAWSON
MOBILUX EP1	MOBIL OIL CORP., FAIRFAX, VA 22037	12	(O	12	(O	12	(O	W	FABM	ML	R	1	4	CLAWSON
MOBILUX EP2	MOBIL OIL CORP., FAIRFAX, VA 22037	12	(O	12	(O	12	(O	W	FABM	ML	R	1	4	CLAWSON
NEV-SZ-REG	BOSTIK, MIDDLETON, MA 01949	6	(O	72	(O	72	(O	W	FABM	ML	N	1	4	CLAWSON
PAX-SOLV WATERLESS HAND CLEANER	CALGON	5	(L	20	(L	25	(L	W	FABM	ML	F	1	4	CLAWSON
PERMATEX #1	LOCTITE CORP., CLEVELAND, OH 44128	6	(O	36	(O	72	(O	W	FABM	ML	N	1	4	CLAWSON
PERMATEX #2	LOCTITE CORP., CLEVELAND, OH 44128	6	(O	36	(O	72	(O	W	FABM	ML	N	1	4	CLAWSON
PUMMELL	STATE CHEMICAL MANUFACTURING	3	(L	3	(L	12	(L	W	FABM	ML	N	1	4	CLAWSON
RTV SILICONE RUBBER SEALANT 102	GENERAL ELECTRIC	8	(O	48	(O	48	(O	W	FABM	ML	R	1	4	CLAWSON
RTV SILICONE RUBBER SEALANT 102 5P1	GENERAL ELECTRIC	12	(O	24	(O	48	(O	W	FABM	ML	R	1	4	CLAWSON
RTV SILICONE RUBBER SEALANT 108	GENERAL ELECTRIC	8	(O	16	(O	16	(O	W	FABM	ML	R	1	4	CLAWSON
RTV SILICONE RUBBER SEALANT 108 5P1	GENERAL ELECTRIC	12	(O	24	(O	24	(O	W	FABM	ML	R	1	4	CLAWSON

9.31-52

HEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TM	SUPER
OLDERS, VARIOUS TRADE NAMES	J.W. HARRIS CO., CINCINNATI, OHIO	16	(O	132	(O	0.2	(O	W	SHOP	MS	R	1	4	CLAWSON
OLID STEEL WELDING WIRE	L-TEC WELDING & CUTTING SYSTEMS,	10	(L	250	(L	0.5	(L	W	SHOP	MS	F	1	4	CLAWSON
PRAY-TAP HB-1	CHEM-TECH, INC., WILMINGTON, DE.	16	(O	160	(O	0.2	(O	W	SHOP	ML	L	2	4	CLAWSON
TAY CLEAN SOLDERING FLUXES	J.W. HARRIS CO., CINCINNATI, OHIO	12	(O	144	(O	0.2	(O	W	SHOP	ML	R	1	4	CLAWSON
TODDARD SOLVENT TYPE II	VARIOUS	3	(G	12	(G	3	(G	W	SHOP	ML	F	1	4	CLAWSON
TODDARD SOLVENT, TYPE III	VARIOUS	3	(G	12	(G	3	(G	W	SHOP	ML	F	1	4	CLAWSON
HERMO TRAP	CALGON VEASTAL LABORATORIES, ST.	12	(O	144	(O	1	(O	W	SHOP	ML	F	1	4	CLAWSON
HREAD SEAL TAPE (PLAIN) TEFLON TAPE	OAK MATERIALS GROUP, HOOSICK	1	(O	10	(O	0.1	(O	W	SHOP	MS	R	1	4	CLAWSON
VD-40 (AEROSOL)	WD-40 COMPANY, SAN DIEGO, CA	12	(O	144	(O	0.1	(O	W	SHOP	ML	F	1	4	CLAWSON
VD-40 TRADESMAN (NON AEROSOL)	WD-40 COMPANY, SAN DIAGO, CA	128	(O	128	(O	0.1	(O	W	SHOP	ML	F	1	4	CLAWSON
VELDING WIRE	ALCOTEC WIRE COMPANY,TRAVERSE	50	(L	100	(L	5	(L	W	SHOP	MS	K	1	4	CLAWSON
VELDING WIRE ALLOYS, COILED	ALCOA, 1501 ALCOA BLDG.,	10	(L	100	(L	0.5	(L	W	SHOP	MS	K	1	4	CLAWSON
VHITMORE #2 GREASE	WHITMORE MANUFACTURING CO.,	12	(O	556	(O	360	(O	W	SHOP	ML	R	1	4	CLAWSON
ORK SPAT-R-PRUF COMPOUND 110	YORK SALES CO., ELMHURST, IL. 60126	0	(O	0	N/	0	N/	W	SHOP	MS		1	4	CLAWSON
MOBIL DTE LIGHT	MOBIL OIL CORP., 3225 GALLOWS RD.,	0	(G	55	(G	55	(G	W	STOR	ML	D	1	4	CLAWSON
1,1,1-TRICHLORETHANE SOLVENT MS-170	MILLER-STEPHENSON CHEM. CO.,	12	(O	24	(O	16	(O	W		ML	L	2	4	WEIMER
BAKING SODA	ARM & HAMMER (CHURCH & DWIGHT	1	(L	12	(L	4	(O	W		MS	K	1	4	WEIMER
BATTERY ACID, SULFUIC ACID-UN2796	COLONIAL CHEMICAL CO.,	5	(G	10	(G	20	(O	W		ML	N	1	4	WEIMER
BATTERY TERMINAL CLEANER AND	CRC CHEMICALS, WARMINSTER, PA	60	(O	720	(O	12	(O	W		ML	L	2	4	WEIMER
BUTANE GAS	BLAZER CORP., NEW YORK, NY	5	(C	25	(C	1	(C	W		PG	L	2	4	WEIMER
CELVACENE HIGH VAC. GREASE	CVC PRODUCTS, INC., ROCHESTER, NY	2	(L	5	(L	5	(O	W		MS		1	4	WEIMER
CHESTERTON CUTTING OIL 390	A.W. CHESTERTON COMPANY,	60	(O	720	(O	12	(O	W		ML	L	2	4	WEIMER
CLEAR URETHANE SEAL COAT	CRC CHEMICALS, WARMINISTER, PA	12	(O	60	(O	12	(O	W		ML	L	2	4	WEIMER
COOL-AMP SILVER PLATING POWDER	COOL-AMP CONDUCTO-LUBE CO.,	1	(L	5	(L	4	(O	W		MS		1	4	WEIMER
COOL-TOOL II CUTTING & TAPPING FLUID	MONROE FLUID TECHNOLOGY, HILTON,	12	(O	60	(O	2	(O	W		ML	F	1	4	WEIMER
DE-OX-ID ELECTRICAL CONTACT CLEANER	GC ELECTRONICS, ROCKFORD, IL 61101	12	(O	144	(O	12	(O	W		ML	L	2	4	WEIMER
DYNA-BLUE CABLE LUBRICANT	AMERICAN POLYWATER CORP.,	5	(G	10	(G	1	(G	W		ML	N	1	4	WEIMER
ELECTRICAL CONTACT CLEANER, AEROSOL	CALGON VESTAL LABORATORIES, ST.	12	(O	144	(O	12	(O	W		ML	L	2	4	WEIMER
ELECTROLYTE 2X	ENGELHARD CORP., NEWARK, NJ 07029	5	(G	10	(G	1	(G	W		ML		1	4	WEIMER
ELECTRONIC COMPONENTS CLEANER	SEA COAST IND. CHEMICAL,	16	(O	160	(O	16	(O	W					4	WEIMER
ENFORCER WASP AND HORNET KILLER	ENFORCER PRODUCTS, INC.,	16	(O	160	(O	16	(O	W		ML	L	2	4	WEIMER
FERRI-FLOC	TENNESSEE CHEMICAL COMPANY,	5	(L	10	(L	5	(O	W		MS		1	4	WEIMER
FIRE BARRIER CAULK CP-25	3M COMPANY,	32	(O	320	(O	16	(O	W		ML	R	1	4	WEIMER
FOG PRUF LENS SOLUTION	MINE SAFETY APPLIANCE CO.,	4	(O	12	(O	0	(O	W		ML	N	1	4	WEIMER
GRAPHITE POWDER, FIBERS	ALFA PRODUCTS, DANVERS, MA 01923	16	(O	32	(O	1	(O	W		PS	F	1	4	WEIMER
GRAY PAINT, MRO	SEYMOUR OF SYCAMORE, INC.,	16	(O	160	(O	16	(O	W		ML	L	2	4	WEIMER
LEAD FREE PLUMBING SOLDERS	J.W. HARRIS COMPANY, CINCINNATI, OH	5	(L	10	(L	1	(O	W		MS	R	1	4	WEIMER
LEMON FURNITURE POLISH	VARIOUS	16	(O	72	(O	1	(O	W		ML	L	2	4	WEIMER
LIQUID PAPER CORRECTION FLUID ALL	GILLETTE MEDICAL EVALUTION LAB.,	1	(O	4	(O	0	(O	W		ML	N	1	4	WEIMER
LIQUID PAPER PEN ANDINK CORRECTION	GILLETTE MEDICAL EVALUATION LAB.,	1	(O	4	(O	0	(O	W		ML	N	1	4	WEIMER
LIQUID WRENCH	RADIATOR SPECIALTY CO.,	16	(O	72	(O	1	(O	W		ML	L	2	4	WEIMER
LOCK-EASE LE-5	AGS COMPANY, MUSKEGON HTS, MI	2	(O	10	(O	0	(O	W		ML	L	2	4	WEIMER
LOCK-EASE NO. LE-18	AMERICAN GREASE STICK CO.,	2		10	(O	0	(O	W		ML	F	1		WEIMER
LUBRICANT J	AMERICAN POLYWATER CORP.,	2	(G	10	(G	1	(G	W		ML		1	4	WEIMER
MARKER BOARD CLEANER NO. 202	CHEMICAL PACKAGING CORP., NORTH	8	(O	16	(O	1	(O	W		ML	N	1	4	WEIMER

-9.31-53

EMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES		SUPER
OTCHECK PENETRANT SKL-HF/S	MAGNAFLUX, CHICAGO, IL 60656	8	(O	8	(O	8	(O	W	FABM			2	4	CLAWSON
OTCHECK/ZYGLO DEVELOPER	MAGNAFLUX, CHICAGO, IL 60656	8	(O	8	(O	8	(O	W	FABM			2	4	CLAWSON
RAY REMOVER SP-1138	ITW DEVON, ST. LOUIS, MO 63114	10	(O	10	(O	10	(O	W	FABM			2	4	CLAWSON
RAY STEEL BLUE SP-1100	ITW DEVCON, ST LOUIS, MO 63114	10	(O	10	(O	10	(O	W	FABM	ML	L	2	4	CLAWSON
RAY-TAP HB-1	CHEM-TECH INC., P.O. BOX 1748,	6	(O	36	(O	72	(O	W	FABM	ML	F	1	4	CLAWSON
P MAGIC CUTTING FLUID	THE STECO CORP., 2330 CANTRELL	16	(O	192	(O	576	(O	W	FABM	ML	F	1	4	CLAWSON
REE-IN-ONE MOTOR OIL SAE 20	BOYLE-MIDWAY, CRANFORD,NJ 07016	2	(O	12	(O	12	(O	W	FABM	ML	F	1	4	CLAWSON
SELINE INTENSIVE CARE LOTION	CHESEBROUGH-PONDS, TRUMBULLC	12	(O	72	(O	144	(O	W	FABM	ML	N	1	4	CLAWSON
D-40	WD-40 COMPANY, P.O. BOX 80607,SAN	12	(O	144	(O	432	(O	W	FABM	ML	L	2	4	CLAWSON
NDEST KARE HAND SOAP	CALGON VESTAL LABORATORIES, ST.	8	(O	32	(O	320	(O	W	RR	ML	N	1	4	CLAWSON
VA SOAP	PROCTER & GAMBLE, CINCINNATI, OH	4	(O	16	(O	320	(O	W	RR	MS	K	1	4	CLAWSON
,1-TRICHLOROETHANE SOLVENT	MILLER-STEPHENSON CHEMICAL CO.,	12	(O	96	(O	864	(O	W	SHOP	ML	L	2	4	CLAWSON
% METHANE/90% ARGON	AIR PRODUCTS AND CHEMICALS, INC.,	3000	(C	150	(C	35000	(C	W	SHOP	MG	L	2	4	CLAWSON
METHANE/95% ARGON	AIR PRODUCTS AND CHEMICALS, INC.,	3000	(C	35	(C	4500	(C	W	SHOP	MG	L	2	4	CLAWSON
ETYLENE	AIR PRODUCTS AND CHEMICALS, INC.,	350	(C	25	(C	5000	(C	W	SHOP	PG	L	2	4	CLAWSON
RCO CODE ARC 7018MR COVERED	THE LINCOLN ELECTRIC	100	(L	1000	(L	10	(L	W	SHOP	MS	F	1	4	CLAWSON
COA ALMIGWELD ALUMINUM ELECTRODE	CROWN ALLOYS CO., MADISON HTS., MI	100	(L	300	(L	2	(L	W	SHOP	MS	F	1	4	CLAWSON
COHOL USP, ETHYL ALCOHOL, 190 PROOF	AAPER ALCOHOL AND CHEMICAL CO.,	2	(G	20	(G	0.2	(G	W	SHOP	ML		1	4	CLAWSON
UMINUM WELDING ELECTRODES	L-TEC WELDING &CUTTING SYSTEMS,	100	(L	300	(L	2	(L	W	SHOP	MS	F	1	4	CLAWSON
UMINUM WIRES & RODS	L-TEC WELDING & CUTTING SYSTEMS,	100	(L	300	(L	2	(L	W	SHOP	MS	F	1	4	CLAWSON
GREASE HI-TEMP NONMELT GREASE	STATE CHEMICALMANUFACTURING CO.,	30	(L	300	(L	5	(L	W	SHOP	ML		1	4	CLAWSON
RGON	AIR PRODUCTS AND CHEMICALS INC.,	3000	(C	35000	(C	150	(C	W	SHOP	PG	L	2	4	CLAWSON
RGOSHIELD GAS #75, #75A	AIRCO DIV., THE BOC GROUP,INC.,	1500	(C	1500	(C	5	(C	W	SHOP	MG	L	2	4	CLAWSON
RGOSHIELD GAS #8C, #25C	AIRCO DIV., THE BOC GROUP,INC.,	1500	(C	1500	(C	5	(C	W	SHOP	MG	L	2	4	CLAWSON
ARING GREASE, LIGHT	DOW CORNING CORP., MIDLAND, MI	12	(O	48	(O	36	(O	W	SHOP	ML	R	1	4	CLAWSON
ARING GREASE, MEDIUM	DOW CORNING CORP., MIDLAND, MI	12	(O	48	(O	36	(O	W	SHOP	ML	R	1	4	CLAWSON
RAZING FLUXES STAY SILV WHITE & BLACK	J.W. HARRIS CO., INC., CINCINNATI,	20	(O	60	(O	1	(O	W	SHOP	ML		1	4	CLAWSON
RIDGIT SOLDERING FLUX	J.W. HARRIS CO., INC., CINCINNATI,	8	(O	40	(O	1	(O	W	SHOP	ML		1	4	CLAWSON
ALCI-SOLVE NYCO N-001	NYCO PRODUCTS CO., CHICAGO, IL	2	(G	12	(G	0.5	(G	W	SHOP	ML	N	1	4	CLAWSON
ALCON PAX-SOLV WATERLESS HAND	CALGON VESTAL LABORATORIES, ST.	1	(L	10	(L	0.1	(L	W	SHOP	ML	F	1	4	CLAWSON
ERTANIUM 78 GAS-TIG	CERTANIUM ALLOYS & RESEARCH CO.,	10	(L	50	(L	0.5	(L	W	SHOP	MS	F	1	4	CLAWSON
ERTANIUM 889SP AC-DC	CERTANIUM ALLOYS & RESEARCH CO.,	10	(L	50	(L	0.5	(L	W	SHOP	MS	F	1	4	CLAWSON
OWTHERM (R) SR-1 HEAT TRANSFER FLUID	DOW CHEMICAL, MIDLAND, MI 48674	10	(O	50	(O	0.5	(O	W	SHOP	ML		1	4	CLAWSON
OWTHERM-J	DOW CHEMICAL, MIDLAND, MICHIGAN	10	(O	50	(O	0.5	(O	W	SHOP	ML		1	4	CLAWSON
UO SEAL OIL CAT. NO. 1407K	SARGENT-WELCH SCIENTIFIC CO.,	1	(G	15	(G	0.5	(G	W	SHOP	ML		1	4	CLAWSON
LASHBACK ARRESTER LIQUID	VAN WATERS & ROGERS, INC.,	12	(O	24	(O	0.5	(O	W	SHOP	ML		1	4	CLAWSON
LEETWELD 5P	LINCOLN ELECTRIC CO., CLEVELAND,	50	(L	250	(L	1	(L	W	SHOP	MS	F	1	4	CLAWSON
RAPHITE POWDER, FIBERS	MORTON THIOKOL, INC., DANVERS, MA	2	(O	8	(O	8	(O	W	SHOP	PS	R	1	4	CLAWSON
ARRIS LEAD FREE PLUMBING SOLDERS	J.W. HARRIS CO., CINCINNATI, OHIO	1	(L	10	(L	0.5	(L	W	SHOP	MS	R	1	4	CLAWSON
ARRIS SAFETY SILV (SILVER SOLDER)	J.W. HARRIS CO., INC., CINCINNATI, OH	1	(L	10	(L	0.5	(L	W	SHOP	MS	R	1	4	CLAWSON
ELIUM	AIR PRODUCTS AND CHEMICALS, INC.,	1500	(C	1500	(C	5	(C	W	SHOP	PG	L	2	4	CLAWSON
IGH VAC GREASE, DOW-CORNING	DOW CORNING CORP., MIDLAND, MI	11	(O	132	(O	132	(O	W	SHOP	ML	R	1	4	CLAWSON
OBART FCAW	HOBART BROTHERS CO., TROY, OHIO	10	(L	100	(L	1	(L	W	SHOP	MS	F	1	4	CLAWSON
OBART FCAW LOW ALLOY	HOBART BROTHERS CO., TROY, OHIO	10	(L	100	(L	1	(L	W	SHOP	MS	F	1	4	CLAWSON
OBART FCAW MILD STEEL	HOBART BROTHERS CO., TROY, OHIO	50	(L	250	(L	5	(L	W	SHOP	MS	F	1	4	CLAWSON
[illegible] SELF SHIELDED TUBULAR	HOBART BROTHERS CO., TROY,	10	(L	200	(L	5	(L	W	SHOP	MS		1	4	CLAWSON

Building Manager's Questionnaire

Building Name: W 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
OMO Cleaner	2 cases	
Glass Cleaner	4 gal	
Conquest Cleaner	16 gal	
Pummel Hand Soap	9 gal	
WARP Disinf	30 Quarts	

Source: _____

21. Where do waste chemicals go? To Waste management through established procedure

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

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: _____

9.31-55

Building Manager's Questionnaire

Building Name: W 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
7440-37-1	ARGON	03C		Y/N	161
7440-59-7	HELIUM	01C		Y/N	SHOP
7782-37-9	NITROGEN	03C		Y/N	SHOP
				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
ATTACHED Dry Cell Batteries	
Aerosol Cans	

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

9.31-56

W BLDG	ANTIFREEZE WASTE	NONE	245.8
W BLDG	ANTIFREEZE, WATER WASTE	NONE	210.6
W BLDG	ANTIFREEZE, WATER WASTE	NONE	471.2
W BLDG	CLEANING SOLUTION, BASIC	D002	599.9
W BLDG	CYANIDE PIT WASTE	NONE	13.4
W BLDG	DOW THERM SR-1 COOLANT	NONE	260.1
W BLDG	ETHYLENE GLYCOL, WATER	NONE	514.8
W BLDG	FORMICA ADHESIVE	D001 F003	1.1
W BLDG	GC RUBBER TO METAL CEMENT	D001 D035 F005	0.3
W BLDG	HICKMAN HK300	D001	38.0
W BLDG	K-POXY CLEANER	F002	2.9
W BLDG	KOPPERS 441	D001	50.0
W BLDG	KOPPERS FLASH ON 441	D001	50.3
W BLDG	KOPPERS MASTIC 451	D001	12.6
W BLDG	LIQUID NAIL	D001 F005	8.6
W BLDG	MERCURY	D009	2.1
W BLDG	MERCURY	D009 U151	0.3
W BLDG	MERCURY DEBRIS WASTE SAMPLE, 95-998	D009	1.0
W BLDG	OIL RAGS, DEBRIS	NONE	120.2
W BLDG	OIL WASTE, SOLVENTS	D001 D018 F001 F003 F005	163.7
[illegible]LDG	OIL WASTE, WATER	NONE	494.8
[illegible]LDG	PETROLEUM NAPHTHA, UNIT 301-82433	D001 D018 D039	75.0
W [illegible]LDG	PETROLEUM NAPHTHA, UNIT 301-82433	D001 D018 D039	75.0
[illegible]DG	PETROLEUM NAPHTHA, UNIT 301-82433	D001 D018 D039	75.0
W BLDG	PETROLEUM NAPHTHA, UNIT 301-82433	D001 D018 D039	75.0
W BLDG	PETROLEUM NAPHTHA, UNIT 301-82433	D001 D018 D039	75.0
W BLDG	PETROLEUM NAPHTHA, UNIT 301-82433	D001 D018 D039	75.0
W BLDG	PETROLEUM NAPHTHA, UNIT 301-82433	D001 D018 D039	75.0
W BLDG	PURPLE PRIMER	D001	0.8
W BLDG	PVC PIPE CEMENT	D001 D035 F003	3.2
W BLDG	PVC PRIMER	D001	1.5
W BLDG	STA SHARP ADHESIVE	D001	28.3
W BLDG	TRICHLORO ETHANE (1,1,1-)	F001	118.0
W BLDG	TRICHLOROETHANE (1,1,1-)	F002	5.8
W-118	DOW THERM SR-1	NONE	2.8
W-136	SUFURIC ACID BATTERY FLUID	D002	37.8

9.31-87 dg, LW

WD BLDG	COBALT OXIDE	NONE	0.1
WD BLDG	CUPROUS CHLORIDE	NONE	0.3
WD BLDG	DIETHANOLAMINE	NONE	1.0
[illegible]DG	DIMETHYL SULFOXIDE	NONE	1.2
WD BLDG	DISODIUM ETHYLENEDIAMINE TETRACETATE	NONE	1.0
WD BLDG	ETHYL ETHER (DEACTIVATED)	NONE	1.0
WD BLDG	FERRIC NITRATE	D001	1.0
WD BLDG	GLYCERIN	NONE	1.2
WD BLDG	HYDROCHLORIC ACID	D002	7.0
WD BLDG	HYPOPHOPHOROUS ACID	D002	1.7
WD BLDG	LEAD OXIDE	D008	0.1
WD BLDG	LITHIUM CHLORIDE	NONE	1.0
WD BLDG	LITHIUM CHLORIDE	NONE	4.4
WD BLDG	MAGNESIUM OXIDE	NONE	224.0
WD BLDG	MAGNESIUM OXIDE	NONE	204.6
WD BLDG	MAGNESIUM OXIDE	NONE	0.2
WD BLDG	MAGNESIUM SULFATE	NONE	38.1
WD BLDG	MERCURY	D009	7.0
WD BLDG	NICKEL OXIDE	NONE	1.0
WD BLDG	PHOSPHORIC ACID	D002	1.4
WD BLDG	PHOSPHORIC ACID	D002	2.0
WD BLDG	POTASSIUM CHLORIDE	NONE	1.0
WD BLDG	POTASSIUM DIHYDROGEN PHOSPHATE	NONE	0.4
WD BLDG	POTASSIUM FERROCYANIDE	NONE	0.2
WD BLDG	POTASSIUM HYDROXIDE	D002	2.0
WD BLDG	POTASSIUM HYDROXIDE	D002	1.0
WD BLDG	POTASSIUM NITRATE	D001	1.0
[illegible]LDG	POTASSIUM SILICATE	NONE	0.1
[illegible]LDG	RUBIDIUM FLUORIDE	NONE	0.1
WD BLDG	SEMI-CARBAZIDE HYDROCHLORIDE	NONE	0.2
WD BLDG	SILICOTUNGSTIC ACID	NONE	0.2
WD BLDG	SILVER NITRATE	D001 D011	0.3
WD BLDG	SODA ASH/SODIUM CARBONATE	NONE	206.0
WD BLDG	SODIUM ACETATE	NONE	3.0
WD BLDG	SODIUM DICHROMATE	D001 D007	3.7
WD BLDG	SODIUM HYDROXIDE	D002	6.0
WD BLDG	SODIUM HYDROXIDE	D002	2.5
WD BLDG	SODIUM NITRATE	D001	5.0
WD BLDG	SODIUM PHOSPHATE	NONE	1.0
WD BLDG	SODIUM TETRAPHENYLBORON	NONE	1.2
WD BLDG	SODIUM TITANATE	NONE	29.0
WD BLDG	SODIUM TITINATE	NONE	0.6
WD BLDG	STRONTIUM CARBONATE	NONE	0.1
WD BLDG	STRONTIUM HYDROXIDE	D002	0.1
WD BLDG	STRONTIUM OXALATE	NONE	0.1
WD BLDG	THALLIUM NITRATE	D001	0.2
WD BLDG	THAM	NONE	0.2
WD BLDG	TIN OXIDE	NONE	0.1
WD BLDG	TOLUENE	D001 F005	0.6
WD BLDG	UREA OXALATE	NONE	0.2
WD BLDG	ZEOLON	NONE	0.1
WD BLDG	ZINC OXIDE	NONE	0.1
WD BLDG	ZIRCONIUM CHLORIDE	NONE	1.0
[illegible]DG	ZIRCONIUM PHOSPHATE	NONE	0.4

p 7a

9.31-58

Bldg. W

WD BLDG	ALUMINUM NITRATE	D001	1.0
WD BLDG	ALUMINUM OXIDE	NONE	0.2
WD BLDG	AMINOGUAMIDINE BICARCONATE	NONE	1.0
WD BLDG	AMMONIUM HYDROXIDE	D002	5.3
WD BLDG	ANTIFREEZE WASTE	NONE	279.7
WD BLDG	ANTIFREEZE WASTE	NONE	434.0
WD BLDG	ANTIFREEZE WASTE	NONE	489.4
WD BLDG	BORIC ACID	NONE	1.1
WD BLDG	BORON PHOSPHATE	NONE	0.4
WD BLDG	CALCIUM CHLORIDE	NONE	1.0
WD BLDG	CALCIUM OXIDE	D001 D003	213.4
WD BLDG	CESIUM CHLORIDE	NONE	0.1
[illegible]LDG	CHROMIUM OXIDE	D007	0.1

WD BLDG- OUTSIDE	NOX RUST- UNOPENED	D001	532.4
WD BLDG- OUTSIDE	NOX RUST- UNOPENED	D001	479.6
WD BLDG- OUTSIDE	NOX RUST- UNOPENED	D001	519.2
[illegible]DG- OUTSIDE	NOX RUST- UNOPENED	D001	545.6
WD-113	MOLECULAR SEIVES	NONE	3.6
WD-113	SILICA GEL DESSICANT	NONE	10.5
WD-113	SILICA GEL DESSICANT	NONE	10.0
WD-113	SILICON DIOXIDE	NONE	12.0
*** Total ***			1073033

P7

9.31-59 Bldg 1

Building Manager's Questionnaire

Building Name: W 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: _____

9.31-60

Building Manager's Questionnaire

Building Name: W 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: _____

9.31-61

Building Manager's Questionnaire

Building Name: W 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

9.31-62

Building Manager's Questionnaire

Building Name: W 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.

white Paper Recycling
Scrap metal

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

9.31-63

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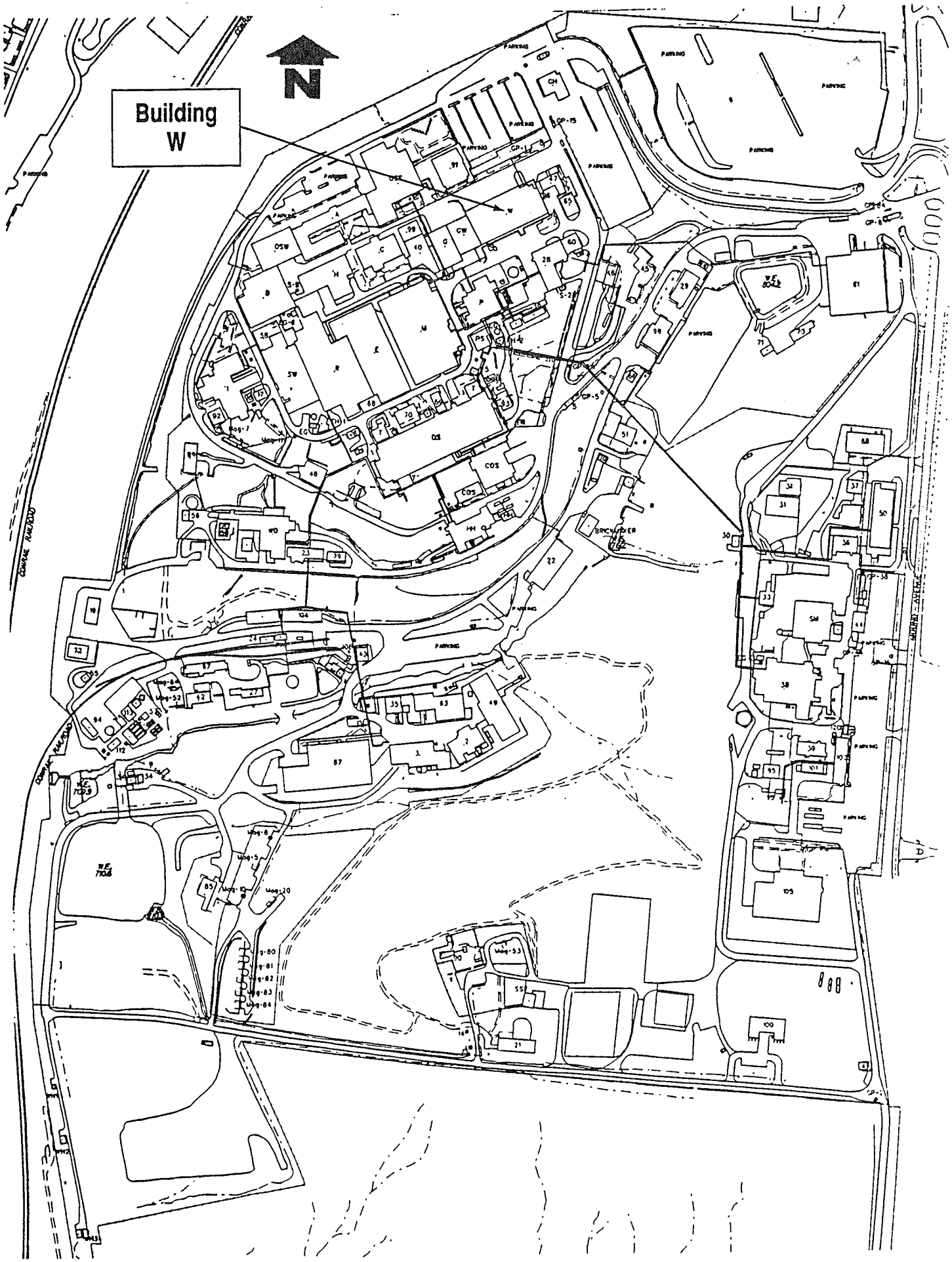
9.31.6.3 Location of Building W



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

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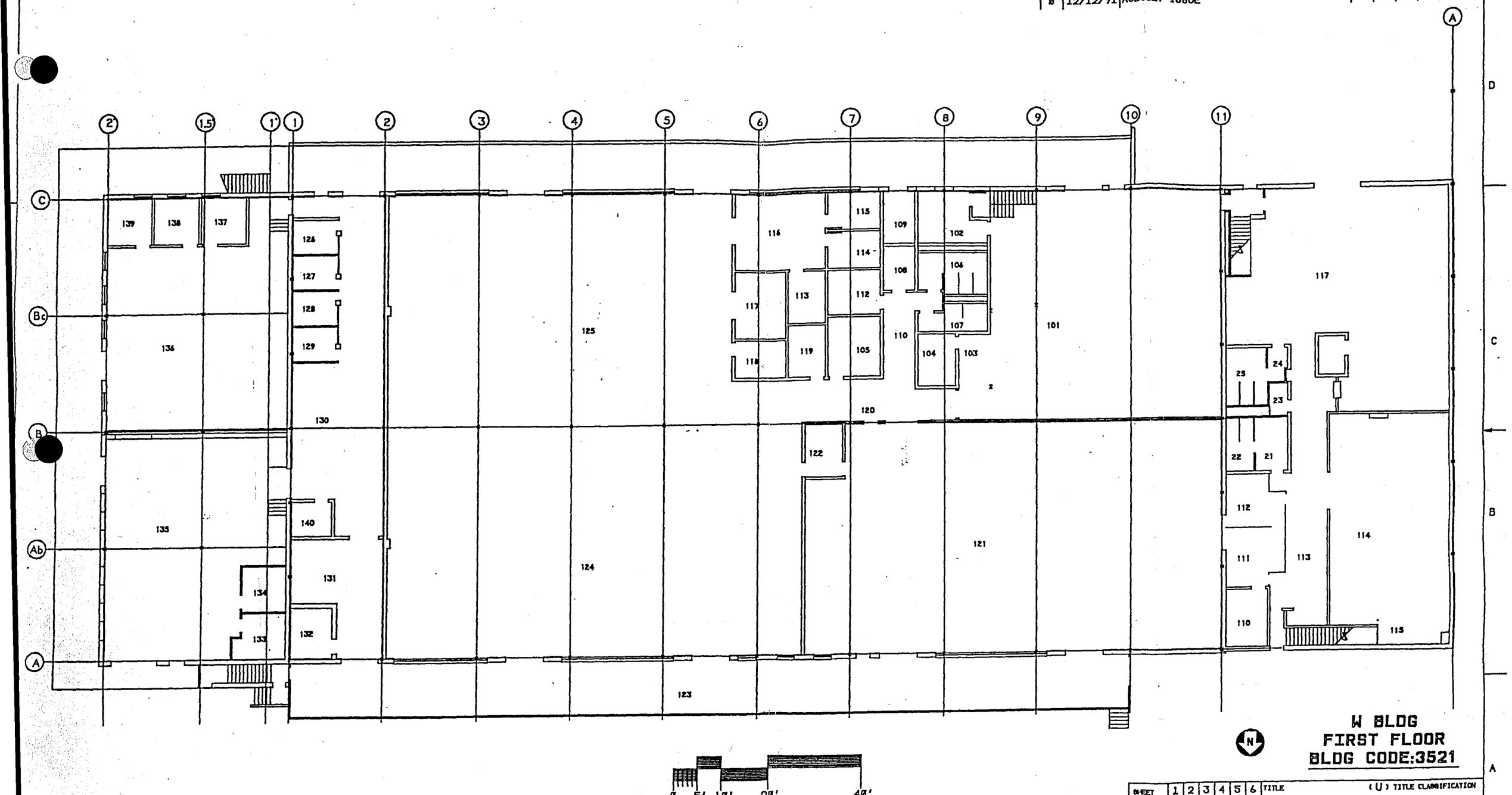
9.31.6.4 Floor Plans for Building W

ISS	DATE	REVISION	BY	CHKR	ENG	LPAEC	APVD	M
Ø	12/12/91	ASBUILT ISSUE	DCW				DVD	



W BLDG
FIRST FLOOR
BLDG CODE:3521

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

SHEET 1 2 3 4 5 6	TITLE	(U) TITLE CLASSIFICATION	
ISSUE Ø Ø	W BLDG FLOOR PLANS		
PART CLASSIFICATION			
DRAWING CLASSIFICATION UNCLASSIFIED	SIZE D	DRAWING NUMBER FSD911326	JOB NUMBER 12335
DWG TYPE SFP	PROM W BLDG	CABEC 14065	SCALE AS NOTED	SHEET 1 OF 2
STATUS MD-CHK-12/12/91		ORIGIN MD-BRJ-V3.Ø	

DATE:
TY... TEE REQUIRED:
ONE ___TRUEBOC ___TEBOC ___EMBOC
H. REAP. ___
MGR. ___
EBOC ___
OC ___
OC ___

9.31-71

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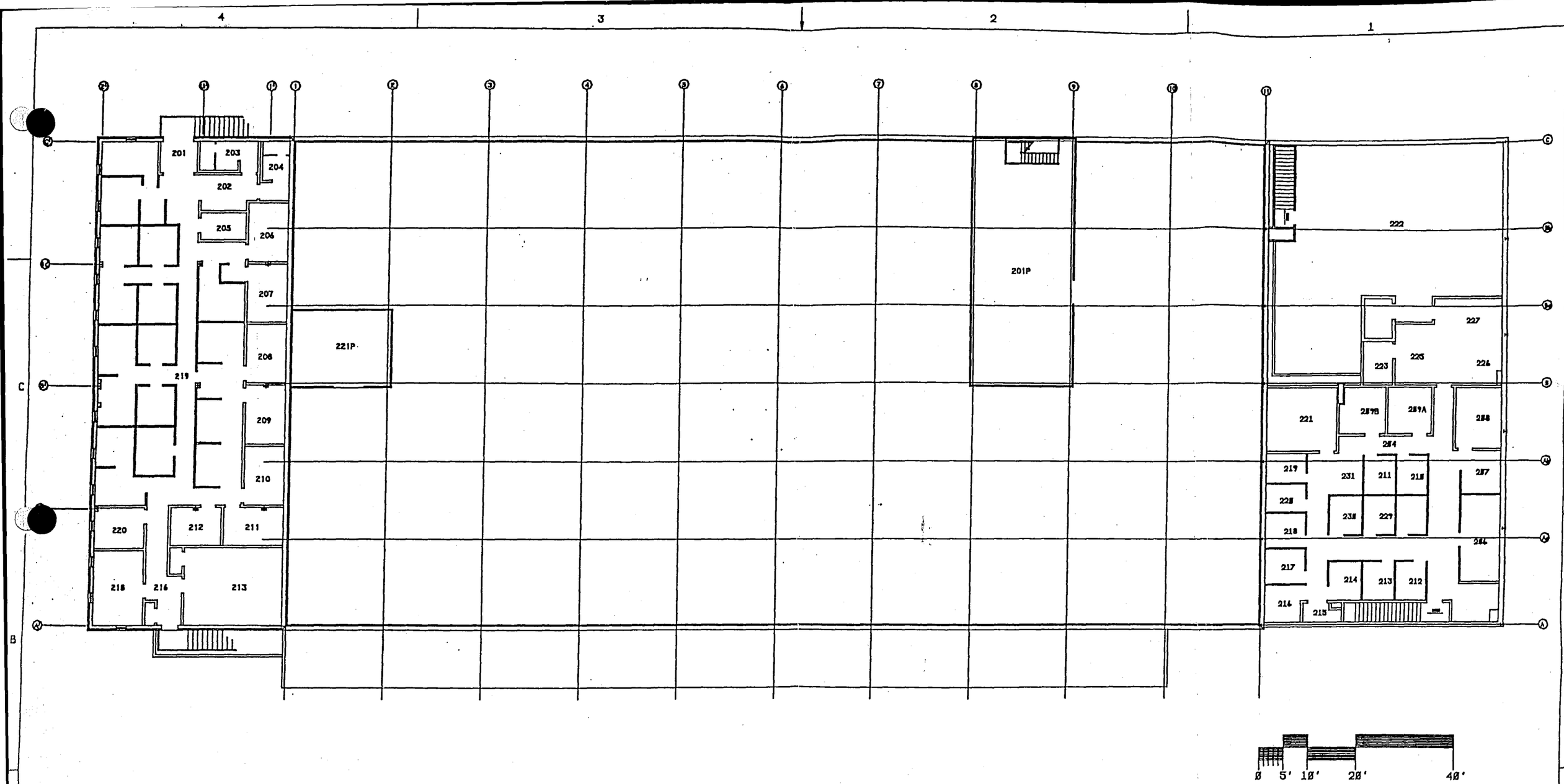

W BLDG
SECOND FLOOR
BLDG CODE:3521

DRAWING NUMBER FSD911326		JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED		
SIZE D	CASE: 14065	SCALE AS NOTED
	ISSUE 0	SHEET 2
STATUS MD-REL-12/12/91		

9.31-73

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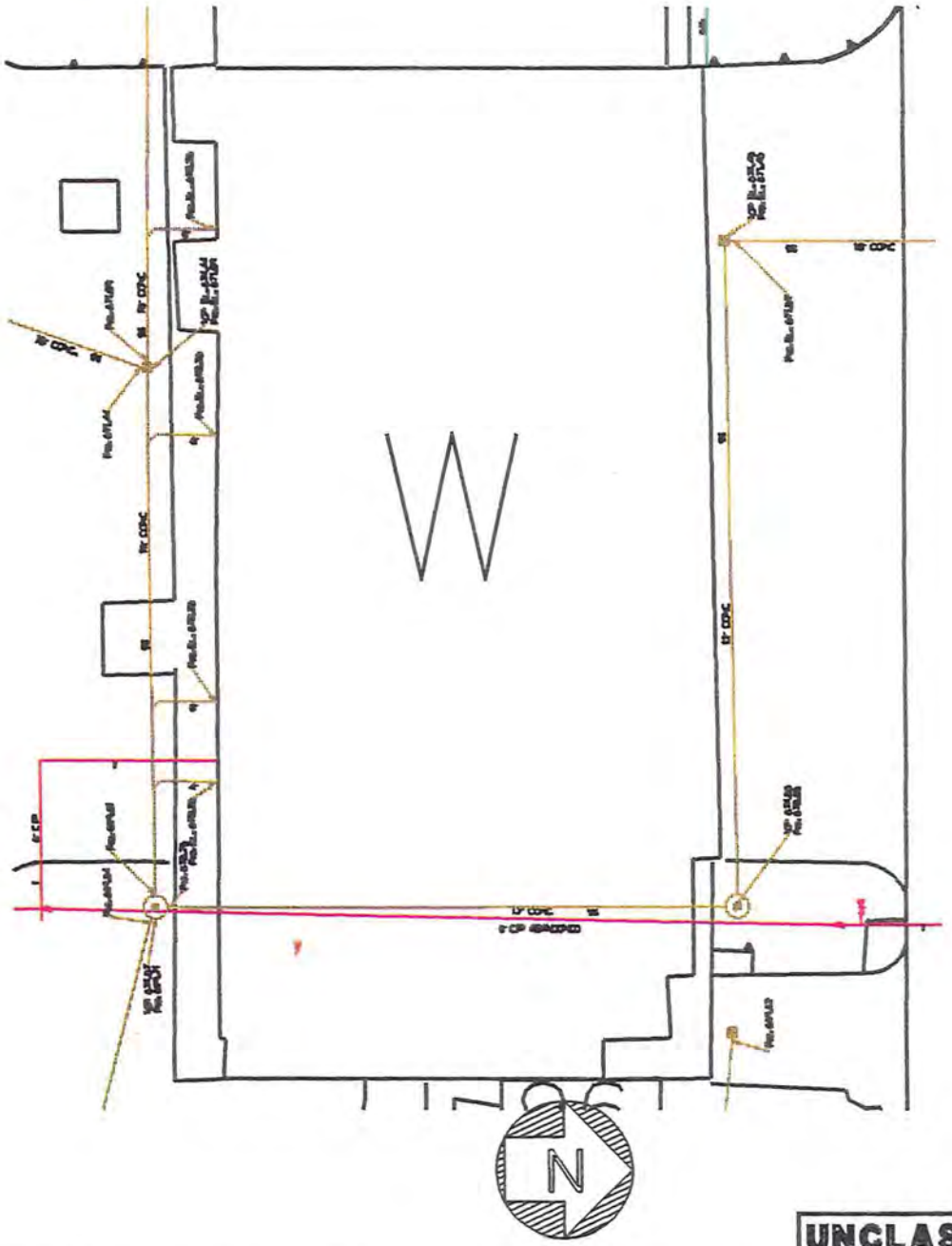
9.31.6.5 Underground Utility Lines



E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
W BLDG.

DATE: 5-5-96

UNCLASSIFIED

9.31-77

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9.31.6.6 Photographs

Mound Plant Building W

9.31-79

Full and empty gas cylinders are segregated along the side of the building.

The carpentry shop in Building W has an exhaust collection system.

In Building W empty and full cylinders are segregated.

Acetylene and oxygen cylinders are properly segregated.

9.32 BUILDING WD/WDA

9.32.1 Scope of Building WD/WDA 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 WD/WDA on January 23, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.32.6.1). The appraisers were accompanied by the building manager and one process manager. A follow-up visit was made two weeks later, again with the building manager present. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.32.6.2).

9.32.2 Description of Building WD/WDA

Building WD is the treatment facility for low specific activity (LSA) radioactive wastes generated by process activities at Mound. The building is located north of Buildings 23 and 79, and south of Building 56. Its location is shown in Attachment 3 (Section 9.32.6.3).

Building WD was designed and constructed in 1948. Since its construction, the building has been enlarged through the addition of an annex to the present size of 28,800 square feet. It is a multi-story building with penthouses, a full basement, and a partial sub-basement. It has an irregular shape, and is 22 feet high, 135 feet wide, and 211 feet long. The exterior walls of the building are reinforced concrete and concrete block. The roof is a concrete slab. Penthouses have lightweight block and aluminum siding walls with built-up steel roofs. Heating and air conditioning is central steam and chilled water. There is electrical service of 480V. The building is contaminated with radionuclear materials. (*Mound Facility Physical Characterization*, 12-1-93).

Active and inactive processes housed within the WD facility include alpha wastewater treatment, beta wastewater treatment, laboratory and bench scale research, LSA waste drum repackaging, a glass melter furnace, and a packed bed reactor. Schematics showing locations of process activities are presented as part of the EAC, in Attachment 1 (Section 9.32.6.1).

There are several sources of detailed information which describe the wastewater treatment process and related activities: *Final Safety Analysis Report for the Waste Disposal Facility WD/WDA*, by Robert Ellis and David Swager, 7-94; *Safety Assessment Document*, by William Davis, 10-78; MD-70180, Issue 16, *Mound Radioactive Liquid Waste Disposal* by L. Kirkman, 7-93; and *NESHAPs FFCA Compliance Work Plan*, 2-20-95. Information which is available in these documents is not included in detail in this report, but rather is summarized to provide an overview of activities.

At the time of the appraisal, a new building manager had recently been appointed. As he was a process owner in the building for over 10 years, he was able to provide information needed for the appraisal. He had limited documentation related to the building. According to his files, no inspections by regulatory agency personnel were made of the building.

Details of a recent audit were provided by the EG&G MAT Performance Assurance Group. The results of the audit "indicate that adherence to their Quality Assurance Plan and Mound ES&H requirements are negligent in many areas." The specific findings of the performance assurance group's audit are discussed in later sections of this report.

9.32.3 Summary of Findings

Building WD is an old building with many maintenance problems inherent to older buildings at the Mound Plant. Laboratory and research areas in the building and the annex are no longer in use, and are being decommissioned. Issues of environmental concern were identified during the walk-through or review of reference materials. Specific concerns included: the lack of information needed to evaluate the efficiency of wastewater treatment by the WD processes; the lack of inspection and testing of tanks and sumps which contain radioactive contaminants to confirm their integrity; the probable presence of mixed wastes in abandoned laboratories and process reactors; and unlabeled, improperly stored containers of waste. Issues of concern were discussed with the building manager and the process manager. Also, several suggestions were made related to improving management practices. It should be noted that all areas of the building could not be inspected due to radioactive contamination. Areas not inspected included several laboratories and the penthouse.

9.32.4 Observations

9.32.4.1 Air Emissions

There are several sources of air emissions in the building. Emissions include radionuclides from all sources. Permit applications were submitted in 1992 for three sources; the drum repackaging facility in Rooms 112 and 113, exhausting from stack WD-S-2; the wastewater solidification process in Rooms 1 and 5, exhausting through stack WD-S-03; and the radioactive waste disposal process in Rooms 101, 104, 107, 110, and 118, exhausting through stack WD-S-01. A permit was issued for the drum repackaging facility. There was no response to the other applications. There is no record of follow-up by the EG&G Environmental Management Group.

All sources from Building WD emit radionuclides. Therefore, a *de minimis* exemption cannot be claimed, according to OAC 3745-15-05. The wastewater solidification process and the radioactive waste disposal process are operating without a permit.

The permit for the drum repackaging facility has special terms and conditions, including monitoring and recordkeeping requirements. Records do not reside with the building manager or technicians working in the drum repackaging rooms, and were not available on the occasions that

the building was visited. In conformance with OAC 3745-15-05, permits and associated records should be readily available for review.

The emissions sources in the building exhaust through three stacks except for the wastewater solidification process in Rooms 1 and 5. Process control equipment on all stacks is of the same design: a demister with design efficiency of 50 percent, a fabric filter with design efficiency of 60 percent, a second fabric filter, a high-efficiency particulate air (HEPA) filter, with design efficiency of 99.8 percent, and a third fabric filter (HEPA) with design efficiency of 99.97 percent.

Records are available to document that HEPA filters are tested weekly and maintained in accordance with the Nuclear Standard NEF3-43, *Quality Assurance Testing of HEPA Filters*, and NEF3-45, *Specifications for HEPA Filter Use by Department of Energy (DOE) Contractors*. The building manager did not receive a weekly report of the test results from maintenance prior to the appraisal, as the report was sent to the former building manager. When contacted by the appraisal team, the maintenance group corrected the report designee.

As required by the Federal Facility Compliance Agreement (FFCA) signed July 4, 1994, the three stacks in Building WD are monitored for Pu-238, and Pu-239 and 40, to conform to 40 CFR 61, subpart H (NESHAP's). Continuous monitoring systems are installed as releases represent an effective dose equivalent greater than or equal to 0.1mrem. Emissions from Building WD have the highest dose equivalent for any building monitored at Mound.

Alarms are installed on the three stacks in Building WD to monitor emissions relative to ALARA (as low as reasonably achievable) goals, according to information presented in the NESHAP's FFCA Compliance Work Plan. At the time of the appraisal alarms could not be inspected to determine if they were functioning. There is no signal on any visible control panel. The building manager and process manager were not aware of the control panel location for the alarms, and received no reports regarding the alarm function or monitoring. The building manager had been appointed for nearly five months and had not received information regarding the alarm, its location, or function. Start-up procedures do not incorporate requirements that line management confirm that environmental control equipment or alarms are functioning. After some investigation it was determined by the appraisal team that a Health Physics technician monitored the alarm to confirm that it was operational on a daily basis. No report was made by the technician or Health Physics supervisors to the process or building managers in Building WD, as the alarm was functional, according to Mound procedure.

Emissions from Building WD were included in the Mound Air Emissions inventory. The accuracy of all emissions information could not be evaluated, as process managers were not available, and some vents and hoods could not be inspected due to radiological control procedures. For the areas entered, there was a discrepancy between operating condition and the emissions inventory.

9.32.4.2 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.

9.32.4.2.1 Sanitary Wastewater

The building has sanitary service. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.32.6.5), the building is serviced by a sanitary line. Sanitary effluent consists of lavatory wastes. No floor drains are connected to the sanitary collection system. Testing of sanitary effluent for radiological contaminants is not performed.

9.32.4.2.2 Storm Wastewater

The building is serviced by storm drains according to Attachment 5 (Section 9.32.6.5). There are no interior connections to the storm drain system. 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.

9.32.4.2.3 Process Wastewater

Wastewater which is generated throughout the Mound and is contaminated with radionuclides is treated in Building WD. No sanitary wastewater is treated in the building. All sanitary effluent from WD as well as other production buildings is treated at the sewage treatment plant. Wastewater from shower areas is collected and treated in Building WD.

Alpha contaminated wastewater is collected in four interconnected 30,000-gallon tanks located in the north side of Building WD. Wastewater is pumped into clariflocculators where precipitation and adsorption occur. Sludge which is collected in the bottom of the tank contains most of the contamination. Supernatant wastewater flows through sand filters, followed by a bonechar column, and a polishing filter, then into one of four interconnected 30,000-gallon effluent tanks. Effluent is sampled, and either discharged into the Great Miami River or is recycled through the system, depending upon the concentrations of radionuclides. Sludge is

collected in the clariflocculators. As required it is solidified, and shipped to the Nevada Test Site (NTS) as LSA waste.

Data are not available to determine the efficiency of the treatment process. The pH is monitored prior to discharge. In a procedure developed in October 1995, pH is reviewed by the process manager and the building manager prior to discharge. This serves as an independent review of treatment. Records of pH were not reviewed to determine if effluent falls within guidelines on all occasions.

The system was designed to treat greater quantities of wastewater than are currently generated at Mound. Physical-chemical treatment efficiency is a function of correct design flows. The process manager optimizes treatment efficiency through batch treatments, i.e., wastewater is collected and held in influent tanks, and treated when enough is available to meet design sizings.

No records of inspections of influent and effluent tanks were available. According to the building manager, tanks were constructed in 1948, and lined with an epoxy approximately 15 years ago. The tanks are not routinely inspected or tested for leakage. Also, groundwater is not monitored around the building to determine if contaminated wastewater is leaving the tanks. According to the Performance-Based Audit of the WD facility, "influent tanks A, B and C are leaking contaminated water at the horizontal agitator seals." This issue was discussed with the building manager as the appraisal team inspected the building. It was noted that there was water on the floor of the building next to the interior wall of the influent tanks. However, it was the building manager's opinion, based on his observations, that water was not leaking from influent tanks. He also noted sources of water on the floor of WD may be seepage from springs, and seepage from pump seals. Building WD is built into a hill which has springs. Water may seep from springs into the building. Any water found on the floor of WD is recycled through the treatment process.

Beta-contaminated wastewater is collected from areas around the Mound Plant for solidification in Building WD. Two 3,750-gallon influent tanks are located on the north side of the building. After 500 to 1000 gallons of water accumulates, it is solidified in 30- or 55-gallon drums using cement. Drums are sealed and stored in the indoor WD staging area or in Building 23 until they are shipped offsite.

9.32.4.2.4 Chemicals

Chemicals are found in laboratories and process areas in Building WD. The list in the BMQ is probably incomplete, as some laboratory areas cannot be inventoried for chemicals as the areas are contaminated with radioactive materials. There was no visual evidence that chemicals had entered the drainage system in Building WD. In addition, all wastewater or spillage entering floor drains in Building WD is collected in one of the building's sumps and treated prior to release. It should be noted that labs are scheduled for decontamination and decommissioning (D&D) in third and fourth quarters of 1996.

Radioactive wastewater conveyance lines from production buildings to WD were not reviewed as part of the appraisal of Building WD. While some lines have been abandoned, and waste is

trucked to Building WD, as in the case of Building 38, other lines are original. There is no evidence that they have been inspected to confirm their integrity. It would be expected, due to the material and age, that leakage could occur. Also, groundwater could collect in abandoned lines. According to the building manager and the process manager, there is some concern regarding potential leakage in lines still being used.

9.32.4.3 Potable and Service Water

Potable and service water are supplied to the building. Sources are properly posted. Drinking fountains have not been tested for lead contamination. A program is underway at Mound to identify and replace all lead-contaminated fountains.

9.32.4.4 Chemical Storage and Hazardous Materials

Janitorial supplies and chemicals were stored in the building. Janitorial supplies were in restrooms and shower rooms. There were no Material Safety Data Sheets (MSDS's) available. Chemicals were stored in laboratories and process areas. All locations inspected had flammable storage cabinets which met National Fire Protection Association (NFPA) requirements, and chemicals were stored in accordance to 29 CFR 1910. MSDS's 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.

One aboveground storage tank, a propane tank estimated to hold 400 gallons, is located outdoors close to the loading dock. Several process tanks and reactors are located inside the building; they were no longer in use. Contents were unknown. It was not known if tanks had been emptied and flushed. The building manager plans to investigate the tanks and characterize and dispose of contents as resources become available.

There are no separators or catch basins in the building. There are four sumps in the building; each is a steel tank in concrete. One collects sanitary waste for discharge to the sanitary treatment plant. The others collect other water generated in Building WD for subsequent treatment in Waste Disposal. The sumps have automated level controls, and are usually wet. There is no routine inspection to confirm that sumps do not leak. There is no routine preventive maintenance program for sumps or pumps. All tanks and sumps are included in the Active Underground Storage Tank Report. In the report, tank release protection indicated is interstitial monitoring. For the tanks and sumps in WD, there was no evidence of interstitial monitoring, either electronic or visual.

According to the 1995 PCB Annual Document Log, the building does not contain polychlorinated biphenyls (PCB's).

The building was tested and does contain asbestos, based on screening recorded in MD-10391, *Asbestos Program Manual* (9-14-95). There is no visual evidence of friable asbestos material.

Gas cylinders were located in Building WD during the first walk-through. At the time of the follow up visit, all had been forwarded to the gas cylinder storage building for return to vendors or sale, as they were no longer required in Building WD.

It is important to note that several laboratory rooms could not be entered. Therefore, comments in this section are restricted to areas which were observed.

9.32.4.5 Solid, Hazardous, and Radioactive Wastes

According to information provided in the BMQ, Attachment 2 (Section 9.32.6.2), solid, hazardous, and radioactive wastes are generated in Building WD. It is assumed that all waste leaving the building may be LSA, and levels of contamination are monitored by Health Physics prior to disposal.

The solid waste stream is comprised of office waste. There is paper and aluminum can recycling. Solid waste is removed by janitorial personnel to a site collection point, where waster streams are segregated and sent to recycling or to a local landfill.

There is uncharacterized waste in several areas of the building. Locations include laboratory areas which are being decommissioned, bench scale reactors which may or may not be empty, and unlabeled drums stored outdoors at the loading dock. There is some concern that waste may be mixed waste, as it may exhibit Resource Conservation and Recovery Act (RCRA) hazardous constituents, and have low specific activity.

LSA wastes are generated in Building WD by the wastewater treatment process. They are characterized in accordance with DOE Order 5820, and Mound Procedure MD-81240, *Issue 8, Low Level Waste Management Procedures*. Process knowledge is used for characterization. Excellent documentation dating back several years is available to support process determinations. Waste characterization, packaging, storage, and handling were observed for LSA waste. The process was in conformance with MD 81240. However, there was no evidence of independent inspection and validation of activities by Waste Management personnel outside of WD.

Thirty-four drums of waste were located next to the loading dock of the building. Some drums were yellow, indicating LSA waste. LSA barrels did not have tamper-proof seals. Barrels were exposed to the weather. Some were not on pallets. Several were not labeled as to content. According to the building manager, the origin and ownership were unknown, and the drums had been at the building for an indeterminate time. Following the appraisal it was determined that they had been left by crews performing D&D of the old SD plant adjacent to WD. Ownership was established and the building manager asked that the drums be characterized and disposed of by D&D personnel.

There was no evidence of independent field surveillance by waste management personnel to confirm that wastes are identified, characterized, or disposed of properly.

In several areas in Building WD, an odd assortment of instruments, equipment, and office furnishings had been "dumped" by Health Physics personnel without the approval of the building manager. Those materials were considered to be potential LSA waste as well. The building manager had made an effort to improve the housekeeping in the building and was continuing to rid the building of miscellaneous discarded materials.

A drum repackaging activity was being performed in WD. Drums containing mixed waste including scintillation vials and fluids that had been stored onsite for several years were being repacked to reduce volume. At the time of the first visit to the building, there was no activity or personnel present. On the second visit technicians were present. They were not able to produce characterization information or documents, and advised the appraiser to contact the process manager. Since that time, a discussion was held with the process manager, and appraisers were informed that a detailed analysis of the repacking, storage, and disposal activity is underway by EG&G MAT and DOE.

9.32.4.6 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 the 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. Because of potential contamination by radionuclides, items removed from WD are monitored by Health Physics prior to reuse or recycling.

9.32.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.32.6.6). Findings related to the environmental appraisal of Building WD indicates that the following action items, in priority order, should be planned and scheduled.

WD-1 Line management was not notified of requirements for ALARA alarms installed on three WD stacks. The building manager and process manager were not aware of the control panel location for the alarms, monitoring and reporting activities by Health Physics and Environmental Monitoring, and received no reports regarding the alarm function or monitoring. The building manager had been appointed for nearly five months and had not received information regarding the alarm, its location, or function. There is no signal on any visible control panel in the building. Process start-up and control procedures do not reference the alarms, or require inspection for function prior to start-up. The SAR does not address alarm maintenance and control issues.

After some investigation the appraisal team determined that a Health Physics technician monitored the alarm to confirm that it was operational on a daily basis. No report was made by the technician or Health Physics supervisors to the process or building managers

in WD. Line management is responsible for operations, including safety and environmental management of the process. If line management is not provided with information regarding requirements and activities of resource groups such as Environmental Monitoring and Health Physics, line management cannot make informed decisions.

WD-2 Waste improperly stored in barrels outside of Building WD must be properly characterized, stored, and disposed of, in accordance with DOE Order 5820, and Mound Procedure MD 81240, *Issue 8, Low Level Waste Management Procedures.*

WD-3 The wastewater solidification process and the radioactive waste disposal process are operating without an air permit. All sources from WD emit radionuclides, therefore, a *de minimis* exemption cannot be claimed according to OAC 3745-15-05. Permit requirements should be investigated and permits obtained.

WD-4 The permit for the drum repackaging facility has special terms and conditions, including monitoring and recordkeeping requirements. Records do not reside with the building manager or technicians working in the drum repackaging rooms, and were not available on the occasions that the building was visited. In conformance with OAC3745-15-05, permits and associated records should be readily available for review.

WD-5 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, and handling, or to assure that the Building WD generator/process manager is properly managing waste streams. It is recommended that such a review be completed as required under DOE Order 5820 and Mound Procedure MD 81240.

WD-6 Line managers in Building WD do not receive information required to control the process in an environmentally acceptable fashion. The building manager received no orientation, on the job training, or formalized training required to define and perform the building manager's job. He was given no historical documentation or formalized information checklist about the building. He was not included in routine communications regarding the building, its processes or controls, nor was he provided operating information. For example, the building manager did not receive a weekly report of the HEPA filter test results or ALARA stack alarm function reports, and had no copies of regulatory permits, had no copies of performance-based audits. Formal procedures and controls do not exist for information collection and exchange.

WD-6 A program to routinely inspect the integrity of sumps and tanks should be instituted. Sumps and tanks are not tested to confirm their integrity. Information included in the Mound Active Underground Storage Tank report, which states that tanks have interstitial monitoring, is incorrect. This fact should be reported to the regulatory agency to whom the report was submitted.

WD-7 Radioactive wastewater conveyance lines to Building WD were not reviewed as part of the appraisal of Building WD. Some lines are original. There is no evidence that they have been inspected to confirm their integrity. It would be expected, due to the material and age, that leakage could occur. Lines should be inspected, and appropriate action taken.

9.32.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name WD

Appraisers: Nancy Vogel civil/environmental engineer

Name Discipline

Name Discipline

Name Discipline

Name Discipline

Building Manager: Ed Kennedy

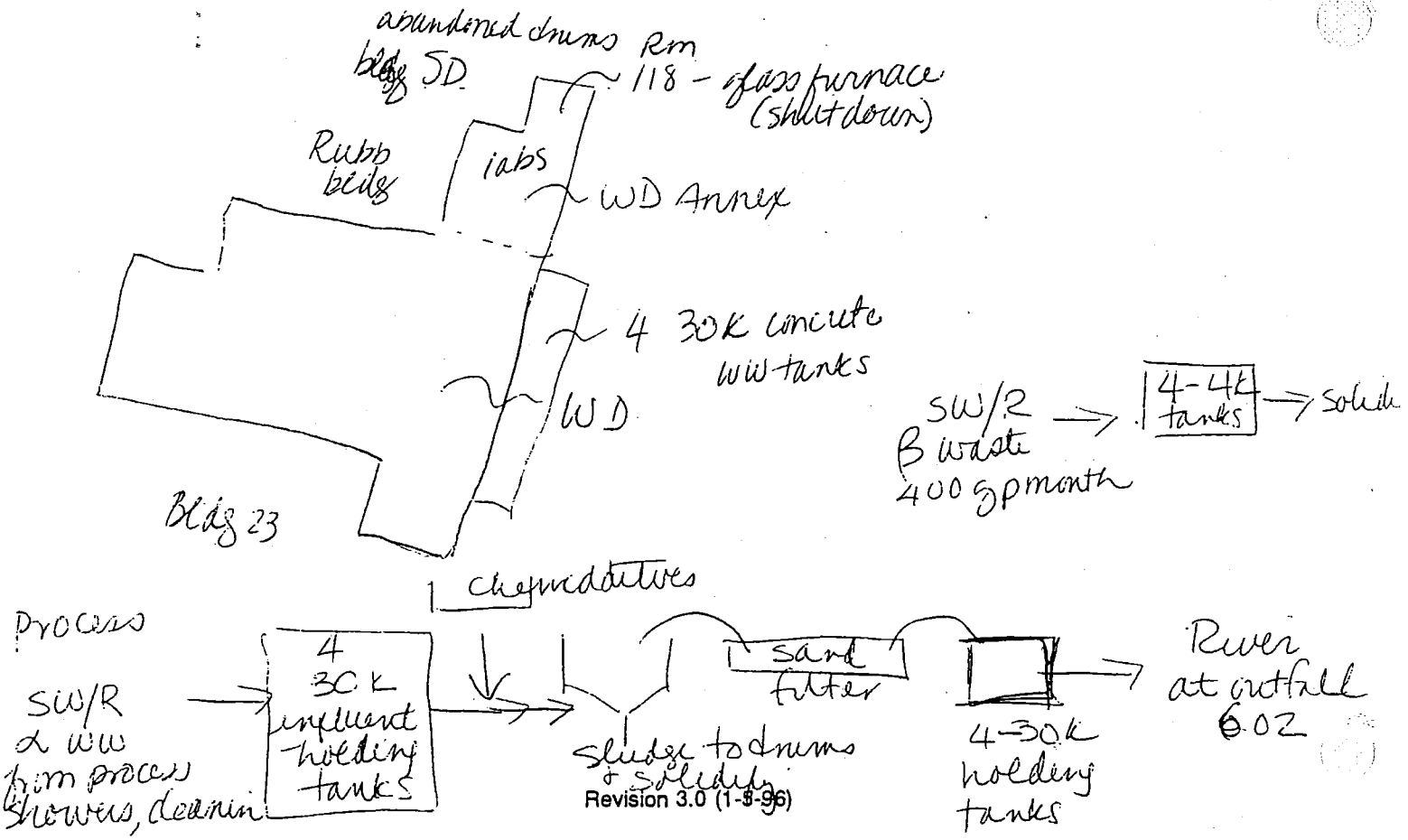
Process Manager: Perry A Ballera.

Date: 1-23-96 am.
1-31-96 pm

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: WD Appraisers: Vyas Date: 1-23-96 am, 1-31-96 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	storm discharges at 002 Outfall
Are there sinks, toilets and floor drains in the building?	(Y) / N	If the answer to any of these questions is yes, proceed with the following checklist.
Are chemicals being used in the building?	(Y) / N	
Is there a process which discharges to the storm or sanitary system?	(Y) / N	toilets discharge to sump for sanitary ww, then ww is pumped to SD

CWA Checklist

floor drains & process ww is captured in 3 sumps & treated in WD.

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 _____ _____	WW treatment of Bldg SW/R
	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	4 sumps – steel tanks in concrete. 3 collect process & bldg WW 1 collects sanitary WW
	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)	

There is no evidence of a routine program to test integrity of sumps. No PM program. Most recent ref. is PHISTR report

Sumps have automated level controls. Sumps are manually wet + contain ≥ 50 gal H_2O

9.32-15

9.32-16

Environmental Appraisal Checklist

Building Name: WD Appraisers: V yus Date: 1-23-96am 1-31-96pm

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)	dust is collected in bag filter - dust is recycled to process

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	(Y) / N	Building operates under F-FCA. Records show
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	1 permit + 2 applications
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 PERMIT 0857091196P029

Revision 3.0 (1-5-96)

too [illegible] drum repackaging facility & stack.

3 stacks - NESHAPS

- Bldg manager was not aware of air emissions permit status or requirements.

Environmental Appraisal Checklist

Building Name: WD

Appraisers: Vyas

Date: 1-23-96 am
1-31-96 pm

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
lab hood	David Wilkus 107	WD107 0002	Y / (N)	(Y) / N	junk in hood	—	—	—	
lab hood	David Wilkus 107	WD107 0001	Y / (N)	(Y) / N	ethylene glycol ≈ 50 gal/yr	50 gal/yr	—	continuous hood. process operates ≈ 3 days/wk =8·3·50 =1200 hrs/yr	
air inventory 001 should be 100	100		Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

Source: visual observation

NOTE air inventory discrepency in room 100.

9.32-17

9.32-18

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vyas Date: 1-23-96 am 1-31-96 pm

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.

Note that contaminated labs were not inspected.

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	update MSDS annually
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	

Bldg was abandoned contaminated labs. They are being decomissioned.

George Galloway, Safety, inspected bldg WD 1-22-96 + made Chem safety suggestions.

Environmental Appraisal Checklist

Building Name: WD

Appraisers: Vyas

Date: 1-23-96 am
1-31-96 pm

HM Checklist

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

9.32-19 Label all pipes, including process piping.

9.32-20

Environmental Appraisal Checklist

Building Name: WD

Appraisers: Vegas

Date: 1-23-96am
1-31-96 pm

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
WD	≈ 300 gal	propane gas	NOT KNOWN	(Y) / N	~~N~~ / NA	N Y / (N)	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N

propane tank is outdoors

In the building there are several process tanks no longer in use. Tanks should be emptied & flushed if full, & marked empty. Characterize & dispose of waste content.

Source: _____

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vogs Date: 1-23-96 am 1-31-96 pm

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)~~ n/a	
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	Bottled water supplied

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
WD	103	Oasis	845249003

Source: Visual inspection

9.32-21

9.32-22

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vyas Date: 1-23-96 am
1-31-96 pm

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 is uncharacterized waste in several areas: • labs which are being decomissioned • bench scale research tanks may not be empty • ~~drums stored outdoors~~ on dock lack labels indicating content/ characterization.
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	

- Records are available to support process characterization. Records reside with BM + Process Manager. For lab waste + process waste, process characterization is used.
- No evidence of standing waste in abandoned process units.
- Scent vials being repacked to reduce volume - Dave Atkins.
- Empty drums stored outside w open bung up Turn over to avoid collecting liquids

Environmental Appraisal Checklist

Building Name: WD

Appraisers: Vyas

Date: 1-23-96 am
1-31-96 pm

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	

9.32-24

Environmental Appraisal Checklist

Building Name: WD

Appraisers: VJS

Date: 1-23-96 am
1-31-96 pm

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	Lab areas / drum storage
	If no go to next section.		
	If yes, note.		
	For Building 23, Building 72 & Burn Area use special checklist.		

Process materials in contaminated areas have been unused for several years. D&D activities are underway to clear out contaminated labs & associated materials. Behind the building, next to SD, are several drums which contain wastes which must be characterized & / or moved to holding facility.

Environmental Appraisal Checklist

Building Name: WD

Appraisers: Vyas

Date: 1-23-96 am
1-31-96 pm

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N NOT KNOWN	Process tanks are being Checked for content.
	If the answer was no, then proceed with the following:	Y / N	2 of 4 checked & empty
	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	

9.32-25

9.32-26

Environmental Appraisal Checklist

Building Name: WD

Appraisers: Vyas

Date: 1-23-96 am
1-31-96 pm

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:

Solidified waste sludge from wwtrtment process is shipped to Nevada Test Site as LLW. Other wastes typically RCRA hazardous may be contaminated & may be mixed wastes. Characterization activities are underway but as yet are incomplete

BM has made good effort to clean up bldg. Good work to date!

Environmental Appraisal Checklist

Building Name: WD

Appraisers: Vyas

Date: 1-23-96 am
1-31-96 pm

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 NOT REMOVED	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	

9.32-27

9.32-28

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vyas Date: 1-23-96 am 1-31-96 pm

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

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

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TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	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: WD Appraisers: Vyas Date: 1-23-96 am

page not completed

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	

9.32-29

9.32-30

Environmental Appraisal Checklist

Building Name: WD

Appraisers: VYAS

Date: 1-23-96 am

page not completed

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	LLW is stored in yellow barrels with magenta markings. Sources are waste sludge from wastewater treatment process & contaminated items from buffer area
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	

9.32-31

9.32-32

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vugo Date: 1-23-96am

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?		bioassay analysis
	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	

Everything in bldg WD except paper is considered LLW.

LLW is stored in Bldg after solidification, sometimes for several months.

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vyas Date: 1-23-96 am

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	

9.32-33

9.32-34

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vyas Date: 1-23-96am

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Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II, 3.b	Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage?	Y / N	
	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: WD Appraisers: Vyas Date: 1-23-96 am

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Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

9.32-35

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	EG&G proposes to use sludge as moisture source for brickmaker.
	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	

Process is highly regulated. Not much opportunity for waste mgmt.

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vyas Date: 1-23-96 am

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Waste Minimization/Pollution Prevention Activities Checklist

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

9.32-37

9.32-38

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vyas Date: 1-23-96am

Page not completed

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: WD Appraisers: Vigo Date: 1-23-96am

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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	

9.32-39

9.32-40

Environmental Appraisal Checklist

Building Name: WD Appraisers: Vyas Date: 1-23-96 am.

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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: WD Appraisers: Vyas Date: 1-23-96am

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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?	_____ _____	

9.32-41

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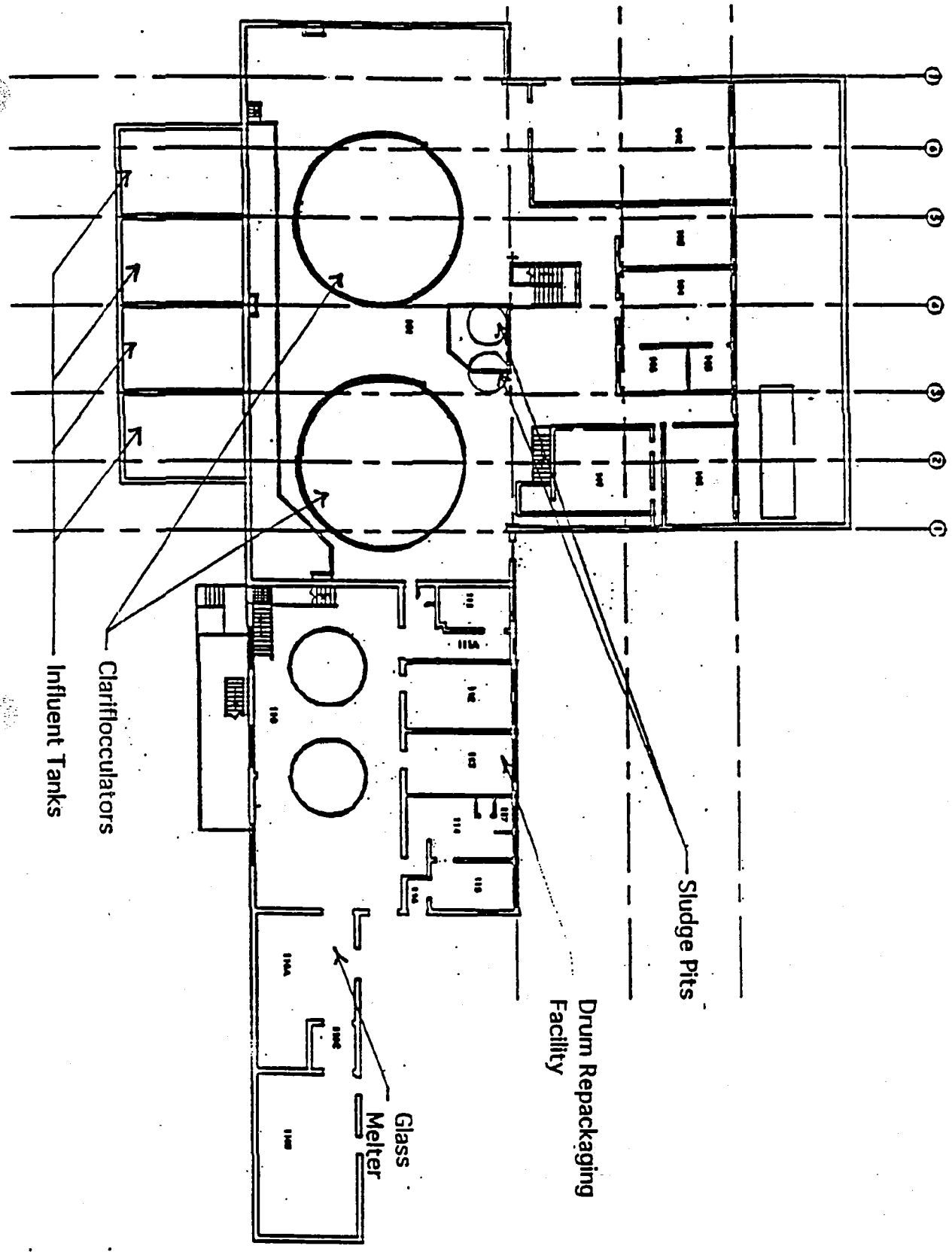

Figure 2-1: Waste Disposal Facility First Floor Schematic

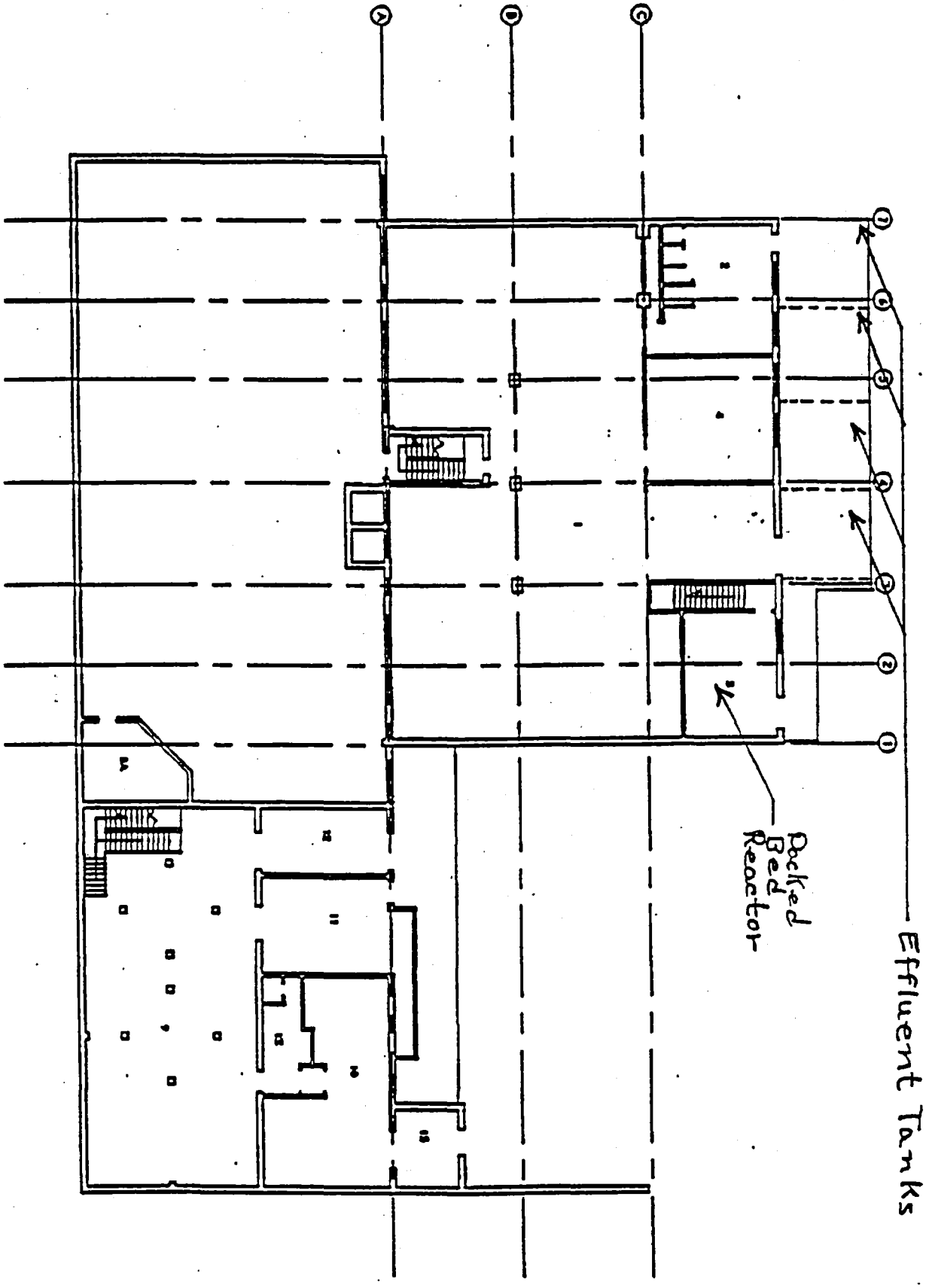

Figure 2-2: Waste Disposal Facility Basement Schematic

9.32-44

9.32.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: WD Building Manager: ~~T.K. Mills~~ ED KENNEDY Phone: 3310 Date: 12-07-95
Alternate: PERRY ABELLERA Phone: 3684

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

   RADWORKER II
   L-CLEARANCE
   TRITIUM HEALTH PHYSICS UPDATE
   BASIC TRITIUM TRAINING
   TRITIUM REFRESHER

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

   DOSIMETER BADGE
   ~~WALKING SHOE~~
   STEEL-TOED SHOES
   SAFETY GLASSES

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

   RADIOLOGICAL BUFFER AREAS ARE THRU OUT THE BUILDING

4. Provide a physical description of the building.

This is a one-story structure with a high-bay area and a basement. Total area is 16,216 ft^2. It is constructed of concrete block and reinforced concrete with BUM roof (asphalt and concrete). HVAC systems are central steam and chilled water. The building is contaminated with radiological materials.

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Building is used for processing water containing alpha and beta radiological contamination.

Source: Mound Buildings, 5-9-95

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

Building served as a sewage disposal facility.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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: Treatment of liquid rad waste

How Wastes Are Generated:

Since water containing radioactive material is processed in this building, there is a chance that gloves, shoe covers, and some other trash generated here might be contaminated. Any trash suspected of contamination is treated as LSA waste. LSA waste from this building is compacted (compaction ratio 4:1) in 55-gal drums.

Water containing alpha contamination (primarily plutonium and uranium) is treated in WD. Alpha water comes to WD from ~~Building H (laundry) and~~ Building R (research) in pipe lines. Alpha water from the SM-PP area is brought to WD in a tank truck. In addition, there is an abandoned underground line which was previously used to carry alpha water from Building SW and others to WD. The interior of this pipe and the soil surrounding it are thought to be contaminated. All groundwater running through this pipe is collected at WD and treated as alpha water. Water from the showers and floor drains in WD is also treated as alpha water.

Alpha liquids are collected in four 30,000-gal receiving tanks. When a tank is full (28,000 gal), the water's pH is adjusted to about 11.3 with sodium hydroxide to aid flocculation). Six hundred pounds of calcium chloride are added, along with 100 lb of activated carbon, 1-2 lb of flocculant, and sometimes ferric sulfate. This mixture is sent to the flocculators where the sludge and clarified liquid are separated. The sludge goes to one of two 1,000-gal sludge pits where it is sampled for radioactive content. The sludge is mixed with concrete in 55-gal drums for disposal as LSA waste. The clarified liquid passes through a sand filter and travels to effluent tanks where it is sampled. If the alpha concentration is below the allowable limit, the water is released to the river. If the concentration is above the limit (an unusual occurrence), the water is pumped back to the receiving tanks and processed again.

Solidified beta water is tritium-contaminated water mixed with cement in 55-gal drums. The beta water is transferred to WD from four sumps in SW Building through an above-ground, double-walled plastic pipe. At WD, the beta water is stored in two 4,000-gal receiving tanks. When a tank is full, it is sampled to verify that its beta concentration allows it to be handled as LSA waste. It is then mixed with cement and Florco (an absorbent) in drums for disposal as LSA waste.

Contact:
Phone #:

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

9.32-48

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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
Rad Waste Disposal	110	WD1100001	Y	florco absorbant	0.001		2.08	
Rad Waste Disposal	112	WD1120001	Y	alcohol	0.0501		48.096	
Rad Waste Disposal	112	WD1120002	Y	alcohol	0.0501		48.096	
Rad Waste Disposal	113	casket	Y	naphthalene p-dioxane xylene 1,2,4-tri-methylbenzene methyl benzene waste oil	0.0042 0.038 0.1295 0.0253 0.0169 1.76		8.064 72.96 248.64 48.576 32.448 3379.2	
Rad Waste Disposal	113	casket	Y	ethyl acetate freon methanol methylene chloride PCB-1254 1,1,1-tri-chloroethane	0.02 5.3 0.1 0.14 0.05 0.02		38.4 10176 192 268.8 96 38.4	
Rad Waste Disposal	113	WD1130001	Y	napthalene p-dioxane xylene 1,2,4-tri-methyl benzene methyl benzene	0.0042 0.038 0.0295 0.0253 0.0169		8.064 72.96 56.64 48.576 32.448	
Rad Waste Disposal	001	WD0010001	Y	cement	0.001		2.08	

Source: ?

9.32-49

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

9.32-50

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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)
SULFURIC ACID	L	540/LB
ABOVE FLOOR FIN	L	20/GA
ACTIVATED CARBON	S	2000/LB
CALCIUM CHOLORIDE	S	6000/LB
CON-SEAL	L	10/GA
DMQ	L	20/GA
FLORCO	S	4500/LB
GREASE BE GONE	L	10/GA
IRON STONE FIN	L	20/GA
NABC	L	20/QT
NALCO	S	100/LB
ODOR BANE	L	20/GA
PORTLANE CEMENT	S	16920/LB
RINSE FREE STRIP	L	20/GA
SODIUM HYDROXIDE 50%	L	6600/LB
WINDOW SHINE	L	50/GA
CALCIUM CARBONATE	S	1/LB
CALCIUM CHLORIDE	S	1/LB
FERRIC NITRATE	S	1/LB
L-ASCORBIC ACID	S	1/LB
POTASSIUM CARBONATE	S	1/LB

Source: Chemical Inventory 1994

NITROGEN GAS 3 cyl, MAX

9.32-51

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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?
WINDOW SHINE GLASS CLEANER
~~DQ~~ DYNO CLEANER
SBS SOAP
STATE CONCRETE SEAL
IRON STONE SEALER
ABIVE FLOOR FINISH

23. Where do excess janitorial supplies go?

N/A

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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
~~7664-93-9~~	SULFURIC ACID	02C		Y/N	01
TANK REMOVED IN 1992				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 THREE ~~TWO~~ SUMPS
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	ALPHA WATER	CONTINUOUS	Y / N	Y / N

Source: _____

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

Materials	Amount
ATTACHED	

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

9.32-53

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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
ALPHA PHCUS LABORATORY SAMPLET	SCITILLATION COCKTAIL VIALS	Y / N	Y / N	Y / N SEE PENNY ABELLERA
		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: _____

9.32-54

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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: _____

9.32-55

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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
ALPHA WASTEWATER TREATMENT	CONCRETED 55 GALLON DRUMS	Y / N	Y / N	Y / N PENNY ABELLERA
BETA WASTEWATER TREATMENT	CONCRETED 55 GALLON DRUMS	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.

9.32-56

Building Manager's Questionnaire

Building Name: WD Building Manager: T.K. Mills 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.

DOE REQUEST TO REDUCE COSTS WILL RESULT IN A PROJECT TO MINIMIZE BUILDING WASTE

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

9.32-57

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OhioEPA
State of Ohio Environmental Protection Agency

01

PERMIT TO OPERATE AN AIR CONTAMINANT SOURCE

Date of Issuance 08/25/95 Application No. 0857091196P029

Effective Date 08/25/95 Permit Fee $000

This document constitutes issuance to:

U S DOE - MOUND
MOUND RD.
MIAMISBURG OHIO 45342

of a permit to operate for:

WD BUILDING DRUM REPACKAGING FACILITY
WD BUILDING EXHAUST FAN-2 STACK WD-S-02

The following terms and conditions are hereby expressly incorporated into this permit to operate:

1. This permit to operate shall be effective until 08/25/98
You will be contacted approximately six months prior to this date regarding the renewal of this permit. If you are not contacted, please write to the appropriate Ohio EPA field office.
2. The above-described source is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.
3. Prior to any modification of this source, as defined in rule 3745-31-01 of the Ohio Administrative Code (OAC), a permit to install must be granted by the Ohio EPA pursuant to OAC Chapter 3745-31.
The Director of the Ohio EPA or an authorized representative may, subject to the safety requirements of the permit holder, enter upon the premises of this source at any time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit.
5. A permit fee in the amount specified above must be remitted within 15 days from the issuance date of this permit.
6. Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA field office must be notified in writing of any transfer of this permit.
7. This source and any associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices in order to minimize air contaminant emissions. Any malfunction of this source or any associated air pollution control system(s) shall be reported immediately to the appropriate Ohio EPA field office in accordance with OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this source.
8. Any unauthorized or emergency release of an air contaminant from this source which, due to the toxic or hazardous nature of the material, may pose a threat to public health, or otherwise endanger the safety or welfare of the public, shall be reported immediately to the appropriate Ohio EPA field office (during normal business hours) or to the Ohio EPA's Emergency Response Group (1-800-282-9378). (Additional reporting may be required pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act.)
9. The appropriate Ohio EPA field office is:
REGIONAL AIR POLLUTION CONTROL AGENCY
451 W. THIRD ST.
DAYTON, OH 45422 (513) 225-4437
10. ☒ If this term and condition is checked, the permit holder is subject to the attached special terms and conditions.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Donald R Schregardus

Director

copy to EG+G
9/11/95
mom

9.32-59

EPA 3834
Revised 9-90

APPLICATION NUMBER: 0857091196 P029

FACILITY NAME: U.S. DOE - Mound Plant

EQUIPMENT DESCRIPTION: WD Building Drum Repackaging Facility

COMPANY ID: WD Building Exhaust Fan-2 Stack WD-S-02

SPECIAL TERMS AND CONDITIONS

1. Approval to operate the above identified source is hereby granted subject to the conditions expressed herein and consistent with the materials and data included in the application filed by the company. Any departure from the conditions of this approval or the terms expressed in the application must receive prior written authorization of the local air agency (Regional Air Pollution Control Agency) and the Ohio Environmental Protection Agency.

2. The following rule(s) of the Ohio Administrative Code establish the applicable emission limitations and/or control requirements for this source: 3745-31-05(Ref: PTI 08-3205) and 3745-15-07. (This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

   Additionally, this source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements of 40 CFR Part 61 Subpart H.

3. The mass emissions from this source shall not exceed the following: 0.14 lb/hr methylene chloride, 1.2 TPY organic compounds. Radionuclides: Tritium: 10 Ci/yr; PU-239: 2.0×10^{-7} Ci/yr; and PU-238: 8.5×10^{-5} Ci/yr.

4. This facility shall maintain records of all the materials sampled and analyzed for this source. These records shall be maintained on file for at least 2 years and shall be made available to the Director or any authorized representative during normal business hours.

5. This facility shall include a description of process and the control equipment and the amount of radionuclides being emitted from Source P029 in their annual report as required by 40 CFR 61 Subpart H that is submitted to David Kee, USEPA, Region V.

(Continued)

6. The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

7. The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source are subject to public disclosure in accordance with OAC rule 3745-49-03.

Prepared by: L. K. Roussey
Date prepared: 7/28/95

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EG&G MOUND APPLIED TECHNOLOGIES
PERFORMANCE-BASED AUDIT

AUDIT NUMBER: Q1396

PROGRAM AUDITED: MD-10245, Quality Assurance Plan for Waste Disposal Technology Group and MD-70180, Mound Radioactive Liquid Waste Disposal

AUDITOR: Thomas J. Craft

AUDIT DATES: August 17 - August 30, 1995

REPORT DATE: September 6, 1995

CORRECTIVE ACTION DUE DATE: October 30, 1995

CORRECTIVE ACTION RESPONSE RESPONSIBILITY:

FINDINGS:	OBSERVATIONS:	
1. Tom Mills	1. Steve Beavers & Phil Ryan	
2. Tom Mills	2. Tom Mills	5. Tom Mills
3. Tom Mills	3. Tom Mills	6. Tom Mills
4. Tom Mills	4. Tom Mills	7. Tom Mills

CLOSEOUT MEETING: September 13, 1995

ATTENDEES:

Perry Abellera	Phil Ryan
Steve Beavers	Monte Williams
Tom Mills	Tom Craft
Rita	R Wilson

AUTHORIZATION:
(File copy signed by)

Rita Krasnonski

Rita K. Krasnonski,
Manager
Performance-Based Audits

9.32-63

SCOPE:

A limited evaluation was performed of activities, including associated controlling documentation, within the Waste Disposal (WD) facility that contribute either directly or indirectly to the treatment of all radioactively contaminated waste water generated at Mound, and the packaging of contaminated residuals to be buried. The only operation observed during the WD audit was the release of one effluent tank of water to the Great Miami River. Specific areas of the WD operations audited were: personnel training; instructions and procedures; document control; control of process; inspection; test control; control of measurement and test equipment (M&TE); handling; test and operating status; control of nonconforming items; corrective action (C/A); QA records; audits; and ES&H. Adherence to the following documents were considered in this audit, as well as the importance of safety, hygiene, and the environment.

MD-10245, Issue 5, Quality Plan for Waste Disposal Technology Group;

MD-70180, Issue 16, Mound Radioactive Waste Disposal Systems;

NQA-1, QA Program Requirements for Nuclear Facilities;

DOE Order 5700.6C, Dated 8-21-91, Quality Assurance;

MD-10019, Issue 6 + ACO950264MD, Radiological Control Manual;

MD-10286, Issue 16, Mound Safety and Hygiene Manual;

PP-9327, Revision 1, Establishment of the Industrial Safety and Health Program.

FM-AP-024, Revision 1, Hoisting and Rigging Program

SUMMARY:

The results of the WD facility audit indicate that adherence to their Quality Assurance Plan and Mound ES&H requirements are negligent in many areas. The primary concerns are in reference to the general health and safety of the WD building personnel as indicated in this report. The total number of findings and observations indicate an overall management review of the WD facility is highly recommended. It is apparent that many of the issues indicated in this report have generally been problems for an unreasonable amount of time. For the WD facility to be in compliance, management must be committed to that effort through an adequate budget and resources.

FINDINGS:

PERSONNEL TRAINING AND QUALIFICATION

replaced MD-81020

1. ~~MD-10245~~, section 2.2.2, requires that, "All Waste Disposal (WD) personnel performing activities that directly affect the quality of the control of radioactive waste are qualified to perform such activities on the basis of appropriate training, education, experience and/or by demonstrated performance. The WD Supervisor qualifies the individuals reporting to him and maintains qualification documentation in the form of certificates of qualifications ..."

   Individual training records from Central Training for five (5) individuals involved in the WD operations were reviewed against the Department Training plan # B008, issued September 20, 1993. A review of these records indicate that all 5 individuals are deficient in training requirements. Five of five have never been trained in all required courses, and 5 of 5 are also overdue in other required training. The central training records that were reviewed, do not have "supporting qualification" of all individuals as required, because evidence of course completion was not available.

   Furthermore, the WD management records of personnel qualifications were reviewed and found to be deficient in that the listing of operation numbers do not agree with the operation numbers of MD-70180, Issue 16, WD procedures. The last date indicated in the management records is 11/25/92 and the MD-70180, Issue 16, procedures were effective 9/24/92, or two months prior to the last input in the management records which further questions the review and adequacy of the training qualifications.

INSPECTION

2. ~~MD-10245~~, section 2.10.1, states, "Inspections of in-process operations to ensure conformance to applicable procedures/specifications are conducted by in-process **Quality inspectors.**" In section 2.14 it further states, "INSPECTION, TEST, AND OPERATING STATUS focuses primary on OPERATING STATUS because inspections and conformance tests **are not performed by WD personnel.**" Appendix B, sections B1 and B2, states, "Personnel responsible for **independent inspection** of Hazardous Waste and Reusable Nuclear Material containers and/or functions must be properly trained and documented."

   In the WD facility, it was indicated and verified that independent inspection is not being accomplished and has not since approximately 1992, when a Quality Engineer was assigned to the WD area. All inspections and the completion of quality records is done by the WD facility operators. Independent oversight and validation is not done.

INDEPENDENT ASSESSMENT

3. MD-10245, section 2.18, states, "A self-audit and/or intra-department audit will take place annually. All Audit records/copies are retained by the WD Supervisor."

   There was no evidence of self-audits and/or intra-department audits available from the WD management, who indicated that the objective evidence was not available.

ENVIRONMENTAL, SAFETY AND HEALTH (ES&H)

4. MD-10286, issue 16, Mound Safety and Hygiene Manual, operation A1, section 2.9 requires supervisors to:

   "Exercise responsibility for Safety, Hygiene, and Loss Prevention of all operations under their control and for the personal safety of their employees."

   "Recognize and anticipate hazards from, equipment, processes, raw materials, or products."

   "Instruct employees on safety rules and practices and make certain they are observed and enforced."

   "Take immediate action to correct unsafe practices or conditions even when such situations are not covered under existing plant safety rules and regulations."

   "Utilize Environmental, Safety and Health staff resources as required to meet above responsibilities."

   MD-10286 further requires, "employees to perform assigned duties safely by following established safe working procedures, by using proper equipment and by correcting or reporting unsafe acts or conditions." (Section 2.10).

   MD-10286, operation F1, defines Line Supervisor Radiological Work Permit (RWP) responsibilities as:

   "Maintenance of RWP for work under their control."

   "Follow up with Maintenance and Health Physics as needed and ensure approvals before work is initiated."

   "Maintain radiation area and process equipment in proper condition for safe operation."

3. The two (2) barrel hoist (Dayton Crane Hoist) in room WD-1, were not evident to have the Mound annual, blue inspection tag as required by FM-AP-024, Revision 1.

4. The WD Quality Plan, MD-10245, Issue 5, was released 10-1-91 and references 5700.6B which was replaced by 5700.6C on 8-21-91, or prior to release of the Quality Plan, issue 5. MD-81020 - ISS 10, Add to obsolete MD-10245

5. Quality record storage in WD-104 lacks protection against loss, heat, water, and dust as required in MD-10245, section 2.17.

6. A lot of approximately 20, filled, sludge waste drums noted in WD-1, were not sealed and promptly surveyed by Health Physics as required in MD-10245, section 2.13.2. The drums were filled the week of 8-20-95, and were still not sealed as of 8-30-95. MD-70180; OP254

7. The inspection method/procedure is not indicated on form #7042 as required in MD-10245, section 2.19.3. MD70173 Have to

8. As no DECARS's were made available during the audit, the implementation of a corrective action system is not evident.

4. cont.

In WD-8, which is under the clariflocculators in WD-101, the following notations were made: ceiling separation with debris dropping on floor; two (2) old, used pumps on floor; rusty drainage pipes; water on floor leaking from influent tanks above in WD-101 for approximately two years; asbestos loose and falling off overhead pipes; and several blue cabinet shelves have many displaced items lying on them.

In WD-1, drumming area, the items requiring ES&H recognition are: sand filter A requires cleaning, repainting, and repair of channel leaks; sand filter B steps are cluttered with items and obsolete equipment is stored on the walkway (RAD area); decon supplies stored in boxes are collapsing, cabinet doors are off and on floor, aluminum bar stock loosely stored on cabinet; one water hose across floor; floor trip hazards at sump pump and conveyor/sludge drum areas; and the general area is very dirty.

And finally in the WD Sub-basement (effluent tank) area the ES&H areas are: all five (5) overhead lights are burned out and the operator utilizes the emergency lighting to process the effluent tanks; and there is standing water on the floor from underground leakage. The water on the floor is in the area in front of the high voltage control panel that the operator uses to operate the effluent tank pumps; the floor drain grates are approximately one inch higher than the adjacent floor thus causing a trip hazard; a hose is lying across the floor at the bottom of the steps; and again the area is very dirty.

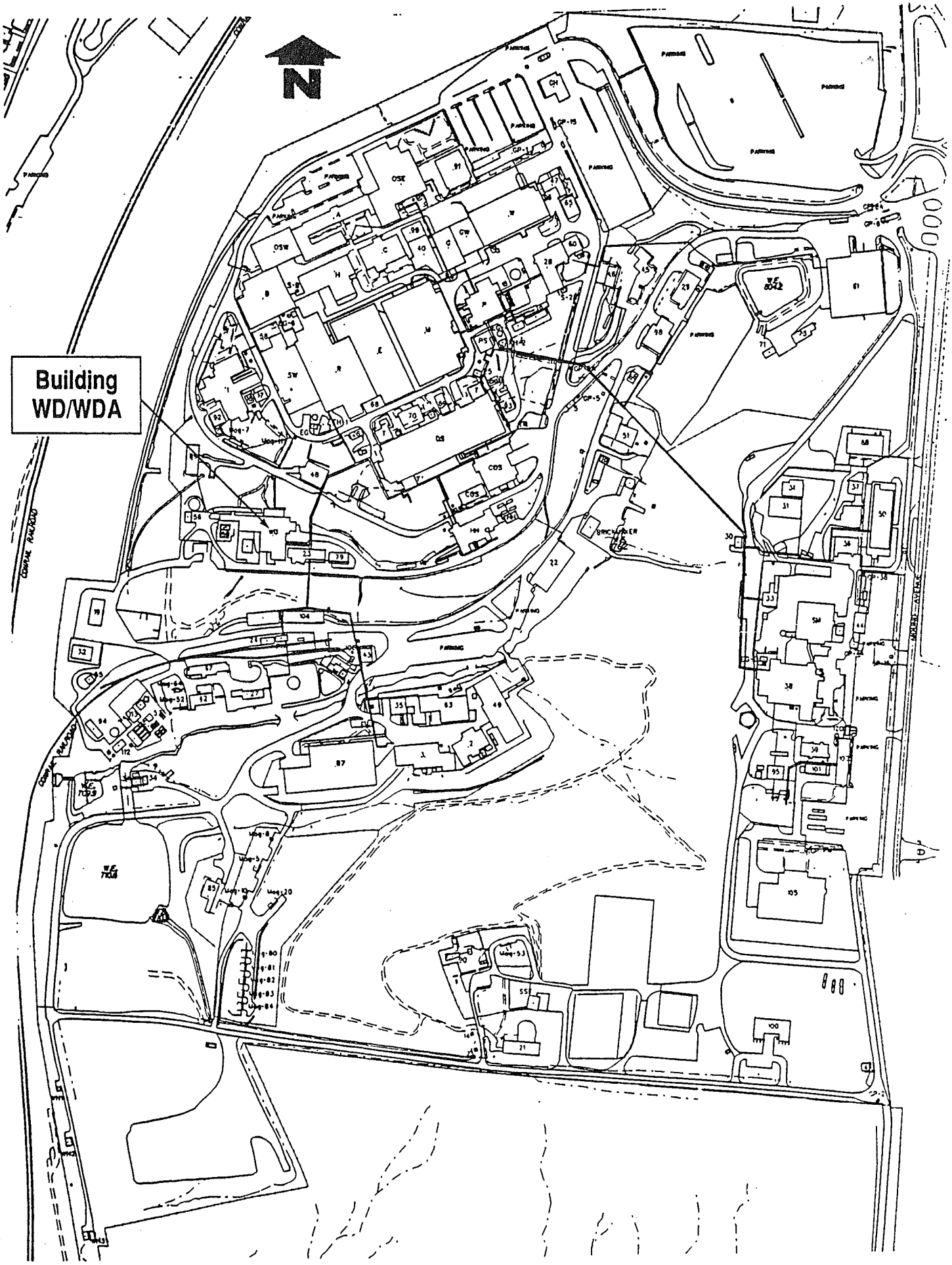
The housekeeping issues noted above are considered findings because of the nature of the work and the types of material being processed in the WD Facility. The radioactive water processing with the resulting sludge which may become airborne when dried, contributes to the accumulation of the dirty conditions throughout the area.

OBSERVATIONS:

1. The Health Physics personnel were "not sure" of what RWP requirements are required for visitors and/or the auditor in several areas of the WD facility. A general RWP for the WD facility was not evident.

2. The clariflocculator "B" has been shut down for approximately five (5) years due to a stuck valve #V-4. The sludge draining of the tank has been ongoing for 5 years, which appears to be an excessive length of time for this project.

9.32.6.3 Location of Building WD



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

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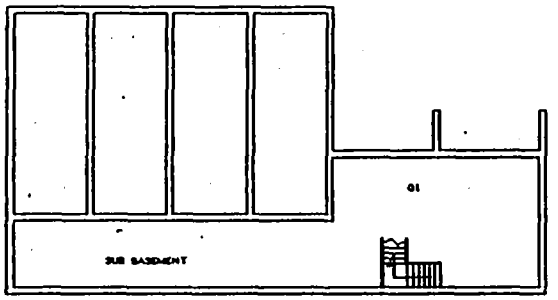
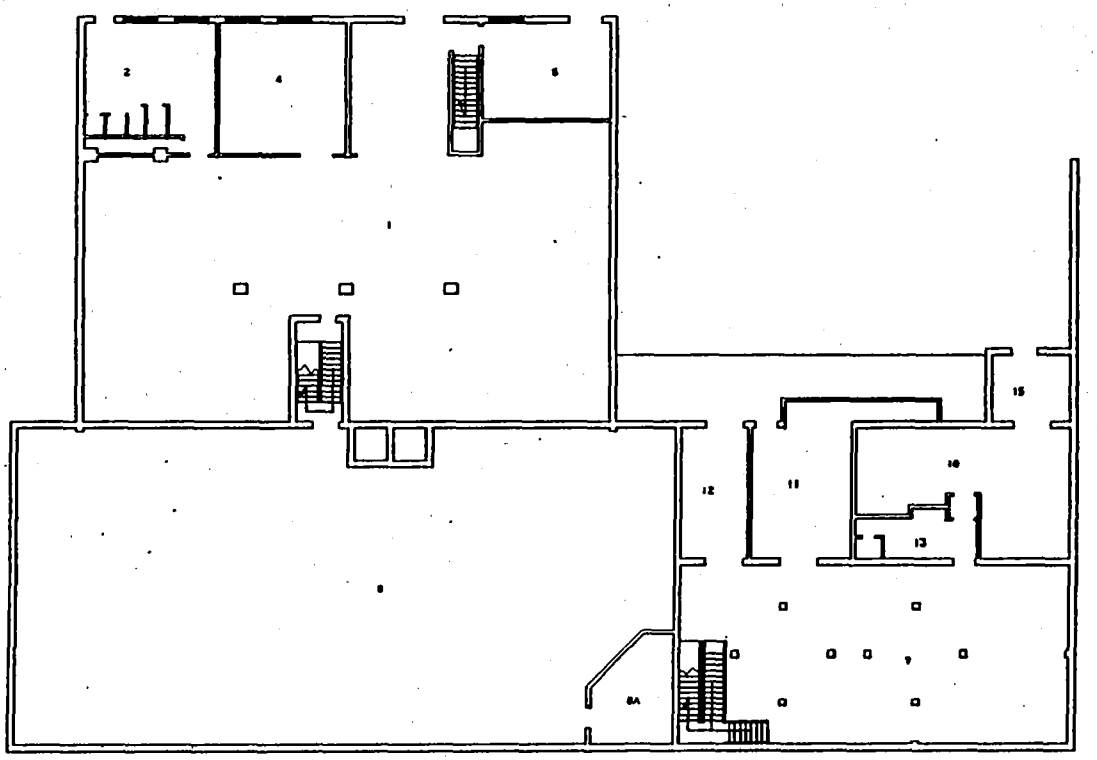
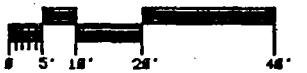
9.32.6.4 Floor Plans for Building WD

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



SUB BASEMENT





WD BLDG
BASEMENT
BLDG CODE:3516

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

DESIGN ENG	PROJ MGR
APVD	ENG SUPV
LP & EC	PROD REV
ENG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	0	0				

PART CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED

TITLE: WD BLDG FLOOR PLANS

(U) TITLE CLASSIFICATION

SIZE	DRAWING NUMBER	JOB NUMBER
C	FSC911327	12335

DWG TYPE SFP	FROM WD BLDG	CADD 14065	SCALE AS NOTED	SHEET 1 OF 2
STATUS MD-REL-12/12/91		ORIGIN MD-BR3-V3.3		

9.32-75

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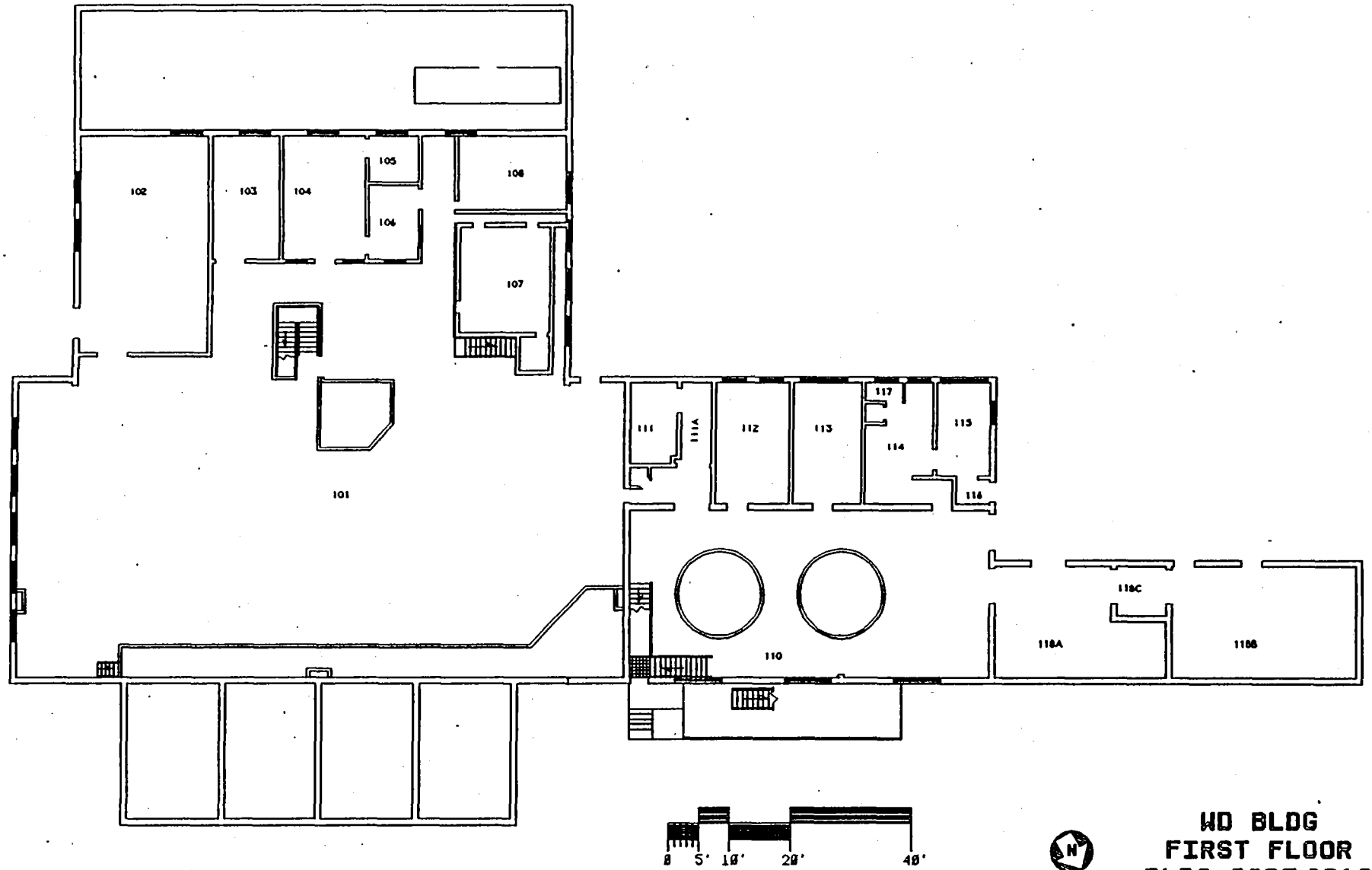

WD BLDG
FIRST FLOOR
BLDG CODE:3516

DRAWING NUMBER FSC911327	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE C / CODE 14065 / ISSUE B	SCALE AS NOTED / SHEET 2
STATUS MD-REL-12/12/91	

9.32-77

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9.32.6.5 Underground Utility Lines

FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
RD & RDA BLDG.

DATE: 5-4-96

9.32-81

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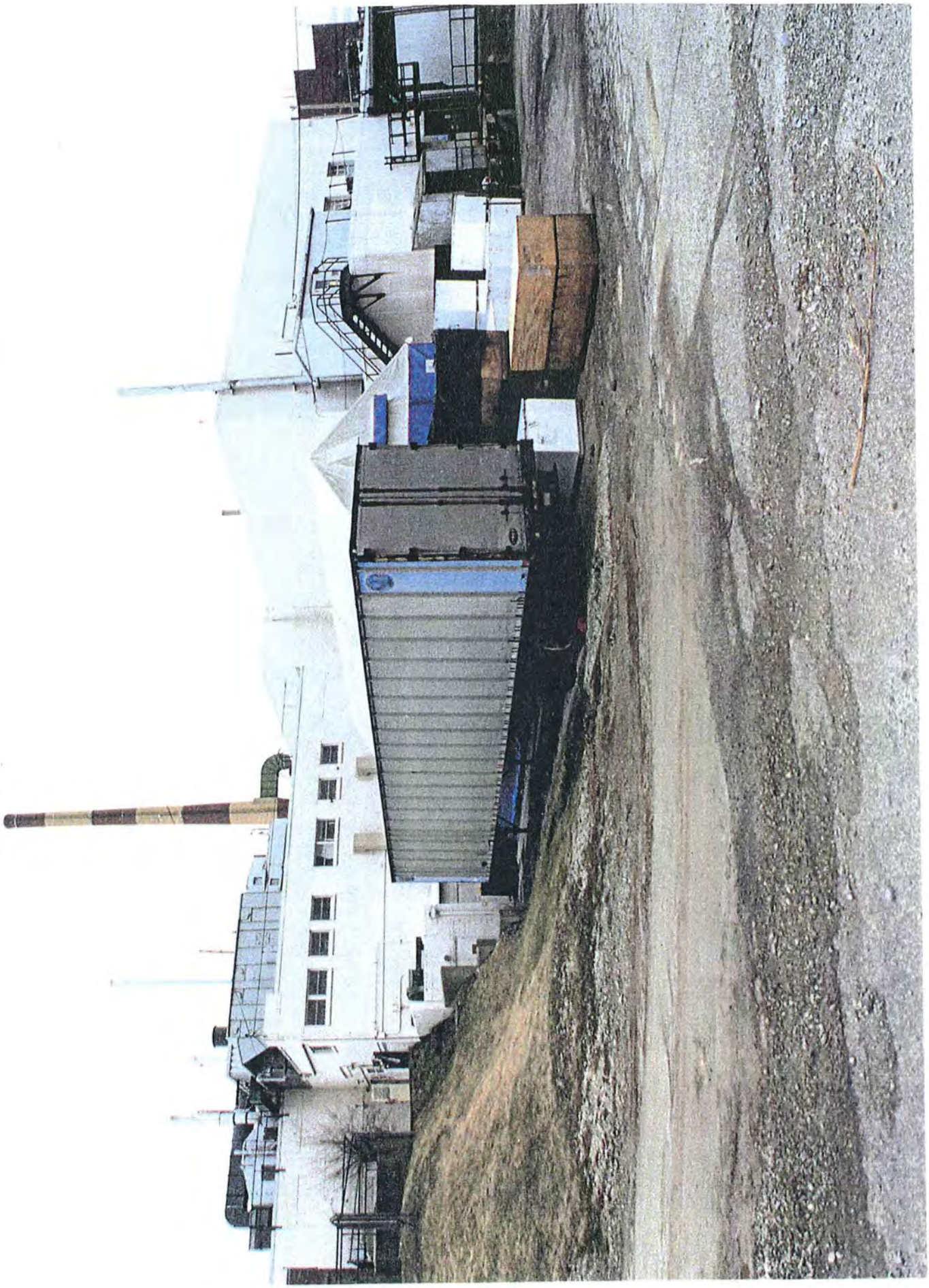
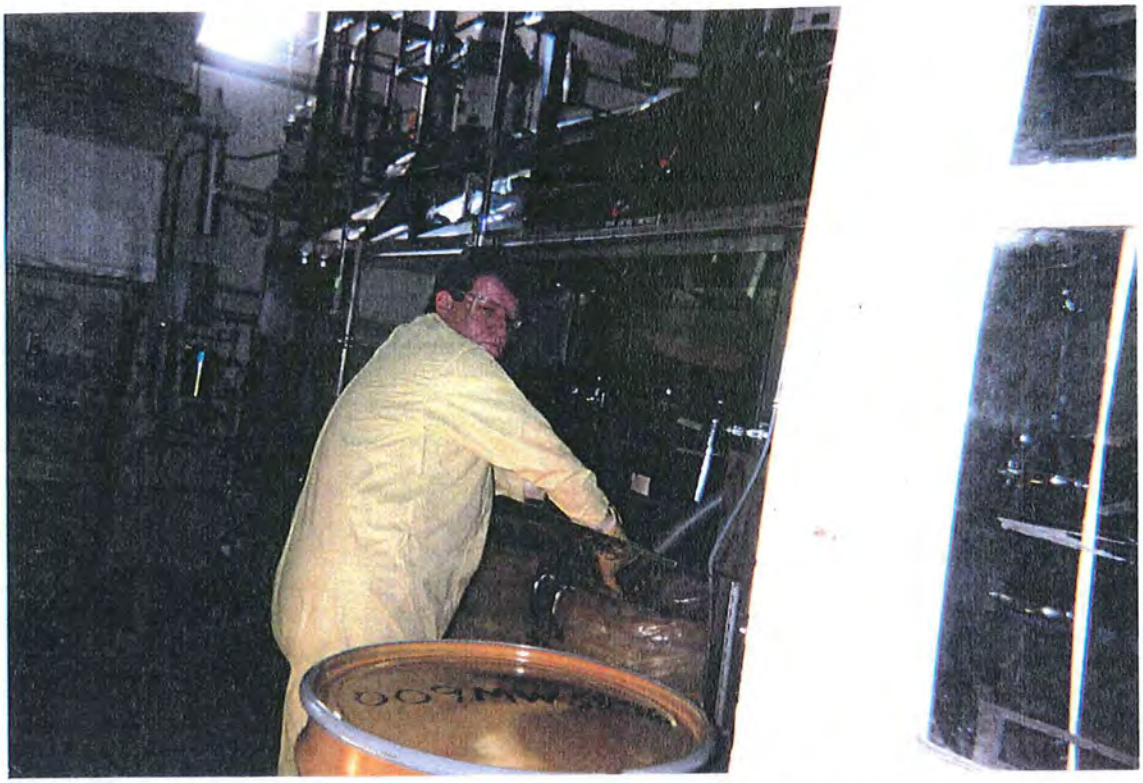
9.32.6.6 Photographs

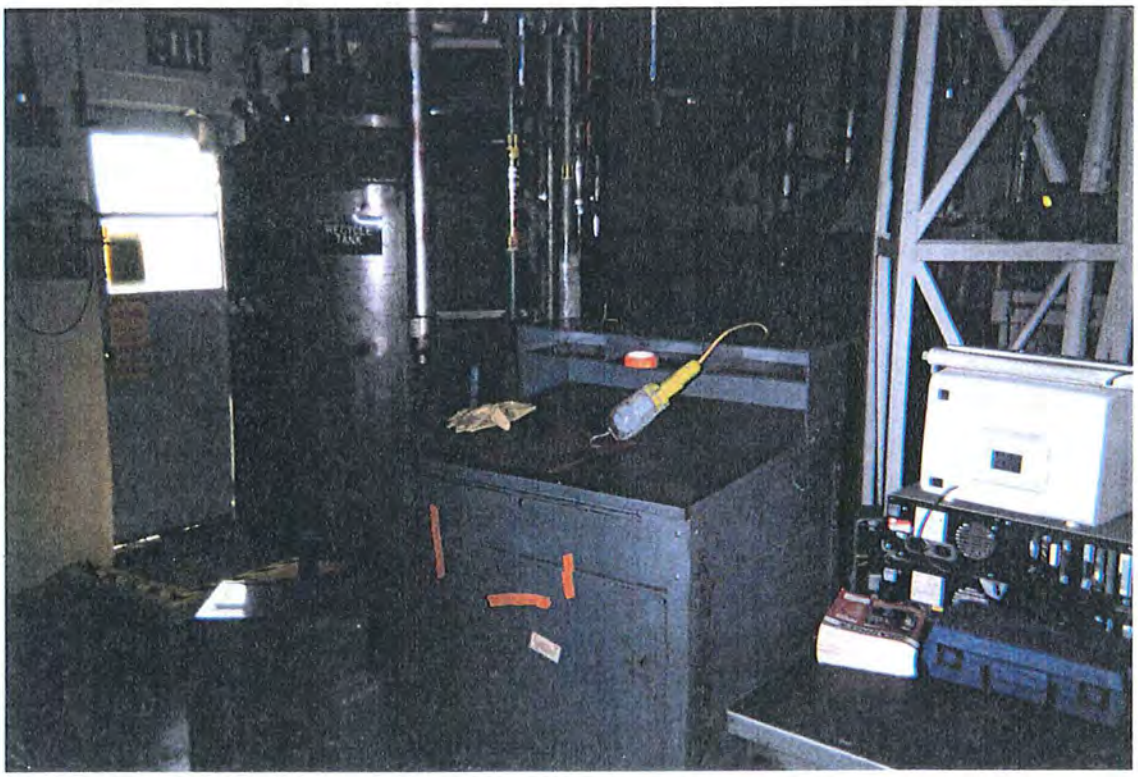


Mound Plant Building WD

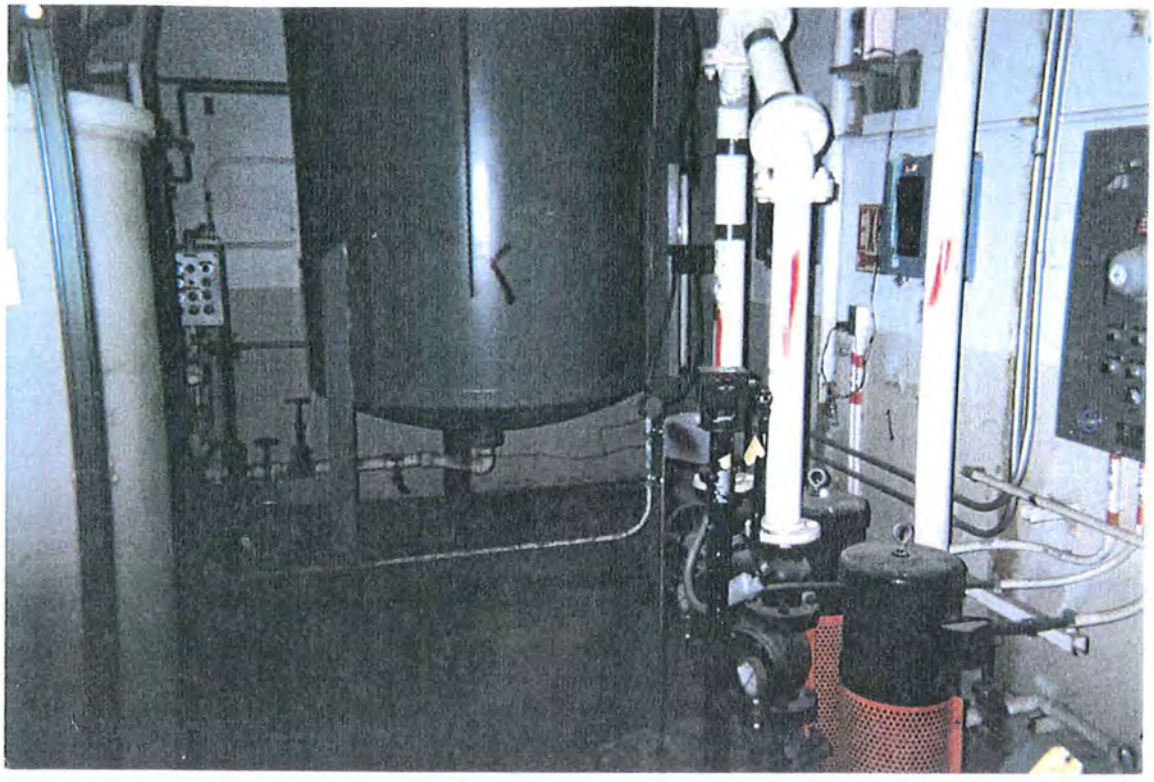
9.32-85



A technician reduces the volume of mixed waste in Building WD. All work is done under a hood in WD. An air emissions permit has been issued by the Ohio Environmental Protection Agency.



Idle equipment was placed in Building WD without the knowledge and permission of the building manager. It will be surveyed by Health Physics prior to disposal.



Several tanks, process reactors, and process piping located in Building WD must be assessed to determine if they contain hazardous wastes.

Thirty-five drums of uncharacterized and unlabeled waste are stored outside of WD. Barrels are not protected from the elements; secondary containment is not provided.

9.33 BUILDING WH-1

9.33.1 Scope of Building WH-1 Report

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

The appraisal team performed a walk-through of Building WH-1 on the morning of January 22, 1996. The Environmental Appraisal Checklist (EAC) (Attachment 1—Section 9.33.6.1) was used to record findings. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.33.6.2).

9.33.2 Description of Building WH-1

Building WH-1, a wellhouse, is a 374-square-foot, structure built slab-on-grade with concrete block wells and a metal roof. The Building covers the well and houses a pump to help supply water to the Mound facility. The location is shown in Attachment 3 (Section 9.33.6.3). A floor plan of the building is shown in Attachment 4 (Section 9.33.6.4).

The building was constructed in 1948 and has been used for the same purpose since construction. The facility is not supplied with utilities other than 480V three phase power to run the water well pump and an electric space heater.

9.33.3 Summary of Findings

A facility walk-through was conducted and the facility was found to be in good condition. There were no issues of environmental concern identified during the walk-through.

9.33.4 Observations

9.33.4.1 Air Emissions

There were no sources of air emissions identified at the facility. There was no evidence of fugitive dust at or around Building WH-1.

9.33.4.2 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.

9.33.4.2.1 Sanitary Wastewater

The building houses one of the three site pumps that provide the plant with raw water for subsequent treatment and distribution as service, fire system, and potable water. There are no wastewater streams associated with the facility and as such the building is not serviced by a sanitary line.

9.33.4.2.2 Storm Wastewater

The facility is not equipped with exterior storm drains according to the underground utility lines diagram in Attachment 5 (Section 9.33.6.5).

9.33.4.2.3 Chemicals

No chemicals are stored or used at the facility. A vendor periodically inspects and uses chemicals to treat the wellbore and well screens. Unused chemicals are removed by the vendor. No priority pollutant chemicals listed in the Clean Water Act (CWA) are used in Building WH-1. There is no record or evidence of a spill.

9.33.4.3 Potable and Service Water

The building houses one of the three site pumps that provide the plant with raw water for treatment and subsequent distribution as potable water.

9.33.4.4 Chemical Storage and Hazardous Materials

There is no chemical storage or hazardous materials storage in the facility (with the exception of the pump oil housed within the pump). When the pump oil is changed, the used oil is placed in a container and handled as waste oil.

There was no evidence of asbestos in the facility; it is not insulated. The building also contains no polychlorinated biphenyls (PCB's).

9.33.4.5 Solid, Hazardous, and Radioactive Wastes

No wastes are routinely generated at the facility. Pump oil, when changed during periodic pump servicing, is placed in a container and handled by Mound Waste Management.

9.33.4.6 Waste Minimization and Pollution Prevention

There is no routine generation of wastes at the facility and no real opportunity for waste minimization or pollution prevention.

9.33.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.33.6.6). The environmental appraisal of Building WH-1 indicates that there are no action items which need to be planned.

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Environmental Appraisal of the Mound Plant

9.33.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name WH-1 -(DEEP WELL #1)

Appraisers:

Name	Discipline
MARCIA VANNET	CHEMIST
MARK GILLIAT	ENGINEER
MYRON SMITH	ENGINEER

Building Manager: ALLEN UPSHAW

Process Manager: FRANK BAKER

Date: 1/22/96

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 A[illegible]sal Checklist

Building Name: WH-1 Appraisers: TEAM 4 Date: 1/22/96

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	BLANK
	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	

9.33-9

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	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	

9.33-10

Environmental Appraisal Checklist

Building Name: WAL-1 Appraisers: TEAM 4 Date: 1/22/96

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					

BLANK

Source: _____

9.33-11

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	BLANK
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	

* The well is periodically serviced, the vendor takes all unused chemicals with them. No chemicals are routinely stored in the facility

Environmental A[illegible]isal Checklist

Building Name: WH-1 Appraisers: TEAM 4 Date: 1/22/96

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

9.33-13

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	

BLANK

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

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

Source: _____

Environmental Appraisal Checklist

Building Name: WH-1 Appraisers: Team 4 Date: 1/22/96

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	BLANK
	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: _____

9.33-15

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	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: WH-1 Appraisers: TEAM 4 Date: 1/22/96

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

9.33-17

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.		

BLANK

Environmental Appraisal Checklist

Building Name: WH-1 Appraisers: TEAM 4 Date: 1/22/96

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

9.33-19

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 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: [illegible] Appraisers: [illegible] Date: 1/22/96

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	

9.33-21

Building Name: Appraisers: Date:

9.33-22

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	

Environmental Appraisal Checklist

Building Name: unit-1 Appraisers: TEAM 4 Date: 1/11/96

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	

9.33-23

9.33-24

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: NH-1 Appraisers: TEAM 4 Date: 1/22/96

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 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	

9.33-25

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	

BLANK

Environmental Appraisal Checklist

Building Name: WH-1 Appraisers: TEAM 4 Date: 1/22/96

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	

9.33-27

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 A[illegible]isal Checklist

Building Name: [illegible]-1 Appraisers: Team 4 Date: 1/22/96

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:

9.33-29

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	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: uu-1 Appraisers: Team 4 Date: 1/22/95

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	

9.33-31

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

Environmental Appraisal Checklist

Building Name: 44-1 Appraisers: Team 4 Date: 1/22/96

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

9.33-33

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	BLANK
	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: NH-1 Appraisers: TEAM 4 Date: 1/22/96

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?	_____ _____	

9.33-35

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9.33.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: WH-1 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. Zaker Phone: 865-3438

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

NONE

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

SAFETY GLASSES

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

4. Provide a physical description of the building.

Building WH1 is a 374-ft² building.

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

5. Provide a drawing of the building.

No drawing provided

6. What is the current building use?

Houses pump for plant water supply.

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

9.33-39

Building Manager's Questionnaire

Building Name: WH-1 Building Manager: A.W. Upshaw 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 supply pumping.

How Wastes Are Generated:

No hazardous wastes are generated in this building.

Contact: A. Upshaw / F. Baker
Phone #: 4890 / 3088

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

Building Manager's Questionnaire

Building Name: WH-1 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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

Source: _____

9.33-41

Building Manager's Questionnaire

Building Name: WH-1 Building Manager: A.W. Upshaw 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
			Y / N
			Y / N
			Y / N
			Y / N
			Y / N

Source: _____

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: _____

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 No
What are the results?

Source: UNKNOWN

Building Manager's Questionnaire

Building Name: WH-1 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? Yes / No

Source: _____

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

Source: _____

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: _____

9.33-43

Building Manager's Questionnaire

Building Name: WH-1 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?

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: _____

9.33-44

Building Manager's Questionnaire

Building Name: WH-1 Building Manager: A.W. Upshaw 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
				Y/N	
				Y/N	

Source: _____

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: _____

9.33-45

Building Manager's Questionnaire

Building Name: WH-1 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: _____

Building Manager's Questionnaire

Building Name: WH-1 Building Manager: A.W. Upshaw 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: _____

9.33-47

Building Manager's Questionnaire

Building Name: WH-1 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.

Building Manager's Questionnaire

Building Name: WH-1 Building Manager: A.W. Upshaw 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

9.33-49

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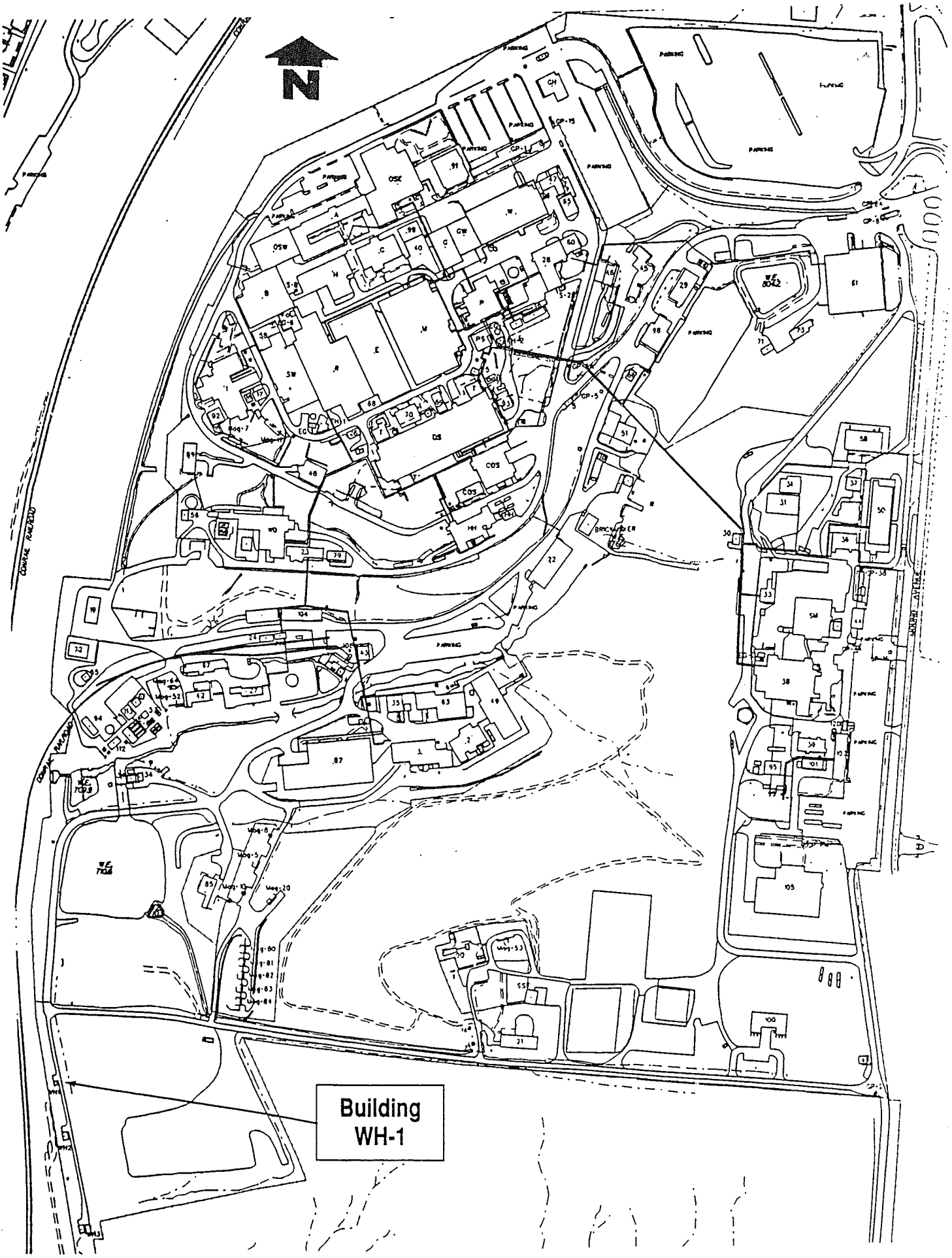
9.33.6.3 Location of Building WH-1



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

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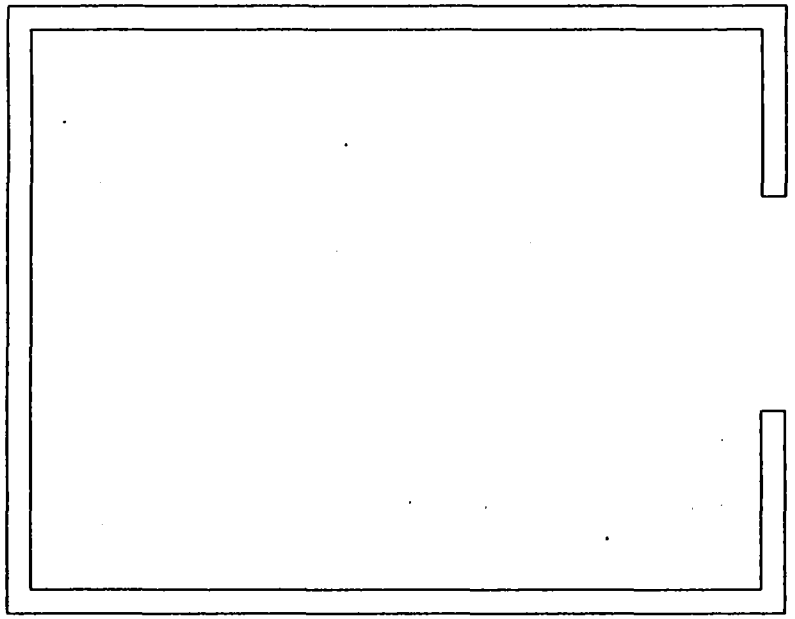
9.33.6.4 Floor Plans for Building WH-1

ISS	DATE	REVISION	BY	C	APVD	M
Ø	12/12/91	ASBUILT ISSUE	DCW		DVD	



WELL HOUSE #1
FIRST FLOOR
BLDG CODE:3316

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED:	
___NONE ___TRUEDOC ___TEDOC ___EYEDOC	
TECH. REP.	
SR. MGR.	
TRUEDOC	
TEDOC	
EYEDOC	

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

SHEET	1	2	3	4	5	6
ISSUE	Ø					

FINAL CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
WELL HOUSE #1
FLOOR PLANS

DRAWING CLASSIFICATION	SIZE	DRAWING NUMBER	JOB NUMBER
UNCLASSIFIED	C	FSC911345	12335

DWG TYPE SFP	PROJ W.H.#1	CHGE 14865	SCALE AS NOTED	SHEET 1 OF 1
STATUS MD-REL-12/12/91		ORIGIN MD-BR3-V3.0		

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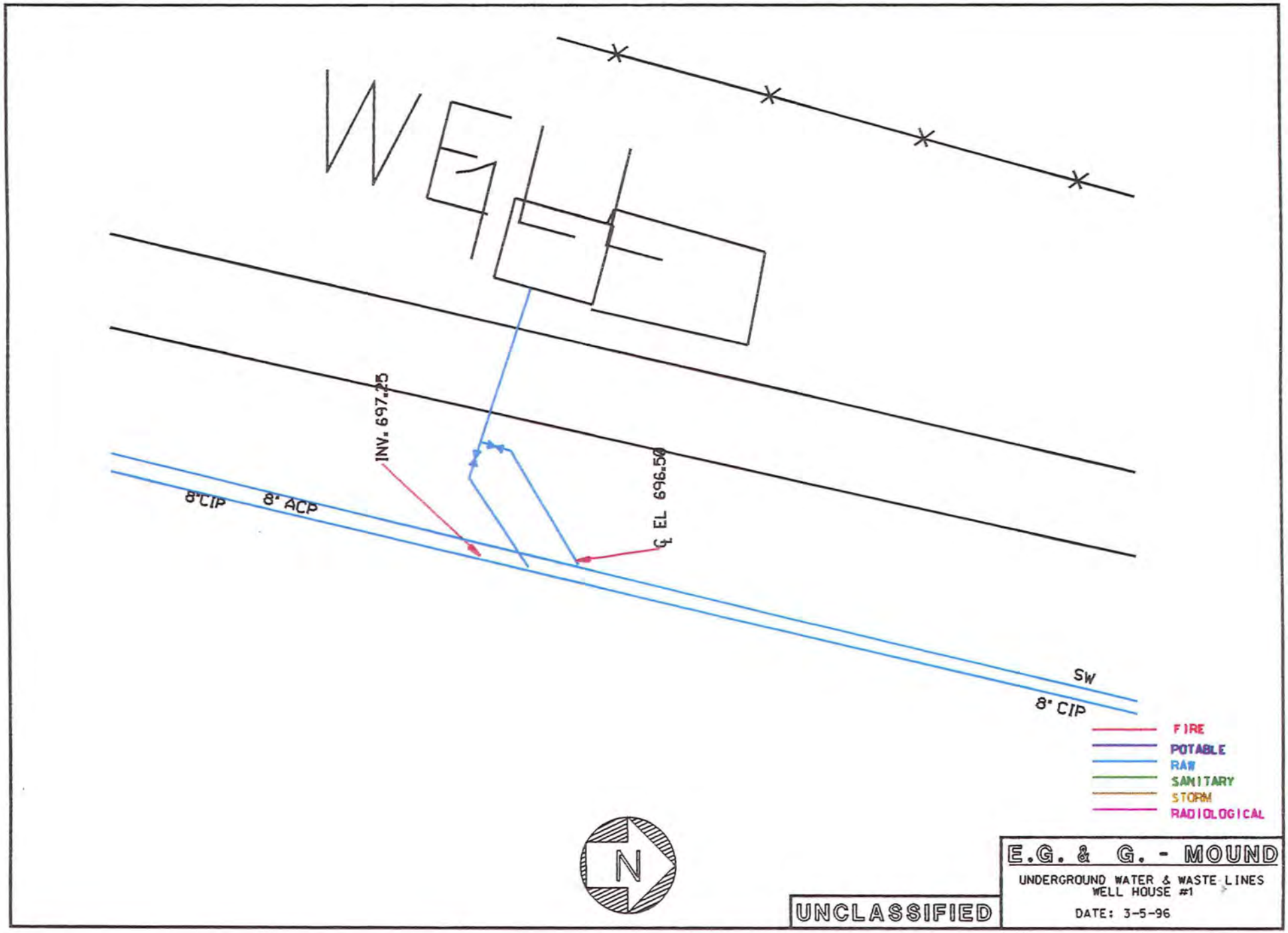
9.33.6.5 Underground Utility Lines


WELL
INV. 697.25
G EL 696.50
8"CIP
8" ACP
SW
8" CIP
FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL
N
UNCLASSIFIED
E.G. & G. - MOUND
UNDERGROUND WATER & WASTE LINES
WELL HOUSE #1
DATE: 3-5-96

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9.33.6.6 Photographs

Mound Plant Building WH-1

9.34 BUILDING WH-2

9.34.1 Scope of Building WH-2 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 WH-2 on the morning of January 22, 1996. The Environmental Appraisal Checklist (EAC) (Attachment 1—Section 9.34.6.1) was used to record findings. The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.34.6.2).

9.34.2 Description of Building WH-2

Building WH-2, a wellhouse, is a 374-square-foot structure with masonry exterior walls. Built slab-on-grade, it has a built-up membrane roof and covers a well and its pump. The well helps furnish water to the Mound Facility. It location is shown in Attachment 3 (Section 9.34.6.3). A floor plan of the building is shown in Attachment 4 (Section 9.34.6.4).

The building was constructed in 1948 and has been used for the same purpose since construction. The facility has no utilities other than 480V, three-phase power to run the water well pump and an electric space heater. A propane-fueled, standby, direct-drive engine is hooked to the pump to provide power during electrical power outages.

9.34.3 Summary of Findings

A facility walk-through was conducted and the facility was found to be in good condition. There were two issues of environmental concern identified during the walk-through.

9.34.4 Observations

9.34.4.1 Air Emissions

The propane-fueled, direct-drive engine for standby service was not included in the Mound Air Emissions database of 11-30-95. There was no evidence of fugitive dust at or around Building WH-2.

9.34.4.2 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.

9.34.4.2.1 Sanitary Wastewater

The building houses one of the three site pumps that provide the plant with raw water for subsequent treatment and distribution as service, fire system and potable water. There are no wastewater streams associated with the facility and as such the building is not serviced by a sanitary line.

9.34.4.2.2 Storm Wastewater

The facility is not equipped with exterior storm drains, according to the underground utility lines diagram in Attachment 5 (Section 9.34.6.5).

9.34.4.2.3 Chemicals

An aboveground, 100-gallon propane storage tank is located outside the building. The tank provides propane fuel to power the standby engine. A vendor periodically inspects and uses chemicals to treat the wellbore and well screens. Unused chemicals are removed by the vendor. No priority pollutant chemicals listed in the Clean Water Act (CWA) are used in WH-2. There is no record or evidence of a spill.

9.34.4.3 Potable and Service Water

The building houses one of the three site pumps that provide the plant with raw water for treatment and subsequent distribution.

9.34.4.4 Chemical Storage and Hazardous Materials

No chemicals storage or hazardous materials are stored in the facility, with the exception of pump oil housed within the pump and the exterior aboveground propane storage tank. When the pump oil is changed, the used oil is placed in a container and handled as waste oil.

There was no evidence of asbestos in the noninsulated facility, and the building does not contain any polychlorinated biphenyls (PCBs).

9.34.4.5 Solid, Hazardous and Radioactive Wastes

No wastes are routinely generated at the facility. Pump oil, when changed out during periodic pump servicing, is placed in a container and handled for disposal by Mound Waste Management.

9.34.4.6 Waste Minimization and Pollution Prevention

There is no routine generation of wastes at the facility and no real opportunity for waste minimization or pollution prevention.

9.34.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.34.6.6). The environmental appraisal of Building WH-2 indicates that the following action items, in order of priority, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

WH-2-1 Determine if the standby propane-driven engine requires an air permit.

WH-2-2 It was noticed during the building's walk-through that a spare pump motor was being stored on the building's concrete floor. There was evidence of pump oil leaking out onto the floor. It is recommended that the spare pump motor be stored in a structure capable of containing any pump oil that may leak out.

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Environmental Appraisal of the Mound Plant

9.34.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name INA-2 (DEEP WELL #2)

Appraisers:

Name	Discipline
MARCIA VANNET	CHEMIST
MARK GILLIAT	ENGINEER
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Building Manager: ALLEN UPSHAW

Process Manager: FRANK REKER

Date: 1/22/96

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 Ap[illegible]al Checklist

Building Name: WH-2 Appraisers: TEAM 4 Date: 1/22/96

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	BLANK
	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	

9.34-9

9.34-10

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	propane generator w/ exterior vent
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	No record of permit
	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.	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	propane generator w/ exterior vent
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: WH-2 Appraisers: TEAM 4 Date: 1/22/96

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
propane generator	WH-2		Y / N	Y / N	propane				
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

Source:

9.34-11

9.34-12

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	BLANK
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	

* The well is periodically serviced, the vendor takes all unused chemicals with them. No chemicals are routinely stored in the facility.

Environmental Appraisal Checklist

Building Name: WH-2 Appraisers: TEAM 4 Date: 7/22/96

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	

9.34-13

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 propane tank for standby generator

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
WH-2	~~100 gallon~~	propane	100 gallon	(Y) / N	Y / (N)	Y / (N)	Y / (N)
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				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: W4-2 Appraisers: Team 4 Date: 1/22/96

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	BLANK
	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: _____

9.34-15

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	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: W4-2 Appraisers: TEAM 4 Date: 1/22/96

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	

BLANK

9.34-17

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: WA-2 Appraisers: TEAM 4 Date: 1/22/96

RCRA Checklist

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

9.34-19

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 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: WH-2 Appraisers: TEAM 4 Date: 1/22/96

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	
	If no for this building or area note this conclusion in the comment section.	BLANK	
	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	

9.34-21

9.34-22

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 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: WH-2 Appraisers: Team 4 Date: 1/22/96

TSCA Checklist

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

9.34-23

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 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: WH-2 Appraisers: TEAM 4 Date: 1/22/96

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	

9.34-25

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	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 A[illegible]isal Checklist

Building Name: XXH-2 Appraisers: TEAM 4 Date: 1/22/96

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	

9.34-27

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: VXH-2 Appraisers: TEAM 4 Date: 1/22/96

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:

9.34-29

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	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	

9.34-30

Environmental Appraisal Checklist

Building Name: WXH-2 Appraisers: TEAM 4 Date: 1/22/96

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	

9.34-31

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	BLANK
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: WYH-2 Appraisers: TEAM H Date: 1/22/96

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

9.34-33

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	BLANK
	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: WH-2 Appraisers: TEAM 4 Date: 1/22/96

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?	_____ _____	

9.34-35

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9.34.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: WH-2 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. RAKER Phone: 865-3438

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

NONE

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

SAFETY GLASSES

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

4. Provide a physical description of the building.

Building WH2 is a 374-ft² building.

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

5. Provide a drawing of the building.

No drawing provided

6. What is the current building use?

Houses pump for plant water supply and a propane generator for emergency power backup.

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

9.34-39

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 supply pumping and backup generator.

How Wastes Are Generated:

No hazardous wastes are generated in this building.

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

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

Building Manager's Questionnaire

Building Name: WH-2 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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

Source: _____

NOTE: AIR PERMIT DOES NOT EXIST, IN ALL LIKELIHOOD ONE IS NOT REQ'D BASED ON A SUBMISSION FOR GENERATOR #7 WHICH IS PROPANE FIRE & WAS DEEMED NOT TO REQUIRE PERMITTING BY DEPA. THIS WILL BE CONFIRMED.

9.34-41

Building Manager's Questionnaire

Building Name: WH-2 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

11. Describe air pollution control equipment used to reduce emissions for each source. NONE EXIST

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

Source: _____

12. For existing permits are emissions monitored? At what frequency? Where are the records maintained? NOT PERMITTED

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

Source: _____

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 No
What are the results?

Source: UNKNOWNED

9.34-42

Building Manager's Questionnaire

Building Name: WH-2 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? Yes No

Source: _____

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

Source: _____

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: _____

9.34-43

Building Manager's Questionnaire

Building Name: WH-2 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?

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: _____

9.34-44

Building Manager's Questionnaire

Building Name: WH-2 Building Manager: A.W. Upshaw 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
	PROPANE	100 GAL		Y/N	
				Y/N	

Source: _____

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: _____

9.34-45

Building Manager's Questionnaire

Building Name: WH-2 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: _____

Building Manager's Questionnaire

Building Name: WH-2 Building Manager: A.W. Upshaw 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: WH-2 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.

9.34-48

Building Manager's Questionnaire

Building Name: WH-2 Building Manager: A.W. Upshaw 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

9.34-49

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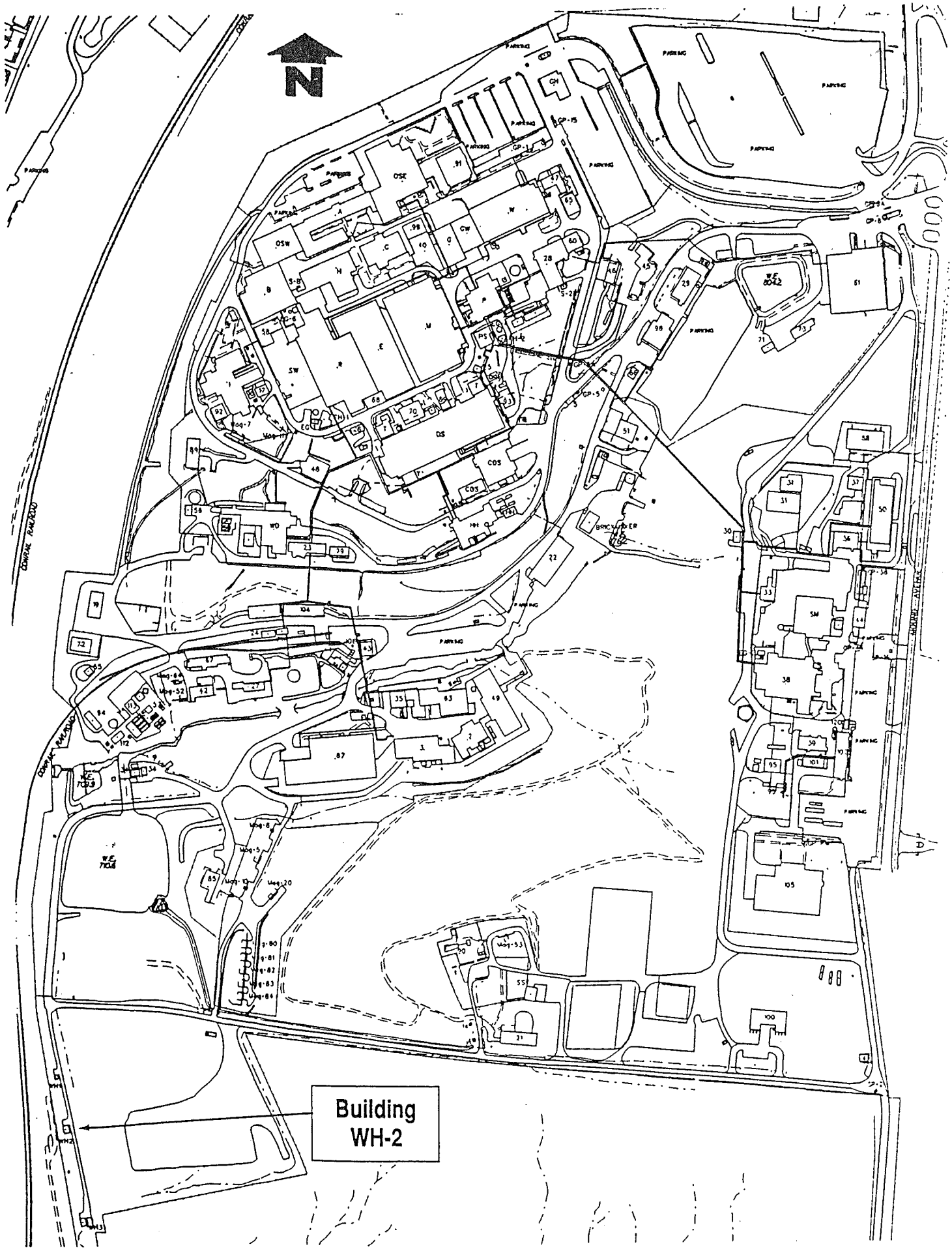
9.34.6.3 Location of Building WH-2



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

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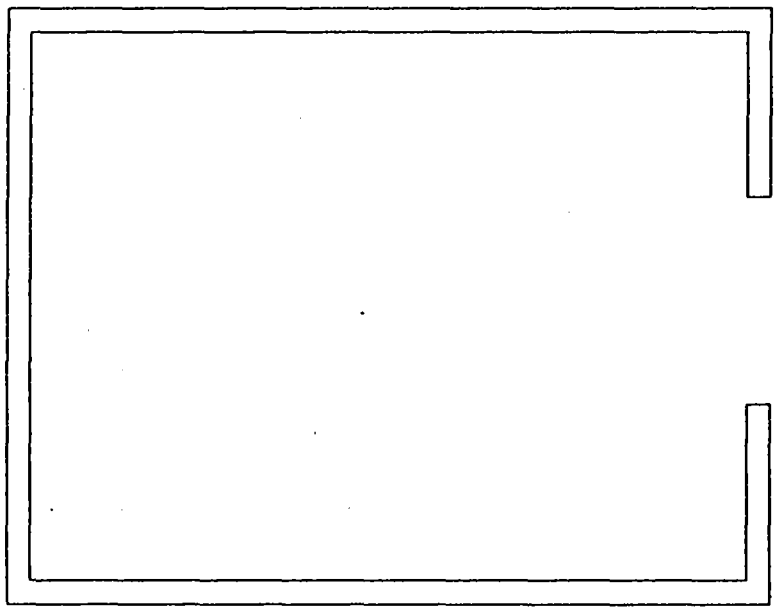
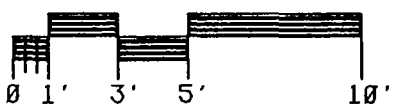
9.34.6.4 Floor Plans for Building WH-2

ISS	DATE	REVISION	BY	CHKR			
Ø	12/12/91	ASBUILT ISSUE	DCW				





WELL HOUSE #2
FIRST FLOOR
BLDG CODE:3317

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ NONE ___ TRUEBOC ___ TEBOC ___ EMBOC
TECH. REWP. _____ _____
BR. MGR. _____ _____
TRUEBOC _____ _____
TEBOC _____ _____
EMBOC _____ _____

DESIGN ENG	PROJ MGR
BPO-8	ENS SUPV
LP & EC	FEDR REV
ENS MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	Ø					

PART CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED

TITLE (U) TITLE CLASSIFICATION
WELL HOUSE #2
FLOOR PLANS

SIZE C | DRAWING NUMBER FSC911346 | JOB NUMBER 12335

DWG TYPE SFP | PROJ W.H.#2 | CODE 14065 | SCALE AS NOTED | SHEET 1 OF 1

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

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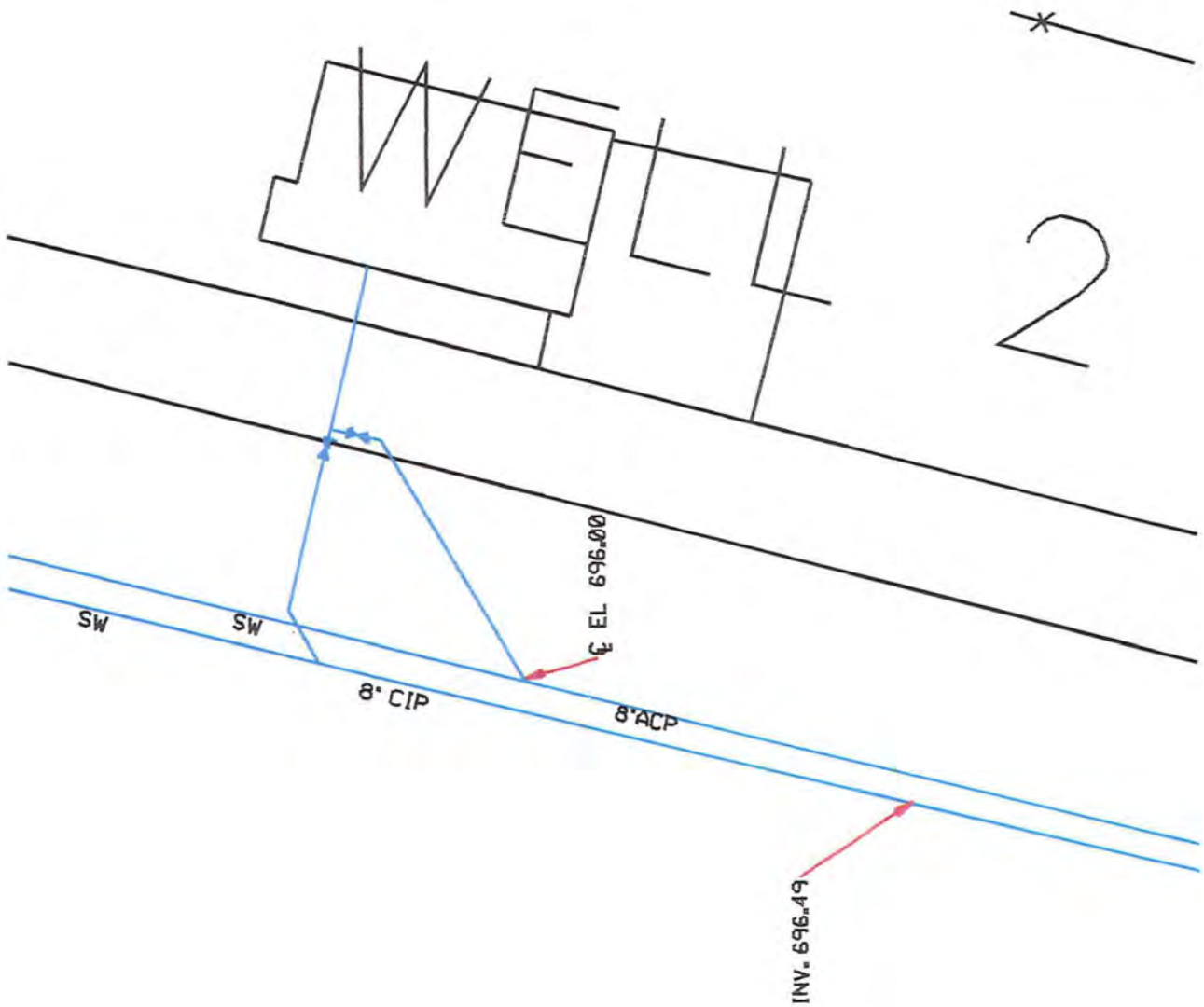
9.34.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
WELL HOUSE #2

DATE: 3-19-96

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9.34.6.6 Photographs

Mound Plant Building WH-2

9.35 BUILDING WH-3

9.35.1 Scope of Building WH-3 Report

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

The appraisal team performed a walk-through of Building WH-3 on the morning of January 22, 1996. The Environmental Appraisal Checklist (EAC) (Attachment 1—Section 9.35.6.1) was used to record findings. 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 9.35.6.2).

9.35.2 Description of Building WH-3

Building WH-3, a wellhouse, is a 374-square-foot structure with masonry exterior walls. It is built slab-on-grade and has a built-up-membrane roof. The building covers the well and houses a pump for providing plant water supply to the Mound Facility. Its location is shown in Attachment 3 (Section 9.35.6.3). A floor plan of the building is in Attachment 4 (Section 9.35.6.4).

The building was constructed in 1962 and has been used for the same purpose since construction. The building has no utilities other than 480V, three-phase power to run the water well pump and an electric space heater. There is a propane-fueled, direct-drive engine to provide standby power during electrical power outages.

9.35.3 Summary of Findings

During the time period the facility walk-through was conducted, the wellbore was undergoing reconditioning. The well screen was becoming clogged and a contractor was hired to redevelop the well. The facility was found to be in poor condition from a housekeeping standpoint—contractors supplies were not neatly stored. Additionally, at the time of the inspection, the 24-inch diameter wellbore was completely open with no protection for water in the well. The facility was locked to prevent unauthorized access when the contractor was not present.

9.35.4 Observations

9.35.4.1 Air Emissions

The propane-fueled, direct-drive engine for standby use was not included in the Mound Air Emissions database of 11-30-95. There was no evidence of fugitive dust at or around Building WH-3.

9.35.4.2 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.

9.35.4.2.1 Sanitary Wastewater

The building houses one of the three site pumps that provide the plant with raw water for subsequent treatment and distribution as service, fire system, and potable water. There are no wastewater streams associated with the facility and as such the building is not serviced by a sanitary line.

9.35.4.2.2 Storm Wastewater

The facility is not equipped with exterior storm drains, according to the diagram of underground utility lines in Attachment 5 (Section 9.35.6.5).

9.35.4.2.3 Chemicals

An aboveground propane storage tank is located outside Building WH-3. The tank provides propane fuel to power the standby engine. A vendor periodically inspects and uses chemicals to treat the wellbore and well screens. Unused chemical are removed by the vendor. No priority pollutant chemicals listed under the Clean Water Act (CWA) are used in WH-3. There is no record or evidence of a spill.

9.35.4.3 Potable and Service Water

The building houses one of the three site pumps that provide the plant with raw water for treatment and subsequent distribution as potable water.

9.35.4.4 Chemical Storage and Hazardous Materials

No chemicals or hazardous materials are stored in Building WH-3 except for the pump oil housed within the pump and the exterior aboveground propane storage tank. When the pump oil is changed, the used oil is placed in a container and handled as waste oil.

There was no evidence of asbestos in the noninsulated facility and it does not contain any polychlorinated biphenyls (PCB's).

9.35.4.5 Solid, Hazardous and Radioactive Wastes

No wastes are routinely generated in the building. Pump oil, when changed during periodic pump servicing, is placed in a container and handled by Mound Waste Management.

9.35.4.6 Waste Minimization and Pollution Prevention

There is no routine generation of wastes at the facility and no real opportunity for waste minimization or pollution prevention.

9.35.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.35.6.6). The environmental appraisal of Building WH-3 indicates that the following action items, in order of priority, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

WH3-1 Determine if the standby, propane-driven engine requires an air emmissions permit.

WH3-2 It is recommended that during future well maintenance operations care be taken to keep the wellbore covered to prevent inadvertent contamination of the water. Additionally, because Mound Environmental Restoration has an interest in any operation that may affect groundwater quality, they should be consulted about the types of chemicals being used during well reconditioning.

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Environmental Appraisal of the Mound Plant

9.35.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name NW-3 (DEEP WELL #3)

Appraisers:

Name	Discipline
MARCIA VANNET	CHEMIST
MARK GILLIAT	ENGINEER
MYRON SMITH	ENGINEER

Building Manager: Allen Upshaw

Process Manager: Frank Baker

Date: 11/22/96

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: WH-3 Appraisers: TEAM 4 Date: 1/22/96

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	

* Chemicals not routinely used. At time of inspection, a vendor was performing service to the well using some chemicals. The vendor is to remove all chemicals when complete.

9.35-9

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	Propane generator w/ exterior vent
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	No record of permit
	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: WH-3 Appraisers: TEAM 4 Date: 1/22/96

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
WH-3			Y / N	Y / N	propane *				
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

Source: * propane standby generator

9.35-11

Environmental Appraisal Checklist

Building Name: Appraisers: Date:

9.35-12

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	

* The well is periodically serviced, the vendor takes all unused chemicals away from the site. Chemicals are not routinely used in the facility

Environmental Appraisal Checklist

Building Name: WH-3 Appraisers: TEAM 4 Date: 1/22/96

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

9.35-13

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	propane fuel for standby generator

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
MH-3		propane	100 gallons	(Y) / N	Y / (N)	Y / (N)	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				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: VXH-3 Appraisers: TEAM H Date: 1/22/96

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	BLANK
	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: _____

9.35-15

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	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: WH-3 Appraisers: TEAM 4 Date: 1/22/96

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	

9.35-17

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.		

Environmental Appraisal Checklist

Building Name: WH-3 Appraisers: TEAM 4 Date: 1/22/96

RCRA Checklist

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

9.35-19

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 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 A[illegible]aisal Checklist

Building Name: WYH-3 Appraisers: TEAM 4 Date: 1/22/96

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	

9.35-21

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

Building Name: W4-3 Appraisers: TEAM 4 Date: 1/22/96

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	

9.35-23

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: W4-3 Appraisers: TEAM 4 Date: 1/22/96

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	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	

9.35-25

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	BLANK
	Do characterization data include the following:		
	Physical and chemical characteristics of the waste?	Y / N	
	Volume of the waste (including solidification and absorbent material)?	Y / N	
	Weight of the waste (including solidification and absorbent material)?	Y / N	
	Major radionuclides and their concentrations?	Y / N	
	Packaging date, package weight, external volume?	Y / N	
	How were the concentration of radionuclides determined? Direct methods?	_____ _____	
	How were the concentrations of radionuclides determined? Indirect methods?	_____ _____	
DOE Order 5820.2A Chapter III, 3.h	Is the storage configuration in long term storage sufficient to meet the performance standard?	Y / N	
	Are records maintained at the facility enabling this waste to be traced from its origin?	Y / N	

Building Name: WYU-3 Appraisers: TEAM 4 Date: 1/22/96

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	

9.35-27

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: XVH-3 Appraisers: TEAM 4 Date: 1/22/96

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:

9.35-29

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	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: WYH-3 Appraisers: TEAM 4 Date: 1/22/96

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	

9.35-31

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	BLANK
	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	

9.35-32

Environmental Appraisal Checklist

Building Name: WA-3 Appraisers: TEAM 4 Date: 1/22/96

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

9.35-33

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	BLANK
	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: WH-3 Appraisers: TEAM 4 Date: 1/22/96

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	BLANK
	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?	_____ _____	

9.35-35

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9.35.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: WH-3 Building Manager: A.W. Upshaw Phone: 865-4894 Date: 12-07-95
Alternate: F. BAKER Phone: 865-3438

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

NONE

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

SAFETY GLASSES

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

4. Provide a physical description of the building.

Building WH3 is a ~~128~~-ft² building.
374

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

5. Provide a drawing of the building.

No drawing provided

6. What is the current building use?

Houses pump for plant water supply and a propane generator for emergency power backup.

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

9.35-39

Building Manager's Questionnaire

Building Name: WH-3 Building Manager: A.W. Upshaw 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 supply pumping and backup generator.

How Wastes Are Generated:

No hazardous wastes are generated in this building.

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

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

Building Manager's Questionnaire

Building Name: WH-3 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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

Source: _____

NOTE: AIR PERMIT DOES NOT EXIST. IN ALL LIKELIHOOD ONE IS NOT REQ'D BASED ON A SUBMISSION FOR GENERATOR # 7 WHICH IS PROPANE FIRED & WAS DEMED NOT TO REQUIRE PERMITTING BY OEPA. THIS WILL BE CONFIRMED

9.35-41

Building Manager's Questionnaire

Building Name: WH-3 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

11. Describe air pollution control equipment used to reduce emissions for each source. NONE EXIST

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

Source: _____

12. For existing permits are emissions monitored? At what frequency? Where are the records maintained? NOT PERMITTED

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

Source: _____

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 No
What are the results?

Source: UNKNOWN

9.35-42

Building Manager's Questionnaire

Building Name: WH-3 Building Manager: A.W. Upshaw Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? Yes No

Source: _____

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

Source: _____

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)
LIQUID PROPANE	LIQUID	1000 GAL

Source: _____

9.35-43

Building Manager's Questionnaire

Building Name: WH-3 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?

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: _____

9.35-44

Building Manager's Questionnaire

Building Name: WH-3 Building Manager: A.W. Upshaw 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
	PROPANE	100 GAL		Y/N	
				Y/N	

Source: _____

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: _____

9.35-45

Building Manager's Questionnaire

Building Name: WH-3 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: _____

Building Manager's Questionnaire

Building Name: WH-3 Building Manager: A.W. Upshaw 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: _____

9.35-47

Building Manager's Questionnaire

Building Name: WH-3 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.

Building Manager's Questionnaire

Building Name: WH-3 Building Manager: A.W. Upshaw 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

9.35-49

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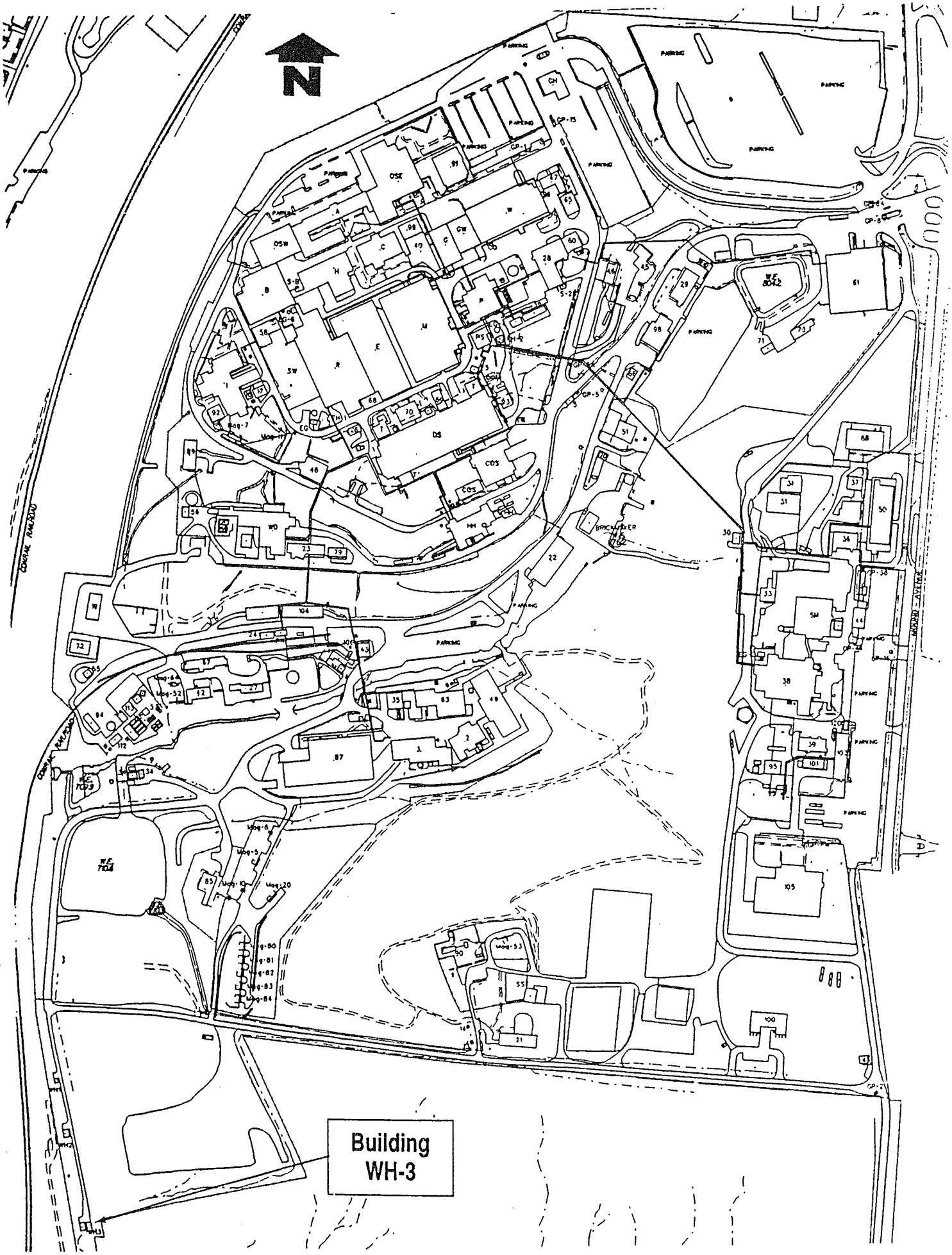
9.35.6.3 Location of Building WH-3



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

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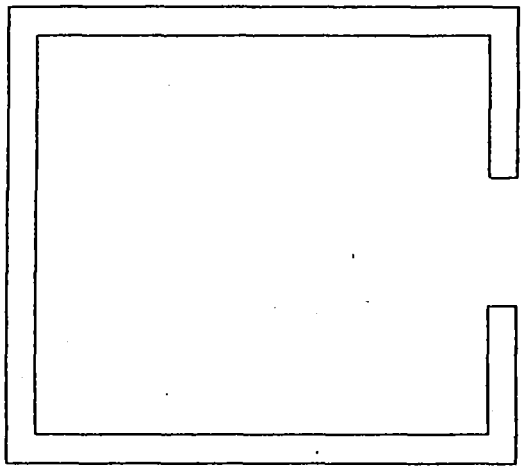
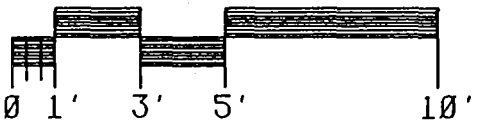
9.35.6.4 Floor Plans for Building WH-3

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





WELL HOUSE #3
FIRST FLOOR
BLDG CODE:3318

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

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

SHEET	1	2	3	4	5	6
ISSUE	Ø					

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
WELL HOUSE #3
FLOOR PLANS

DRAWING CLASSIFICATION	SIZE	DRAWING NUMBER	JOB NUMBER
UNCLASSIFIED	C	FSC911347	12335

DWG TYPE SFP | PROJ W.H.#3 | CAGE 14865 | SCALE AS NOTED | SHEET 1 OF 1
STATUS MD-REL-12/12/91 | ORIGIN MD-BR3-V3.8

9.35-57

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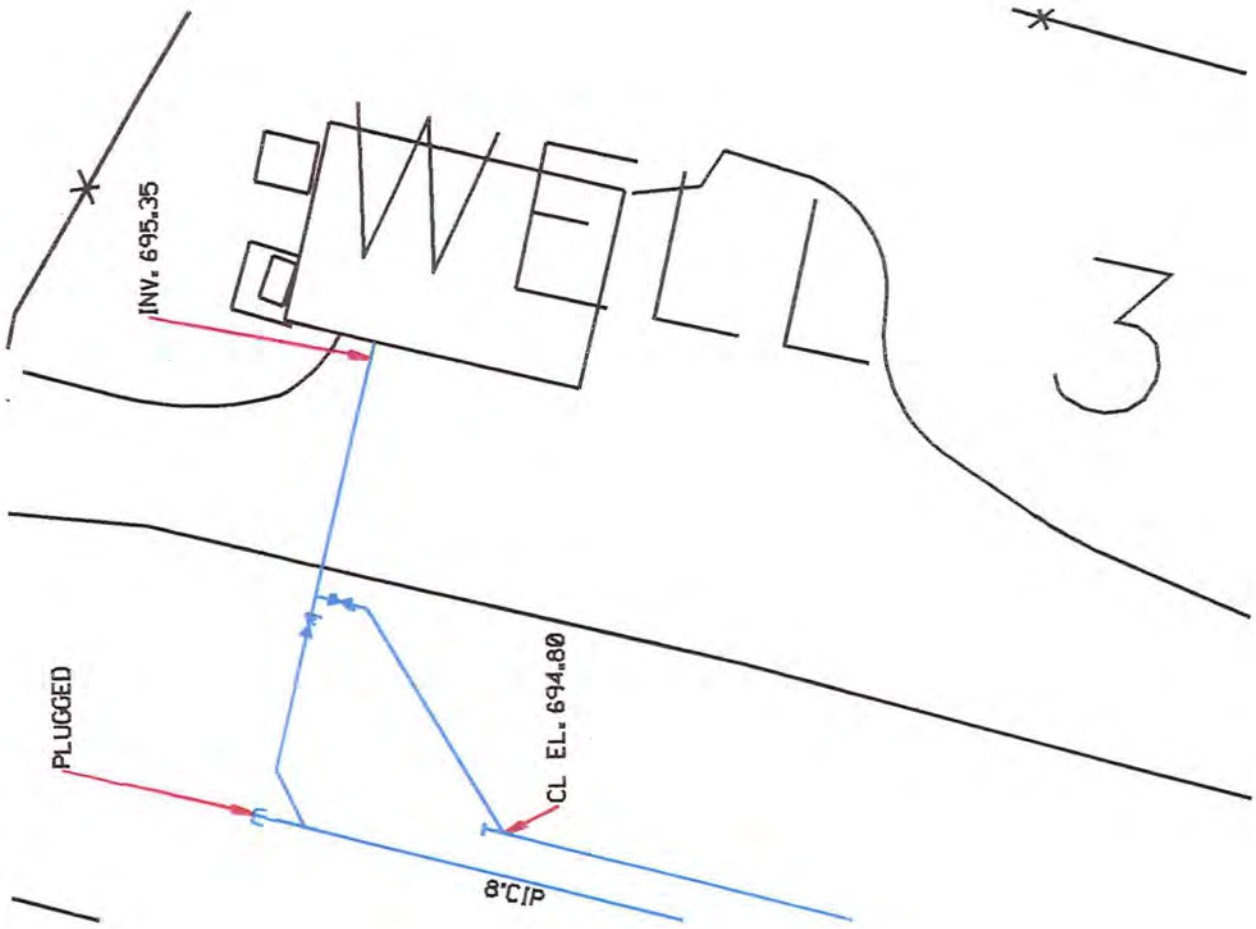
9.35.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
WELL HOUSE #3

DATE: 3-19-96

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9.35.6.6 Photographs

Mound Plant Building WH-3

9.35-65

At Building WH-3 subcontractor does not follow environmental protection practices.

9.36 BUILDING 1

9.36.1 Scope of Building 1 Report

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

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

9.36.2 Description of Building 1

Building 1, is a one-story, 986-square-foot concrete block structure, with a sheet metal addition on one side. The roof is of built-up membrane coal tar and asphalt. Location is shown in Attachment 3 (Section 9.36.6.3). Building 45, on the east, and Building 74, to the southwest, are adjacent to Building 1. Floor Plans are presented as Attachment 4 (Section 9.36.6.4). The building has electrical service of 240V and central steam (*Mound Facility Physical Characterization*, 12-1-93).

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

9.36.3 Summary of Findings

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

9.36.4 Observations

9.36.4.1 Air Emissions

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

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

9.36.4.2 Wastewater Emissions

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

9.36.4.2.1 Sanitary Wastewater

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

Sanitary effluent is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations data, supplied by the process owner, effluent from Building 1 does not deviate from that expected by the sanitary treatment plant manager.

9.36.4.2.2 Storm Wastewater

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

9.36.4.2.3 Chemicals

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

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

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

9.36.4.3 Potable and Service Water

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

9.36.4.4 Chemical Storage and Hazardous Material

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

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

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

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

9.36.4.5 Solid, Hazardous, and Radioactive Wastes

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

During the Safe Shutdown process, hazardous materials and/or mixed wastes are generated in the process of cleaning idle equipment, furnishings, and personal property; removing tanks, cylinders, and process piping; and cleaning sumps and pits; etc. A review of procedures and requirements contained in MD-10431, Safe Shutdown Standard Operating Procedures, and the Safe Shutdown Process Manager's records indicate that the wastes are containerized, characterized (including testing for radionuclides), and then transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance become a permanent part of the Mound Safe Shutdown Plan for the specific building. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown Process Managers have received training in accordance with 40 CFR 265.16. There is no evidence that hazardous waste entered either the storm or sanitary systems.

9.36.4.6 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856.

As part of the safe shutdown process, equipment and supplies were evaluated for reuse. They were handled in several ways: reused at Mound; sent to other DOE facilities; claimed by the City of Miamisburg; sold at auction; sold to recycle; or disposed of.

9.36.5 Findings and Recommendations

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

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

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

Environmental Appraisal of the Mound Plant

9.36.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 1 Explosive Production Support

Appraisers:
Team #4

Mark Gilliat
Name Discipline

Marcia Vannet
Name Discipline

Myron Smith
Name Discipline

Name Discipline

Building Manager: Bob Ward

Process Manager: Dan Gorman

Date: 2-7-96

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 A[illegible]sal Checklist

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

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	Y / (N) Y / (N)	Chemicals have been removed, turned over to Waste Management
	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	NO outfall. Filled w/ ice

* Process terminated. Building undergoing Safe Shutdown

Fire deluge system

9.36-9

9.36-10

Environmental Appraisal Checklist

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

Clean Air Act (CAA) Screening Checklist

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

CAA Checklist

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

Environmental A[illegible]isal Checklist

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

CAA Checklist

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

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

Source:

9.36-11

9.36-12

Environmental Appraisal Checklist

Building Name: 1 Appraisers: Team H 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	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y / N	
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y / N	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y / N	

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

Environmental Appraisal Checklist

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

HM Checklist

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

9.36-13

9.36-14

Environmental Appraisal Checklist

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

HM Checklist

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

Blank

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

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

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

Source: _____

Environmental A. aisal Checklist

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

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

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

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead

Source: _____

9.36-15

9.36-16

Environmental Appraisal Checklist

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

RCRA Screening Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	Has any material generated been characterized RCRA hazardous? 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 A[illegible]isal Checklist

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

RCRA Checklist

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

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9.36-17

Environmental Appraisal Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	If a Satellite accumulation area has been abandoned and/or if waste left in place, and the containers may be subject to the 90-day-storage exclusion. 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.		

DUANE

Environmental Appraisal Checklist

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

RCRA Checklist

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

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9.36-19

9-36-20

Environmental Appraisal Checklist

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

RCRA Checklist

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

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

Asbestos Screening Checklist

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

Asbestos Checklist

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

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

Environmental Appraisal Checklist

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

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

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

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	Has any waste generated in, or from, this building been characterized either through process knowledge or by analyses to determine if it contains PCB's ? 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 A[illegible]isal Checklist

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

TSCA Checklist

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

9.36-23

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

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? 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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9.36-25

Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter 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	

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Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
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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9.36-27

Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

9.36-29

Environmental Appraisal Checklist

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

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). 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: 1 Appraisers: Team H4 Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

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

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9.36-31

Environmental Appraisal Checklist

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

Waste Minimization/Pollution Prevention Activities Checklist

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

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Environmental Appraisal Checklist

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

Waste Minimization/Pollution Prevention Activities Checklist

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

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9.36-33

Environmental Appraisal Checklist

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

Waste Minimization/Pollution Prevention Activities Checklist

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

Environmental Appraisal Checklist

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

Waste Minimization/Pollution Prevention Activities Checklist

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

PLANT

9.36-35

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9.36.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

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

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

NONE

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

NONE

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

4. Provide a physical description of the building.

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

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Packaging energetic materials.

BUILDING IS SHUTDOWN

Source: Mound Buildings, 5-9-95

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

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

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

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

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

Process(es) Housed: Packaging of explosives

How Wastes Are Generated:

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

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

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

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

Contact: *
Phone #

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

* Building is shutdown & no process waste is generated

Building Manager's Questionnaire

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

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

10. Does the building have air emission sources? (Yes) No ROOM 106 *

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

Source: Mound Air Emissions Databases 11/30/95

* currently inactive

9.36-41

Building Manager's Questionnaire

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

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

9.36-42

Building Manager's Questionnaire

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

17. Does the building contain transformers or capacitors? No

    Source: PCB ANNUAL DOCUMENT LOG

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

    Source: PCB ANNUAL DOCUMENT LOG

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

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

9.36-43

Building Manager's Questionnaire

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

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?

NONE

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

NONE

23. Where do excess janitorial supplies go?

NONE

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

9.36-44

Building Manager's Questionnaire

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

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

REMOVED WAS ACROSS THE ROAD

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

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

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

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

Source: _____

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

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

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

 * None present 2-7-96

9,36-45

Building Manager's Questionnaire

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

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

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

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

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

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

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

Source: _____

Building Manager's Questionnaire

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

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

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

Source: _____

9.36-47

Building Manager's Questionnaire

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

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

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

Source: _____

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

9.36-48

Building Manager's Questionnaire

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

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

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

9.36-49

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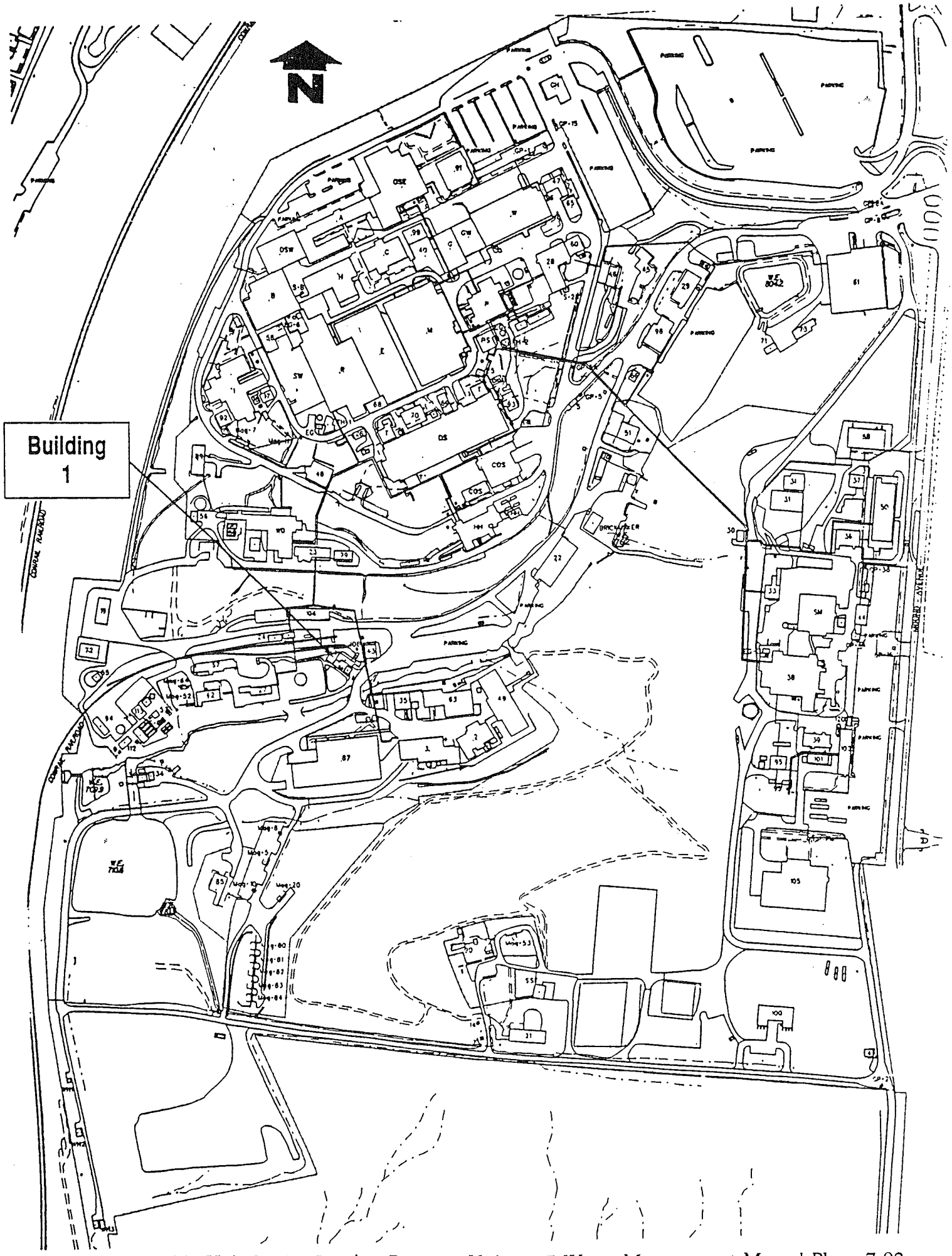
9.36.6.3 Location of Building 1



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

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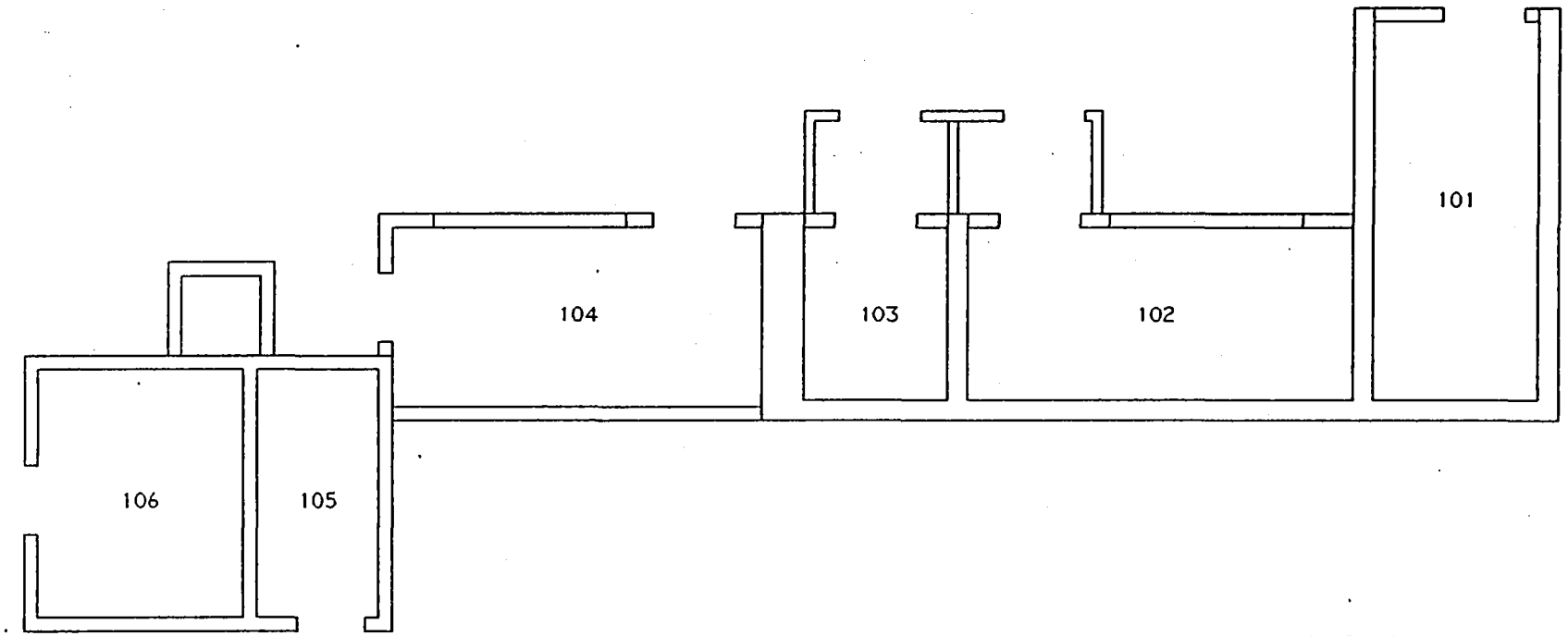
9.36.6.4 Floor Plans for Building 1

IND	DATE	REVISION	BY	CHKR	DWG	UPKEY	APVD	IN
Ø	12/12/91	ASBUILT ISSUE	DCW				DVD	



Ø 1' 3' 5' 10'

BLDG #1
FIRST FLOOR
BLDG CODE:3001

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ NONE ___ TRUEGOC ___ TEGOC ___ EYGOC
TECH. RESP. ___
MR. MGR. ___
TRUEGOC ___
TEGOC ___
EYGOC ___

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

SHEET	1	2	3	4	5	6
ISSUE	Ø					

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
BLDG #1
FLOOR PLANS

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: C
DRAWING NUMBER: FSC911226
JOB NUMBER: 12335
DWG TYPE: SFP
FROM: BLDG #1
CAGE: 14865
SCALE: AS NOTED
SHEET 1 OF 1
STATUS: MD-REL-12/12/91
ORIGIN: MD-BR3-V3.Ø

9.36-57

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9.36.6.5 Underground Utility Lines

4" CIP
SS
SS
SS
1-1/2" CIP
8" CIP
TOP 740.71
N
FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL
E.G. & G. - MOUND
UNDERGROUND WATER & WASTE LINES
BLDG. 1
DATE: 5-4-96
UNCLASSIFIED

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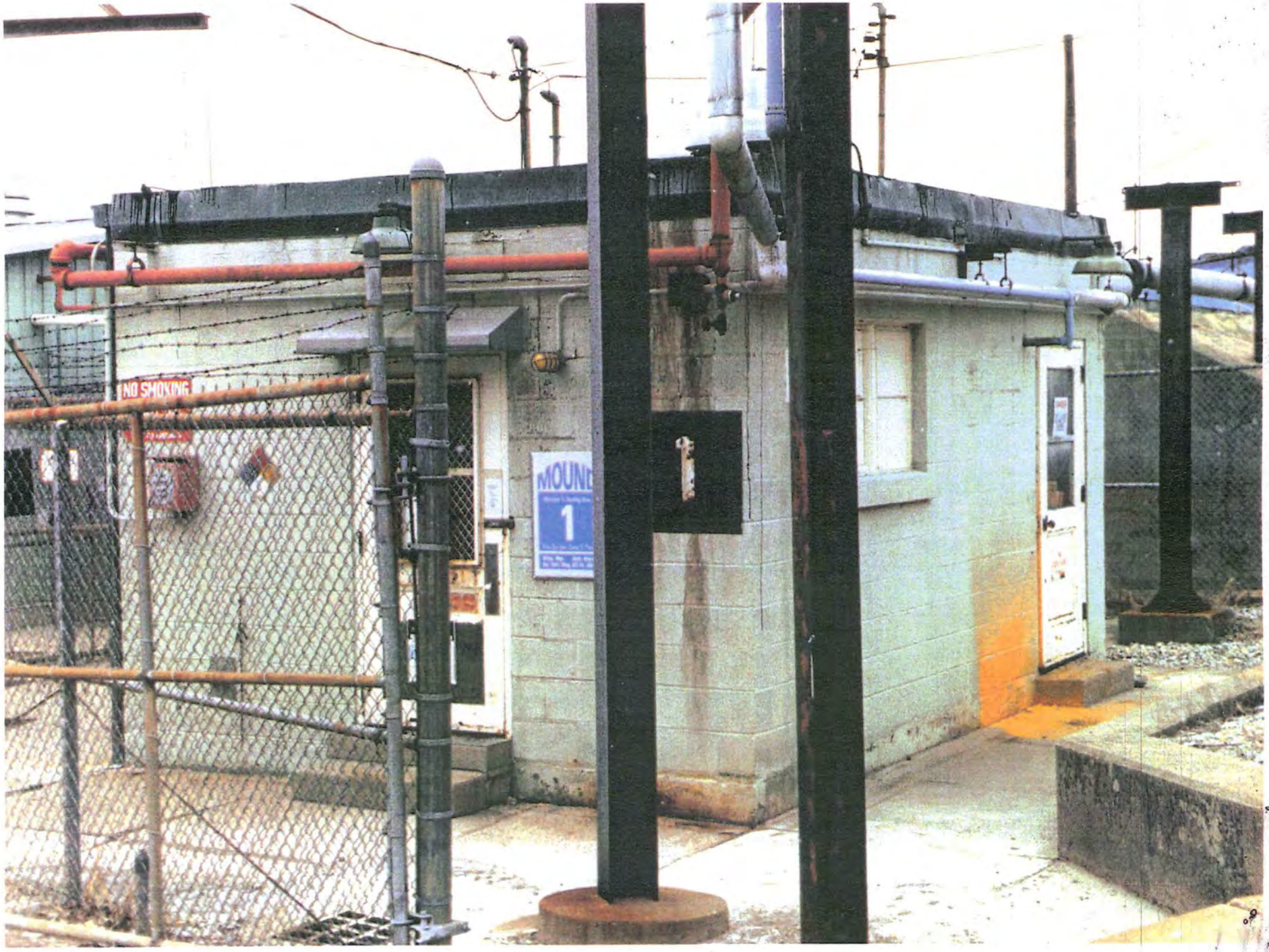
9.36.6.6 Photographs



Mound Plant Building 1

9.37 BUILDING 2

9.37.1 Scope of Building 2 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 2 on the morning of February 21, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.37.6.1). The appraisers were accompanied 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 9.37.6.2).

9.37.2 Description of Building 2

Building 2, Energetic Materials Destructive Testing, is a one-story, 6,291-square-foot, reinforced concrete and concrete block structure. It is constructed slab-on-grade with a built-up membrane roof. The building has two attached metal storage sheds. The location is shown in Attachment 3 (Section 9.37.6.3). The building is bounded by a paved access road. Across the road, to the north, is Building 63-E/63-W. Buildings 3 and 49 are to the west and east, respectively. Floor plans are presented as Attachment 4 (Section 9.37.6.4). Currently, this building is empty and is undergoing Safe Shutdown. The building was serviced by systems providing central steam and chilled water, a fire sprinkler system and potable water (both secured), and electric service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

Building 2 was constructed in 1953 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building has been used for the same purpose since construction. The building is undergoing Safe Shutdown and is no longer occupied. All office furnishings, controls, and x-ray and photographic materials and equipment plus chemicals have been removed.

9.37.3 Summary of Findings

The building appears in "fair" condition except for the metal storage sheds attached to the building, and is listed as such in the *Capital Assets Management Process, CAMP Report FY96* (3-96). There are no issues of environmental concern identified during the walk-through or during review of reference materials. Utilities except electricity have been disconnected. The building is not contaminated with any radioactive materials. The two test cell tanks (Rooms 121 and 123B) are potentially contaminated with energetic material residue. Under the Safe Shutdown procedure, the process manager indicated that the cells were scheduled for residue testing and cleanup, if any, beginning the first week in March.

9.37.4 Observations

9.37.4.1 Air Emissions

During operation of the test cells, overpressure exhaust was discharged through filters and two aboveground water mufflers. The cells are listed in the Mound Air Emissions Database and a determination was made by the EG&G Environmental Technology and Monitoring Group that the sources were *de minimis*. A permit application was filed with the Ohio Environmental Protection Agency (OEPA) in 1992. No permit was granted. Since air emission sources in the building are no longer active, the Regional Air Pollution Control Agency (RAPCA) should be notified of this change in status.

There are no fumehoods. There are no fuel-burning units in the building. There is no evidence of fugitive dust or other materials caused by the safe shutdown operation.

9.37.4.2 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.

9.37.4.2.1 Sanitary Wastewater

The building had sanitary services, now secured. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.37.6.5), the building is serviced by a sanitary line. Confirmation of drainage of sanitary waste and floor drains in the three mechanical rooms 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 2 does not deviate from that expected by the sanitary treatment plant manager.

9.37.4.2.2 Storm Wastewater

The exterior of the building is serviced by storm drains. 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.

9.37.4.2.3 Chemicals

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

According to the process manager, there were no reported incidents of chemicals entering the storm or sanitary drains. Inspection showed no sign of odors, colored discharges, or scarring that would indicate that any chemicals entered the storm or sanitary drains.

9.37.4.3 Potable and Service Water

Potable water was supplied to the building; the system is now secured. Backflow prevention devices are installed at all visible points of potential cross connection in the janitor and mechanical rooms. The fountains which supplied drinking water have been removed from the building. There is service water supplied to the building; it was distributed only to the mechanical rooms and throughout the fire sprinkler system which both have been disconnected and drained.

9.37.4.4 Chemical Storage and Hazardous Materials

Chemicals had been stored in the building in accordance with applicable standards. Records indicated that all had been removed during safe shutdown and turned over to Waste Management for disposition. Material Safety Data Sheets (MSDS's) are still located in the building. An empty flammable storage cabinet which meets standard National Fire Protection Association (NFPA) requirements remains in the mechanical Room 124. Any chemical storage cabinets serving the photo labs were removed.

The building is equipped with appropriate charged fire extinguishers and their respective inspection tags were present and current. Each extinguisher is bar-coded. The inspection date database is maintained in the Fire Station, Building 98. There is an Emergency Evacuation Plan, and signs were posted within the building.

There are no aboveground storage tanks, except for the test cells, in or around the building. The two test cell tanks are still located within the building. The tanks are exposed to the ground as they were originally located outside and the building was extended to protect them from the

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

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

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 materials have occurred in the building. Research and testing activities using energetic materials did occur in the building (*Mound Facility Physical Characterization*, 12-1-93).

9.37.4.5 Solid, Hazardous, and Radioactive Wastes

During the Safe Shutdown process, hazardous materials and/or mixed wastes are generated in the process of cleaning idle equipment, furnishings, and personal property; removing tanks, cylinders, and process piping; and cleaning sumps and pits; etc. A review of procedures and requirements contained in MD-10431, *Safe Shutdown Standard Operating Procedures*, and the Safe Shutdown process manager's records indicate that the wastes are placed in containers, characterized (including testing for radionuclides), and then transferred to Waste Management for disposition. A copy of the inventory, chemical profile of each container, and Waste Management's acceptance become a permanent part of the Mound Safe Shutdown Plan for the specific building. All activities are conducted in accordance with MD-70523, 40 CFR 265, and OAC 3745.52. As hazardous waste generators, all Safe Shutdown process managers have received training in accordance with 40 CFR 265.16. There is no evidence that hazardous waste entered either the storm or sanitary systems.

9.37.4.6 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.

9.37.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.37.6.6). The environmental appraisal of Building 2 indicates that the following action item should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

2-1 If a permit application was filed with the Ohio Environmental Protection Agency in 1992 and no permit was granted, the Regional Air Pollution Control Agency (RAPCA) should be notified of the change in status, since air emission sources in the building are no longer active.

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Environmental Appraisal of the Mound Plant

9.37.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 2 ENERGETIC MATERIALS DESTRUCTIVE TESTING

Appraisers:

TEAM # 4

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

Building Manager: BOB WARD (x-3821)

Process Manager: DON HOMAN (x-3116)

Date: 21 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
TSCA—PCB	14
Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #3 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	NO CHEMICALS PHOTO LABS REMOVED
	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	WATER SECURED
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)	

9.37-11

9.37-12

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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	TWO TEST TANKS OUT OF SERVICE RM 121 & 123 B
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	N/A
	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	PRIOR AIR FROM TEST TANK WERE FILTERED. SHOCK EXHAUST THE PASSED THROUGH A ABOVE GROUND WATER MUFFLER

SAFE SHUTDOWN ACTIVITIES COMPLETED EXCEPT FOR RESIDUAL ENERGETIC MATERIAL THAT MAY BE IN THE TEST CELLS. WORK SCHEDULED FOR MARCH 96

Environmental Appraisal Checklist

Building Name: 2 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:_____

9.37-13

9.37-14

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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	REMOVED TRANSFER SHEETS TO WM VERIFIED
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	Y / N	STILL IN BLDG
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	ALL EMPTY
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	EMPTY - IN MECHANICAL ROOM 124
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: 2 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	

9.37-16

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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)	BLAST CELLS ONLY WERE NO INVENTORY Rm 121 & 123B

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: 2 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
			Blank

* DISCONNECTED & DRAINED

Source: _____

* FIRE DELUGE SYSTEM DISCONNECTED & DRAINED

9.37-17

9.37-18

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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: 2 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?	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	

9.37-19

9.37-20

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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: 2 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	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	

9.37-21

9.37-22

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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: 2 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

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)	UNDISTURBED DURING SAFE SHUT DOWN
	Is the asbestos removal properly managed? (See questions listed below)	Y / N	If there is no asbestos removal, do not complete the following section.
NESHAPS FOR ASBESTOS FOR ANY ONGOING ASBESTOS REMOVAL:			
40 CFR 61.156	There are no discharges of visible emissions to the outside air from collection, processing, packaging, transporting, or deposition of ACBM during the removal.	Y / N	Blank
40 CFR 61.152(b) (1)	ACBM is treated with water in accordance with 40 CFR 152(b)?	Y / N	
40 CFR 61.154	Is friable asbestos adequately wetted during stripping? Or, has an adequate ventilation and collection system been installed?	Y / N	
40 CFR 61.152	Is wetting continued until the waste friable asbestos is collected for disposal?	Y / N	

9.37-23

9.37-24

Environmental Appraisal Checklist

Building Name: .2 Appraisers: Team #4 Date: 2-21-96

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: 2 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	
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	

9.37-25

9.37-26

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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: 2 Appraisers: Team #4 Date: 2-21-96

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	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	

9.37-27

9.37-28

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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: 2 Appraisers: Team #4 Date: 2-21-96

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	

9.37-29

9.37-30

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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	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: 2 Appraisers: Team #4 Date: 2-21-96

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:

9.37-31

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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: 2 Appraisers: Team # 4 Date: 2-21-96

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	Blank
	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	

9.37-33

9.37-34

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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: 2 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	Blank
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

9.37-35

9.37-36

Environmental Appraisal Checklist

Building Name: 2 Appraisers: Team #4 Date: 2-21-96

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	

Blank

Environmental Appraisal Checklist

Building Name: 2 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	
	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?	_____ _____	

9.37-37

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9.37.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 2 Building Manager: R.A. Ward Phone: 2821 Date: 12-07-95
Alternate: A. KOEHLER Phone: 2816

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

THE BUILDING IS EMPTY OF EQUIPMENT AND PERSONNEL. NO TRAINING OR CLEARANCE FOR ACCESS IS REQUIRED

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 2 is a reinforced concrete and concrete block structure with a BUM roof (carboline). Total area in the single-story building is 6,291 ft². HVAC systems are central steam and chilled water. The building is contaminated with energetic materials and contains asbestos.

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Building is used for destructive test firing of explosives. Steel test cells are rated at 225 gm of explosive material with testing controlled remotely from a control room.

CURRENTLY THE BUILDING IS EMPTY & SHUTDOWN

Source: Mound Buildings, 5-9-95

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

HISTORY

Source: Mound Buildings, 5-9-95

9.37-41

Building Manager's Questionnaire

Building Name: 2 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

3. 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: Testing of explosive components

How Wastes Are Generated:

Building 2 has two large test cells, and the adjacent portion of Building 3 contains one large and four single-point cells. Exhaust from the single-point test cells is filtered to remove any particulate material. When the filters are changed, they are sent to the onsite burn area for destruction.

A film processor is housed in Building 2. Used developer and fixer are collected in plastic drums which are picked up by Waste Management.

Contact:
Phone #

Source: Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, (3-15-90).

Building Manager's Questionnaire

Building Name: 2 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

EQUIPMENT REMOVED

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
Gate Shutdown	101		Y					
Gate Shutdown	103		Y					
			Y Y					
			Y Y					
			Y Y					

Source: Mound Air Emissions Database 11/30/95

9.37-43

Building Manager's Questionnaire

Building Name: 2 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

CURRENTLY ASBESTOS CLEANUP OF THE TANKS IS IN PROCESS.

9.37-44

Building Manager's Questionnaire

Building Name: 2 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

9.37-45

Building Manager's Questionnaire

Building Name: 2 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?

NONE

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

NONE

23. Where do excess janitorial supplies go?

NONE

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

Building Manager's Questionnaire

Building Name: 2 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.

REMOVED

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
7787-37-9	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)

REMOVED →

Materials	Amount
Filter Materials - Test Fire	96.0
Lead Cleanup Debris	137.5

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

Building Manager's Questionnaire

Building Name: 2 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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

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

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

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

Source: _____

Building Manager's Questionnaire

Building Name: 2 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: _____

9.37-49

Building Manager's Questionnaire

Building Name: 2 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.

NONE

Building Manager's Questionnaire

Building Name: 2 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

9.37-51

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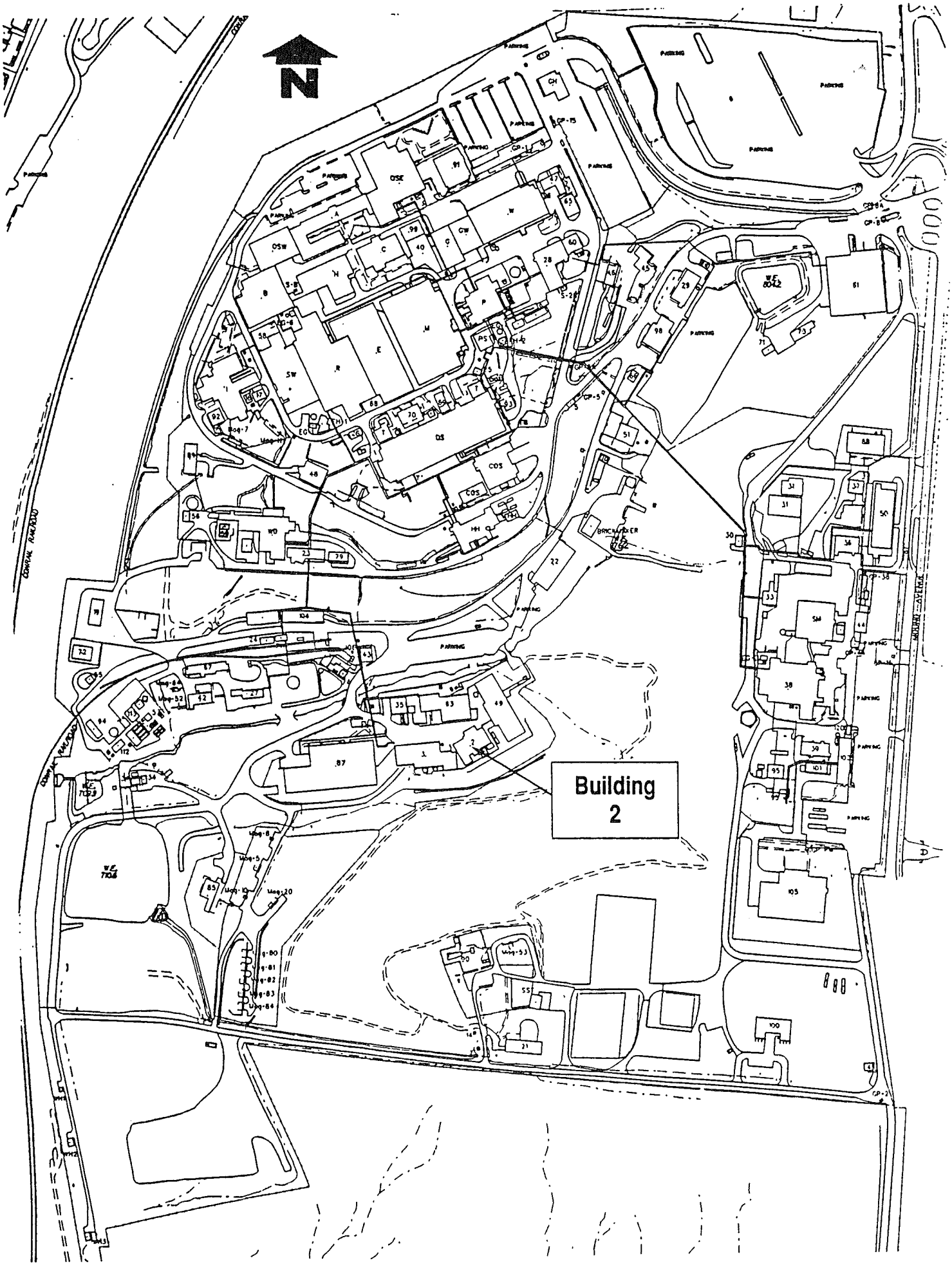
9.37.6.3 Location of Building 2



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

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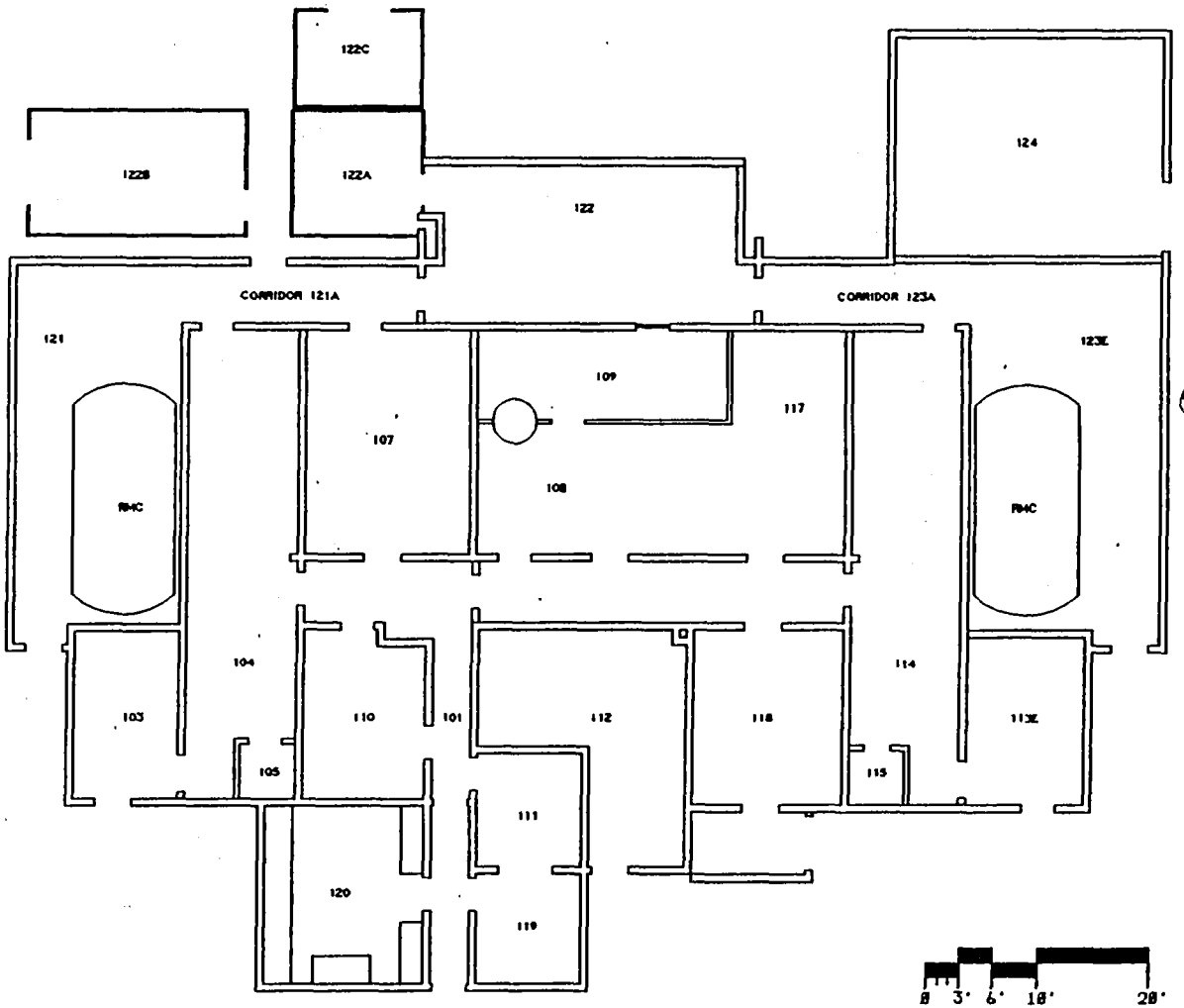
9.37.6.4 Floor Plans for Building 2

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



DERIVATIVE CLASSIFIER

L D Myers
Name

Sr. Class Anal. 2/20/96
(Title) (Date)

BLDG #2
FIRST FLOOR
BLDG CODE:3002

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED: ___ NONE ___ TRUE/OOC ___ TE/OOC ___ EH/OOC	
TECH. REVIP.	
BR. MGR.	
TRUE/OOC	
TE/OOC	
EH/OOC	

NOT FOR PUBLIC DISSEMINATION

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

DESIGN ENG	PROJ MGR
SPONS	ENG SUPV
LP & CC	PROG REV
ORG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	Ø					

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
BLDG #2
FLOOR PLANS

DRAWING CLASSIFICATION: UCNI
SIZE: C
DRAWING NUMBER: FSC911227
JOB NUMBER: 12335
DWG TYPE: SFP
FROM: BLDG #2
CAMEE: 14065
SCALE: AS NOTED
SHEET: 1 OF 1
STATUS: MD-REL-12/12/91
ORIGIN: MD-BR3-V3.Ø

9.37-59

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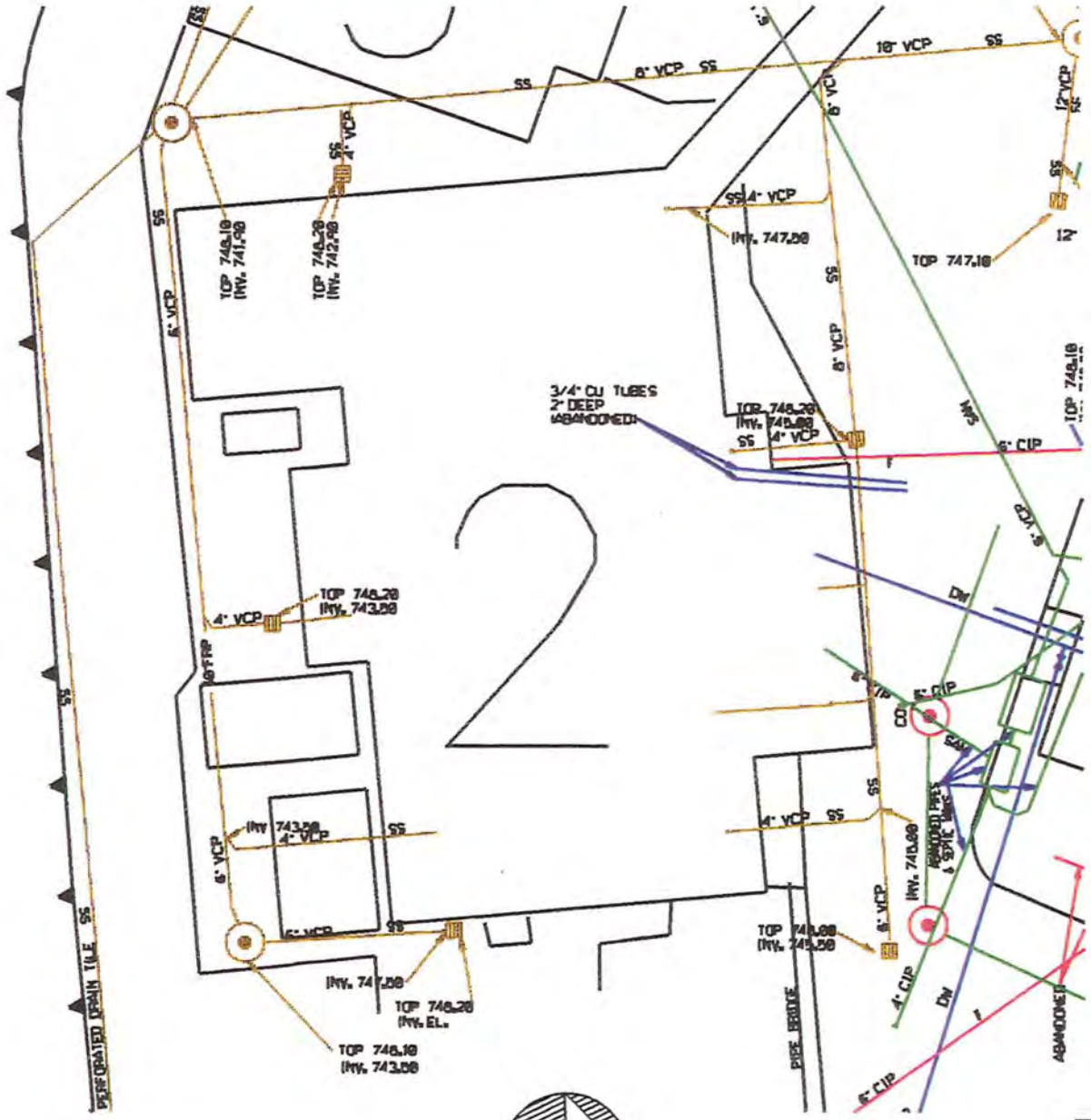
9.37.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 2

DATE: 2/29/96

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9.37.6.6 Photographs

Mound Plant Building 2

9.37-67

At Building 2 the lean-to is not scheduled for removal under Safe Shutdown. Note the view of a blast surge chamber.

9.38 BUILDING 3

9.38.1 Scope of Building 3 Report

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

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

9.38.2 Description of Building 3

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

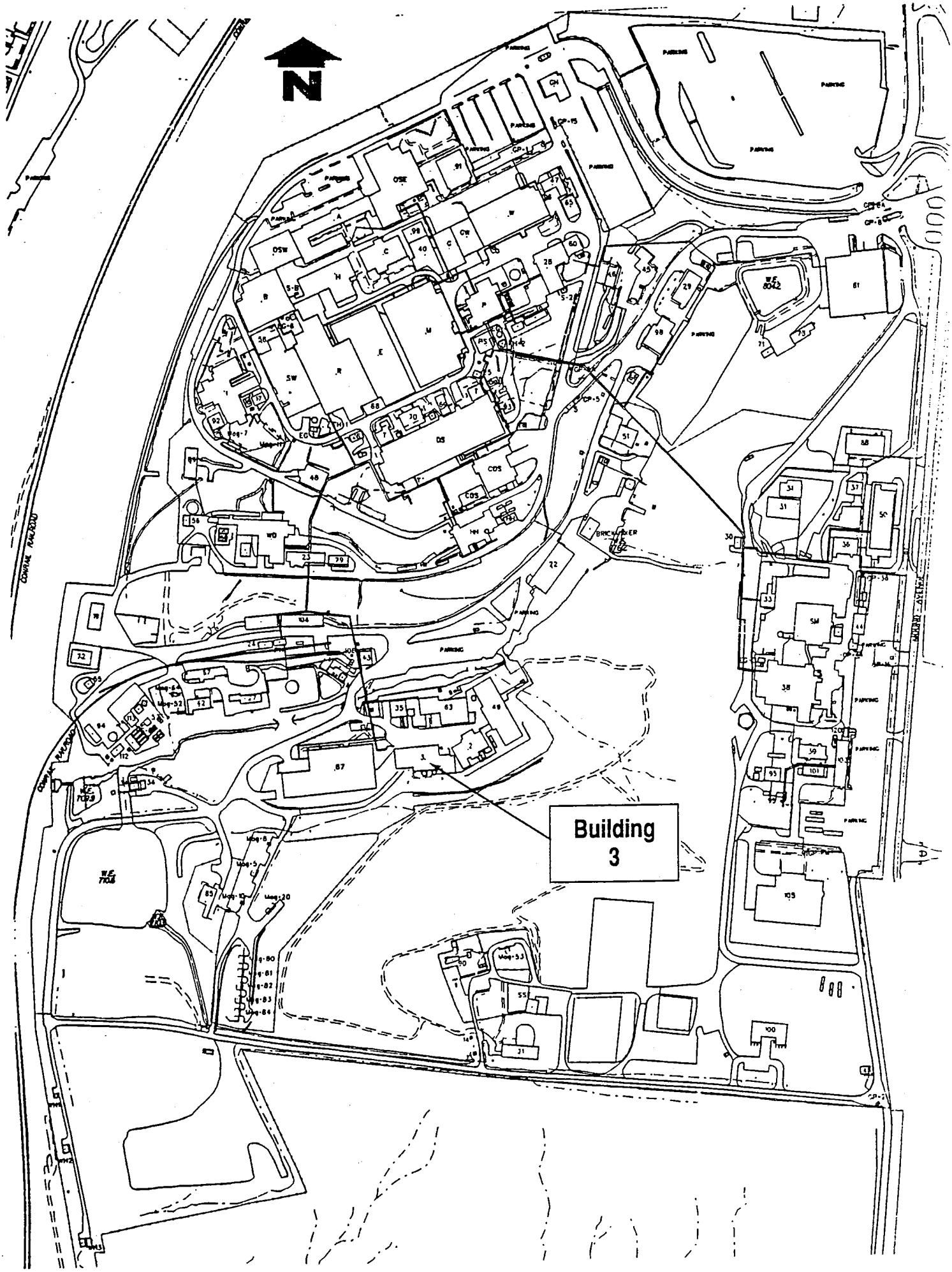
Building 3 was constructed in 1966 (*Capital Assets Management Process, CAMP Report, FY96*). The building has been used for the same purpose since construction. Research and testing activities using energetic materials have occurred in the building. Research, development and testing activities using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

9.38.3 Summary of Findings

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

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

9.38.4.1 Location of Building 3



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

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9.38.4.2 Photographs

Mound Plant Building 3

9.39 BUILDING 13

9.39.1 Scope of Building 13 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 13 on the morning of January 29, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.39.6.1). 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 9.39.6.2).

9.39.2 Description of Building 13

Building 13 is a one-story, 44-square-foot, wood-framed steel structure. It is asbestos-coated. The foundation is concrete slab-on-grade. Location is shown in Attachment 3 (Section 9.39.6.3). Buildings 14 and 21 are adjacent. Floor plans are presented as Attachment 4 (Section 9.39.6.4). The building is serviced with electrical service of 240V, and potable water (for an electric-steam space heater and an outside eyewash).

Building 13 was constructed in 1986 (MD-10391, *Asbestos Program Manual*, 9-14-95). It consists of one room. The facility has been used to support the same program since construction. It was used for remote monitoring of energetic materials destruction in the burn area. It contains a video monitor and electrical initiation equipment for firing (Mound Buildings, 5-9-95).

9.39.3 Summary of Findings

Building 13 is currently undergoing Safe Shutdown. There were no issues of environmental concern identified during the walk-through and during review of reference materials. However, housekeeping could be improved.

9.39.4 Observations

9.39.4.1 Air Emissions

There are no air emission sources in the building. There are no fuel-burning units in the building. There is no evidence of fugitive dust.

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

9.39.4.2 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.

9.39.4.2.1 Sanitary Wastewater

Building 13 is not serviced by a sanitary line, according to the diagram of underground utility lines, presented as Attachment 5 (Section 9.39.6.5).

9.39.4.2.2 Storm Wastewater

The building is not directly serviced by storm drains according to drawings presented in Attachment 5 (Section 9.39.6.5). Building runoff becomes part of the surface water and flows to the nearest storm drain inlet.

9.39.4.2.3 Chemicals

No chemicals were used in this building.

9.39.4.3 Potable and Service Water

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

9.39.4.4 Chemical Storage and Hazardous Material

There are no chemicals stored in the building.

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

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

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

9.39.4.4 Solid, Hazardous, and Radioactive Wastes

There are no solid wastes generated.

9.39.4.6 Waste Minimization and Pollution Prevention

Building 13 is undergoing Safe Shutdown. 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 Department of Energy (DOE) facilities; claimed by the City of Miamisburg; sold at auction; sold to recycle; or disposed of.

9.39.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.39.6.6). The environmental appraisal of Building 13 indicates that no action items need to be planned.

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Environmental Appraisal of the Mound Plant

9.39.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 13 Firing Control Shed

Appraisers:

Team #4

Mark Gilliat
Name Discipline

Marcia Vannet
Name Discipline

Myron Smith
Name Discipline

Name Discipline

Building Manager: Bob Ward

Process Manager:

Date: 1-29-96

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 A[illegible]lsal Checklist

Building Name: 13 Appraisers: Team #4 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	
	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	

9.39-9

9.39-10

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	
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: 13 Appraisers: Team #4 Date: 1-29-96

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					

BLANK

Source: _____

9.39-11

9.39-12

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

BLANK

9.39-13

9.39-14

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

BLANK

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

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

Source: _____

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

* use of this building is no longer required. Recommend general housekeeping, secure utilities and program removal

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead

Source: _____

9.39-15

9.39-16

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team H4. 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: 13 Appraisers: Team #4 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 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	

9.39-17

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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: 13 Appraisers: Team #4 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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9.39-19

9.39-20

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

BLANK

General Comments:

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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? 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 NA	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	

9.39-22

Environmental Appraisal Checklist

Building Name: 13. Appraisers: Team #4 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: 13 Appraisers: Team #4 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	

BLANK

9.39-23

9.39-24

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

BLANK

GENERAL COMMENTS:

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

9.39-25

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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 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: 13 Appraisers: Team H4 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	

BLANK

9.39-27

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

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Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

BLANK

GENERAL COMMENTS:

9.39-29

9.39-30

Environmental Appraisal Checklist

Building Name: ~~Fee~~ 13 Appraisers: Team #4 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

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: 13 Appraisers: Team #4 Date: 1-29-94

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

9.39-31

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

BLANK

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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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9.39-33

Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	

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Environmental Appraisal Checklist

Building Name: 13 Appraisers: Team #4 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	BLANK
	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?	_____ _____	

9.39-35

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9.39.6.2 Building Manager's Questionnaire

(2)

Building Manager's Questionnaire

Building Name: 13 Building Manager: R.A. Ward Phone: 3821 Date: 12-07-95
Alternate: K. HOEHLER Phone: 4886

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

2. What protective equipment is required to enter the building?
NONE

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

4. Provide a physical description of the building.

This ~~reinforced concrete~~ STEEL-SHEET METAL structure contains 44 ft^2. Building is not contaminated with any radioactive or energetic materials.

ELECTRIC POWER, ELECTRIC STEAM SPACE HEATER, & POTABLE WATER FOR HEATER AND OUTSIDE EYE WASH.

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

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

Building is used for remote monitoring of explosives destruction in the burn area. It contains a video monitor and electrical initiating equipment for firing.

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

9.39-39

Building Manager's Questionnaire

Building Name: 13 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: Control room for burn area

How Wastes Are Generated:

No wastes generated.

Contact:
Phone #

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

9.39-40

Building Manager's Questionnaire

Building Name: 13 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

9.39-41-

Building Manager's Questionnaire

Building Name: 13 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

Process Source	Emissions	Control Equipment	Functioning
			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

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

Source: Air Permits 2/4/95

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

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

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

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

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

Exterior Metal Sides & Roof asbestos coated per construction Drawings.

Building Manager's Questionnaire

Building Name: 13 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

9.39-43

Building Manager's Questionnaire

Building Name: 13 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?
NONE

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

23. Where do excess janitorial supplies go?
NONE

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

9.39-44

Building Manager's Questionnaire

Building Name: 13 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: _____

9.39-45

Building Manager's Questionnaire

Building Name: 13 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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

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

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

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

Source: _____

Building Manager's Questionnaire

Building Name: 13 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: _____

9.39-47

Building Manager's Questionnaire

Building Name: 13 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

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

Building Manager's Questionnaire

Building Name: 13 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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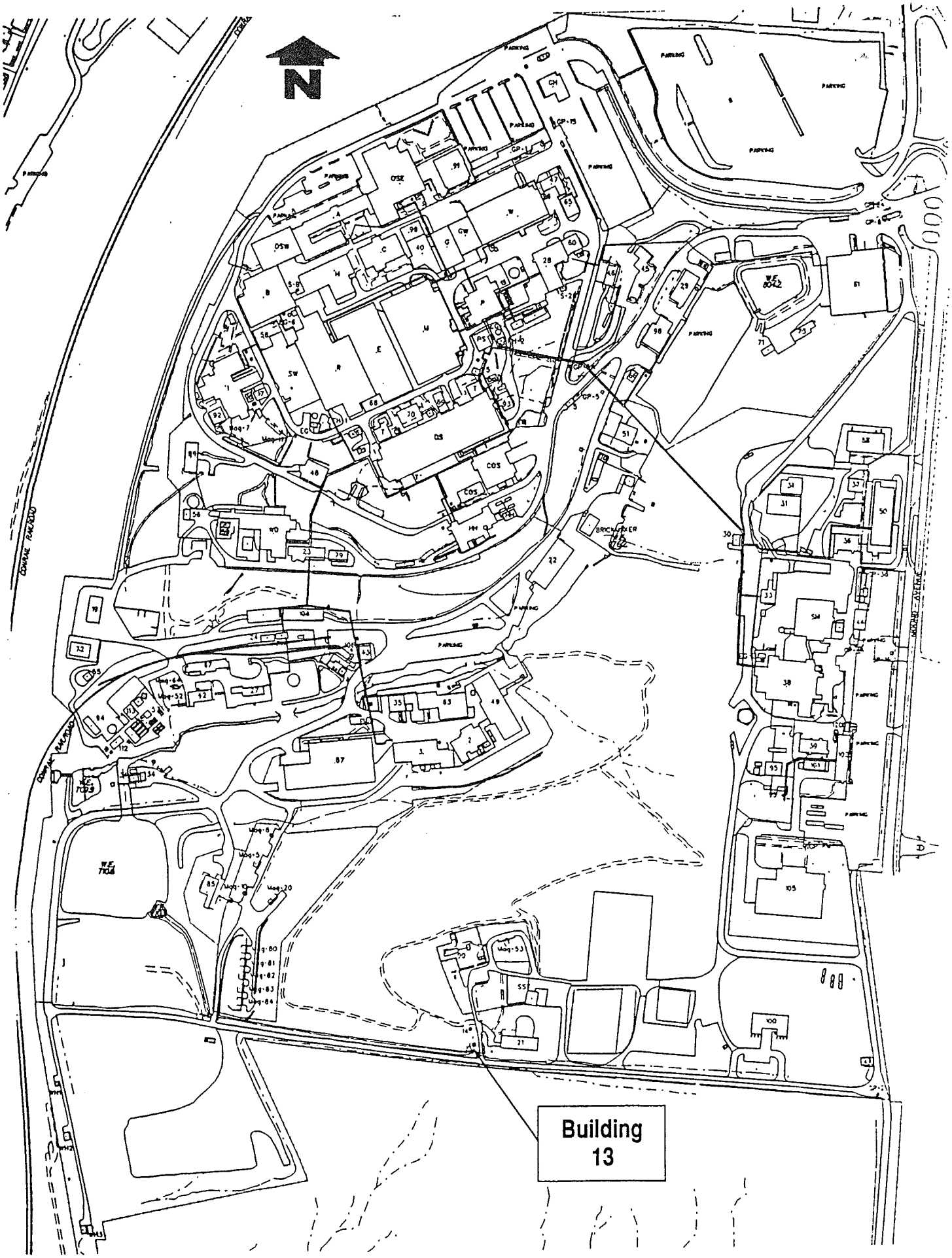
9.39.6.3 Location of Building 13



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

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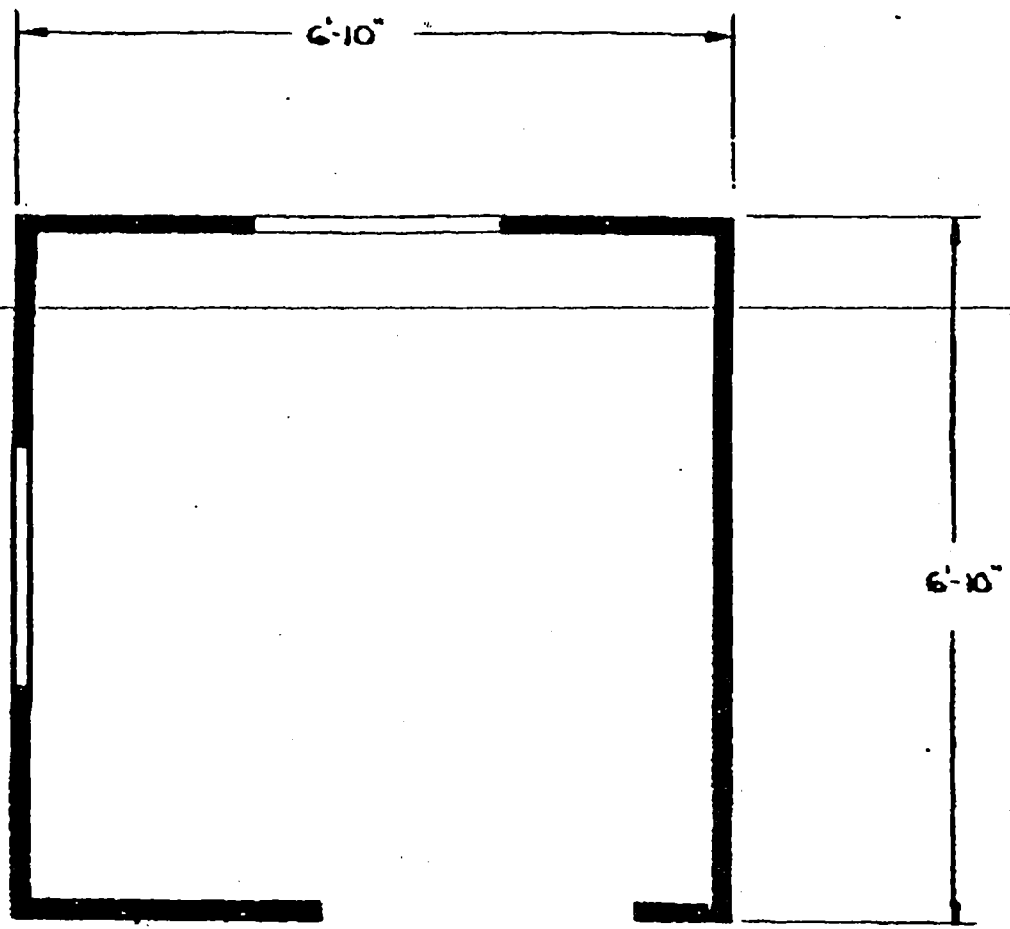
9.39.6.4 Floor Plans for Building 13



Burn Area Control Building

EG&G
MOUND APPLIED TECHNOLOGIES

SMALL SCALE FLOOR PLANS

BLDG. 13
FIRST FLOOR

BLDG. CODE : 3013

REV. DATE 01/11/89 | PLANNER UNCL

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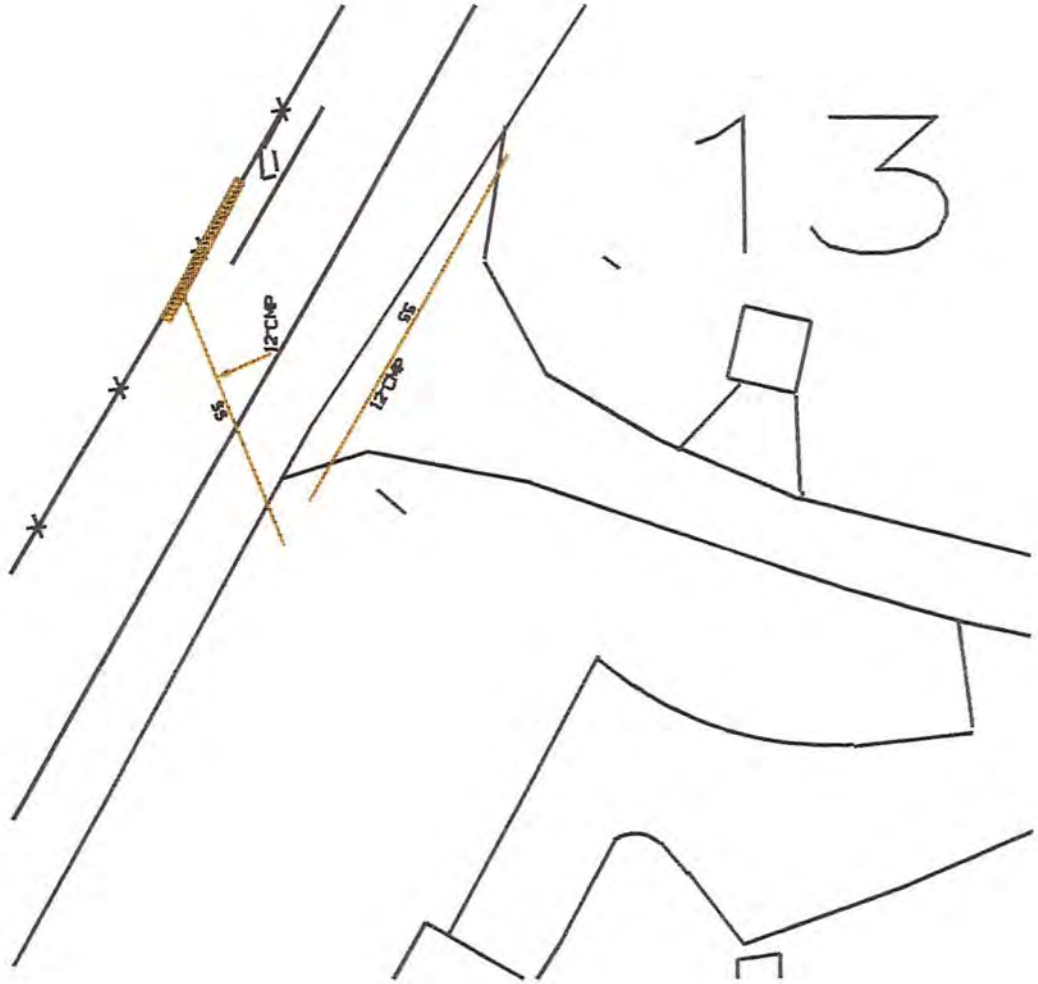
9.39.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 13

DATE: 2/29/96

9.39.6.6 Photographs

Mound Plant Building 13

9.40 BUILDING 14

9.40.1 Scope of Building 14 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-by of the location of the former Building 14 on the morning of January 29, 1996. The Building Manager's Questionnaire (BMQ) was not made available to the appraisal team and the Environmental Appraisal Checklist (EAC) was not used to record findings since the building had been removed. The appraisers were accompanied by the former building manager.

9.40.2 Description of Building 14

At the time of the site visit, Building 14 had been removed. There were no visible signs of the building or its foundation, including concrete footings. According to referenced documents, Building 14 was a 42-square-foot, one-story, structure. It was constructed of wood-framed metal, with asbestos-coated sides and roof structure with a concrete deck on concrete footings. This information is according to former users of the building and a review of the original construction drawings. Its former location is shown in Attachment 1 (Section 9.40.4.1). The building was used as an observation post in association with the former burn area (North). The facility had no heating, cooling, or electrical services.

Building 14 was constructed in 1986 (MD-10391, *Asbestos Program Manual*, 9-14-95). No research, development, or production activities using radioactive or energetic materials had occurred in the building (*Mound Facility Physical Characterization*, 12-1-95).

9.40.3 Summary of Findings

Building 14 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.

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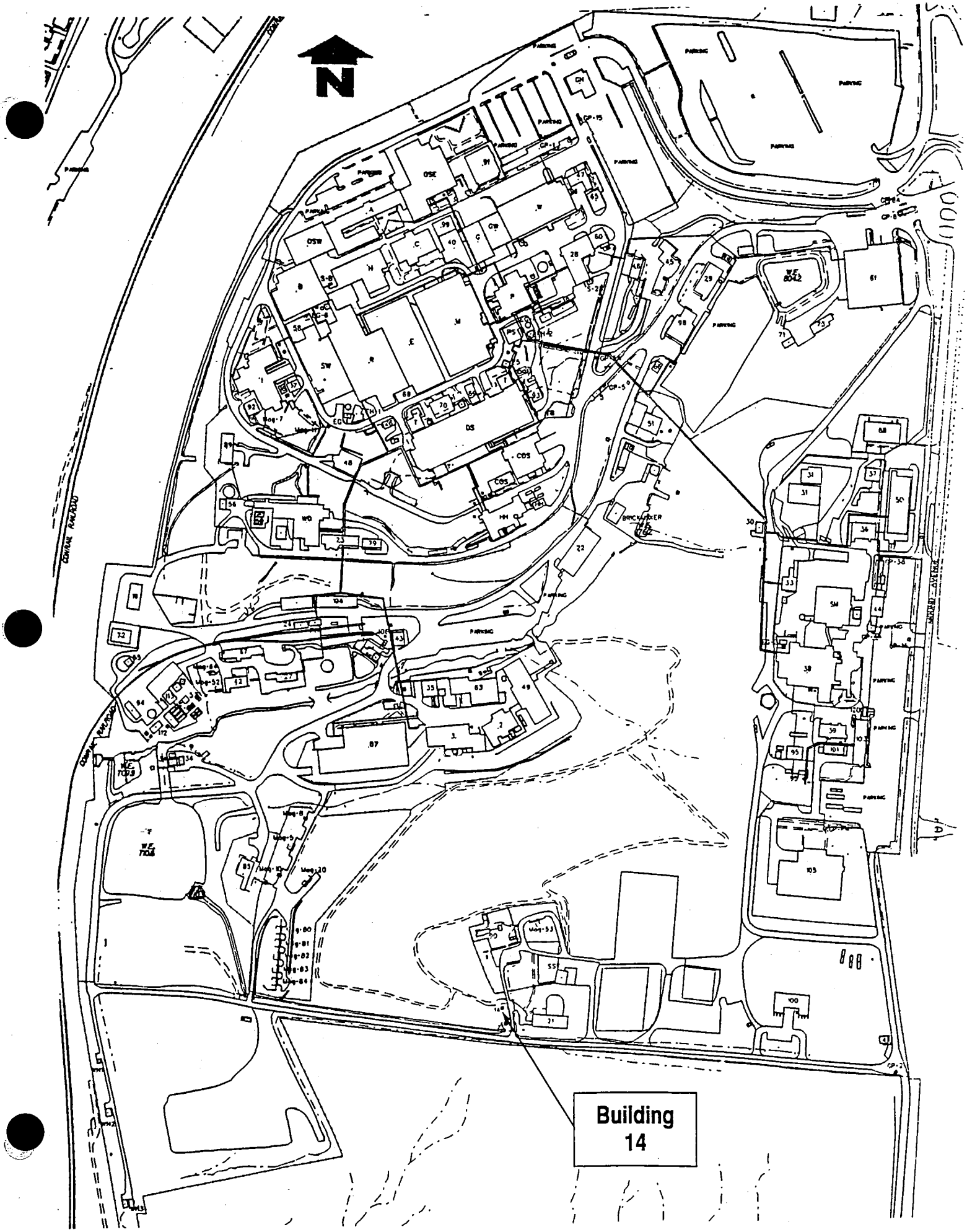
9.40.6.1 Location of Building 14



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

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9.41 BUILDING 16

9.41.1 Scope of Building 16 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.

Building 16 was not inspected as it has been sold. Prior to performing the plant-wide building assessments, Building 16 was removed from the plant site.

9.41.2 Description of Building 16

Building 16 was a one-story metal structure on a concrete slab with a metal roof. The building was constructed in 1958 and contained approximately 480 square feet. The building was used to store equipment in support of operations in Building I. The building was located on the western perimeter of the main hill as shown in Attachment 1 (Section 9.41.4.1). Adjacent buildings were Building I to the northwest, Building SW to the east, and Magazines 7 and 11 to the south. Building 17 was immediately east of Building 16, however, only the foundations remain of Buildings 16 and 17.

9.41.3 Summary of Findings

Building 16 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.

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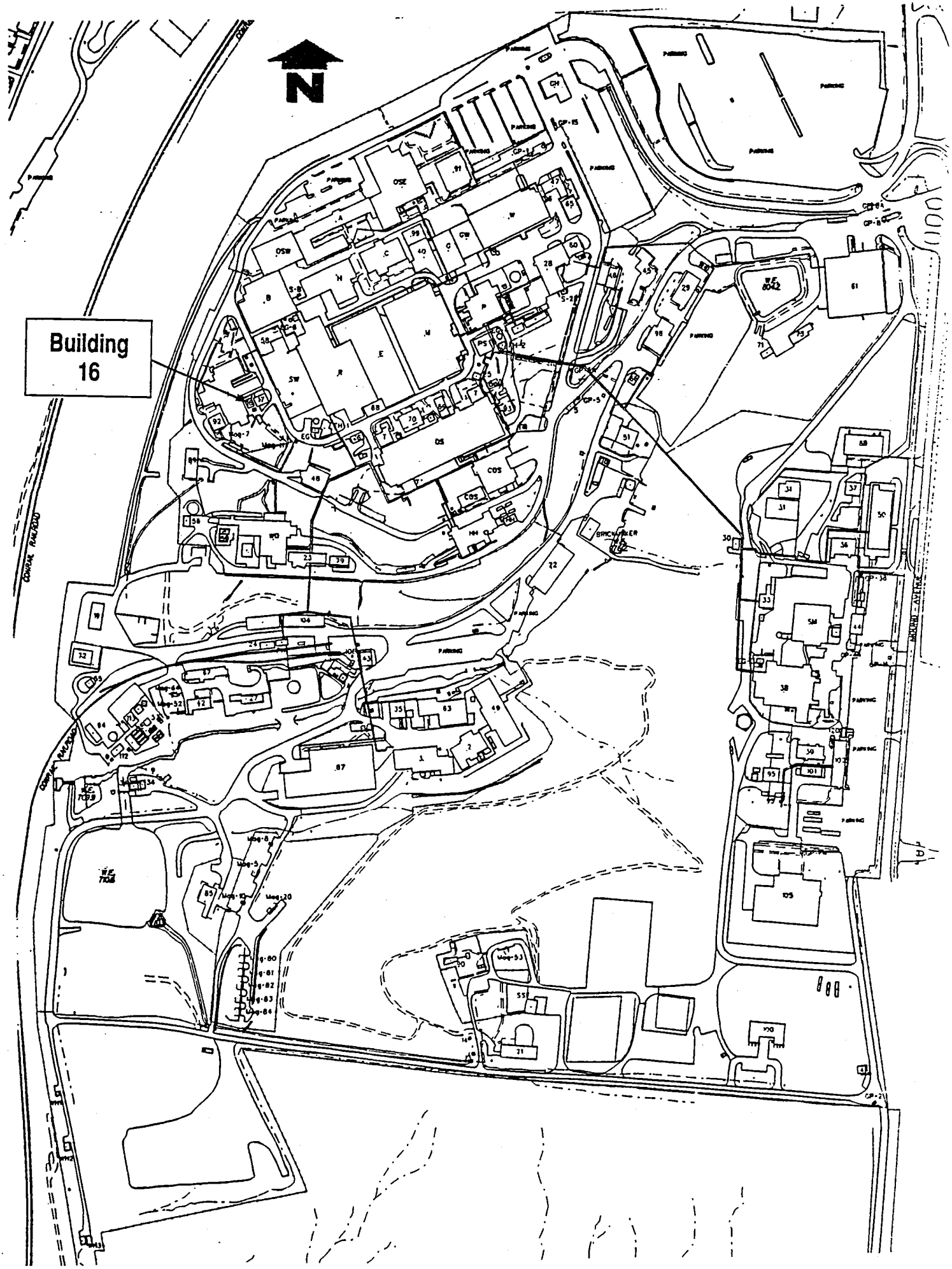
9.41.4.1 Location of Building 16



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

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9.42 BUILDING 17

9.42.1 Scope of Building 17 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 was unable to perform a walk-through of Building 17 because it was sold. Prior to performing the plant-wide building assessments, Building 17 was removed from the plant site.

9.42.2 Description of Building 17

Building 17 was a one-story metal structure on a concrete slab with a metal roof. The building was constructed in 1961 and it contained approximately 1,120 square feet. The building was located on the western perimeter of the main hill as shown in Attachment 1 (Section 9.42.4). A roadway runs along the eastern perimeter of Building 17. Adjacent buildings are Building I to the north and west, Building SW across the roadway to the east, and Magazines 7 and 11 to the south. Building 16 was immediately west of Building 17, however, only the foundations remain of Buildings 16 and 17.

The only remnants left of Building 17 is a sealed drum containing the ballasts for fluorescent lights. The drum was labeled polychlorinated biphenyl (PCB) hazardous waste. Upon follow-up, the drum was collected and transported by a representative of the EG&G Waste Management Group, and was stored in Building 72 for ultimate disposal. There is no onsite treatment of waste. Waste disposal manifests and Certificates of Disposal are maintained by the EG&G Waste Management Group. They conform to Resource Conservation and Recovery Act (RCRA) requirements.

Historically, the building was used to store and stage chemicals in support of Bonded Stores during production. Chemicals were only opened in the building to sample or test them. Prior to storing chemicals, metal rods and excess material, other than chemicals, were stored there.

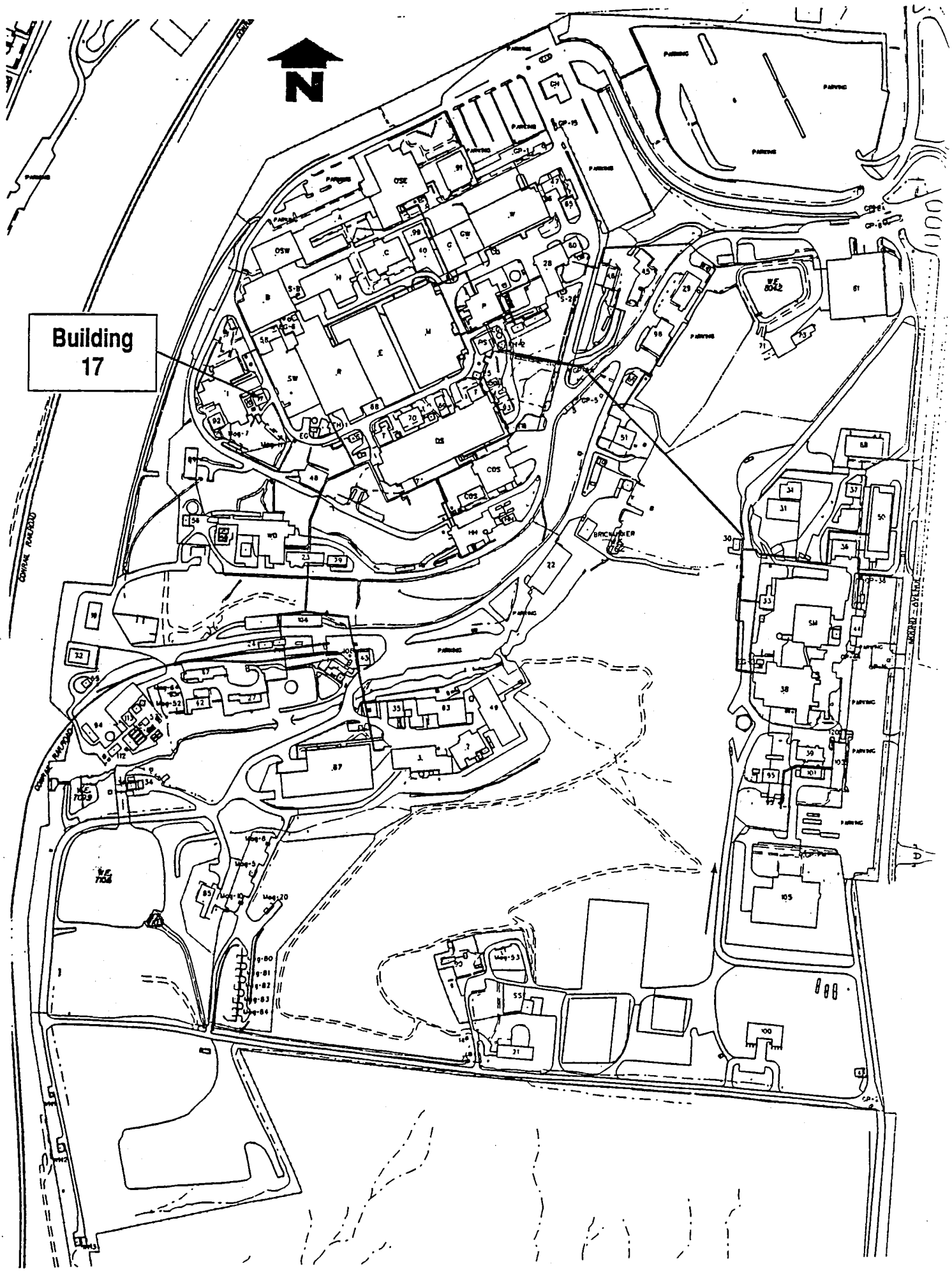
9.42.3 Summary of Findings

Building 17 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.

Environmental Appraisal of the Mound Plant

Since the building has been sold, an Environmental Appraisal Checklist (EAC) was not prepared and no further action was taken concerning this building.

9.42.4.1 Location of Building 17



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

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9.43 BUILDING 19

9.43.1 Scope of Building 19 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 19 on the morning of February 8, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is presented in Attachment 1 (Section 9.43.6.1). The appraisers were accompanied by the building manager. A subsequent meeting with the process manager was held on the afternoon of February 19, 1996. The team revisited the building unaccompanied on the morning of February 26, 1996. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.43.6.2).

9.43.2 Description of Building 19

Building 19 is a one-story, 4,480-square-foot metal jumbo Quonset hut. It is a slab-on-grade structure with a 1,500-square-foot mezzanine. The location is shown in Attachment 3 (Section 9.43.6.3). The building is bounded by paved and gravel hardstand. Building 49 is located to the east of Building 19. The building contains a small office cubicle with the remainder used to store Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) soil sample drums and a packaging area for samples taken from current CERCLA activities. Floor plans are presented as Attachment 4 (Section 9.43.6.4). The building is serviced by two forced-air propane heaters and two small electric heaters, a window air conditioner in the small office area, and electric service of 240V (*Mound Facility Physical Characterization*, 12-1-93).

Building 19 was constructed in 1962 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building was initially used for Mound salvage storage and salvage sales.

9.43.3 Summary of Findings

Building 19 is used principally for storing CERCLA soil sample drums dating back to 1988 and, on the mezzanine, new empty drums. In addition, it was noted that outside one end of the building (unprotected and with no secondary containment) were five 55-gallon drums labeled to contain low-level waste (LLW) and four 55-gallon drums labeled to contain low-specific activity (LSA) decontamination rinse fluids. All these drums were unprotected and had no secondary containment. Except for the nine drums and potential unlabeled asbestos-containing building material, no other issues of environmental concern were identified during the walk-through or during review of reference materials. A recommendation is included with reference to the two

propane heaters. The building is not well-maintained and the general housekeeping appeared to be less than adequate.

9.43.4 Observations

9.43.4.1 Air Emissions

There are no fumehoods. Potential sources of emissions are two propane fuel-burning space heaters located one on each side of the building. Documentation was not available from the building manager or the Environmental Monitoring Group to indicate that potential emissions have been calculated, nor have they been listed in the Mound Air Emissions Database. No permit application has been submitted for the building, as emissions are considered *de minimis*. There are no data to support this determination, as required under OAC 3745-31. There is no evidence of fugitive dust.

9.43.4.2 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.

9.43.4.2.1 Sanitary Wastewater

The building has no sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.43.6.5), the building is not serviced by a sanitary line. A portable restroom is located outside the building. Upon inspection it was found to be clean and odorless. According to the building manager, the unit is serviced by a vendor.

9.43.4.2.2 Storm Wastewater

The exterior of the building is not directly serviced by storm drains. Storm water from the building becomes surface water and is either absorbed into the ground or flows downhill to a storm water open collection ditch. 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.

9.43.4.2.3 Process Wastewater

Radioactive process wastewater is contained in four drums outside the back end of the building.

9.43.4.2.4 Chemicals

Some chemicals are stored in Building 19. They are mostly cleaning materials, none of which are considered flammable. The list is included in the BMQ in Attachment 2 (Section 9.43.6.2). 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. None of the chemicals listed in the BMQ are Clean Water Act priority pollutants. There is no evidence that chemicals stored in the building have entered the wastewater collection system. There have been no reported spills from Building 19.

Outside the building there is a flammable storage cabinet which meets standard National Fire Protection Association (NFPA) requirements. Flammable chemicals—methanol and hand cans of spray paint—were present in the building. There is no evidence that chemicals enter the wastewater system.

9.43.4.3 Potable and Service Water

Potable water and service water are not supplied to the building according to a diagram of underground utility lines, presented as Attachment 5 (Section 9.43.6.5). Bottled water is used for personal consumption.

9.43.4.4 Chemical Storage and Hazardous Materials

Chemicals are temporarily stored in the building (CERCLA support vendor was using the methanol) in accordance with applicable standards; however, food products were also stored in the same general area as the spray cans of paint. Immediate corrective action was taken by the building manager. Material Safety Data Sheets (MSDS's) are available in the building.

The building is not equipped with emergency response equipment; however, the building does have appropriate charged fire extinguishers. Each extinguisher is bar-coded. The inspection date database is maintained in the Fire Station, Building 98. There is an Emergency Evacuation Plan, and signs were posted.

There is an aboveground propane gas storage tank, without secondary containment, outside the building. There are no sumps, separators, or catch basins, in or around the building. There are no underground storage tanks associated with this building.

The building has been inspected and is suspected to contain asbestos-containing building material (ACBM) insulation. There is no record which indicated that the insulation was tested (MD-10391, *Asbestos Program Manual*, 9-14-95). On inspection, there was no visual evidence of friable asbestos.

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

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

9.43.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated are primarily paper. There is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a local collection point, then shipped offsite 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.

Outside the rear of the building, the Decontamination and Decommissioning (D&D) Group is using an area immediately outside the rear building entrance to store drums labeled LLW and LSA. The drums are exposed to the elements and have no secondary containment. By the general appearance of the full drums, including the rusty bottom rings, they may have been stored outside for a considerable period of time. According to the process manager's records; five of the drums contain mostly Pu-238 and Th-232 and to a lesser extent other low-level radioactive wastes. The wastes are mostly soils and, to a lesser extent, paper and plastics. The drum contents have not been characterized. Those records also show four drums contain decontamination rinse fluids containing LLW. Those drum contents also have not been characterized. The CERCLA vendor has also staged a partially filled drum of waste methanol, containing soap and dirt. Small quantities are added each day. The contractor employee, whose name was not obtained, did not know what would be done with the drum when full, nor did he understand questions concerning the designation of a satellite accumulation area (SAA).

According to the process manager for CERCLA, storage of materials contained in over 200 55-gallon drums in the building and management of the collected investigation-derived materials is in accordance with the Mound Plant ER Program SOP 1.15, Revision 6, same title.

9.43.4.6 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856.

Programs for waste minimization are in place including aluminum can recycling. There does not appear to be additional opportunities for waste minimization activities within Building 19.

9.43.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.43.6.6).

The environmental appraisal of Building 19 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.

19-1 LSA waste stored outside of Building 19 did not conform to DOE Order 5820.2A or Mound Procedure MD-81240, Issue 8, *Low Level Waste Management Procedures*. If a storage area for LSA Waste is to be continued outside Building 19 then an appropriate storage configuration, (e.g., protection of groundwater, long-term storage performance standards, and monitoring, including dosimeter placement) is required.

19-2 Documentation was not available to confirm that waste stored outside of Building 19 was characterized in accordance with DOE Order 5820.2A, 40 CFR 265, or OAC 3745-52.

19-3 CERCLA materials, i.e., samples for which characterization is incomplete, are wastes. The materials must be characterized in accordance with 40 CFR 261-265 & 268, and OAC 3745-52 to determine if the material is hazardous. If so, it must be handled accordingly.

19-4 No air emissions permit applications have been submitted to the Ohio Environmental Protection Agency (OEPA) for activities in the building. Appropriate documentation should reside with the EG&G Technology and Monitoring Group that the propane heater air emission sources have been inspected and determined to be *de minimis*.

19-5 The building insulation is exposed in the interior and has been protected from damage due to the height of the stored drums. It is recommended that it be tested to determine whether or not asbestos exists. If so, it should be properly labeled as the insulation is exposed throughout the arched building from one end to the other.

19-6 Insure that the CERCLA vendor knows the proper procedures for characterizing and disposing of the hazardous waste drum. EG&G MAT must provide oversight for subcontractors.

19-7 The area where the hazardous waste is being collected should be designated a SAA and treated as such (OAC 3745-52).

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Environmental Appraisal of the Mound Plant

9.43.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 19 - SALVAGE WAREHOUSE

Appraisers:

Team #4

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

Building Manager: BOB WARD (x-3821)

Process Manager: DENNY GAULT - CERCLA

GEORGE LIBSON - LSA

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
TSCA—PCB	14
Low-level and Transuranic Waste	17
Waste Minimization/Pollution Prevention Activities	22

Environmental Appraisal Checklist

Building Name: 19 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	
	Is the building in operation? What are the processes and where do they discharge to?	(Y) / N _____ _____	CERCLA SOIL SAMPLE DRUMS INSIDE LLW & LSA OUTSIDE
	Do the floor drains, sinks & toilets appear to be draining properly?	Y / N	NONE
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	NONE
	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	

9.43-11

9.43-12

Environmental Appraisal Checklist

Building Name: 19 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	Propane Space Heaters
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	Propane Space Heaters - Single open bay bldg with small office. Nomenclature not visible from floor level
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: 19 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
Propane space heaters	—	N/A	Y / (N)	(Y) / N	Propane	Unknown	N/A	24 hrs/day during cold weather, no log	DE Minitos
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

Source:

9.43-13

9.43-14

Environmental Appraisal Checklist

Building Name: 19 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	NONE FOUND
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	GENERAL HOUSECLEANING RECOMMENDED
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y / N	N/A
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	(Y) / N	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y / N	N/A

Environmental Appraisal Checklist

Building Name: 19 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	N/A FIRE EXTINGUISHERS ARE CHARGED
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	Y / N	NONWATER
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	ONLY THE PROPANE TANK OUTSIDE
CGA P-1 3.5.3	Full and empty containers should be stored separately with the storage layout planned so that containers comprising of old stock can be removed first with a minimum handling of other containers.	(Y) / N	EMPTY DRUMS ON THE MEZZANINE
CGA P-1 3.5.8	All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured.	Y / N	N/A
CGA P-1 4.2.2	Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high.	Y / N	N/A
29 CFR 1910.104(2)(10)	Oxygen stored as a liquid shall be on a noncombustible surface. Asphalt is considered combustible. Wood and long dry grass shall be cut back 15 ft. from the container.	Y / N	N/A
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	N/A
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	(Y) / N	
	Is there an emergency response plan available?	Y / (N)	

9.43-15

9.43-16

Environmental Appraisal Checklist

Building Name: 19 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
19	50	Propane	50	(Y) / N	Y / (N)	Y / (N)	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				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

Environmental Appraisal Checklist

Building Name: 19 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	Blank
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: _____

9.43-17

9.43-18

Environmental Appraisal Checklist

Building Name: 19 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	RERCLA SOIL SAMPLE DRUMS STORAGE.
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)	NOT TESTED NOR CHARACTERIZE. DRUMS LABELED AS LLW & LSA SHOULD BE REMOVED FROM OUTSIDE BLDG

* contents of DRUMS NOT KNOW OTHER THAN "SOIL Sample" RANGING FROM 1988 TO PRESENT

Environmental Appraisal Checklist

Building Name: 19 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? Is it treated as such?	Y / N Y / N	NONE IN BLDG DRUMS ON HARDSTAND OUTSIDE QUALIFIES
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)	OUTSIDE AREA HAS 5-55 gal DRUMS LLW - Pu^{238} & Th-232 4-55 gal DRUMS of DECON RINSE WATER MARKED LSA
	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	RUSTY BOTTOM RINGS
	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	N/A
	Are containers kept closed and locked except during filling?	Y / N	SEALED
	Are containers moved within 3 days of being filled?	Y / (N)	

9.43-19

9.43-20

Environmental Appraisal Checklist

Building Name: 19 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:		CONTENTS HAVE NOT BEEN CHARACTERIZED EXCLUSION NOT KNOWN
	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: 19 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	NONE STORED IN A TANK
	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	Blank
	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	

9.43-21

9.43-22

Environmental Appraisal Checklist

Building Name: 19 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	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: 19 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?	Y / N	SURVEY DID NOT DETERMINE SUSPECTED
	If no for this building or area note this conclusion in the comment section.		
	Is there any evidence of friable asbestos?	Y / (N)	
	Is the asbestos removal properly managed? (See questions listed below)	Y / N	If there is no asbestos removal, do not complete the following section.
NESHAPS FOR ASBESTOS FOR ANY ONGOING ASBESTOS REMOVAL:			
40 CFR 61.156	There are no discharges of visible emissions to the outside air from collection, processing, packaging, transporting, or deposition of ACBM during the removal.	Y / N	Blank
40 CFR 61.152(b) (1)	ACBM is treated with water in accordance with 40 CFR 152(b)?	Y / N	
40 CFR 61.154	Is friable asbestos adequately wetted during stripping? Or, has an adequate ventilation and collection system been installed?	Y / N	
40 CFR 61.152	Is wetting continued until the waste friable asbestos is collected for disposal?	Y / N	

SURVEY CONDUCTED. BUILDING INSULATION NOT TESTED, NOT LABELED, MAY CONTAIN ASBESTOS

9.43-23

9.43-24

Environmental Appraisal Checklist

Building Name: 19 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	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: 19 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	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	

9.43-25

9.43-26

Environmental Appraisal Checklist

Building Name: 19 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	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: 19 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	9 - 55 gallon Drums located against the rear end (west) of the Quonset Bldg.
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)	open to the weather no containment
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	

9.43-27

9.43-28

Environmental Appraisal Checklist

Building Name: 19 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	NOT CHARACTERIZED
	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: 19 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	NO WASTE GENERATED NO TRU WASTE STORED INSIDE OR OUTSIDE.
	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	

9.43-29

9.43-30

Environmental Appraisal Checklist

Building Name: 19 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	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: 19 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	Blank
	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:

9.43-31

9.43-32

Environmental Appraisal Checklist

Building Name: 19 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	
	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	Blank
	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: 19 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	Blank
	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	

9.43-33

9.43-34

Environmental Appraisal Checklist

Building Name: 19 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	

Blank

Environmental Appraisal Checklist

Building Name: 19 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	Blank
OILS			
	What kind of oils are used?		
	Hydraulic oil?	Y / N	
	Transformer oil?	Y / N	
	Metal working fluids?	Y / N	
	Spent lubricating oils?	Y / N	
	Can the process be modified or changed to use water-based fluids?	Y / N	
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

9.43-35

9.43-36

Environmental Appraisal Checklist

Building Name: 19 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	

Blank

Environmental Appraisal Checklist

Building Name: 19 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	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?	_____ _____	

9.43-37

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9.43.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 19 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 one-story, metal Quonset hut with an area of 4,480 ft². It contains an office mezzanine. There is forced-air heating (propane) and a window air conditioner. Building is not contaminated with any radioactive or energetic materials.

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

5. Provide a drawing of the building.

Attached (mezzanine only).

6. What is the current building use?

Building warehouse and one office.

Source: Mound Building, 5-9-95

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

USED BY CERLA - STORAGE FOR PLASTIC DRUMS & ~~LOW LEVEL~~ SAMPLE WASTE
WESTON IS USING THE BUILDING FOR OFFICES & LAB AREA

Source: Mound Buildings, 5-9-95

9.43-41

Building Manager's Questionnaire

Building Name: 19 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: ~~Salvage and sales~~ STORAGE & OFFICE SPACE FOR WASTE MANAGEMENT PERSONNEL, CERLA, & WESTON COMPANY.
How Wastes Are Generated:

No wastes generated.

Contact:
Phone #

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

9.43-42

Building Manager's Questionnaire

Building Name: 19 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

9.43-43

Building Manager's Questionnaire

Building Name: 19 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? Yes (No)
Is there bottled water? (Yes) No

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

no floor drains
no water

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

none observed

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

9.43-44

Building Manager's Questionnaire

Building Name: 19 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

9.43-45

Building Manager's Questionnaire

Building Name: 19 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?

STORAGE CABINET OUTSIDE

23. Where do excess janitorial supplies go?

BLDG #72

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

9.43-46

Building Manager's Questionnaire

Building Name: 19 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 propane tank

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 not current Subcontractor

Materials	Amount
Antimony Powder	15.4
Antimony, Berrlium Powder Mixture	3.3
Berrylium Pellets	10.9
Berrylium Powder	6.5
Berrylium Rods	45.9
Berrylium Rods	99.3
Bismuth Chunk	23.1
Boron Powder	2.2
Bransonic Ultrasonic Cleaner	6.7
Calcium Sulfate	22.9
Eppert Oil Dissolver 200	119.7
Henry Latex Liquid Additive	12.5
Mercury Instruments	12.8
PL500 Adhesive	9.1
Spartan SC-200	9.2
SYN-Cide NR	26.1
Tantalum Wire	2.4
Zip Cleaner	79.2
Mercury Thermometer	0.1

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

9.43-47

Building Manager's Questionnaire

Building Name: 19 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: _____

9.43-48

Building Manager's Questionnaire

Building Name: 19 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: _____

9.43-49

Building Manager's Questionnaire

Building Name: 19 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.

9.43-50

Building Manager's Questionnaire

Building Name: 19 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)

9.43-51

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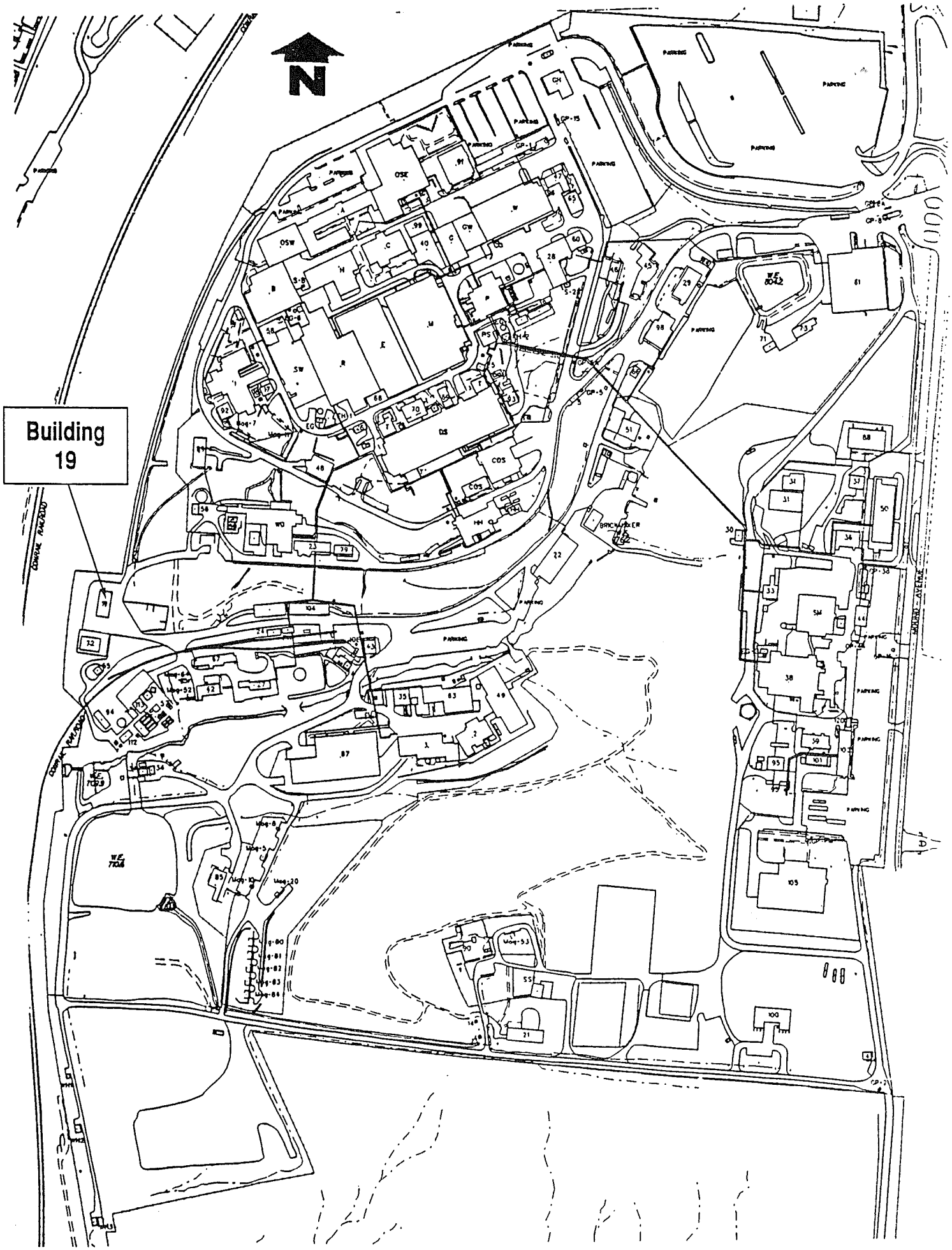
9.43.6.3 Location of Building 19



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

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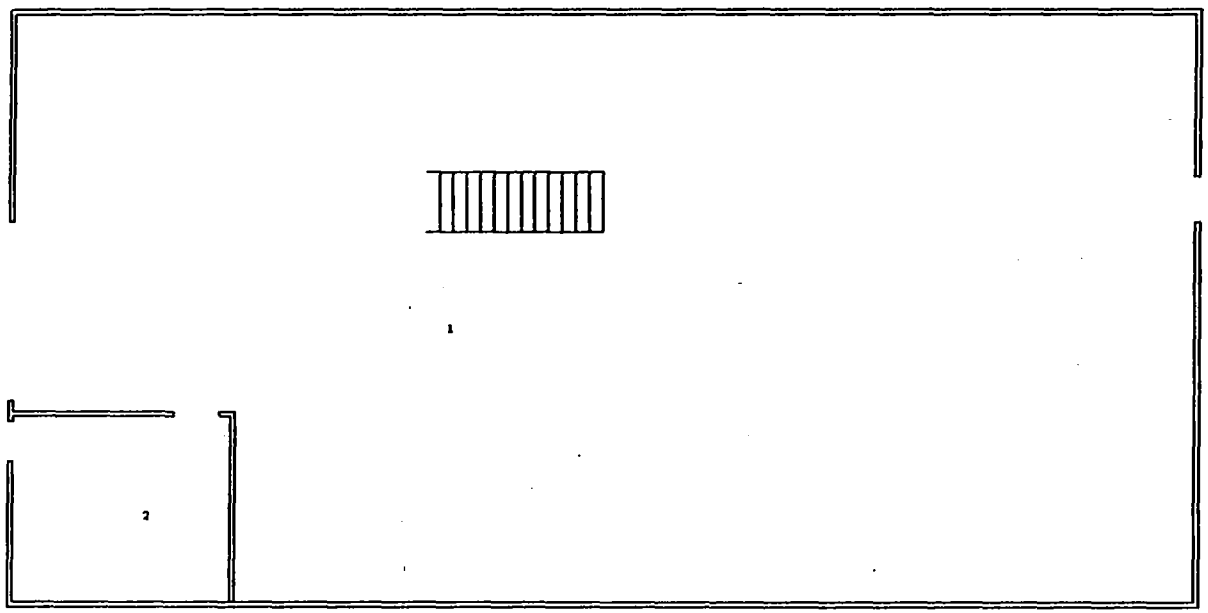
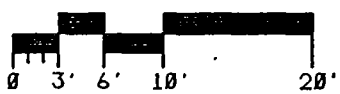
9.43.6.4 Floor Plans for Building 19

ISS	DATE	REVISION	BY	CHKR	ENG	LPMGR	APVD	N
Ø	12/12/91	ASBUILT ISSUE	DCB				DVD	





BLDG #19
FIRST FLOOR
BLDG CODE:3019

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED:	
___NONE ___TRUEBOC ___TEBOC ___EHBOC	
TECH. REWP.	
BR. MGR.	
TRUEBOC	
TEBOC	
EHBOC	

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

SHEET	1	2	3	4	5	6
ISSUE	Ø	Ø				

PART CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
BLDG #19
FLOOR PLANS

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: C
DRAWING NUMBER: FSC911232
JOB NUMBER: 12335
DWG TYPE: SFP
PROJ: BLDG #19
CAD#: 14865
SCALE: AS NOTED
SHEET 1 OF 2
STATUS: MD-REL-12/12/91
ORIGIN: MD-BR3-V3.Ø

9.43-59

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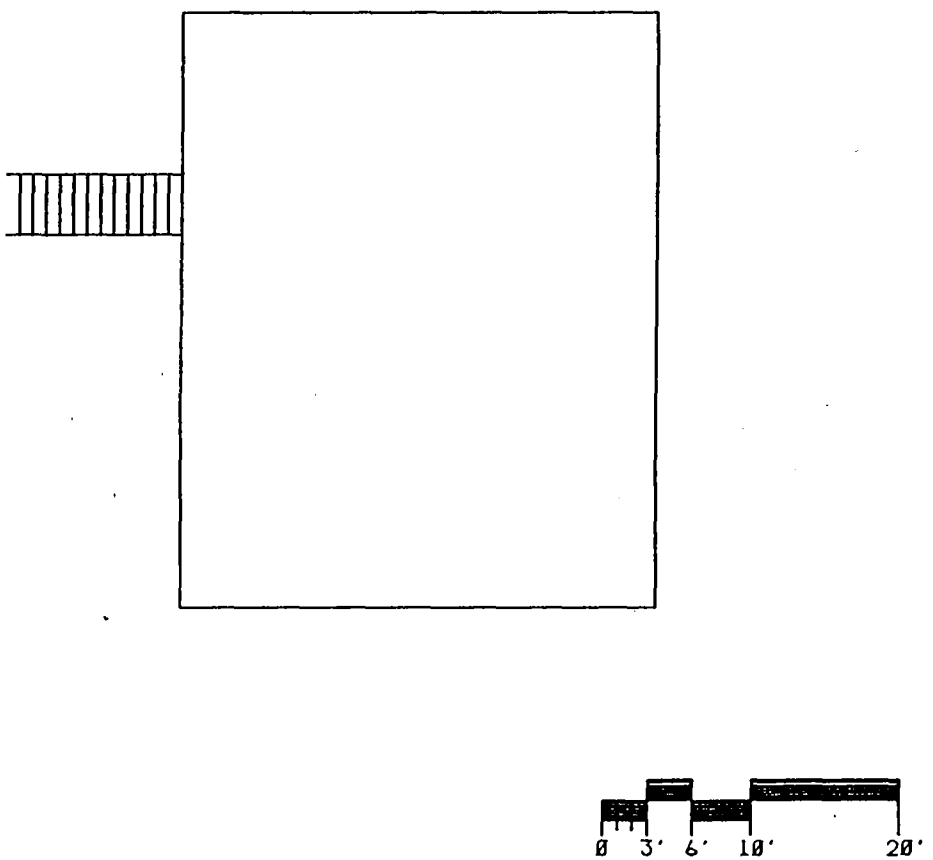

BLDG #19
MEZZANINE
BLDG CODE:3019

DRAWING NUMBER FSC911232	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE C / CADD 14065	SCALE AS NOTED
TABLE 0	SHEET 2
STATUS MO-REL-12/12/91	

9.43-61

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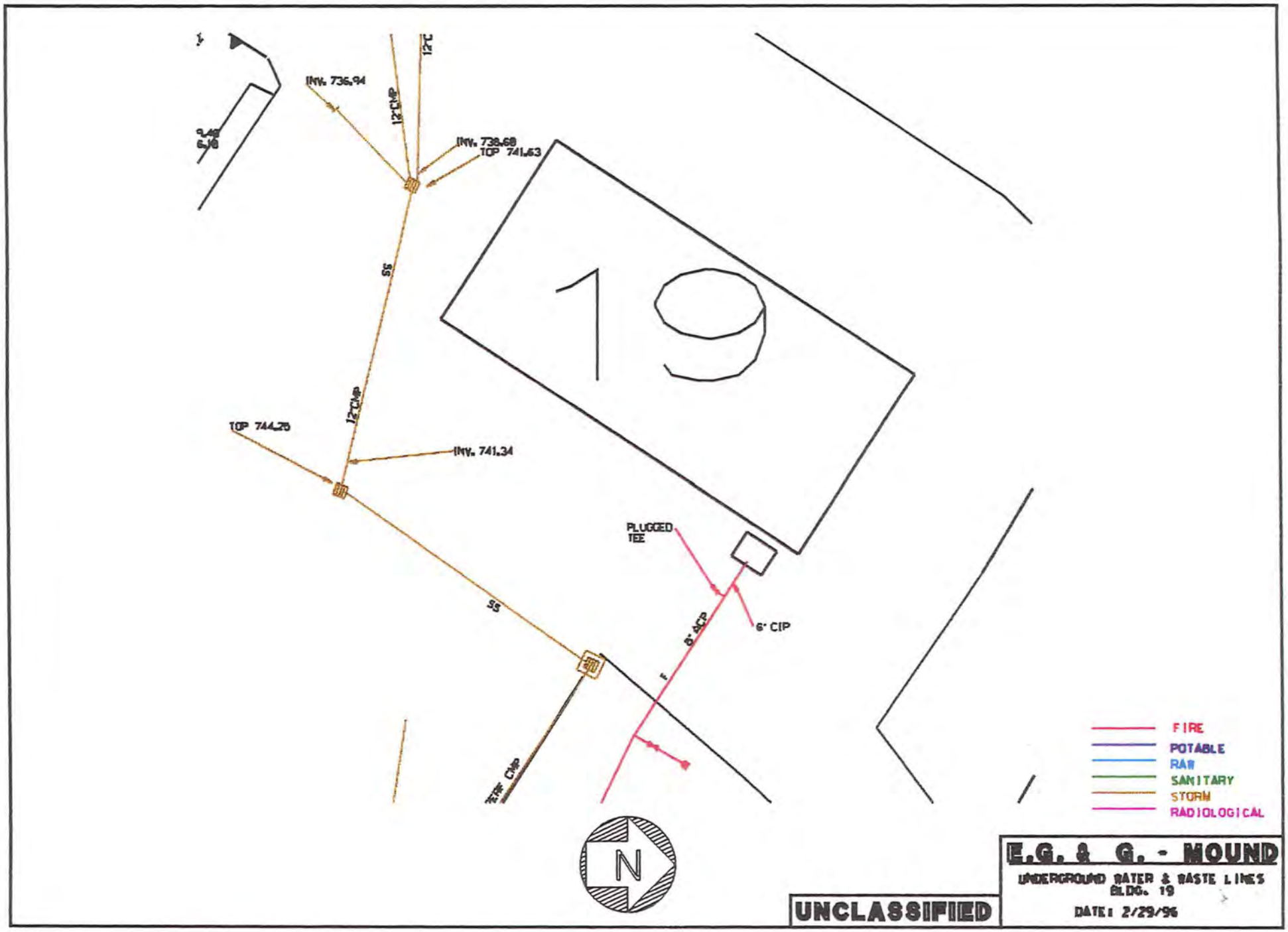
9.43.6.5 Underground Utility Lines


INV. 736.94
12"CMP
12"C
INV. 738.68
TOP 741.63
SS
19
12"CMP
TOP 744.25
INV. 741.34
PLUGGED TEE
6" CIP
8" ACP
SS
12"RF CMP
N
FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL
E.G. & G. - MOUND
UNDERGROUND WATER & WASTE LINES
BLDG. 19
DATE: 2/29/96
UNCLASSIFIED

9.43-65

9.43.6.6 Photographs

Mound Plant Building 19

Outside Building 19 this liquid propane tank has no secondary containment.

Low specific activity and hazardous waste drums are stored outdoors. They are not protected, contained, segregated, or properly labeled.

9.44 BUILDING 21

9.44.1 Scope of Building 21 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 visited Building 21, but a walk-through was not possible because the building is sealed. The Environmental Appraisal Checklist (EAC) was not completed. The appraisers were accompanied by the building manager and the process manager. Information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 1 (Section 9.44.6.1).

9.44.2 Description of Building 21

General information taken from the *Operable Unit 9, Site Scoping Report: Volume 7 - Waste Management* (12-92) regarding the facility structure and past history are included below.

Building 21 is located southeast of Building 90 in the southern portion of the Mound Plant. Its location is shown in Attachment 2 (9.44.6.2) The building is a 4,032-square-foot concrete structure with 10-inch thick floors and 14-16 inch thick walls. The roof is constructed of iron and steel. The facility was designed to ensure liquid tightness, and was divided into two separate isolated bay areas. The facility became operational in 1964 with storage operations ending in 1987. In 1964, 1,338 drums of thorium oxalate were dumped in bulk form into the small bay area, while 3,576 drums of thorium hydroxide sludge were dumped in bulk form into the larger bay. The thorium sludge was ultimately sold to General Atomic Company for reclamation and was removed from Building 21 in 1975. Following removal of the thorium sludge the building was cleaned and used as a staging area for Cotter Concentrate (high-level waste resulting from uranium milling). Approximately 1,258 drums of Cotter Concentrate were stored in Building 21. These drums were shipped to the Nevada Test Site (NTS) in 1987 and further material storage in the facility was ceased. Since 1987 the building and surrounding area are maintained in a safe mode by the ER/D&D Department with Health Physics providing radiological surveillance.

9.44.3 Summary of Findings

Building 21 was designed to contain drums of thorium sludge. Historic plant operations resulted in alpha contamination to the structure and surrounding soils to levels sufficient for Health Physics to maintain restricted access into and around the facility. The facility and surrounding soils are currently included in the Environmental Restoration/Decontamination and Decommissioning (ER/D&D) program at Mound. The facility will be completely removed and no opportunity for future use will be available. Current ER/D&D schedules indicate the project

will be complete in FY 2004, including CERCLA verification sampling and all waste shipped and buried. A walkthrough was not conducted because the building is sealed. A photograph of the exterior of the building is included in Attachment 3 (9.44.6.6)

9.44.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 21 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.)?
   - RAD WORKER II
   - PPE
   - BIOASSAY

2. What protective equipment is required to enter the building?
   FULL FACE RESPIRATOR
   TYVEK SUIT

3. Are there any restricted areas? (Yes) No
   Where are they now? THE ENTIRE BLDG.

4. Provide a physical description of the building.

Building is a one-story reinforced concrete structure with a metal roof. Total area is ~~4,069~~ 4032 ft^2. Building is contaminated with radioactive material (thorium-232). ~~Building was constructed in 1966.~~

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 scheduled for decontaminating and decommissioning (D & D).

Source: Mound Building, 5-9-95

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

Source: Mound Buildings, 5-9-95

9.44-5

1.0 INTRODUCTION

This document is prepared to establish the technical, cost, and schedule baselines for the Building 21 D&D Project. The purpose of this project is to dismantle the surplus Building 21, located at Mound, and remove the adjacent contaminated soil. The land that is within the project boundary (hereinafter called the site) will then be available for unrestricted release.

1.1 Project Background

1.1.1 Mound

The Building 21 D&D Project is located at Mound in Miamisburg, Ohio. Mound is owned by the Department of Energy (DOE) and operated by EG&G Mound Applied Technologies (EG&G MAT). The 306 acre site is located in the suburban Dayton, Ohio area. Land to the north, east, and west of the site is primarily residential housing; that to the south is agricultural. Mound was operated for DOE programs, both civilian and defense. As a result of the downsizing and reconfiguration of the DOE's nuclear weapons complex, Defense Programs (DP) activities at Mound have ceased.

1.1.2 Building 21

HISTORY

Building 21, built in ~~1966,~~ 1964 is a single story, poured concrete structure, 36 ft wide by 112 ft long by 14 ft high (4,032 ft^2), with 14- to 16-inch-thick walls and a sheet metal roof. Building 21 was built for the bulk storage of thorium-232 sludge.

In 1954, Mound (then operated for the Atomic Energy Commission (AEC) by Monsanto Research Corporation) undertook an assignment for the AEC to separate and purify a large quantity of thorium-232 from an AEC stockpile of various sludges. The pure thorium-232 was to have been irradiated in a nuclear reactor to produce uranium-233 for defense programs. The process was called thorium breeding.

Mound received approximately 6,000 drums of these hydroxide and oxalate sludges from United Lead Company's Middlesex Sampling Plant in Middlesex, NJ. Initially, the drums were stored outside. Deterioration of the drums required the entire drum lot to be repackaged on three separate occasions between 1954 and 1966.

Building 21 was constructed in ~~1966~~ 1964 for the bulk storage of this sludge. The building has a peaked roof with removable panels that allowed the bulk thorium sludge to be dumped into the building and permitted natural ventilation of the evolved radon. The building is divided into two rooms. The smaller room was used to store the oxalate sludge and the larger room was used to store the hydroxide sludge. The roof panels were removed and the contents of the drums were emptied into the building. The empty drums were then crushed and landfilled elsewhere on site.

The outside area on the north side of the building was used after 1966 and through the 1970s as a temporary storage for waste packages containing plutonium-238 contaminated waste. Deterioration of these packages also resulted in soil contamination.

The thorium breeding program was never fully funded. In 1974, the AEC sold the sludge to the General Atomics Company, which removed the material in 1975. In 1976, an initial cleanup of the building was performed, and the interior was washed and painted.

Beginning in 1976, the building was used to store Cotter concentrate (tailings from uranium processing) in drums from which protactinium-231 and thorium-230 were to be recovered for the DOE's Division of Basic Energy Sciences for related civilian purposes. The Cotter concentrate material, doubly contained in rigid plastic liners inside the drums, is not believed to have contributed to the contamination of the building or surrounding area. The drums were removed from the building and the building was empty by the end of 1987. In fiscal year (FY) 1988, the building and grounds were accepted into the EM-40 Program.

1.2 Present Facility Status

Since the time that Building 21 was emptied in 1987, the area has been inspected and maintained in a safe mode by the D&D Engineering Department and monitored by Health Physics (HP). Surveillance and maintenance of the facility includes routine surveys and routine repairs to systems such as radioactive containment, radiological monitors, and erosion control. No major repairs are anticipated over the next few years.

1.2.1 Radiological Survey Data Summary

Radiological survey data was obtained during 1985 following removal of the Cotter concentrate material. A summary of this data is as follows:

Building 21 (Internal)

- Removable alpha contamination ranged from background to 600 dpm/100 cm^2.
- Fixed alpha contamination ranged from background to 200K dpm/100 cm^2.
- Undetermined contamination levels existed under painted surfaces.
- Surface radiation ranged from background to 1 mr/hr.
- Airborne contamination levels (radon daughters) ranged from background to 1.5 times the acceptable working level.

Outside Areas

- Plutonium contamination ranged from background to 34,000 pCi/g.
- Thorium contamination ranged from background to 4,000 pCi/g, primarily within one foot of the surface.
- Radioactive effluents from Building 21 and surrounding contaminated soils areas did not exceed guidelines in DOE Orders, but they were significantly above background.

Additionally, radiological survey data was obtained during 1988. A summary of this data is as follows:

Building 21 (Internal)

- Removable alpha contamination did not exceed 50 dpm/100 cm^2.
- Fixed alpha contamination ranged from background to 20K dpm/100 cm^2.
- Undetermined contamination levels existed under painted surfaces.

Building Manager's Questionnaire

Building Name: 21 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: Empty now - formerly a thorium storage facility

How Wastes Are Generated:

No wastes generated.

Contact:
Phone #

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

Building Manager's Questionnaire

Building Name: 21 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

10. Does the building have air emission sources? No

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

Source: Mound Air Emissions Database 11/30/95

Building Manager's Questionnaire

Building Name: 21 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	Premit 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? THERE ARE NO INTERNAL BLDG DRAINS

15. Does the building discharge to the sanitary sewer? Yes (No)
Where? SEE ITEM 14.

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

17. Does the building contain transformers or capacitors? No

Source: PCB ANNUAL DOCUMENT LOG

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

Source: PCB ANNUAL DOCUMENT LOG

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

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

Building Manager's Questionnaire

Building Name: 21 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? NONE

23. Where do excess janitorial supplies go? N/A

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

Building Manager's Questionnaire

Building Name: 21 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

NONE

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

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

Source: _____

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

Materials	Amount

Source: _____

Building Manager's Questionnaire

Building Name: 21 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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

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

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

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

Source: _____

Building Manager's Questionnaire

Building Name: 21 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

Building Manager's Questionnaire

Building Name: 21 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. NONE

9.44-16

Building Manager's Questionnaire

Building Name: 21 Building Manager: R.A. Ward Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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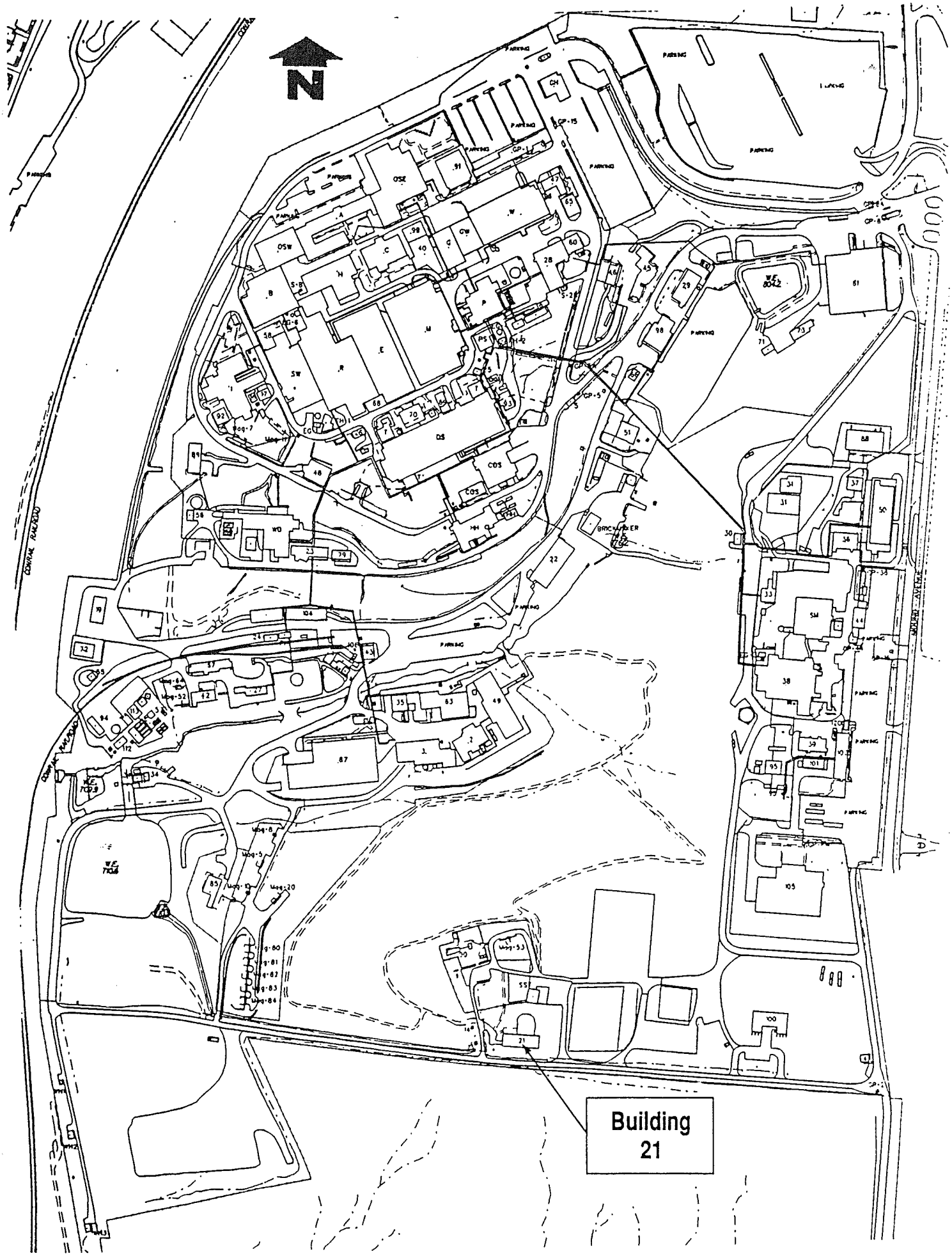
9.44.6.3 Location of Building 21



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

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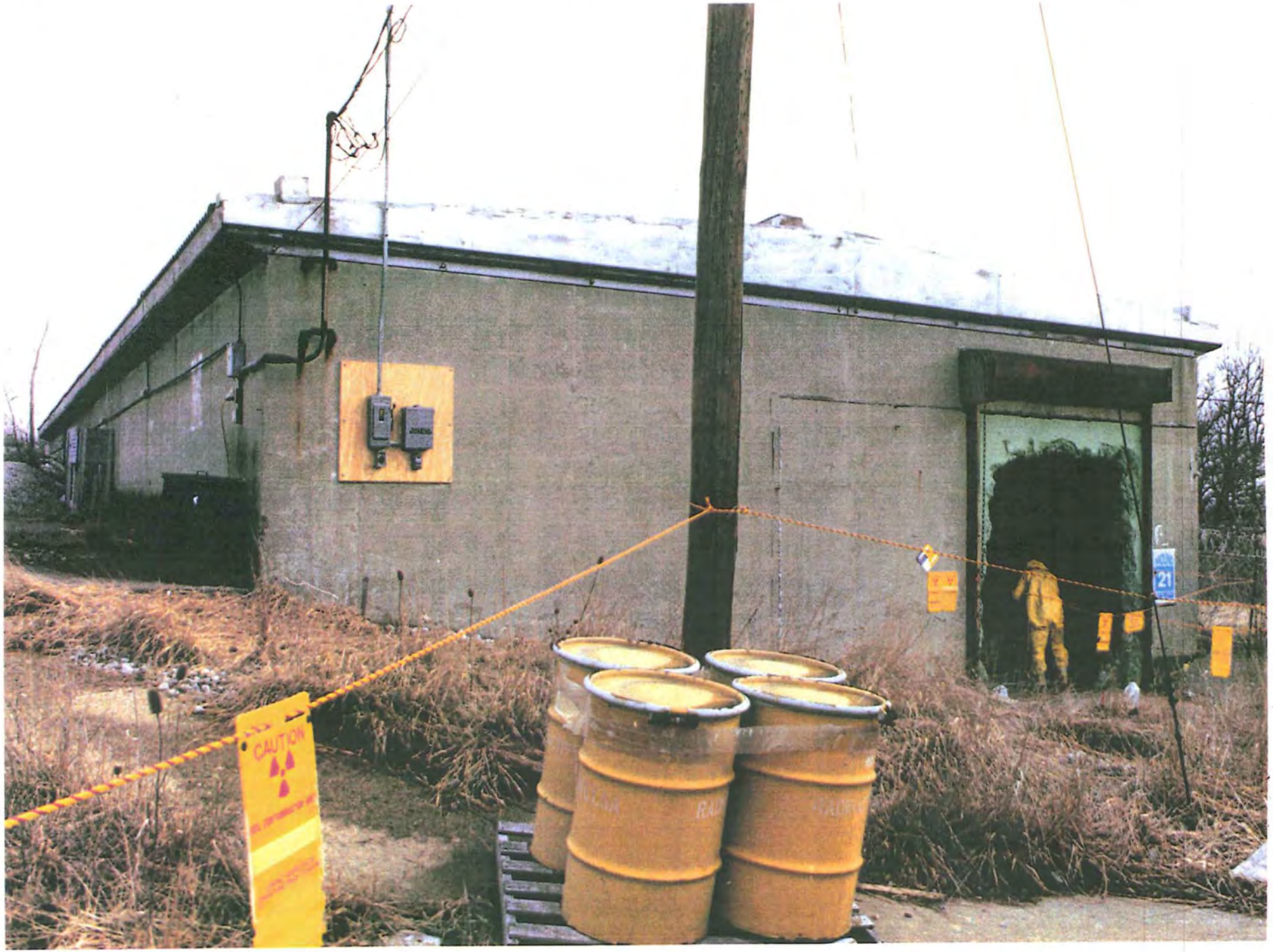
9.44.6.6 Photographs



Mound Plant Building 21

Building 21 was not appraised as it was contaminated with radiological materials. Note the trailer relocated from another decontamination and decommissioning (D&D) site.

9.45 BUILDING 22

9.45.1 Scope of Building 22 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 22 on January 23, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.45.6.1). The appraisers were accompanied by the building manager, who is also the process owner. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.45.6.2).

9.45.2 Description of Building

Building 22 is 9,090-square-foot one-story structure. It has a steel frame with a metal roof. The building is bordered by a parking lot to the west, the brick-maker to the east, a ravine to the south, and a plant road to the north. The location is shown in Attachment 3 (Section 9.45.6.3). An office area, approximately one-tenth of the total floor space and located on the east side has heating and air conditioning. The low level waste (LLW) storage area located on the west side does not have heating or air conditioning. Floor plans are presented in Attachment 4 (Section 9.45.6.2). The building is serviced by central steam for heat, chilled water, and electrical service (*Mound Facility Physical Characterization*, 12-1-93). The building is served by a fire sprinkler system.

Building 22 was constructed in 1966. In the summer of 1995, the building was modified to accommodate solid radioactive LLW waste storage activities. Prior to modification in 1995, the building was used for office space and storage of items awaiting lot sale and/or reuse. The building is not contaminated with either radiological or energetic materials (*Mound Facility Physical Characterization*, 12-1-93).

9.45.3 Summary of Findings

Building 22 is designed to house an LLW storage area on the west side of the building and offices on the east side of the building. The building is currently awaiting approvals prior to initiating storage of solid LLW. The appraisal team did not review design specifications for conformance to Department of Energy (DOE) Order 5280 or state or federal regulations.

The building was originally built as a storage and office facility. The west side of the building is a storage area for solid LLW. The east side houses offices and utility services. The building

is well-maintained, but several issues of environmental concern were identified during the walk-through and review of reference materials.

9.45.4 Observations

9.45.4.1 Air Emissions

The building is currently empty, awaiting approvals prior to initiating storage of LLW. At this time, there are no processes that create air emission sources included in the LLW storage process. There are no fuel-burning units in the building. There is no evidence of fugitive dust, as none of the processes would be expected to generate it. No air emission permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building. The requirement for permits once the building is in use was not evaluated by the appraisal team.

9.45.4.2 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.

9.45.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground lines, presented as Attachment 5 (Section 9.45.6.5), 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 22 does not deviate from that expected by the sanitary treatment plant manager.

Wastewater from the storage area, i.e., the area of potential radioactive contamination, drains into a 1,100-gallon, in-ground sump. However, the floor of the building slopes away from the sump. From visual observation, it appears that all water in the building may not flow into the sump.

Water in the sump is tested to measure levels of contamination and subsequently released to the sanitary treatment plant or transported by tank truck to be treated in Building WD. To date all wastewater has been discharged into the sanitary wastewater system.

The in-ground sump was installed approximately one year ago. It is a steel tank within a secondary concrete containment pit. The sump has never overflowed. According to the building manager and the process manager, integrity has not been tested. There is no procedure or plan in place to measure the level, or otherwise verify that the sump's contents do not leak.

The appraisal team did not review design specifications or assumptions to determine if sizing of the sump was adequate to contain water generated in the building. Overflow of the sump drains into the site's main drainage ditch. The ditch is unlined.

9.45.4.2.2 Storm Wastewater

The building is serviced by storm drains according to Attachment 5 (Section 9.45.6.5). There are no internal connections to the storm collection system; roof downspouts are the only connection. 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.

9.45.4.2.3 Chemicals

Minimal chemicals are stored and used in Building 22. A list of chemicals found in Building 22 is included in the Attachment 2 (Section 9.45.6.2), the BMQ. 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 when the appraisal was conducted. Confirmation of the 1994 inventory by the appraisal team was not attempted, as a new inventory was in progress. However, storage, handling and disposal of chemicals listed in the BMQ, Attachment 2 (Section 9.45.6.2), were reviewed to assure conformance to regulations related to 40 CFR 122, 40 CFR 261-265, 268, and 29 CFR 1910. Chemical storage and handling procedures are in place for proper disposal of chemicals.

None of the chemicals listed in the BMQ were Clean Water Act (CWA) priority pollutants. There is no evidence that chemicals enter the storm or sanitary drains. There have been no reported spills from Building 22.

9.45.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross connection. The fountains which supply drinking water have not been tested for lead. According to Environmental Protection Agency (EPA) protocol, annual sampling criteria do not require testing of each fountain.

9.45.4.4 Chemical Storage and Hazardous Materials

Janitorial supplies used in Building 22 are stored in the janitor's closet (Room 7) . These chemicals are stored in the building in accordance with applicable standards. Material Safety Data Sheets (MSDS's) were not readily available in the building.

The building is equipped with appropriate emergency response equipment such as a eyewash, safety shower, and fire extinguisher. There is an Emergency Evacuation Plan, and signs were posted in work areas.

There are no aboveground storage tanks in or around the building and no underground storage tanks are associated with this building. There is one sump located in the building. There are no 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 (1995 PCB Annual Document Log).

9.45.4.5 Solid, Hazardous and Chemical Wastes

Solid wastes generated are primarily paper. There is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill by a contractor. Aluminum cans, glass and cardboard are removed by janitorial personnel to specific collection points, then sent offsite to be recycled by a contractor. White paper is collected, compacted and sent offsite for recycling by a contractor. Scrap metal is collected at a specific site, then sent offsite to be recycled by a another contractor. Lead acid batteries are recycled by a contractor. These service contracts are maintained by Waste Management. Classified paper is collected and taken to the Montgomery County South Incinerator by Security. There is no evidence that hazardous materials or wastes are mixed with solid waste streams.

The LLW waste storage process does not routinely generate hazardous, radioactive, or explosive waste. One condition could potentially generate radioactive wastewater. That condition would be if the fire sprinklers went off.

In the storage area, a separate wastewater collection system exists which would collect fire sprinkler system or wash-down water in the event of fire or explosion. The water would be collected in a 1,100-gallon sump where it is tested for radioactive contamination prior to discharge into the sanitary sewer system. In the event a hazardous or radioactive waste is ever detected, procedures are in place for transporting the waste for treatment, containment, characterization, and disposal.

Radioactive waste goes to one of three locations: (1) Nevada Test Site; (2) Envirocare; or (3) storage onsite awaiting characterization.

9.45.4.6 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 include aluminum can and paper recycling. Process procedures have been reviewed for preventing or minimizing pollution. Building 22 will not generate waste except for minimal office trash.

9.45.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.45.6.6). The environmental appraisal of Building 22 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.

22-1 Confirm that design assumptions and specifications have been reviewed to assure that sizing of the sump is adequate to contain liquids generated by spills, fire emergencies, and other accidents or occurrences in the building.

22-2 Review disposition of sump overflow. Current plans which call for overflow to the site's main drainage must be evaluated for conformance to 40 CFR 122 and DOE Order 5280.

22-3 Investigate corrective action to remedy the slope of the floor, so that the sump can be utilized effectively.

22-4 Initiate program for routine inspections and preventive maintenance of sump.

22-5 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.

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Environmental Appraisal of the Mound Plant

9.45.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 22

Appraisers:

Name _____ Discipline _____

Name _____ Discipline _____

Name _____ Discipline _____

Name _____ Discipline _____

Building Manager: LARRY T. LAMSA

Process Manager: LARRY T. LAMSA

Date: 1/23/96

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: 22

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

Date: 1/23/96

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 _____ _____	OFFICE SPACE ACTIVE LLW STORAGE TO BEGIN IN FEBUARY
	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 & SANITARY SEWERS
	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)	DESIGNED TO HOLD 2-3 HOURS OF WATER FROM FIRE SPRINKLERS – SUMP NOT SLOPED ADEQUATELY
	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	N/A N/A

9.45-11

9.45-12

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

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	N/A
	Is there evidence of fugitive dust emissions inside or outside of the building	Y / N	N/A

CAA Checklist

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

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

CAA Checklist – N/A

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: _____

9.45-13

9.45-14

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

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.

(JANITORIAL SUPPLIES ONLY)

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	3 "PAINT" CANS - NOT MARKED
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	(Y) / N	
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	(Y) / N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	Y / N	N/A
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y / N	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 Appra[illegible]l Checklist

Building Name: 22

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

Date: 1/23/96

HM Checklist – N/A

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

9.45-15

9.45-16

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

HM Checklist - N/A

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 Appra[illegible]l Checklist

Building Name: 22

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

Date: 1/23/96

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	NOT POSTED, BUILDING MANAGER BELIEVES THE WATER TO BE DRINKING WATER
	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
22	2	PLF8WMQ100	EPCO-OASIS S/N #95131 157 583

Source: _____

9.45-17

9.45-18

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

RCRA Screening Checklist

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

JANITORIAL SUPPLIES ONLY

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: 22

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

Date: 1/23/96

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	

9.45-19

9.45-20

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

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: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

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	

9.45-21

9.45-22

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

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: 22

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

Date: 1/23/96

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	

9.45-23

9.45-24

Environmental Appraisal Checklist

Building Name: 22 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, Mary Sizemore Date: 1/23/96

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: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

TSCA Checklist

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

9.45-25

9.45-26

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

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:

Building Name: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

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	N/A - ONLY STORAGE
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	

9.45-27

9.45-28

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

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	

Building Name: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

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	

9.45-29

9.45-30

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

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: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

9.45-31

9.45-32

Environmental Appraisal Checklist

Building Name: 22

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

Date: 1/23/96

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: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

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	

9.45-33

9.45-34

Environmental Appraisal Checklist

Building Name: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

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: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

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	

9.45-35

9.45-36

Environmental Appraisal Checklist

Building Name: 22 Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 1/23/96

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: 22 Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, Mary Sizemore Date: 1/23/96

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?	_____ _____	

9.45-37

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9.45.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa Phone: 4182 Date: 12-07-95
Alternate: DOUG HANAHAN Phone: 4524

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 9,090-ft² facility of steel frame construction with a metal roof. Office area (approximately one-third) has heating and air conditioning. 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? 9/10 1/10

Building is used for storage (~~two-thirds~~) and office space (~~one-third~~). Building ~~is projected to be~~ HAS BEEN remodeled for use as a solid low-level waste facility.

Source: Mound Building, 5-9-95

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

Source: Mound Buildings, 5-9-95

9.45-41

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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: Short-term storage

How Wastes Are Generated:

Two-thirds of the building is for storage. Items awaiting sale and empty shipping cartons for such things as heat sources or instrumentation are stored for short times (less than 90 days). In this area supplies for the plant electricians are stored for longer periods. No hazardous wastes are generated in the storage area.

In the east one-third of Building 22 there are offices and a work area where a process system is being built for another DOE site. Sometimes the stainless steel pipe in the process system needs to be cleaned before welding. Isopropyl alcohol is the cleaning agent. The steel may be wiped clean (in which case the alcohol evaporates), or it can be cleaned in an ultrasonic bath. Alcohol from the bath is put in waste cans which are picked up by Waste Management.

Contact:
Phone #

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

9.45-42

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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

SEE ITEM 6

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

9.45-43

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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? EAST END

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

9.45-44

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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

9.45-45

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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?

~~NOT APPLICABLE~~. WASTE MANAGEMENT'S HAZ WASTE PICK UP IF APPLICABLE.

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

- NON-ACID DISINFECTANT BATHROOM CLEANER
- FLOOR SEALER AND CONDITIONER
- FLOOR FINISH
- ODOR BANE
- FINISH STRIPPER

23. Where do excess janitorial supplies go?

EITHER BACK TO JANITORS OR WASTE MANAGEMENT'S WASTE PICK-UP.

Source: LARRY LAMSA

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

Chemical	Amount	Chemical	Amount

Source: _____

9.45-46

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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? Has ther been previous overlfows?

Double-Walled	Contents	Days/Year in Use	Overflow Tank	Previous Overflow
Y / N	WATER	100 / YR	Y / N	Y / N

Source: LARRY LAMSA

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

Materials	Amount
Calci-Solve	6.6
Isopropanol	30.3
Oil Waste, Alcatel Vacuum Pump Oil	2.1
Oil Waste, Duo Seal Pump Oil	7.3
Oil Waste, Vacuum Pump Oil	4.9
Rinse Water	432.8
Rinse Water	198.2

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

9.45-47

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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 ASSUMPTION: LOW-LEVEL RAD WASTE ≠ WASTE MAT'L.

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: _____

9.45-48

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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: _____

9.45-49

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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? LARRY LAMSA, BLDG 22, Room 3

NOT PRESENTLY BUT IN NEAR FUTURE

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: LARRY LAMSA

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

NONE

9.45-50

Building Manager's Questionnaire

Building Name: 22 Building Manager: L.T. Lamsa 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.

BLDG 22 WILL NO [illegible] EXCEPT
FOR MINIMAL [illegible] TRASH

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

9.45-51

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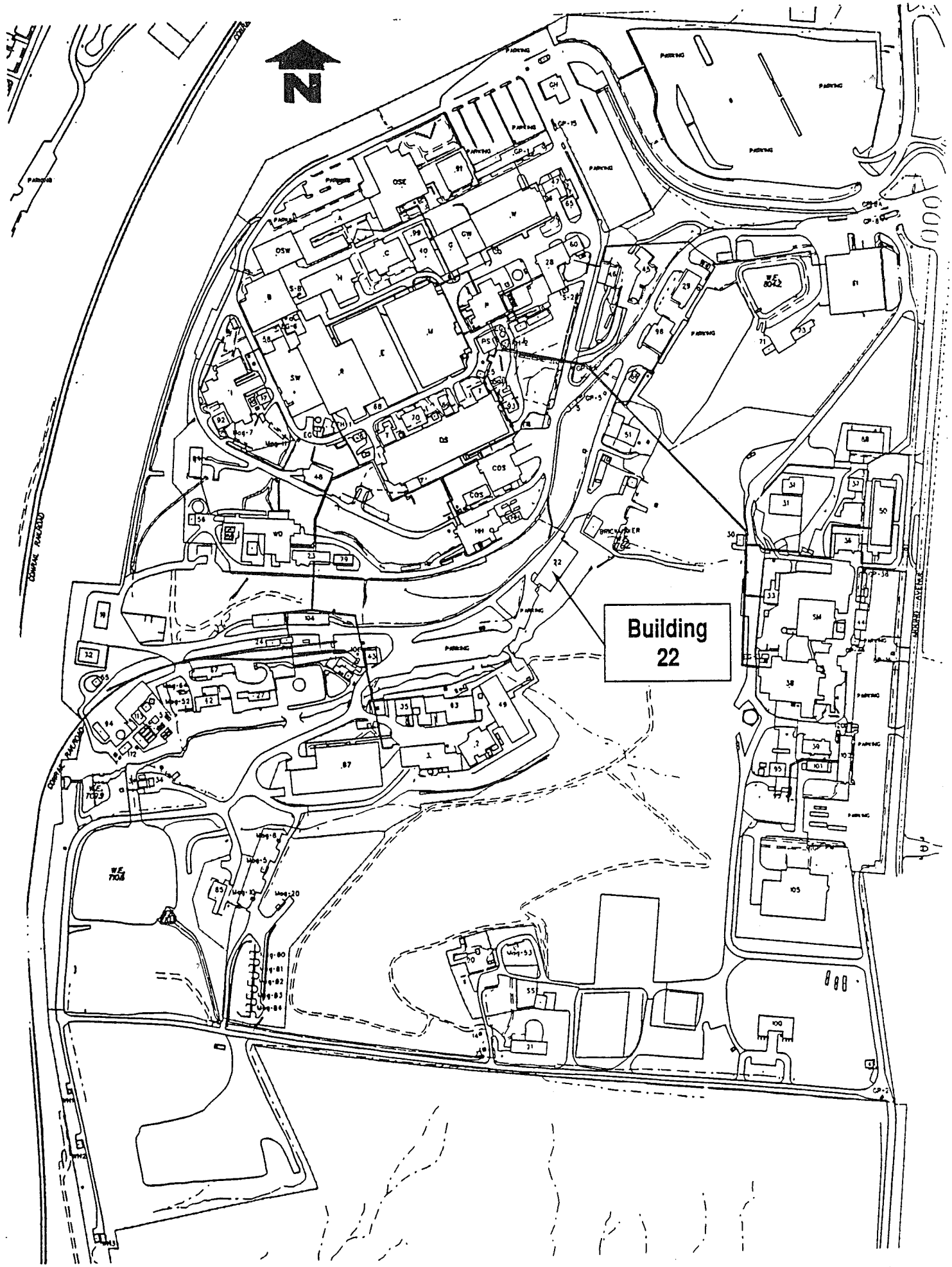
9.45.6.3 Location of Building 22



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

9.45-55

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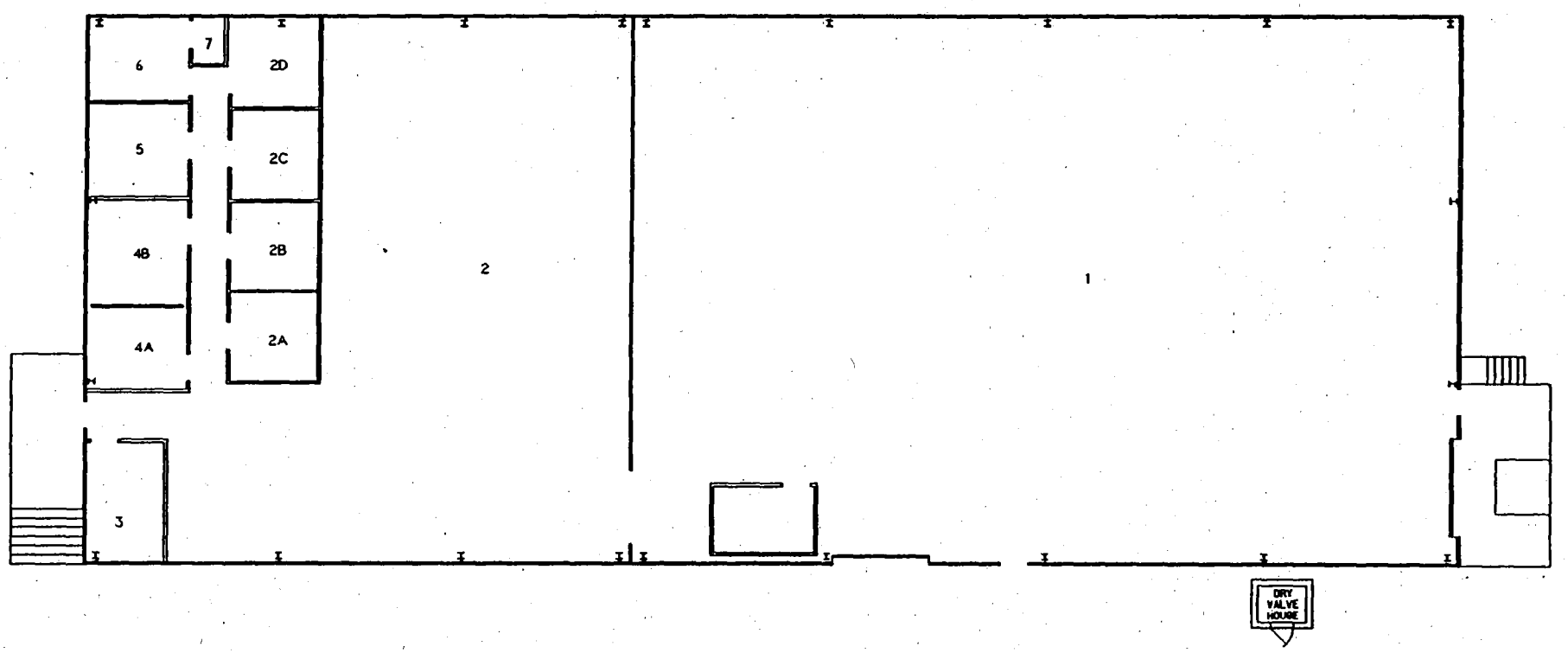
9.45.6.4 Floor Plans for Building 22

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



Ø 3' 6' 10' 20'

BLDG #22
FIRST FLOOR
BLDG CODE:3022

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUEBOC ___TEBOC ___EHBOC
TECH. REMP. ___
GR. MGR. ___
TRUEBOC ___
TEBOC ___
EHBOC ___

DESIGN ENG | PROJ MGR
DRAFT | 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 #22
FLOOR PLANS

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: C
DRAWING NUMBER: FSC911234
JOB NUMBER: 12335
DWG TYPE: SFP
PROJ: BLDG #22
CAMEC: 14865
SCALE: AS NOTED
SHEET 1 OF 1
STATUS: MD-REL-12/12/91
ORIGIN: MD-BR3-V3.Ø

9.45-59

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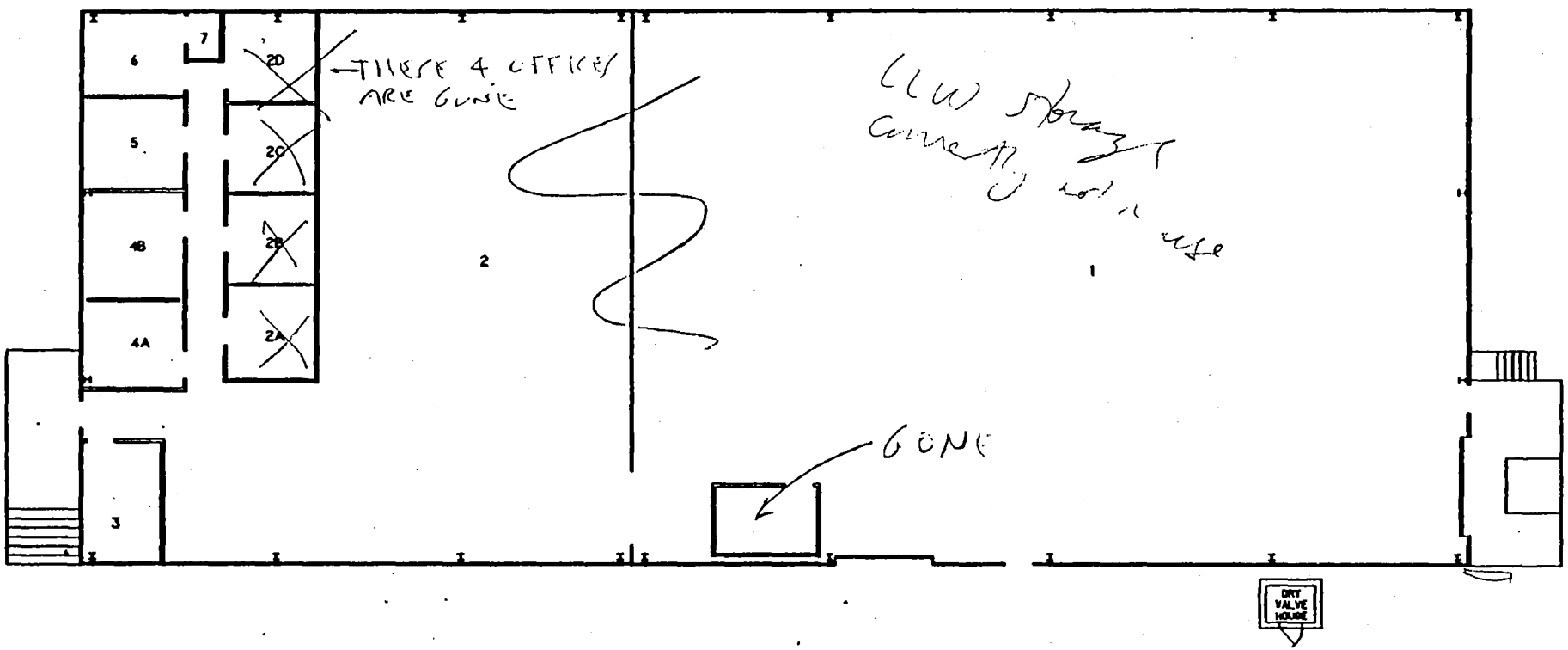
NO	DATE	REVISION	BY	CHKD			APVD	N
0	12/12/91	ASBUILT ISSUE	DCW				DVD	



0 3' 6' 10' 20'

BLDG #22
FIRST FLOOR
BLDG CODE:3022

APPROVALS: DATE:
SAFETY COMMITTEE REVIEWER:
___NONE ___TRUEDOC ___TEDOC ___EDWOC
TECH. REP. ___
GR. MGR. ___
TRUEDOC ___
TEDOC ___
EDWOC ___

DESIGN CHK	PROJ MGR
DRSN	CHG REV
S.P. & QC	PEER REV
CHIEF ENG	
APVD	DATE

SHEET	1	2	3	4	5	6
ISSUE	0					

FINAL CLASSIFICATION

TITLE (U) TITLE CLASSIFICATION
BLDG #22
FLOOR PLANS

DRAWING CLASSIFICATION: UNCLASSIFIED
SIZE: C
DRAWING NUMBER: FSC911234
JOB NUMBER: 12335
DWG TYPE: SFP
FROM: BLDG #22
CAMERA: 14865
SCALE: AS NOTED
SHEET 1 OF 1
STATUS: MD-REL-12/12/91
ORIGIN: MD-BR3-V3.0

9.45-61

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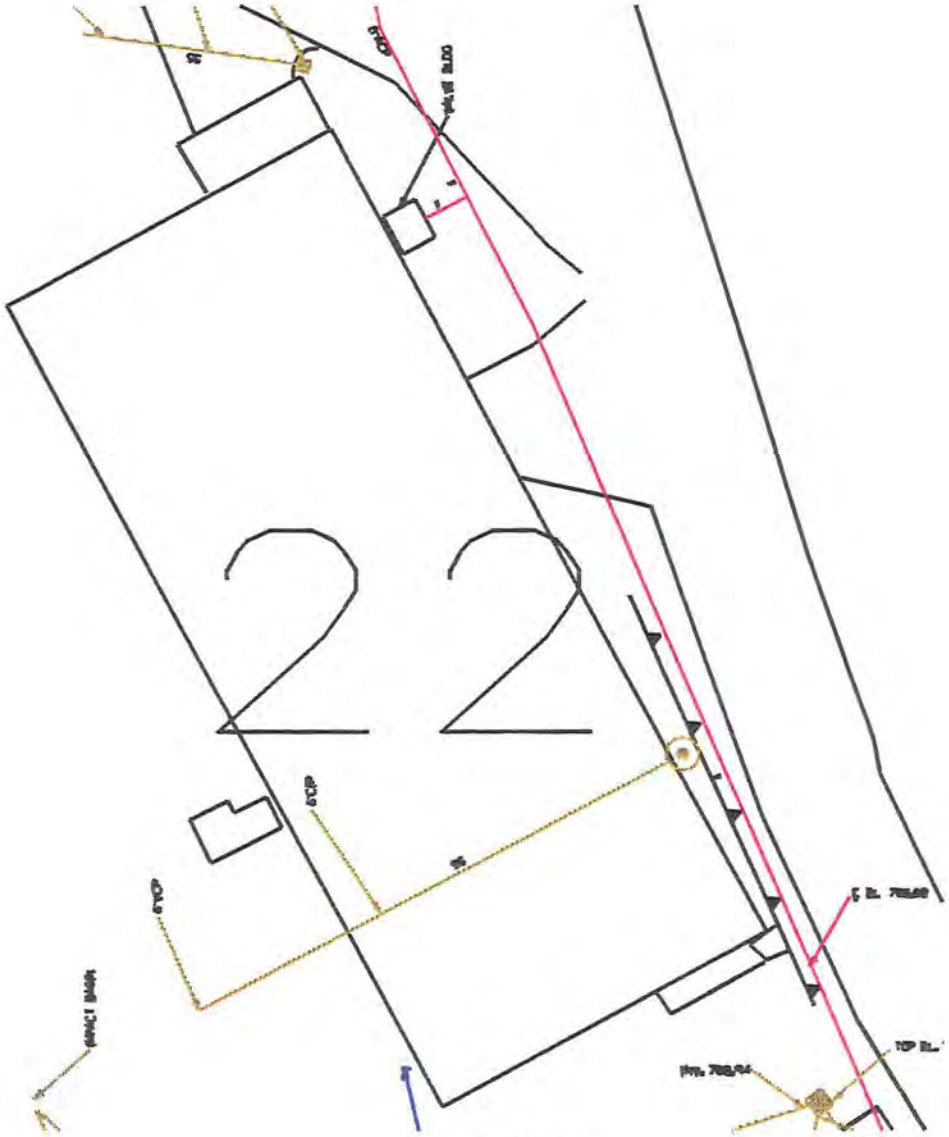
9.45.6.5 Underground Utility Lines



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E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
BLDG. 22

DATE: 3-6-96

9.45-65

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9.45.6.6 Photographs

Mound Plant Building 22