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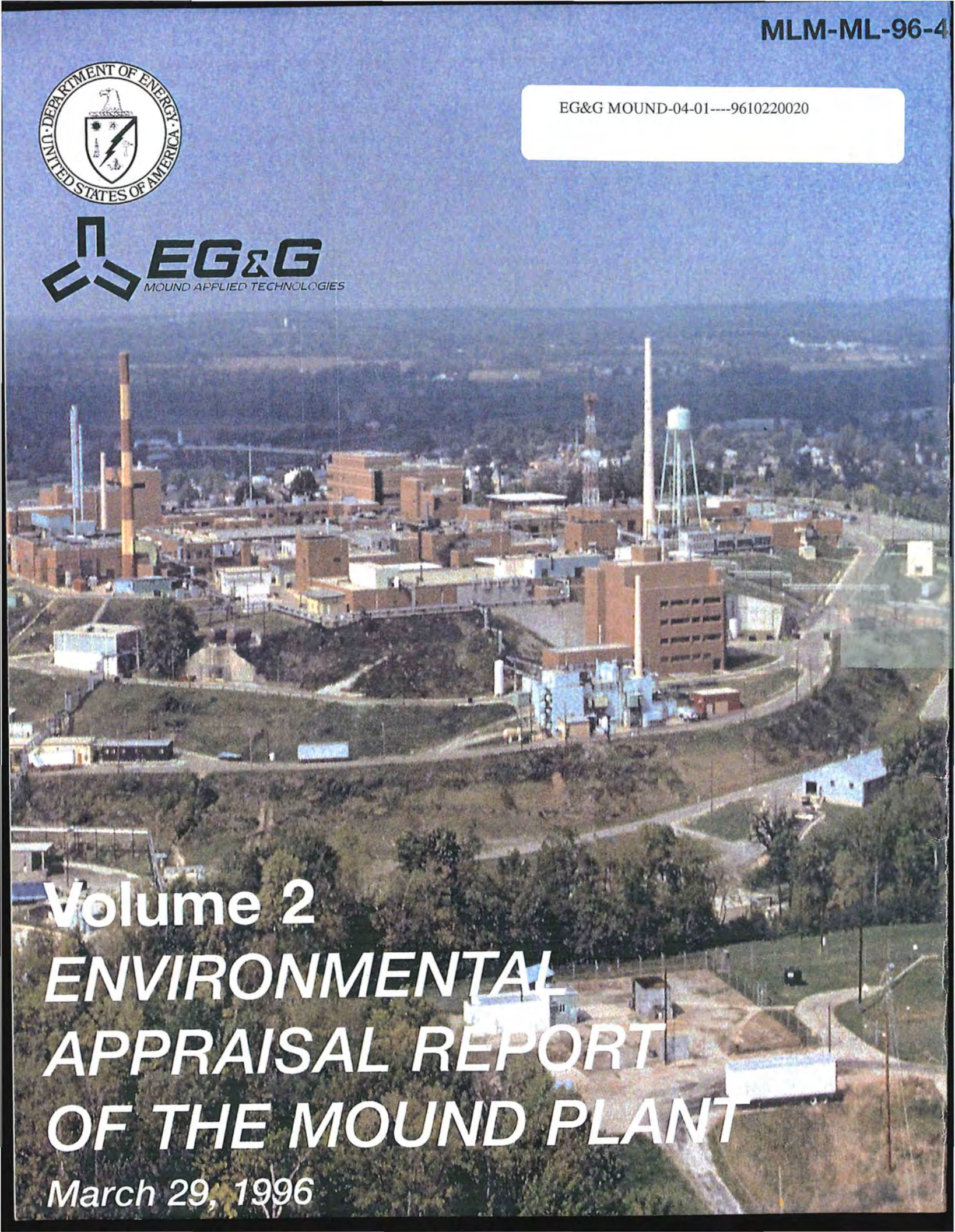
EG&G MOUND-04-01----9610220020

EG&G
MOUND APPLIED TECHNOLOGIES



Volume 2
ENVIRONMENTAL APPRAISAL REPORT OF THE MOUND PLANT

March 29, 1996

MLM-ML-96-43-0001

ENVIRONMENTAL APPRAISAL REPORT OF THE MOUND PLANT

Volume 2

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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 2

Section	Title	Page
9.0	**BUILDING APPRAISALS**	
9.1	**Building A**	**9.1-1**
9.1.1	Scope of Building A Report	9.1-1
9.1.2	Description of Building A	9.1-1
9.1.3	Summary of Findings	9.1-1
9.1.4	Observations	9.1-2
9.1.5	Findings and Recommendations	9.1-4
9.1.6	Attachments	9.1-5
9.2	**Building B**	**9.2-1**
9.2.1	Scope of Building B Report	9.2-1
9.2.2	Description of Building B	9.2-2
9.2.3	Summary of Findings	9.2-3
9.2.4	Observations	9.2-4
9.2.5	Findings and Recommendations	9.2-5
9.2.6	Attachments	9.2-7
9.3	**Building C**	**9.3-1**
9.3.1	Scope of Building C Report	9.3-1
9.3.2	Description of Building C	9.3-1
9.3.3	Summary of Findings	9.3-1
9.3.4	Observations	9.3-2
9.3.5	Findings and Recommendations	9.3-4
9.3.6	Attachments	9.3-5
9.4	**Building COS**	**9.4-1**
9.4.1	Scope of Building COS Report	9.4-1
9.4.2	Description of Building COS	9.4.1
9.4.3	Summary of Findings	9.4.1
9.4.2	Attachments	9.4-3
9.5	**Building DS**	**9.5-1**
9.5.1	Scope of Building DS Report	9.5-1
9.5.2	Description of Building DS	9.5-1
9.5.3	Summary of Findings	9.5-1
9.5.4	Observations	9.5-2
9.5.5	Findings and Recommendations	9.5-5
9.5.6	Attachments	9.5-7

Environmental Appraisal of the Mound Plant
Table of Contents for Volume 2

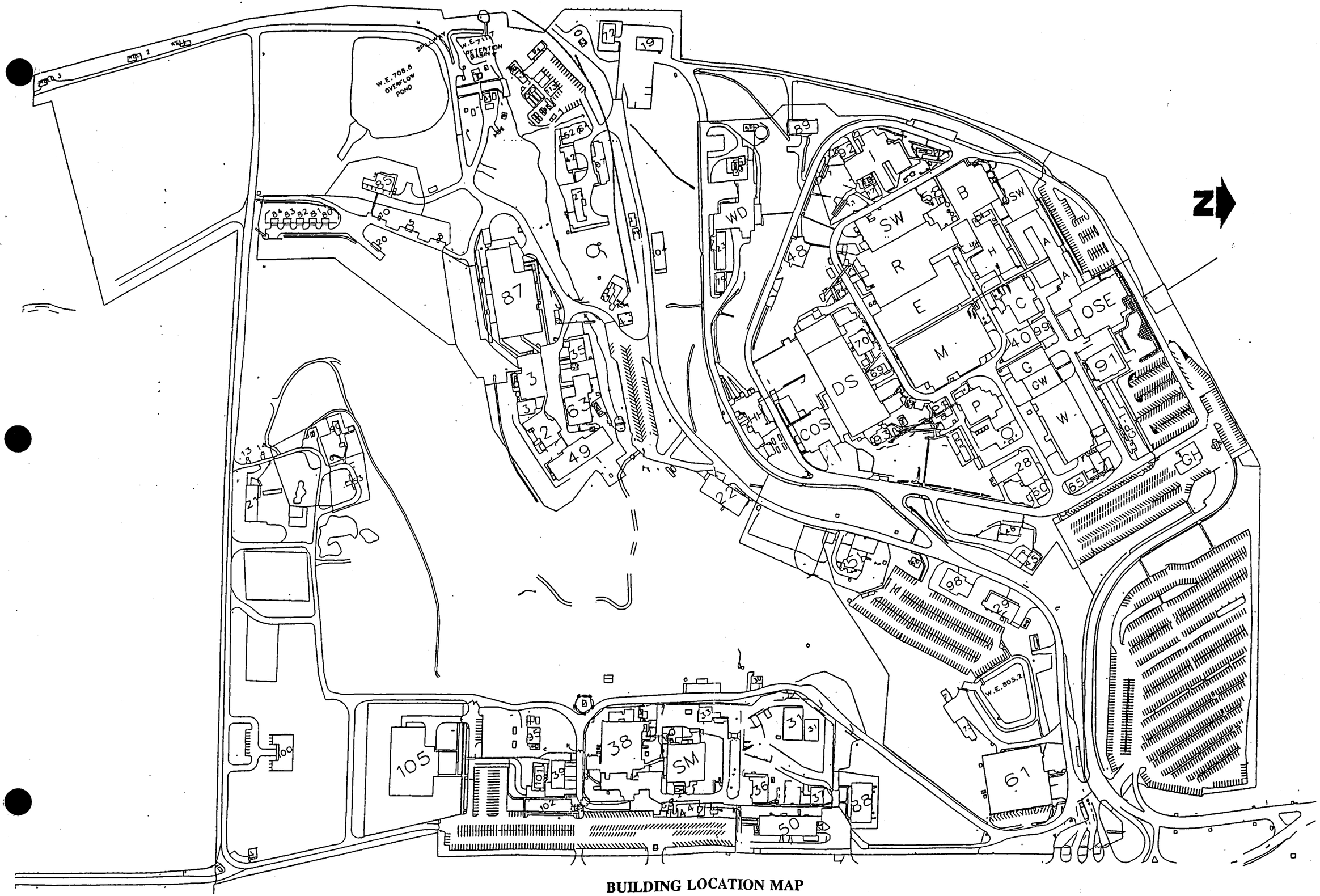
(Continued)

			Page
9.6	**Building E/E Annex**		**9.6-1**
	9.6.1	Scope of Building E/E Annex Report	9.6-1
	9.6.2	Description of Building E/E Annex	9.6-1
	9.6.3	Summary of Findings	9.6-1
	9.6.4	Observations	9.6-4
	9.6.5	Findings and Recommendations	9.6-5
	9.6.6	Attachments	9.6-7
9.7	**Building G (Garage)**		**9.7-1**
	9.7.1	Scope of Building G (Garage) Report	9.7-1
	9.7.2	Description of Building G (Garage)	9.7-1
	9.7.3	Summary of Findings	9.7-1
	9.7.4	Observations	9.7-2
	9.7.5	Findings and Recommendations	9.7-5
	9.7.6	Attachments	9.7-7
9.8	**Building GH**		**9.8-1**
	9.8.1	Scope of Building GH Report	9.8-1
	9.8.2	Description of Building GH	9.8-1
	9.8.3	Summary of Findings	9.8-1
	9.8.4	Observations	9.8-1
	9.8.5	Findings and Recommendations	9.8-3
	9.8.6	Attachments	9.8-5
9.9	**Building GIS**		**9.9-1**
	9.9.1	Scope of Building GIS Report	9.9-1
	9.9.2	Description of Building GIS	9.9-1
	9.9.3	Summary of Findings	9.9-1
	9.9.4	Observations	9.9-1
	9.9.5	Findings and Recommendations	9.9-3
	9.9.6	Attachments	9.9-5
9.10	**Building GP-1**		**9.10-1**
	9.10.1	Scope of Building GP-1 Report	9.10-1
	9.10.2	Description of Building GP-1	9.10-1
	9.10.3	Summary of Findings	9.10-1
	9.10.4	Observations	9.10-2
	9.10.5	Findings and Recommendations	9.10-5
	9.10.6	Attachments	9.10-7

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



BUILDING LOCATION MAP

Environmental Appraisal of the Mound Plant

9.1 BUILDING A

9.1.1 Scope of Building A 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 A on the morning of February 29, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.1.6.1). The building manager elected not to accompany the appraisers due to the administrative nature of the building. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.1.6.2).

9.1.2 Description of Building A

Building A, the administration building, is a 55,582-square-foot structure having two stories plus a basement. Building A is made of concrete block with a brick facing. Windows are aluminum and the roof is of built-up membrane (asphalt). The second floor contains executive offices, for both the Department of Energy (DOE) and EG&G MAT, while the first floor consists of general offices and a medical facility. The basement is a "Q" cleared area, containing the Classification Office and Document Control. The location is shown in Attachment 3 (Section 9.1.6.3). The building is located between, and connected to, Buildings OSW and OSE. Buildings C and H are to the south, and a parking lot and the Mound boundary is to the north. The building is serviced by heating and air conditioning systems with central steam, chilled water, and electrical service of 480V (*Mound Facility Physical Characterization*, 12-1-93). Floor plans are included as Attachment 4 (Section 9.1.6.4) and in Volume 12. Building A was constructed in 1948 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building has been used for the same purpose since construction.

9.1.3 Summary of Findings

Building A is currently used for medical services and executive and general DOE and EG&G MAT administrative office support. The building is well-maintained. There were no issues of environmental concern identified during the walk-through or in the review of reference documents.

9.1.4 Observations

9.1.4.1 Air Emissions

There are no fumehoods. There are no fuel-burning units in the building. There is no evidence of fugitive dust. The building is not included in the Mound Air Emissions Database. No air emission permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building.

9.1.4.2 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.

9.1.4.2.1 Sanitary

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.1.6.5), 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 upon discussions with the building manager, effluent from the building does not deviate from that expected by the sanitary treatment plant manager.

9.1.4.2.2 Storm Wastewater

The building is serviced by a storm drain according to Attachment 5 (Section 9.1.6.5). The interior floor collection drains and the exterior roof drains of the building are serviced by storm drains. 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.

9.1.4.2.3 Chemicals

The chemicals in Building A include small amounts of acetone, isopropyl alcohol and hydrogen peroxide in the medical facility. The remainder of the building contains general janitorial supplies. Material Safety Data Sheets (MSDS's) were available for both the medical chemicals and the janitorial supplies. Drains are clean and appear to drain properly and there is no evidence that chemicals or other wastes entered the storm water system. There has not been any reported spills or releases of any chemicals.

9.1.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow in the mechanical prevention devices are installed at all visible points of potential cross-connection. There are three drinking fountains, one on each floor, including the basement. Model and serial numbers are entered on the EAC. 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 the fountains. Service water is supplied to the building and used for the fire sprinkler system.

9.1.4.4 Chemical Storage and Hazardous Materials

Small amounts of acetone, isopropyl alcohol, and hydrogen peroxide are used in the medical facility and stored in a National Fire Protection Association (NFPA) approved flammable cabinet. MSDS's were readily available.

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

A review of the Mound Active Underground Storage Tank Plan and visual inspection indicated that there are no underground or aboveground storage tanks in or around the building. There are no separators, or catch basins, in or around the building. A sump containing condensate water is located in Room 11 in the basement. Discharge is in accordance with the NPDES permit.

The building was tested for asbestos-containing building material (ACBM) and ACBM was present. Pipe insulation containing asbestos was well-labeled (MD-10391, *Asbestos Program Manual*, 9-14-95).

Building A has been identified as containing polychlorinated biphenyls (PCB's). Capacitors and a transformer (Serial # 18247) are in service in Building A and are recorded in the 1995 PCB Annual Document Log. After the appraisal visit, the transformer was removed on March 6, 1996, and the licensed contractor removed the PCB's from Mound and subsequently the casing. The capacitors are scheduled for removal April 13, 1996.

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

9.1.4.5 Solid, Hazardous, and Radioactive Wastes

Hypodermic needles are used for medical purposes and are deposited in containers which are picked up by Waste Management personnel. There are no other hazardous wastes currently generated from Building A.

Solid wastes generated are primarily paper as cardboard boxes. 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. The disposal permit is maintained by Waste Management. There is no evidence that hazardous materials or wastes are mixed with solid waste streams.

9.1.4.6 Waste Minimization and Pollution Prevention

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

9.1.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.1.6.6). The environmental appraisal of Building A indicates that there are no issues of environmental concern related to the structure or processes housed within it.

9.1.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name A

Appraisers:

Name	Discipline
J Hansfeld	CWA
M Mucker	RCEA

Building Manager: WILLIAM WHITELOW

Process Manager: HAROLD ROBINSON (CLASSIFICATION)
Dr. E. REGAN (MEDICAL)

Date: 2/29/96

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 Appraisal Checklist

Building Name: A

Appraisers: JA MM

Date: 2/29

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 NA	medical
	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 Water Volume Controlled (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)	

9.1-9

Environmental Appraisal Checklist

Building Name: A

Appraisers: [illegible]

Date: 2/29

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: A

Appraisers:

Date:

CAA Checklist

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

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

Source:_____

9.1-11

9.1-12

Environmental Appraisal Checklist

Building Name: A Appraisers: JA MM Date: 2/29

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	NA
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)	BASEMENT WEST END NEEDS WORK.
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: A

Appraisers: JA MM

Date: 2/29

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	NA
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	NA
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	NA
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	
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	

9.1-13

9.1-14

Environmental Appraisal Checklist

Building Name: A

Appraisers: JA MM

Date: 9/29

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: A Appraisers: JA MM Date: 2/29

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
A	1st floor	OASIS PLF5CP	S/N 8443225522
↓	2nd floor	↓ " "	
↓	Basement	↓ PLF5CP	S/N 9031 297311

Source: _____

9.1-15

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	Medical Syringe Needles
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	Needles - Medical

Environmental Appraisal Checklist

Building Name: A

Appraisers: SA MM

Date: 2/29

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	NA
	Are containers kept closed and locked except during filling?	(Y) / N	
	Are containers moved within 3 days of being filled?	(Y) / N	

9.1-17

9.1-18

Environmental Appraisal Checklist

Building Name: A

Appraisers: [illegible]

Date: 2/29

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:		NA
	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: A Appraisers: [illegible] Date: 2/29

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	NOT Needed
	Does the tank or equipment have leak detection device(s)?	Y / N	NA
	Has spill control prevention been enacted?	Y / N	NA
	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	

9.1-19

9.1-20

Environmental Appraisal Checklist

Building Name: A

Appraisers: JA MM

Date: 2/29

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: A

Appraisers: SA MM

Date: 2/29

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	

9.1-22

Environmental Appraisal Checklist

Building Name: A

Appraisers: JA MM

Date: 8/29

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	TRANSFORMER # 18247 CAPACITORS
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: A

Appraisers: JA MM

Date: 2/29

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	NA
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	NA
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	

9.1-23

9.1-24

Environmental Appraisal Checklist

Building Name: A

Appraisers: JA MM

Date: 2/29

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: A

Appraisers: [illegible]

Date: 2/26

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	

9.1-25

9.1-26

Environmental Appraisal Checklist

Building Name: A

Appraisers: [illegible]

Date: 2/29

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: A

Appraisers: [illegible]

Date: 2/24

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	

9.1-27

Environmental Appraisal Checklist

Building Name: A

Appraisers:

Date:

Low-Level Waste and Transuranic Waste Checklist

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

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.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:

9.1-29

9.1-30

Environmental Appraisal Checklist

Building Name: A

Appraisers: [illegible]

Date: 2/29

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: A

Appraisers: JAMM

Date: 8/29

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	

9.1-31

9.1-32

Environmental Appraisal Checklist

Building Name: A

Appraisers: JA MM

Date: 2/29

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: A

Appraisers: JH MM

Date: 3/29

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	

9.1-33

9.1-34

Environmental Appraisal Checklist

Building Name: Appraisers: Date: 8/29

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	NA
	Are solvents segregated?	Y / N	
	Are waste solvents free from water and garbage?	Y / N	
	Are recycled solvent containers labeled as such?	Y / N	NA
	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: A

Appraisers: [illegible]

Date: 3/99

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?	_____ _____	NA

9.1-35

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9.1.6.2 Building Manager's Questionnaire

DOWS

Building Manager's Questionnaire

Building Name: A Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

   BASEMENT ~~[illegible]~~ Q CLEARANCE
   21, 29 - RAD WORKER II TRAINING

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

   NONE

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

   BASEMENT

4. Provide a physical description of the building.

Building is a 55,582-ft^2 building that has two stories plus a basement. The top floor holds executive offices, and the remainder of the space holds general offices. It is made of concrete block with a brick face and aluminum windows. It has a BUM roof (asphalt). It has central steam and chilled water HVAC services. The building is not contaminated with radioactive or energetic materials.

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

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

Holds executive and general offices.

Source: Mound Buildings, 5-9-95

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

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: A Building Manager: W.H. Whitelow 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: Office, medical facilities

How Wastes Are Generated:

Needles used for medical purposes, and often containing blood, are put in containers which are picked up by Waste Management.

Alcohol and acetone are present in the medical center, but they are only used on cotton swabs. Both alcohol and acetone evaporate, but there is no hazardous waste for disposal.

No hazardous wastes are currently generated in the other areas of Building A.

There used to be a film processor in Room 7 which generated some photowaste.

The waste hydraulic oil appears to be a one-time pickup.

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: A Building Manager: W.H. Whitelow 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: A Building Manager: W.H. Whitelow 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? Roof Drains

15. Does the building discharge to the sanitary sewer? Yes No
Where? Lavs, Toilets, Floor Drains

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

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

Building Manager's Questionnaire

Building Name: A Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? YES

Source: PCB ANNUAL DOCUMENT LOG

DESCRIPTION	IDENTIFIER	OUT OF SERVICE/ IN STORAGE DATE
Transformer, askerel, Bldg A	SN; 18247	In Service
Capacitors	N/A	In Service

18. Has the building been identified as containing PCBs? YES

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)
BETADINE SCRUB	L	1 PT
HIBICLENS	L	4 GA
HYDROGEN PEROXIDE	L	1 PT
WAVICIDE	L	4 GA
CHEMICAL BLEND AUTO DEVELOPER	L	2 GA
ACETONE	L	500 ML
ISOPROPYL ALCOHOL	L	2 GA

Source: Chemical Inventory 1994

Building Manager's Questionnaire

Building Name: A Building Manager: W.H. Whitelow 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?

ATTACHED

23. Where do excess janitorial supplies go?

A-11, 137, 204

Source: _____

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

Chemical	Amount	Chemical	Amount
ATTACHED			
ROUNDUP	AS NEEDED		

Source: IND. HYG.

ecord#	COMMON	CHEMICAL
1	BLUE MAX SPRAY BUFF	BLUE MAX SPRAY BUFF
2	CLEAN-N-DRY	CLEAN-N-DRY
3	CLR WINDOW	CLR WINDOW
4	CONQUEST	CONQUEST
5	DD/85 SPRAY	DD/85 SPRAY
6	DMQ	DMQ
7	DUO-POWDER	DUO-POWDER
8	FLOOR FINISH/ABOVE	FLOOR FINISH/ABOVE
9	FOUNTAIN HEAD	FOUNTAIN HEAD
10	GLOSS-EXTENDERA	GLOSS-EXTENDERA
11	GREASE-BE-GONE	GREASE-BE-GONE
12	HEAD START	HEAD START
13	INSECT SPRAY/CHERRY	INSECT SPRAY/CHERRY
14	INSECTICIDE/WAS	INSECTICIDE/WAS
15	KINDEST CARE	KINDEST CARE
16	LAVA HAND SOAP	LAVA HAND SOAP
17	LIL BROTHER SAM	LIL BROTHER SAM
18	NABC	NABC
19	NEUT. FLOOR CORP.	NEUT. FLOOR CORP.
20	ODOR BANE	ODOR BANE
21	ON-BASE SEALER	ON-BASE SEALER
22	ONE-STEP/SURE BET	ONE-STEP/SURE BET
23	POLISH/LEMON	POLISH/LEMON
24	PUMMEL HAND SOAP	PUMMEL HAND SOAP
25	RINSE FREE/STRIP	RINSE FREE/STRIP
26	SBS-61 LOTION SOAP	SBS-61 LOTION SOAP
27	SCRUB-ENDER	SCRUB-ENDER
28	SEAL, CON-SEAL	SEAL, CON-SEAL
29	SEALER/IRONSTONE	SEALER/IRONSTONE
30	SHINELINE BASE	SHINELINE BASE
31	SNAPOUT	SNAPOUT
32	SPIN-OUT	SPIN-OUT
33	SPOT, PILE DRIVER	SPOT, PILE DRIVER
34	SPOTTER, PULL OUT	SPOTTER, PULL OUT
35	STAINLESS CLEANER	STAINLESS CLEANER
36	STATCIDE, GP	STATCIDE, GP
37	STRIPPER, ZIP	STRIPPER, ZIP
38	SURFACE GLEEM	SURFACE GLEEM
39	TREATMENT/DUST	TREATMENT/DUST
40	TRIPLE SSS	TRIPLE SSS
41	VESTA POWER	VESTA POWER
42	WINDOW SHINE	WINDOW SHINE

Cus Todial Chemical list

☐ INITIAL SERVICE
☑ REGULAR SERVICE
☐ EXTRA SERVICE

TERMINIX.

TERMITE and PEST CONTROL

COPY

COMMERCIAL SERVICE AND INSPECTION REPORT

BRANCH	ACCOUNT	RT	TELEPHONE	GRID	S DAY	F	T	PRODUCTION	TIME IN	TIME OUT
2410	006093-1	07	000/000-0000 513/865-4585	E30 -	2FR	S	P	00005000 09	7:00 AM	7:25 AM

SERVICE PROPERTY AT	BRANCH
E G & G MOUND EARNIE HAYES 865-4310 MOUND AVENUE MIAMISBURG OH 45342-0000	TERMINIX INTERNATIONAL 4712 PAYNE AVENUE DAYTON OH 45414-0000 513/274-5800

OPERATOR NAME & CERTIFICATION NUMBER: [illegible] 1407

SUPERVISOR NAME & CERTIFICATION NUMBER: DANIEL J. STECK #1207

TARGET PEST(S): ☑ T2 Cockroaches ☑ T18 Rats ☐ Other: _____
☑ T3 Ants ☑ T19 Mice ☐ Other: _____

SERVICE AREAS:	INSPECTED	TREATED	PESTICIDE(S) TO BE APPLIED	EPA'S	T/C	AMOUNT	EQ
☐ C1 FOOD AREAS:	☐	☐	☐ P24 PT279 Engage (Chlorpyrifos) 0.5%	499-292			
			☑ P10 PT565 + XLO (Pyrethrin) 0.5%	499-310			
			☐ P04 Dursban L.O. (Chlorpyrifos) 0.5%	62719-55			
☐ C2 OFFICES:	☐	☐	☑ P11 Conquer (Esfenvalerate) 0.05%	1021-1565-57076	C		
			☐ P23 Tempo 20 WP (Cyfluthrin) 0.05%	3125-380			
			☐ P06 Ficam W (Bendiocarb) 0.5%	45639-1			
			☐ P21 Knox-Out 2FM (Diazinon) 1%	4581-335-AA-499			
☐ C3 STORAGE/UTILITY:	☐	☐	☐ P07 Gentrol (Hydroprene) 0.125%	2724-304-50809			
			☐ P12 Precor (Methoprene) 0.008%	2724-352-50809			
			☑ P02 Drione Dust (Silica/Pyrethrin) 1%	4816-353AA	C		
☐ C4 PUBLIC AREAS:	☐	☐	☐ P05 Ficam D (Bendiocarb) 1%	45639-3			
			☐ P03 Dursban G (Chlorpyrifos) 0.5%	10370-36-432			
			☐ P08 Maxforce Bait (Hydramethylnon) 1.65%	64248-1			
			☐ P27 Avert Roach Bait (Avermectin) 0.05%	499-294			
☐ C5 REST ROOMS:	☐	☐	☐ P09 PT270 Dursban (Chlorpyrifos) 0.5%	499-147			
			☐ P25 PT280 Orthene (Acephate) 1%	499-230			
			☐ P26 Maxforce Gel (Hydramethylnon) 2.15%	64248-5			
☐ C6 EXTERIOR AREAS:	☐	☐	☐ P14 Ditrac All Weather Cake (Diphacinone) 0.005%	12455-5			
			☐ P20 Talon G (Brodifacoum) 0.005%	10182-38			
			☐ P47 Contrac Blox (Bromadiolone) 0.005%	12455-79			
			☐ P34 Ditrac Bait Pack (Diphacinone) 0.005%	12455-19			
☐	☐	☐	☐ P16 Glue Boards				
			☐ P17 Ketch-All/Tin Cat				
			☐ P19 Snap Traps				
☐	☐	☐					

TREATMENT CODE:
C = Crack & Crevice
S = Spot
G = General
T = Space Treatment
B = 3' Band

Supervisor's Comments: ☐ Treat for Infestation/Prevention or Inspect areas indicated.

EQUIP. CODE
F = Fogger B = [illegible]
HD = Hand Dust A = [illegible]
B&G = Comp. Air T = [illegible]

SPECIAL SERVICE INSTRUCTIONS

GENERAL PC , C-BLDG. A-BLDG, MEDICAL, OH BLDG
SM CAFETERIA.(MONTHLY) -- OS-EAST CAFETERIA,
NEW CAFETERIA ONLY PO #38224

BALANCE AS OF
NOVEMBER 29
DEC CHARGE
SALES TAX
TOTAL DUE

CUSTOMER'S SIGNATURE: [illegible]

SERVICE TECHNICIAN'S SIGNATURE: [illegible] DATE: 12/5/95

AMOUNT PAID: 0 ☐ CASH ☐ CHECK

9.1-46

12-95

☐ INITIAL SERVICE
☑ REGULAR SERVICE
☐ EXTRA SERVICE

TERMINIX.

TERMITE and PEST CONTROL

COPY

COMMERCIAL SERVICE AND INSPECTION REPORT

BRANCH	ACCOUNT	RT	TELEPHONE	GRID	S DAY	F	T	PRODUCTION	TIME IN	TIME OUT
2418	006092-	07	000/000-0000 513/865-3921	E30 -	2FR	S	P	00004577 09	7:00 AM	8:25 A

SERVICE PROPERTY AT

E G R O MOUND
P. O. #38224
MOUND AVE
MIAMISBURG OH 45342-0000

BRANCH

TERMINIX INTERNATIONAL
4712 PAYNE AVENUE
DAYTON OH 45414-0000
513/274-5800

OPERATOR NAME & CERTIFICATION NUMBER [illegible] 1067

SUPERVISOR NAME & CERTIFICATION NUMBER DANIEL J. STECK #1207

TARGET PEST(S): ☐ T2 Cockroaches ☑ T18 Rats ☐ Other: _____
☐ T3 Ants ☐ T19 Mice ☐ Other: _____

SERVICE AREAS:	INSPECTED	TREATED
☑ C1 FOOD AREAS:	☐	☐
☐ C2 OFFICES:	☐	☐
☐ C3 STORAGE/UTILITY:	☐	☐
☐ C4 PUBLIC AREAS:	☐	☐
☐ C5 REST ROOMS:	☐	☐
☐ C6 EXTERIOR AREAS:	☐	☐
☐	☐	☐
☐	☐	☐

PESTICIDE(S) TO BE APPLIED	EPA'S	T/C	AMOUNT	EQU
☐ P24 PT279 Engage (Chlorpyrifos) 0.5%	499-292			
☐ ~~P10~~ PT565 + XLO (Pyrethrin) 0.5%	499-310	C	3	A
☐ P04 Dursban L.O. (Chlorpyrifos) 0.5%	62719-55			
☐ ~~P11~~ Conquer (Esfenvalerate) 0.05%	1021-1565-57076	C	[illegible]	A
☐ P23 Tempo 20 WP (Cyfluthrin) 0.05%	3125-380			
☐ P06 Ficam W (Bendiocarb) 0.5%	45639-1			
☐ P21 Knox-Out 2FM (Diazinon) 1%	4581-335-AA-499			
☐ P07 Gentrol (Hydroprene) 0.125%	2724-304-50809			
☐ P12 Precor (Methoprene) 0.008%	2724-352-50809			
☐ ~~P02~~ Drione Dust (Silica/Pyrethrin) 1%	4816-353AA	S	[illegible]	A
☐ P05 Ficam D (Bendiocarb) 1%	45639-3	X		
☐ P03 Dursban G (Chlorpyrifos) 0.5%	10370-36-432			
☐ P08 Maxforce Bait (Hydramethylnon) 1.65%	64248-1			
☐ P27 Avert Roach Bait (Avermectin) 0.05%	499-294			
☐ P09 PT270 Dursban (Chlorpyrifos) 0.5%	499-147			
☐ P25 PT280 Orthene (Acephate) 1%	499-230			
☐ P26 Maxforce Gel (Hydramethylnon) 2.15%	64248-5			
☐ P14 Ditrac All Weather Cake (Diphacinone) 0.005%	12455-5			
☐ P20 Talon G (Brodifacoum) 0.005%	10182-38			
☐ P47 Contrac Blox (Bromadiolone) 0.005%	12455-79			
☐ P34 Ditrac Bait Pack (Diphacinone) 0.005%	12455-19			
☐ P16 Glue Boards				
☐ P17 Ketch-All/Tin Cat				
☐ P19 Snap Traps				

TREATMENT CODE:
C = Crack & Crevice
S = Spot
G = General
T = Space Treatment
B = 3' Band

Supervisor's Comments: ☐ Treat for Infestation/Prevention or Inspect areas indicated.

EQUIP. CODE
F = Fogger
HD = Hand Dust
B&G = Comp. Air
_____ = _____

SPECIAL SERVICE INSTRUCTIONS

SER. OLD CAFE, SMPP, GUARDS REST ROMS AND BASINS IN MEDICAL AREA
P. O. # 38224

BALANCE AS OF NOVEMBER 29
DEC CHARGE
SALES TAX
TOTAL DUE 9.1-47

CUSTOMER'S SIGNATURE [illegible]

SERVICE TECHNICIAN'S SIGNATURE [illegible] DATE 12-15-95

AMOUNT PAID
CASH
CHECK

Building Manager's Questionnaire

Building Name: A Building Manager: W.H. Whitelow 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? RUNOFF WATER How many days per year is it filled? ~~UNK~~ N/A
UNKNOWN Is there an emergency overflow tank? Have there been previous overflows?
N/A N/A

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
PER CLEANUP ACTIVITY

Materials	Amount
ASBESTOS WASTE, DEBRIS	7000.0
ASBESTOS WASTE DEBRIS	7000.0
ASBESTOS WASTE DEBRIS	9900.0
SODIUM WASTE DEBRIS	181.7
ASBESTOE WASTE DEBRIS	193.4
ASBESTOS WASSTE DEBRIS	200.4
ASBESTOS WASTE DEBRIS	225.7
PCB CLEANUP DEBRIS, VERMICULITE, PCB2	135.9
FROM 12-15-94 LEAK OF 25ML>500PPM	
PCB OIL	
PCB CLEANUP DEBRIS, VERMICULITE, PCB2	224.8
FROM 1-15-94 LEAK OF 25ML>500PPM	
PCB OIL	
PCB OIL CLEANUP DEBRIS, VERMICLITE, PCB2	231.5
FROM 12-15-94 LEAK OF 25ML>500PPM	
PCB OIL	
PCB CLEANUP DEBRIS, VERMICULITE, PCB2	169.5
FROM 12-15-94 LEAK OF 23ML>500PPM	
PCB OIL	
PCB CLEANUP DEBRIS, VERMICULITE, PCB2	246.2
FROM 12-15-94 LEAK OF 25ML>500PPM	
PCB OIL	
PCB CLEANUP DEBRIS, VERICULITE, PCB2	182.9
FROM 12-15-94 LEAK OF 25ML>500PPM	
PCB OIL	

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

Building Manager's Questionnaire

Building Name: A Building Manager: W.H. Whitelow 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: _____

9.1-49

Building Manager's Questionnaire

Building Name: A Building Manager: W.H. Whitelow 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: A Building Manager: W.H. Whitelow 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

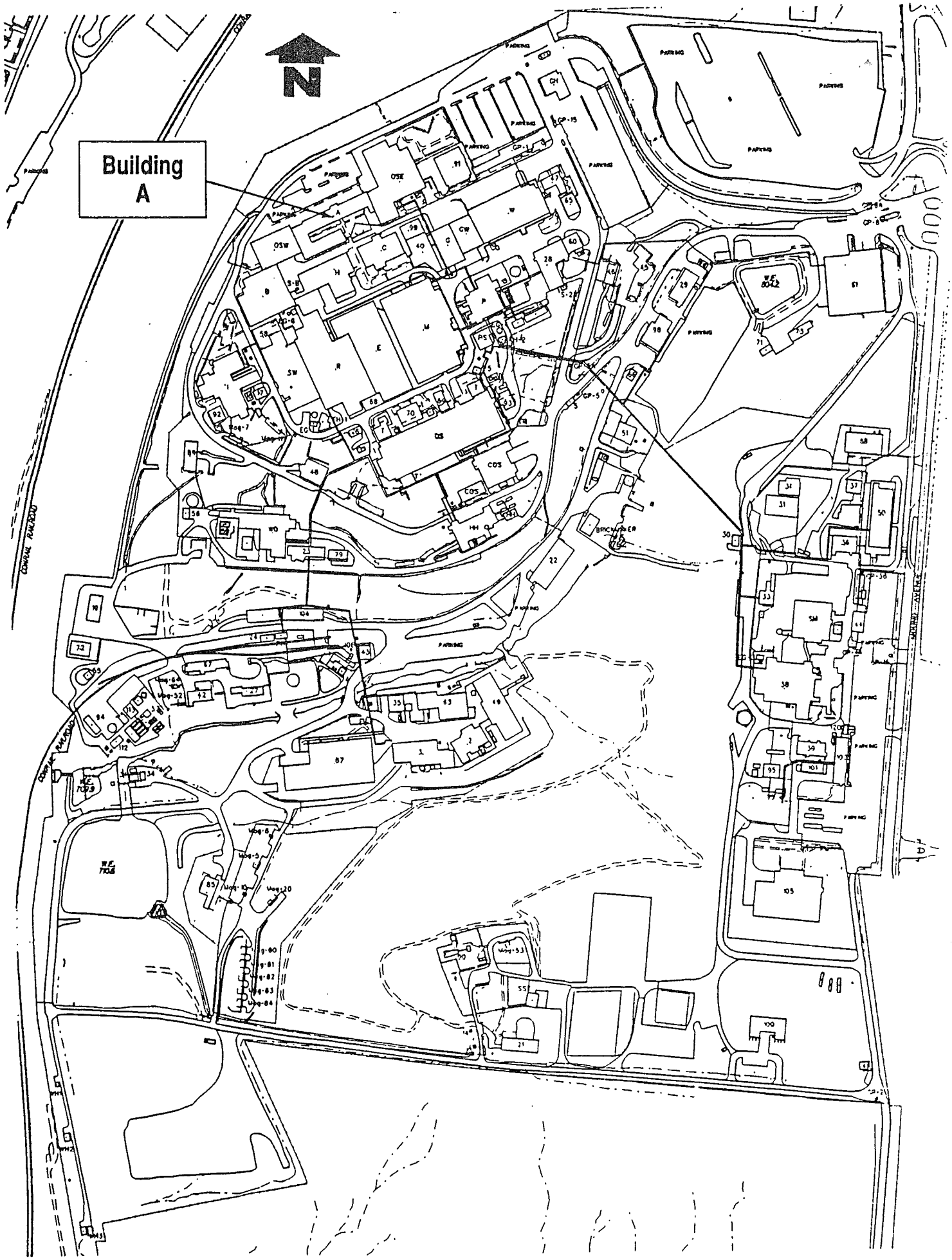
Building Name: A Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

MOUND WASTE MIN PROGRAM

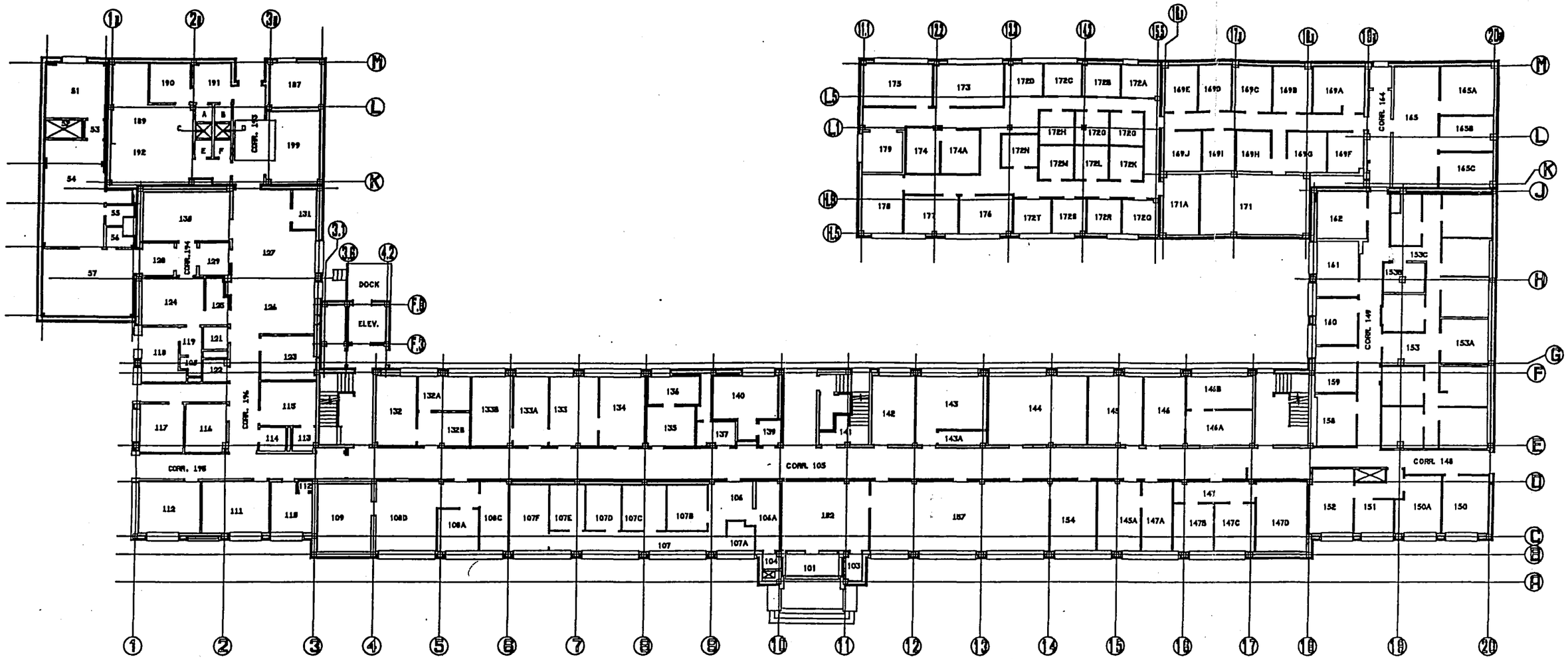
37. Has a pollution prevention program been developed for the building? Yes No

9.1.6.3 Location of Building A



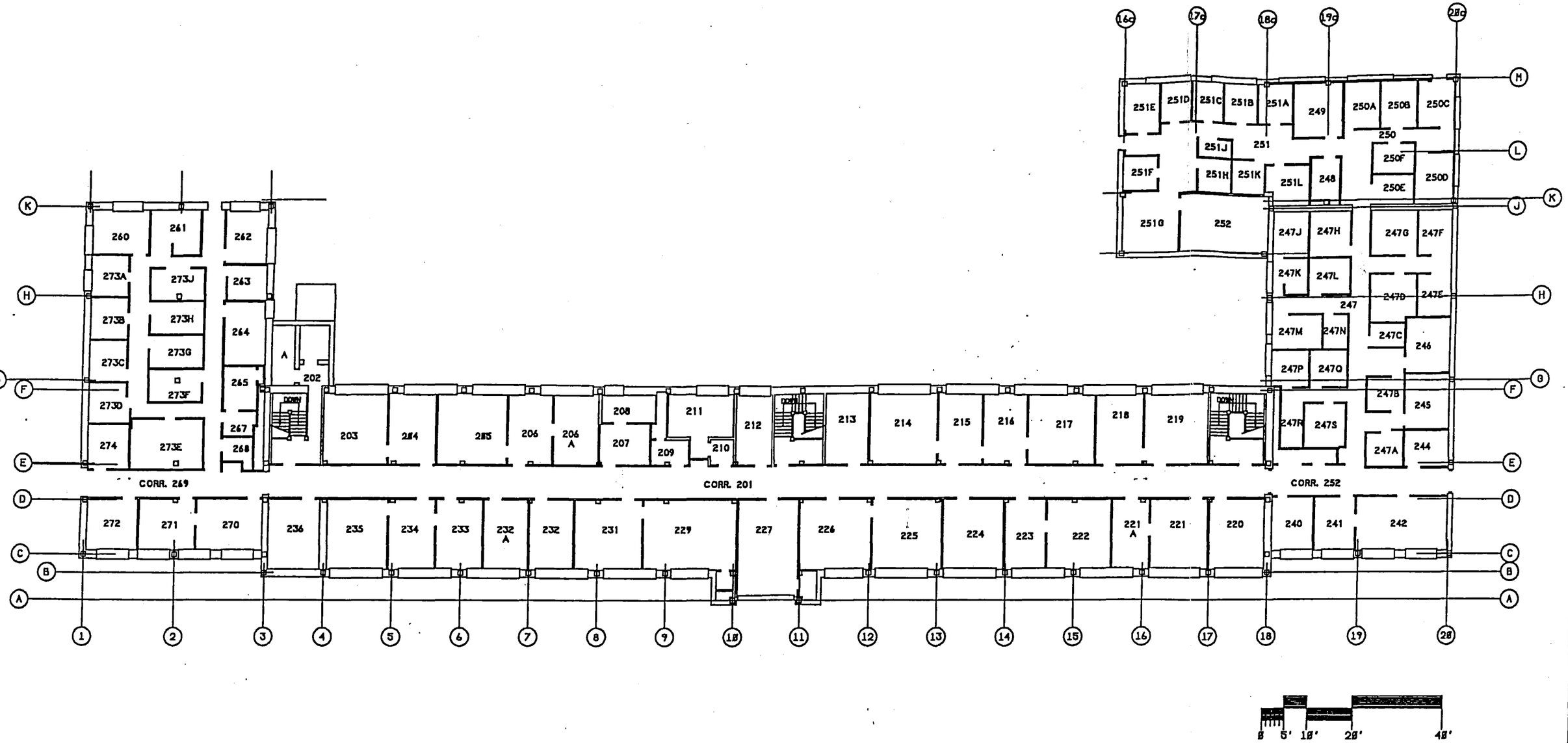
SOURCE: Operable Unit 9, Site Scoping Report: Volume 7-Waste Management Mound Plant, 7-92

9.1.6.4 Floor Plans for Building A



A BLDG
FIRST FLOOR
BLDG CODE:3500

DRAWING NUMBER FSD911300	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE D	CADD 14065 / SCALE AS NOTED
	ISSUE Ø / SHEET 2
STATUS MD-REL-12/12/91	

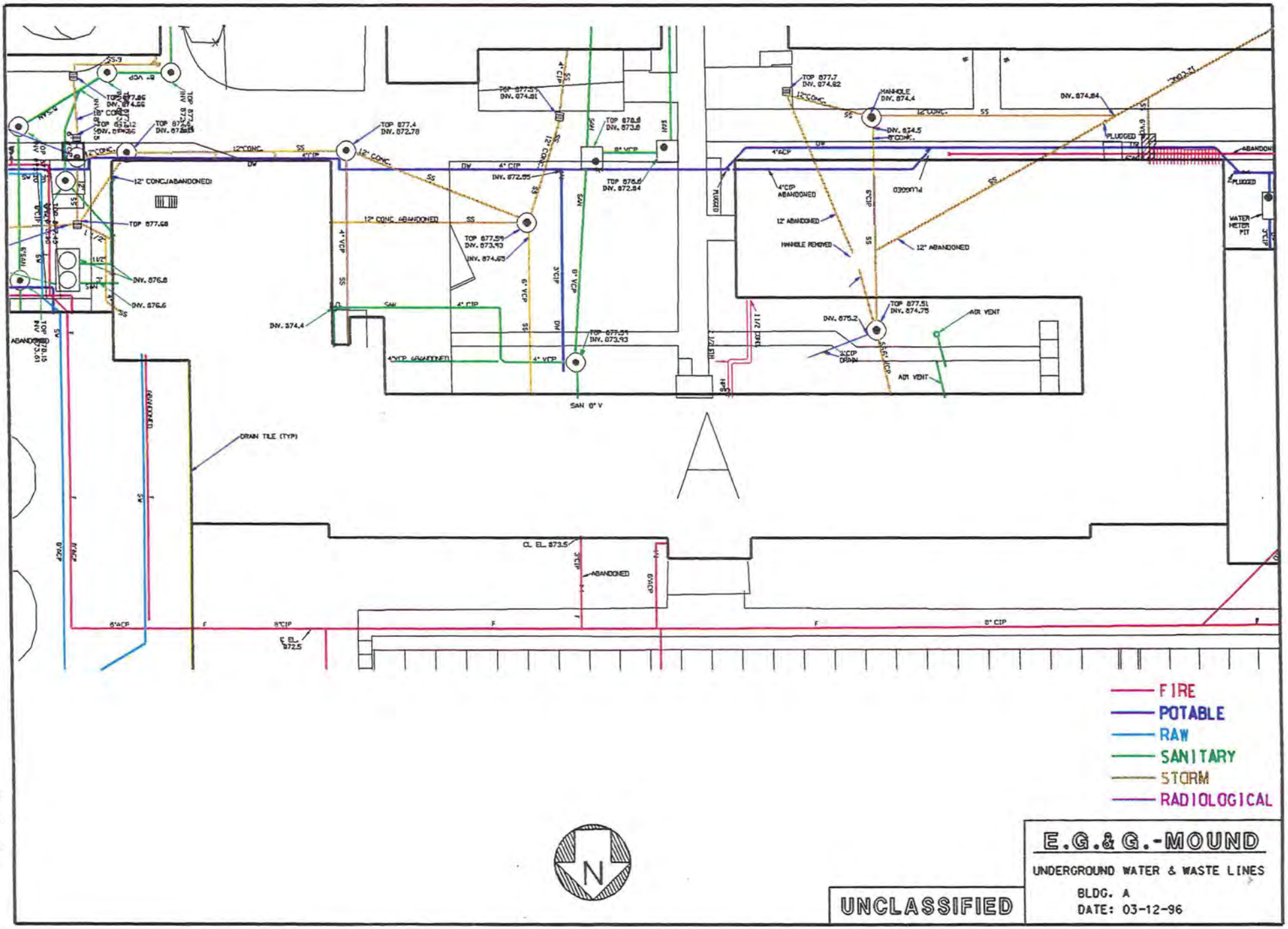


A BLDG
SECOND FLOOR
BLDG CODE:3500

DRAWING NUMBER FSD911300	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE D	CAGE 14065 / SCALE AS NOTED
	ISSUE 0 / SHEET 3
STATUS MD-REL-12/12/91	

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

9.1.6.5 Underground Utility Lines


FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL
N
E.G.&G.-MOUND
UNDERGROUND WATER & WASTE LINES
BLDG. A
DATE: 03-12-96
UNCLASSIFIED
DRAIN TILE (TYP)
12" CONC.(ABANDONED)
12" CONC. ABANDONED
4" VCP (ABANDONED)
SAN 8" V
ABANDONED
PLUGGED
WATER METER PIT
ADR VENT
HANDHOLE REMOVED
CL EL 873.5
CL EL 872.5

9.1.6.6 Photographs

Mound Plant Building A

9.2 BUILDING B

9.2.1 Scope of Building B 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 B on February 28, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.2.6.1). The appraisers were accompanied by the former building manager who is responsible for the Safe Shutdown of Building B. The building manager was not in attendance. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.2.6.2).

9.2.2 Description of Building

Building B is a one-story structure constructed of concrete block with brick facing. The roof is metal with built-up membrane of coal tar and carboline. Building B was one of the original buildings constructed in 1948 with two additions (north and west) added later. Building B is located on the western perimeter of the main hill, as shown in Attachment 3 (Section 9.2.6.2). The building is bordered on its western side by a roadway. Adjacent buildings are Building OSW to the north, Building H to the east, Building SW to the south, and Building I to the west. The building is serviced by central steam for heat, chilled water, and electrical service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

Building B was used for the inert assembly of non-explosive devices, non-destructive testing, laser welding and marking, mold shop, and physical vapor deposition (PVD). Organic solvents were used in many of these operations. There is a clean room in the north addition that has high-efficiency particulate air (HEPA) filter modules in the wall to filter incoming room air. The clean room was used for physical vapor deposition and transducer production. Currently the building is under the Safe Shutdown Program. The only remaining activities in Building B is training (bubblesuit, respirator, and Rad Worker II) and two laboratories for Industrial Hygiene (IH). The majority of the office space is being utilized. Total area of Building B is 25,736 square feet. Floor plans are presented as Attachment 4 (Section 9.2.6.3). The Safe Shutdown Program plans to close the building in April 1996. No research, development, or production activities using radioactive or energetic materials have occurred in the building (*Mound Facility Physical Characterization*, 12-1-93).

9.2.3 Summary of Findings

The building is a model example of how a building should appear after Safe Shutdown. The old production areas are clean and empty of miscellaneous equipment. Only bulk equipment remains in Building B. The program manager has reduced the risk of process equipment leaking fluids to the environment by draining all applicable equipment. The building is well-maintained with few issues of environmental concern identified during the walk-through or during the review of reference materials. Applications on file for air emission sources should be updated as the building shuts down. Ethylene diamine, a Clean Water Act (CWA) pollutant, is used in the building. Floor drains in the building should be verified, as to whether they discharge to sanitary or storm sewers.

9.2.4 Observations

9.2.4.1 Air Emissions

Five Permit to Operate (PTO) applications (EF-A, EF-1A, EF-B, EF-D, and EF-01) were filed on March 5, 1992 for Building B. No PTO's were received from the Regional Air Pollution Control Agency (RAPCA). Associated documentation resides with the EG&G Technology and Monitoring Section. Four of the five exhaust fans are shut down and the fifth (EF-01) will be turned off when IH is relocated and the building shut down. Only two of the five hoods exhausting to EF-01 are in active use. IH uses these hoods to calibrate field instruments with certified gases and to stage contact waste, primarily asbestos, before collection by Waste Management. Information from Mound's air emission database does not reflect the activities going on in Building B. There are no fuel-burning units in the building. There was no visual evidence of fugitive dust.

9.2.4.2 Water Emissions

The Mound Facility has three wastewater collection systems: a sanitary wastewater system; a storm water system; and a radioactively contaminated process wastewater system. Sanitary wastewater is treated at an onsite tertiary treatment plant and subsequently discharged by hard pipe to the Great Miami River. Storm water and any non-process wastewater, single pass cooling water, and softener backwash may be discharged directly to the Great Miami River, via the Miami-Erie Canal, or may be diverted to a 3.1-million-gallon holding pond for settling prior to 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.

9.2.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.2.6.5), the building is serviced by the sanitary system. Expected discharges to the sanitary system are by sinks and toilets. The point of discharge for floor drains could not be determined by the walk-through. Chemicals would not be expected to enter the sanitary system as no processes are in operation. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort, therefore, dye tests or smoke tests were not conducted. There is no monitoring of building effluent. Based on current operations identified by the process owner, effluent from Building B should not deviate from that expected by the sanitary treatment plant manager.

9.2.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to Attachment 5 (Section 9.2.6.5). Roof drains discharge to the storm sewer. The BMQ, included as Attachment 2 (Section 9.2.6.2), identifies floor drains going to the storm sewer. Exterior grates and drains were not tested to confirm that they connect to the storm drainage system. Inspection showed no sign of odors, colored discharges, or scarring which would indicate that any materials other than storm water have entered the storm drainage system.

9.2.4.2.3 Chemicals

The remaining chemicals in Building B were evaluated against Table V of Appendix D in 40 CFR 122 and one is considered a CWA pollutant. Ethylene diamine is part of the 1994 chemical inventory. The chemical inventory is conducted annually. Confirmation of the 1994 inventory was not attempted as 1995 data were being compiled at the time of the appraisal. Chemical storage and handling procedures are in place for proper disposal of chemicals. There have been no reported spills from Building B. No floor drains were seen in areas of past operations. There is no visual evidence that chemicals have entered the storm or sanitary drains.

9.2.4.4 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross-connections. Potable and service water lines are uniquely marked and easily identified. The four water fountains that supply drinking water in the building are not EPA-listed models suspected of lead contamination.

9.2.4.5 Chemical Storage and Hazardous Materials

The building is undergoing Safe Shutdown. As part of the Safe Shutdown process, chemicals are removed from the building. If applicable, the chemicals are reused elsewhere at Mound or they are disposed of through Waste Management. According to the Building Manager, the disposition of chemicals, whether reused or disposed, are handled according to Safe Shutdown procedures in MD-10431. Documentation provided for chemicals and hazardous materials

removed from Building B was located in Room 139. The only chemicals observed in Building B are those used by IH, which were listed in the BMQ, presented in Attachment 2 (Section 9.2.6.2). There was no visual evidence of chemical storage incompatibility among remaining materials and janitorial supplies. Material Safety Data Sheets (MSDS's) were present and were reviewed for completeness.

The building is equipped with appropriate emergency response equipment such as eyewashes, safety showers, and fire extinguishers. Halon 1211 is the prevalent fire extinguisher. All eyewashes and safety showers were tagged "Do Not Use." There is an Emergency Evacuation Plan and signs remain posted throughout the building.

There are no aboveground storage tanks in or around the building that are associated with Building B. Two liquid nitrogen aboveground chemical storage tanks located at the northeast end of the building have been removed and visually verified. There are no sumps, separators, or catch basins, in or around the building. There are no underground storage tanks associated with this building. The BMQ, included as Attachment 2 (Section 9.2.6.2), lists a sump in the southwest corner of the building but no sump was observed during the walk-through. In addition, the Underground Storage Tank (UST) Program does not list a sump in Building B.

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

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in the building. There is no record of past presence (PCB Annual Document Log). PCB transformers and capacitors were observed in the B Substation located across the street. They are scheduled for removal in calendar year 1996. The PCB area is appropriately identified and monitored.

9.2.4.6 Solid and Hazardous Wastes

The solid wastes generated in the building result from offices and laboratory areas. As part of the Safe Shutdown process, equipment and materials were evaluated for reuse or recycling to minimize solid waste. Solid waste associated with the production areas have been removed and the lab areas are clean. Solid wastes are removed by janitorial personnel to a local collection point, then shipped offsite to a local landfill by a service contractor. The disposal contract is maintained by Waste Management. There is no visual evidence that hazardous materials or wastes are mixed with solid waste streams.

IH indicated that contact waste, typically asbestos, is accumulated in Room 140A and removed by Waste Management. The disposition of hazardous waste from the safe shutdown process is handled according to Safe Shutdown procedures in MD-10431. Hazardous waste is characterized by the generator prior to Waste Management representatives collecting it from Building B. Hazardous waste is transported and stored in Building 72 for ultimate disposal. There is no

onsite treatment of waste. Waste disposal manifests and Certificates of Disposal are maintained by the EG&G Waste Management Group. They conform to Resource Conservation and Recovery Act (RCRA) requirements. Documentation, located in B-139, was provided for the hazardous materials removed from Building B during Safe Shutdown.

No drums of waste, identified or unidentified, were observed in or around the building.

9.2.4.7 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 a pollution prevention measure, several pieces of equipment had been drained of fluids since there is no intention of using the equipment in the foreseeable future. Energy cost savings will be incurred when the building is shut down in April 1996.

9.2.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.2.6.6). The environmental appraisal of Building B indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place. Photographs were taken to document environmental appraisal.

B-1 Ethylene diamine is a CWA pollutant and its continued use should be evaluated and if appropriate, a substitute chemical used which has no health or environmental hazard. The Environmental Technology and Monitoring Section should be informed of this evaluation.

B-2 Applications for air emission sources that are on file with RAPCA should be updated, including Mound's air emission database, as the building shuts down.

B-3 If the building will continue to be used, the floor drains in the building should be verified as to whether they discharge to the sanitary or storm sewers.

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9.2.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name B -

Appraisers: Ronald Paulick
Name Discipline

Billie J. Adkins
Name Discipline

Name Discipline

Name Discipline

Building Manager:

Process Manager: Jerry W. Kirby

Date: 2-28-96

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

A

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Adkins/Parker Date: 2-28-96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	(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	epichlorohydrin resin was used; now gone ethylene diamine
	Is the building in operation? What are the processes and where do they discharge to?	Y / (N) _____ _____	Safe Shutdown; Office, storage, IH lab.
	Do the floor drains, sinks & toilets appear to be draining properly?	(Y) / N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	(Sanitary) Storm	Not verified
	Is there a sump/pit in the building? If so, what does it contain? How often is it pumped out? Does water collect in sump? Does sump have secondary containment?	~~(Y)~~ (N) _____ _____ Y / N Y / N	RP 3/13/96 Verified that no sump exist and none is listed on the UST program
	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)	

9.2-11

9.2-12

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Adkins/Parker

Date: 2-28-96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	(Y)/ N	1 of 5 exhaust fans operation
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	Applications - ~~required~~
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	Safe Shutdown areas no operations
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: B

Appraisers: Paulick/Adkins/Parker Date: 2-28-96

CAA Checklist

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

TABLE A									
Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
~~141A~~ ~~140A~~			Y / N	Y / N					
I.H.	140A 141A		Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

Source:

9.2-13

9.2-14

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Atkins/Parker

Date: 2-28-96

Hazardous Materials (HM) Screening Checklist

Question	Response	Comments
Are any chemicals used or stored in this building, now or in the past?	(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	Not Applicable

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Atkins/Parker Date: 2-28-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	(Y) / N	
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	Y / (N)	Bldg. is in FINAL Shutdown Phase - All eyewashes/showers ARE tagged "do not use" *
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	Not Applicable
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	Not Applicable
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	Not Applicable
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	(Y) / N	
	Is there an emergency response plan available?	(Y) / N	

* All occupants are scheduled to be moved out by April 1996.

9.2-15

9.2-16

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Adkins/Parker Date: 2-28-96

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y / N	Not Applicable
	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	Nitrogen tanks removed.

Above Ground Storage Tanks Inventory

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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: B Appraisers: Paulick/Adkins/Parker Date: 2-28-96

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
B	Corr 6	PLF5CP	OASIS (Ok)
B	Corr 172	5805	Halsey Taylor (Ok)
B	Rm 161	Type 1	Sunroc (Ok)
B	Corr 1	EFA-14-3	Elkay (Ok)

Source: _____

9.2-17

9.2-18

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulik/Adkins/Parker

Date: 2/28/96

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 3/4/96 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	Bldg. 72

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Adkins/Parker Date: 3/28/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area? Is it treated as such?	(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	Not verifiable

9.2-19

9.2-20

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Adkins/Parker Date: 2/28/86

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Adkins/Parker Date: 2/28/96

RCRA Checklist

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

9.2-21

9.2-22

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Adkins/Parker

Date: 2/28/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	N/A
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: B Appraisers: Paulick/Adkins/Parker Date: 2/28/96

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

9.2-23

9.2-24

Environmental Appraisal Checklist

Building Name: B. Appraisers: Paulick/Adkins/Parker Date: 2/28/96

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

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

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761	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	B Sub Station outside has PCB Transformer & capacitors — NONE IN THE BUILDING
	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	Outside Substation only NOT INSIDE
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	PCB not in building
	If yes, are auditable records maintained.	~~Y / N~~	N/A
40 CFR.30 (a) (1) (ix)	Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater?	Y / N	
	Are they visually inspected quarterly? If yes, are auditable records maintained?	Y / N	Electrician ck quarterly

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Adkins/Parker Date: 2/28/96

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	N/A
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	N/A
40 CFR 761.65 (a)	Are all PCB's and PCB contaminated items at concentrations above 50 PPM, that are stored for disposal, stored no longer than one year from the date they were placed in storage?	Y / N	N/A
40 CFR 761.62 (b) (1) (i)	Do all PCB storage areas have an adequate roof and walls to prevent rainwater from reaching the stored items?	Y / N	N/A
40 CFR 761.62 (b) (1) (iv)	Are storage are floors curbed and constructed of continuous smooth and impervious materials?	Y / N	N/A
40 CFR 761.62 (b) (1) (i)	Are the curbs at least 6 inches high?	Y / N	N/A
40 CFR 761.62 (b) (1) (iii)	No drains are allowed in storage areas. Are there drains in the storage areas?	Y / (N)	No drains in Sub station.

9.2-25

9.2-26

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Adkins/Parker

Date: 2/28/96

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	N/A PCB Caps & trans are in service
40 CFR 761.45 and .65	Are all PCB storage areas marked with a large PCB mark as described in 40 CFR 761.45 (a)?	(Y) / N	
40 CFR 761.65 (c) (5)	Have all leaking PCB articles and containers been transferred to non-leaking containers?	Y / N	N/A
40 CFR 761.65 (c) (6)	Do all PCB storage containers for the storage of liquid and non-liquid PCB's comply with DOT shipping container specifications?	Y / N	N/A

GENERAL COMMENTS:

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Adkins/Parker Date: 2-28-96

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	No LLW Waste
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	

9.2-27

9.2-28

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Atkins/Parker Date: 2-28-96.

Low-Level Waste and Transuranic Waste Checklist

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

Appraisers: Paulick/Adkins/Parker Date: 2-28-96

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 TRU Waste
	Are any of the materials noted as being TRU waste during an inspection? If no, note and stop. If the answer is yes, note the location of the management unit, and the method of management and proceed with the appropriate section below.	Y / N	
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	

9.2-29

9.2-30

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Adkins/Parker Date: 2-28-96

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II, 3.b	Has the TRU waste been assayed or otherwise evaluated to determine its radioactive content prior to storage?	Y / N	No TRU Waste
	Has the TRU waste been characterized or otherwise evaluated to determine if hazardous waste is present?	Y / N	
	Has classified TRU waste been treated to destroy the classified characteristics?	Y / N	
DOE Order 5820.2A, Chapter II 3.d	Has all newly generated TRU waste been packaged in non-combustible packaging that meets DOT requirements?	Y / N	
	Have all Type A TRU waste packages been equipped with a method to prevent pressure buildup?	Y / N	
	Have all TRU packages been marked, labeled and sealed in accordance with 40 CFR 261 Subpart C and 49 CFR 172 Subparts D, E and 49 CFR 173 Subpart I?	Y / N	

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Adkins/Parker Date: 2-28-96

Low-Level Waste and Transuranic Waste Checklist Intentionally left blank

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y / N	No TRU Waste
	Has the TRU waste been protected from unauthorized access?	Y / N	
	Has the TRU waste been monitored periodically to ensure that it is not releasing its radioactive and/or hazardous constituents?	Y / N	
	Has this TRU waste storage area been designed, constructed, maintained, and operated to minimize the possibility of fire, explosion, or accidental release of its radioactive and/or hazardous constituents?	Y / N	
	Does the facility have a contingency plan designed to minimize the adverse impacts of fire, explosion, or accidental release of its radioactive and/or hazardous constituents?	Y / N	

GENERAL COMMENTS:

9.2-31

9.2-32

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Adkins/Parker Date: 2-28-96

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	Not Applicable
	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: B Appraisers: Paulick/Adkins/Parker Date: 2-28-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments Not Applicable
HALOGENATED ORGANIC (NONSOLVENT) WASTES			Intentionally left blank
	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	

9.2-33

9.2-34

Environmental Appraisal Checklist

Building Name: B Appraisers: Paulick/Atkins/Parker Date: 2-28-96

Waste Minimization/Pollution Prevention Activities Checklist

Intentionally left blank

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	Not Applicable
	Is crystallization used to remove corrosives from solution by cooling?	Y / N	
	Is the process of evaporation of liquid wastes by heating used to leave behind a more concentrated solution?	Y / N	
CYANIDE AND REACTIVE WASTES			
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y / N	
	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: B Appraisers: Paulick/Atkins/Parker Date: 2-28-96

Waste Minimization/Pollution Prevention Activities Checklist

Intentionally left blank

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	Not Applicable
	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	

9.2-35

9.2-36

Environmental Appraisal Checklist

Building Name: B

Appraisers: Paulick/Atkins/Parker Date: 2-28-96

Waste Minimization/Pollution Prevention Activities Checklist

Intentionally left blank

Regulatory Guideline	Question	Response	Comments Not Applicable
	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: B Appraisers: Paulick/Adkins/Parker Date: 2-28-96

Waste Minimization/Pollution Prevention Activities Checklist

Intentionally left blank

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	Not Applicable
	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?	_____ _____	

9.2-37

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9.2.6.2 Building Manager's Questionnaire

DONE

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

   NONE

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

   NONE

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

4. Provide a physical description of the building.

The building is a 27,735-ft^2 concrete block (faced with brick) structure. Roof is BUM (coal tar and carboline). It has central steam and chilled water HVAC services. The one-story building is not contaminated with radioactive or energetic materials. There is asbestos in the building and there may be a small amount of chemical contamination.

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

5. Provide a drawing of the building.

Attached.

6. What is the current building use? ~~[illegible]~~ TRAINING, I.H OFFICE, + EQUIP. STORAGE

Inert assembly of non-explosive devices; mold shop; NDT lab; laser welding; laser marking.

Industrial Hygiene labs used for calibration of equipment

Building is expected go into complete shutdown in April

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

9.2-41

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

PAST PROCESSES

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: — PAST PROCESSES Transducer and physical vapor deposition (PVD) production, plastic molding, production of inert portions of detonators.

How Wastes Are Generated:

Much of the nonwater portion of the "B" solvent is generated during transducer and PVD production in the clean room. In this operation, trichloroethylene (TCE) is used in an ultrasonic bath for cleaning parts. Used TCE is poured into a sink which drains to the waste solvent drums in the Building B shed. Isopropyl alcohol, ethyl alcohol, toulene, and trichloroethane are also used for cleaning, but are primarily used for wiping parts. When these solvents are used for wiping, they normally evaporate and no waste liquid is generated. Methylene chloride was formerly used for some cleaning during this process but is being phased out.

Ethyl alcohol, methyl alcohol, and a very small amount of isopropyl alcohol used in cleaning inert parts for actuators are pumped to the waste drums in B shed. Freon TF is also used to clean these parts, but waste Freon is kept separate from other materials and put into 5-gal waste drums.

Inert parts of LANL detonators are produced in Building B. These parts are spray cleaned with ethyl alcohol. The spray evaporates and there is no liquid waste to be disposed of. If a bath of alcohol is required, the used alcohol is poured into a 5-gal waste can labeled "Alcohol." Freon TE was formerly used in this cleaning process but was phased out when the Freon TE delivery system in Building B became contaminated.

In Inert Production Assembly, Freon TF is used for high voltage testing. Waste Freon TF is put into 2- or 5-gal waste cans. Ultrasonic cleaning is done with ethyl alcohol, which is also disposed of in waste cans. Chloroform is used to clean gaskets. (This operation is done infrequently.) Waste chloroform is put in cans. Methyl ethyl ketone is used occasionally for etching insulation (tubing), and wastes are put into cans.

The plastic molding process uses DAP. The DAP contains either asbestos or fiberglass fibers. Waste DAP is bagged and labeled for disposal. Mound is currently conducting a study to determine whether a trasition can be made from asbestos DAP to fiberglass DAP. Freon TE, Freon TF, and ethyl alcohol are used in ultrasonic baths. Each Freon or alcohol bath is used only once and is then disposed of in a labeled waste can. Water that surrounds the beakers of Freon and alcohol during the ultrasonic cleaning is reused throughout the day and then drained to the waste solvent tanks in B shed.

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow 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
✓ Safe Shutdown	112		N					
✓ Safe Shutdown	122		N					
✓ Safe Shutdown	126		N					
~~Safe Shutdown~~ Radiworker training	141 ~~140~~		~~N~~ Y					
~~Safe Shutdown~~ I.H.	141A 140A		~~N~~ Y	Acetone Calibration gases				
✓ Safe Shutdown	167, 170		N					
✓ Safe Shutdown	165		N					
✓ Safe Shutdown	~~154~~ 153		N					

Source: Mound Air Emissions Database 11/30/95

9.2-43

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow 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? RAIN WATER - FROM ROOF DRAINS
FLOOR DRAINS

needs verified

15. Does the building discharge to the sanitary sewer? Yes No
Where? LAVS, TOILETS, ~~SUMP~~ No Sump found.

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

9.2-44

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

✓ 17. Does the building contain transformers or capacitors? YES

Source: PCB ANNUAL DOCUMENT LOG

Description	Identifier	Out of Service / Storage Date
Transformer,Inerteen, Bldg B	SN: YDR - 4707	In Service
Capacitors (6) 500ppm PCB Bldg B	N/A	In Service

18. Has the building been identified as containing PCBs? YES

Source: PCB ANNUAL DOCUMENT LOG B sub Station

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)
CITCON VOC SOLVENT	L	1000 ML
CONTACT CLEANER	L	26 OZ
DIMETHYLSULFOXIDE (DMSO)	L	4 L
H2S,CO,CH4,CAL.	G	228 L
HOME PEST INSECT CONTROL	L	4 GA
HOME PEST INSECT CONTROL	L	1 GA
HYDROGEN	G	4900 L
HYDROGEN SULFIDE	G	114 L
ISOBUTYLENE	G	420 L
METHANE GAS	G	630 L
NITROGEN	G	17 L
NITROGEN DIOXIDE	S	114 L
WAS WASP SPRAY	L	5 LB
WD-40	S	900 ML
WHITE RTV 102	S	900 ML
HYDROCHLORIC ACID	S	1000 ML
N-(1-NAPHTYL)ETHYLENEDIAMINE	S	50 G
POTASSIUM HYDROXIDE	S	25 G
SULFANILAMIDE	S	100 G
357 SPRAY ADHESIVE	L	48 OZ
ACETONE	L	2500 ML
ASBESTOS ENCAPSULANT	L	36 OZ
CARBON DIOXIDE	G	105 L
CARBON DIOXIDE	G	17 L
CARBON MONOXIDE	G	315 L
CHLORINE	G	57 L

Source: Chemical Inventory 1994

9.2-45

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow 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?
What few that remain are picked-up by waste management.
I.H. brings ~~waste~~ contact waste to 140A, then W.M. picks it up. Typically, it is asbestos.

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

ATTACHED

23. Where do excess janitorial supplies go?

B131

Source: _____

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

Chemical	Amount	Chemical	Amount
ATTACHED			
ROUND UP – HERB	AS NEEDED		

Source: IND. HYG.

ecord#	COMMON	CHEMICAL
1	BLUE MAX SPRAY BUFF	BLUE MAX SPRAY BUFF
2	CLEAN-N-DRY	CLEAN-N-DRY
3	CLR WINDOW	CLR WINDOW
4	CONQUEST	CONQUEST
5	DD/85 SPRAY	DD/85 SPRAY
6	DMQ	DMQ
7	DUO-POWDER	DUO-POWDER
8	FLOOR FINISH/ABOVE	FLOOR FINISH/ABOVE
9	FOUNTAIN HEAD	FOUNTAIN HEAD
10	GLOSS-EXTENDERA	GLOSS-EXTENDERA
11	GREASE-BE-GONE	GREASE-BE-GONE
12	HEAD START	HEAD START
13	INSECT SPRAY/CHERRY	INSECT SPRAY/CHERRY
14	INSECTICIDE/WAS	INSECTICIDE/WAS
15	KINDEST CARE	KINDEST CARE
16	LAVA HAND SOAP	LAVA HAND SOAP
17	LIL BROTHER SAM	LIL BROTHER SAM
18	NABC	NABC
19	NEUT. FLOOR CORP.	NEUT. FLOOR CORP.
20	ODOR BANE	ODOR BANE
21	ON-BASE SEALER	ON-BASE SEALER
22	ONE-STEP/SURE BET	ONE-STEP/SURE BET
23	POLISH/LEMON	POLISH/LEMON
24	PUMMEL HAND SOAP	PUMMEL HAND SOAP
25	RINSE FREE/STRIP	RINSE FREE/STRIP
26	SBS-61 LOTION SOAP	SBS-61 LOTION SOAP
27	SCRUB-ENDER	SCRUB-ENDER
28	SEAL, CON-SEAL	SEAL, CON-SEAL
29	SEALER/IRONSTONE	SEALER/IRONSTONE
30	SHINELINE BASE	SHINELINE BASE
31	SNAPOUT	SNAPOUT
32	SPIN-OUT	SPIN-OUT
33	SPOT, PILE DRIVER	SPOT, PILE DRIVER
34	SPOTTER, PULL OUT	SPOTTER, PULL OUT
35	STAINLESS CLEANER	STAINLESS CLEANER
36	STATCIDE, GP	STATCIDE, GP
37	STRIPPER, ZIP	STRIPPER, ZIP
38	SURFACE GLEEM	SURFACE GLEEM
39	TREATMENT/DUST	TREATMENT/DUST
40	TRIPLE SSS	TRIPLE SSS
41	VESTA POWER	VESTA POWER
42	WINDOW SHINE	WINDOW SHINE

Cus Todial Chemical list

☐ INITIAL SERVICE
☑ REGULAR SERVICE
☐ EXTRA SERVICE

TERMINIX.

TERMITE and PEST CONTROL

COPY

COMMERCIAL SERVICE AND INSPECTION REPORT

BRANCH	ACCOUNT	RT	TELEPHONE	GRID	S DAY	F	T	PRODUCTION	TIME IN	TOTAL
2419	006093-	07	000/000-0000 513/865-4585	E30 -	2FR	S	P	00005000 09	7:34 AM	3.25

SERVICE PROPERTY AT

E O & G MOUND
EARNIE HAYES 865-4310
MOUND AVENUE
MIAMISBURG OH 45342-0000

BRANCH

TERMINIX INTERNATIONAL
4712 PAYNE AVENUE
DAYTON OH 45414-0000
513/274-5800

OPERATOR NAME & CERTIFICATION NUMBER 1407

SUPERVISOR NAME & CERTIFICATION NUMBER DANIEL J. STECK #1207

TARGET PEST(S): ☐ T2 Cockroaches ☐ T18 Rats ☐ Other: _____
☐ T3 Ants ☐ T19 Mice ☐ Other: _____

SERVICE AREAS:	INSPECTED	TREATED	PESTICIDE(S) TO BE APPLIED	EPA'S	T/C	AMOUNT	EQ
☐ C1 FOOD AREAS:	☐	☐	☐ P24 PT279 Engage (Chlorpyrifos) 0.5%	499-292			
			☑ P10 PT565 + XLO (Pyrethrin) 0.5%	499-310			
			☐ P04 Dursban L.O. (Chlorpyrifos) 0.5%	62719-55			
☐ C2 OFFICES:	☐	☐	☑ P11 Conquer (Esfenvalerate) 0.05%	1021-1565-57076	C		
			☐ P23 Tempo 20 WP (Cyfluthrin) 0.05%	3125-380			
			☐ P06 Ficam W (Bendiocarb) 0.5%	45639-1			
			☐ P21 Knox-Out 2FM (Diazinon) 1%	4581-335-AA-499			
☐ C3 STORAGE/UTILITY	☐	☐	☐ P07 Gentrol (Hydroprene) 0.125%	2724-304-50809			
			☐ P12 Precor (Methoprene) 0.008%	2724-352-50809			
			☑ P02 Drione Dust (Silica/Pyrethrin) 1%	4816-353AA			
☐ C4 PUBLIC AREAS:	☐	☐	☐ P05 Ficam D (Bendiocarb) 1%	45639-3			
			☐ P03 Dursban G (Chlorpyrifos) 0.5%	10370-36-432			
			☐ P08 Maxforce Bait (Hydramethylnon) 1.65%	64248-1			
			☐ P27 Avert Roach Bait (Avermectin) 0.05%	499-294			
☐ C5 REST ROOMS:	☐	☐	☐ P09 PT270 Dursban (Chlorpyrifos) 0.5%	499-147			
			☐ P25 PT280 Orthene (Acephate) 1%	499-230			
			☐ P26 Maxforce Gel (Hydramethylnon) 2.15%	64248-5			
☐ C6 EXTERIOR AREAS:	☐	☐	☐ P14 Ditrac All Weather Cake (Diphacinone) 0.005%	12455-5			
			☐ P20 Talon G (Brodifacoum) 0.005%	10182-38			
			☐ P47 Contrac Blox (Bromadiolone) 0.005%	12455-79			
			☐ P34 Ditrac Bait Pack (Diphacinone) 0.005%	12455-19			
☐	☐	☐	☐ P16 Glue Boards				
			☐ P17 Ketch-All/Tin Cat				
			☐ P19 Snap Traps				
☐	☐	☐					

TREATMENT CODE:
C = Crack & Crevice
S = Spot
G = General
T = Space Treatment
B = 3' Band

Supervisor's Comments: ☐ Treat for Infestation/Prevention or Inspect areas indicated.

EQUIP. CODE
F = Fogger
HD = Hand Dust
B&G = Comp. Air

SPECIAL SERVICE INSTRUCTIONS

GENERAL PC , C-BLDG. A-BLDG, MEDICAL, GH BLDG
SM CAFETERIA.(MONTHLY) -- OS-EAST CAFETERIA,
NEW CAFETERIA ONLY , PO #38224

BALANCE AS OF
NOVEMBER 29
DEC CHARGE
SALES TAX
TOTAL DUE

CUSTOMER'S SIGNATURE

SERVICE TECHNICIAN'S SIGNATURE | DATE 12-15-95

AMOUNT PAID 0 | ☐ CASH | ☐ CHECK

9.2-48

12-95

☐ INITIAL SERVICE
☑ REGULAR SERVICE
☐ EXTRA SERVICE

TERMINIX.

TERMITE and PEST CONTROL

COPY

COMMERCIAL SERVICE AND INSPECTION REPORT

BRANCH	ACCOUNT	RT	TELEPHONE	GRID	S DAY	F	T	PRODUCTION	TIME IN	TIME OUT
2410	006092-	07	000/000-0000 513/865-3921	E30 -	2FR	S.	P	00004570 09	7:00 AM	8:25 AM

SERVICE PROPERTY AT

E O R O MOUND
P. O. #38224
MOUND AVE
MIAMISBURG OH 45342-0000

BRANCH

TERMINIX INTERNATIONAL
4712 PAYNE AVENUE
DAYTON OH 45414-0000
513/274-5800

OPERATOR NAME & CERTIFICATION NUMBER: [illegible] 1267

SUPERVISOR NAME & CERTIFICATION NUMBER: DANIEL J. STECK #1207

TARGET PEST(S): ☐ T2 Cockroaches ☑ T18 Rats ☐ Other: ____
☐ T3 Ants ☐ T19 Mice ☐ Other: ____

SERVICE AREAS:	INSPECTED	TREATED
☑ C1 FOOD AREAS:	☐	☐
☐ C2 OFFICES:	☐	☐
☐ C3 STORAGE/UTILITY:	☐	☐
☐ C4 PUBLIC AREAS:	☐	☐
☐ C5 REST ROOMS:	☐	☐
☐ C6 EXTERIOR AREAS:	☐	☐
☐	☐	☐
☐	☐	☐

PESTICIDE(S) TO BE APPLIED	EPA'S	T/C	AMOUNT	EQU
☐ P24 PT279 Engage (Chlorpyrifos) 0.5%	499-292			
☐ ~~P10~~ PT565 + XLO (Pyrethrin) 0.5%	499-310	C	3	[illegible]
☐ P04 Dursban L.O. (Chlorpyrifos) 0.5%	62719-55			
☐ ~~P11~~ Conquer (Esfenvalerate) 0.05%	1021-1565-57076	C	[illegible]	[illegible]
☐ P23 Tempo 20 WP (Cyfluthrin) 0.05%	3125-380			
☐ P06 Ficam W (Bendiocarb) 0.5%	45639-1			
☐ P21 Knox-Out 2FM (Diazinon) 1%	4581-335-AA-499			
☐ P07 Gentrol (Hydroprene) 0.125%	2724-304-50809			
☐ P12 Precor (Methoprene) 0.008%	2724-352-50809			
☐ ~~P02~~ Drione Dust (Silica/Pyrethrin) 1%	4816-353AA	[illegible]	[illegible]	[illegible]
☐ P05 Ficam D (Bendiocarb) 1%	45639-3			
☐ P03 Dursban G (Chlorpyrifos) 0.5%	10370-36-432			
☐ P08 Maxforce Bait (Hydramethylnon) 1.65%	64248-1			
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☐ P09 PT270 Dursban (Chlorpyrifos) 0.5%	499-147			
☐ P25 PT280 Orthene (Acephate) 1%	499-230			
☐ P26 Maxforce Gel (Hydramethylnon) 2.15%	64248-5			
☐ P14 Ditrac All Weather Cake (Diphacinone) 0.005%	12455-5			
☐ P20 Talon G (Brodifacoum) 0.005%	10182-38			
☐ P47 Contrac Blox (Bromadiolone) 0.005%	12455-79			
☐ P34 Ditrac Bait Pack (Diphacinone) 0.005%	12455-19			
☐ P16 Glue Boards				
☐ P17 Ketch-All/Tin Cat				
☐ P19 Snap Traps				

TREATMENT CODE:
C = Crack & Crevice
S = Spot
G = General
T = Space Treatment
B = J' Band

Supervisor's Comments: ☐ Treat for Infestation/Prevention or Inspect areas indicated.

EQUIP. CODE
F = Fogger
HD = Hand Dust
B&G = Comp. Air

SPECIAL SERVICE INSTRUCTIONS

SER. OLD CAFE, SMPP, GUARDS REST ROMS AND BASINS IN MEDICAL AREA
P. O. # 38224

BALANCE AS OF NOVEMBER 29
DEC CHARGE
SALES TAX
TOTAL DUE

9.2-49

CUSTOMER'S SIGNATURE: [illegible]

SERVICE TECHNICIAN'S SIGNATURE: [illegible] DATE: [illegible]

AMOUNT PAID
CASH
CHECK

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow 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
	~~nitrogen~~	1500 gal		Y/N	
~~7782-37-9~~	~~nitrogen~~	01C		Y/N	
				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? - UNKNOWN
Is there an emergency overflow tank? Have there been previous overflows?

No sump seen.

SW CORNER OF BUILDING

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

Source: _____

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

Materials	Amount
ATTACHED -	

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

Building shuting down, majority of chemicals ~~are~~ have been removed.

I.H. Contact waste - typically asbestos

B BLDG	DIALLYL PHTHALLATE COMPOUND	NONE	265.5
B BLDG	FREON WASTE	F001	311.0
[illegible]OG	FREON WASTE	F001	158.8
[illegible]G	OIL WASTE	NONE	462.0
B BLDG	PETROLEUM GREASE	NONE	120.0
B BLDG	SOLVENT WASTE SAMPLE, 94-003	D001 D040 F002 F003	1.0
B BLDG	TOLUENE WASTE	D001 F005	265.1
B BLDG, E-187	ASBESTOS WASTE, DEBRIS	NONE	111.2
B SHED	B WASTE SOLVENT	D001 D040 F002 F003	458.5
B SHED	ETHYL ALCOHOL	D001	62.1
B SHED	FREON WASTE	F001	120.0
B SHED	OIL WASTE	NONE	181.0
B SHED	OIL WASTE	NONE	448.0
B SHED	OIL WASTE, WATER	NONE	384.0
B SHED	SODIUM HYDROXIDE RINSE WATER	D002	219.0
B SHED	SOLVENT WASTE	D001 D040 F002 F003	400.5
B SHED	TRICHLOROETHYLENE WASTE	D040 F002	698.0
B-105	OIL WASTE, ABSORBED IN FLUORCO	NONE	223.0
B-105	OIL WASTE, ABSORBED IN FLUORCO	NONE	237.8
B-105	SILICA GEL	NONE	40.7
B-122	BLUE 2301	D001	1.0
B-122	CHLOROFORM	D022 U044	11.1
B-122	DAP FIBERGLASS	NONE	131.1
B-122	EPICHLOROHYDRIN RESIN	NONE	2.5
B-122	EPON CURING U	D001	2.4
B-122	FREON WASTE	F001	520.0
B-122	KESTER FLUX	D001	0.5
[illegible]2	MALEIC ANHYDRIDE	NONE	0.6
[illegible]2	MOUND GREEN GLUE	NONE	1.3
B-122	PDI BLUE 2301	NONE	1.4
B-122	PDI YELLOW 2248	NONE	1.1
B-122	SOLDERING PASTE- ZINC CHLORIDE	NONE	0.5
B-122	VERSIMID 140	NONE	1.3
B-122	YELLOW 2248	D001	1.0
B-126	ACETONE	D001 U002	4.0
B-126	ALCOHOL WASTE	D001 F003	91.1
B-126	ALCOHOL, DEHYDRATED	D001	14.0
B-126	BARRETT SNR-24	NONE	11.5
B-126	BERYLLIUM	P015	0.1
B-126	BIOACT EC-7	D001	4.4
B-126	BIOACT EC-7 WASTE	D001	7.7
B-126	BIOACT EC7	D001	14.6
B-126	BLUE PASTE 2301	NONE	9.9
B-126	BUEHLER POLISHING ALUMINA	NONE	2.6
B-126	CHLOROFORM	D022	3.1
B-126	CHLOROFORM	D022 U044	1.3
B-126	CHROMIUM ETCHANT	NONE	4.4
B-126	CONAP	D001	3.2
B-126	DAP FIBERGLASS	NONE	252.2
B-126	E SOLDER 3025 PART A	D008	0.2
B-126	E SOLDER 3025 PART B	D008	0.2
[illegible]6	EPON CURING AGENT U	D002	2.0
[illegible]126	EPON RESIN 828	NONE	6.1
B-126	EPON RESIN 828	NONE	0.8
[illegible]	ETHANOL	D001	15.0

B-126	ETHANOL	D001	15.0
B-126	ETHANOL	D001	19.4
B-126	ETHANOL	D001	15.0
B-126	ETHANOL WASTE	D001	25.1
B-126	ETHANOL WASTE	D001	29.1
B-126	ETHANOL WASTE	D001	19.2
B-126	ETHANOL WASTE	D001	20.3
B-126	ETHANOL WASTE	D001	24.0
B-126	ETHYL ALCOHOL	D001	7.5
B-126	ETHYL ALCOHOL	D001	25.6
B-126	ETHYLENE GLYCOL IN INK	D001	0.4
B-126	FREON TF	F002	49.3
B-126	FREON TF	F002	17.7
B-126	FREON TF	F002	22.6
B-126	FREON WASTE	F001	58.5
B-126	FREON WASTE	F001	454.6
B-126	FREON WASTE	F002	31.4
B-126	GRAPHITE	NONE	0.1
B-126	GREASE	NONE	0.1
B-126	GREASE B GONE	D001	1.7
B-126	HONEYWELL DRY INK	D001	0.5
B-126	ION EXCHANGE RESIN	NONE	0.7
B-126	KESTER 196	D001	1.5
B-126	KESTER RESIN FLUX 135	D001	15.9
B-126	KESTER SOLDER FLUX 196	D001	2.3
B-126	LEAD SOLDER	D008	6.3
B-126	MERCURY THERMOMETER	D009	0.1
B-126	METHANOL	D001 F003 U154	25.0
B-126	METHANOL	D001 F003 U154	25.0
B-126	METHANOL	D001 F003 U154	21.1
B-126	METHANOL	D001 F003 U154	7.0
B-126	METHANOL	D001 F003 U154	20.0
B-126	METHYLENE CHLORIDE	F002 U080	15.1
B-126	MICRO LAB CLEANER	NONE	24.9
B-126	PDI BLUE PASTE	NONE	5.8
B-126	PDI BLUE PASTE	NONE	4.0
B-126	PDI EPOXY 2301	NONE	9.0
B-126	PDI YELLOW 22-20480	NONE	9.7
B-126	PDI YELLOW 2248	NONE	1.4
B-126	PDI YELLOW PASTE	NONE	2.0
B-126	PDI YELLOW PASTE	NONE	3.0
B-126	PDI YELLOW PASTE	NONE	2.0
B-126	PDI YELLOW PASTE	NONE	3.4
B-126	PEEK	NONE	9.4
B-126	PHOTO FILTERS WITH SILVER	D011	33.3
B-126	PL500 DECK AND LUMBER ADHESIVE	D001	0.8
B-126	PRINTED CIRCUIT BOARDS	D007 D008	22.3
B-126	PROPANOL (2-)	D001	43.9
B-126	PROPANOL (2-)	D001	35.0
B-126	SILICA RESIN	NONE	4.0
B-126	SILVER SOLDER	D011	6.1
B-126	SLYGARD 184 CURING AGENT	NONE	0.7
B-126	SLYGARD 184 ELASTOMER	NONE	1.1
B-126	SOLDER BARS	D007 D008	13.0
B-126	SOLDER CREAM	D008 D011	0.3

B-164	RESIN WASTE	NONE	200.0
B-164	RTV 11	NONE	4.8
B-164	RTV 511	NONE	28.1
B	SILICONE RUBBER	NONE	0.2
B-164	SURFACTANT	NONE	1.1
B-164	TRICHLOROETHANE (1,1,1-)	D001 D022 F002	9.0
B-164	TRICHLOROETHYLENE	D001 D040 F002	7.1
B-164	VERSIMID 140	NONE	1.0
B-164	VMP NAPHTHA AND ISOPROPYL	D001	12.0
B-48	MERCURY	D009 U151	0.5

B BLDG	ASBESTOS WASTE	NONE	157.0
B BLDG	ASBESTOS WASTE	NONE	135.2
B BLDG	ASBESTOS, DAP FIBERGLASS	NONE	100.0
DG	B WASTE SOLVENT	D001 D040 F002 F003	553.5
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003	531.7
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003	481.0
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003	431.3
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003 F005	484.0
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003 F005	446.0
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003 F005	490.6
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003 F005	488.4
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003 F005	409.2
B BLDG	B WASTE SOLVENT	D001 D040 F002 F003 F005	477.4
B BLDG	B WASTE SOLVENT, SAMPLE 94-003	D001 D040 F002 F003	1.6
B BLDG	DAP FIBERGLASS	NONE	419.9
B BLDG	DIALLYL PHTHALLATE COMPOUND	NONE	300.0
B BLDG	DIALLYL PHTHALLATE COMPOUND	NONE	300.7
B BLDG	DIALLYL PHTHALLATE COMPOUND	NONE	250.3
B BLDG	DIALLYL PHTHALLATE COMPOUND	NONE	129.6
B BLDG	DIALLYL PHTHALLATE COMPOUND	NONE	158.2
B BLDG	DIALLYL PHTHALLATE COMPOUND	NONE	149.6
G	DIALLYL PHTHALLATE COMPOUND	NONE	157.5

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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 I.H. has a SAA. asbestos contact waste

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: _____

9.2-54

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow 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: _____

9.2-55

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow 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 KNOWN OF

9.2-56

Building Manager's Questionnaire

Building Name: B Building Manager: W.H. Whitelow 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

*Building is under-going safe shutdown activities. Therefore, most chemicals have been previously disposed of. There is no current generation of any pollutants other than an occassional small quantity of something found during the shutdown process.

9.2-57

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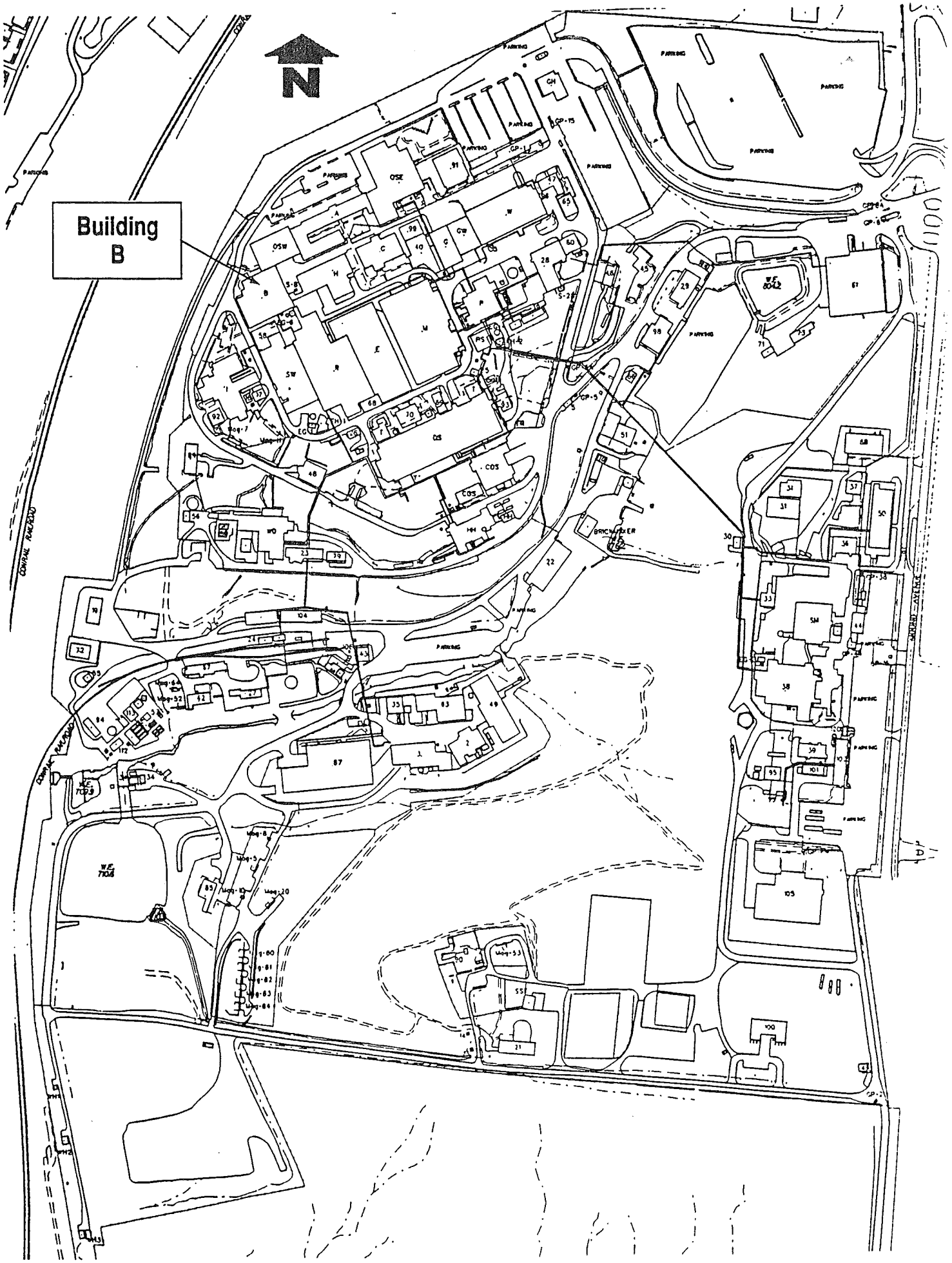
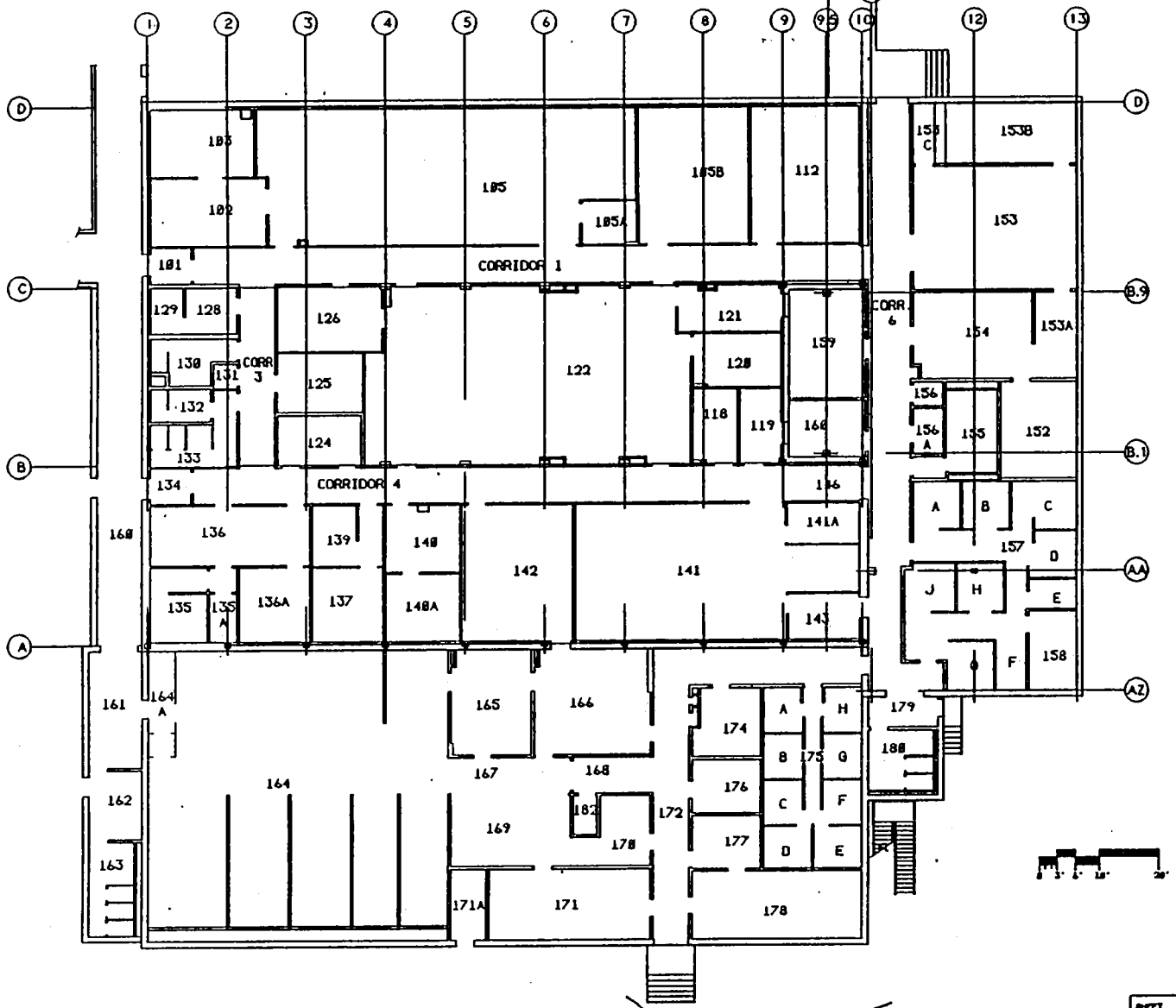
9.2.6.3 Location of Building B



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

9.2.6.4 Floor Plans for Building B

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



UNCLASSIFIED

DERIVATIVE CLASSIFIER

Name: [signature]

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

B BLDG
FIRST FLOOR
BLDG CODE:3501

NOT FOR PUBLIC DISSEMINATION

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

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED: ___NONE ___TRUEBOC ___TEBOC ___EHBOC
TECH. REVP. ___
DR. MGR. ___
TRUEBOC ___
TEBOC ___
EHBOC ___

SHEET	1	2	3	4	5	6
ISSUE	Ø	Ø				

PART CLASSIFICATION

DRAWING CLASSIFICATION: UCNI

TITLE: B BLDG FLOOR PLANS

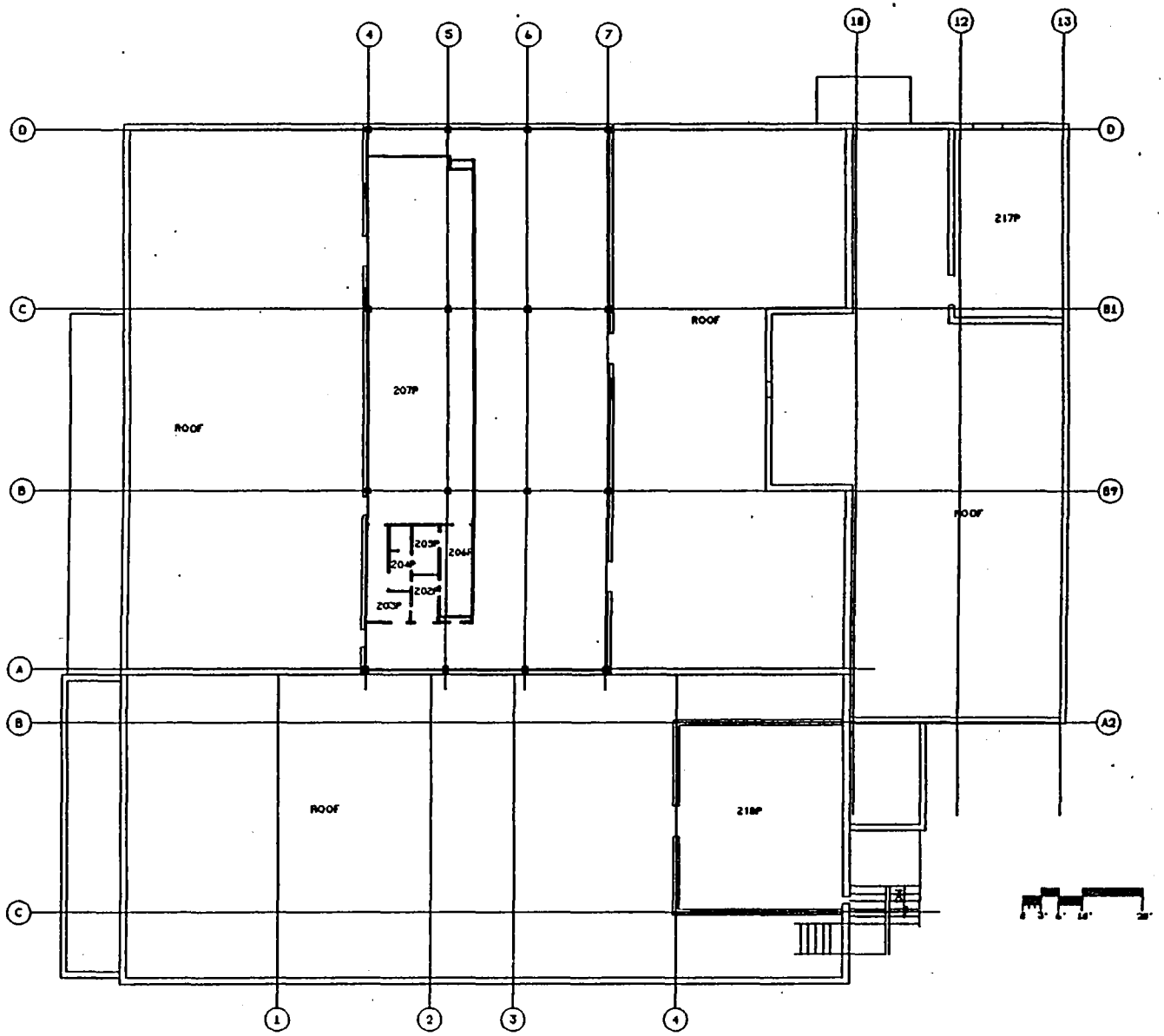
(U) TITLE CLASSIFICATION

SIZE: C | DRAWING NUMBER: FSC911301 | JOB NUMBER: 12335

DWG TYPE: SFP | PROJ: B BLDG | CADEX: 14865 | SCALE: AS NOTED | SHEET 1 OF 2

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

9.2-65



DERIVATIVE CLASSIFIER

R D Myers

and

S Class Anal 2/24/92

(Title) (Date)

B BLDG PENTHOUSE BLDG CODE:3501

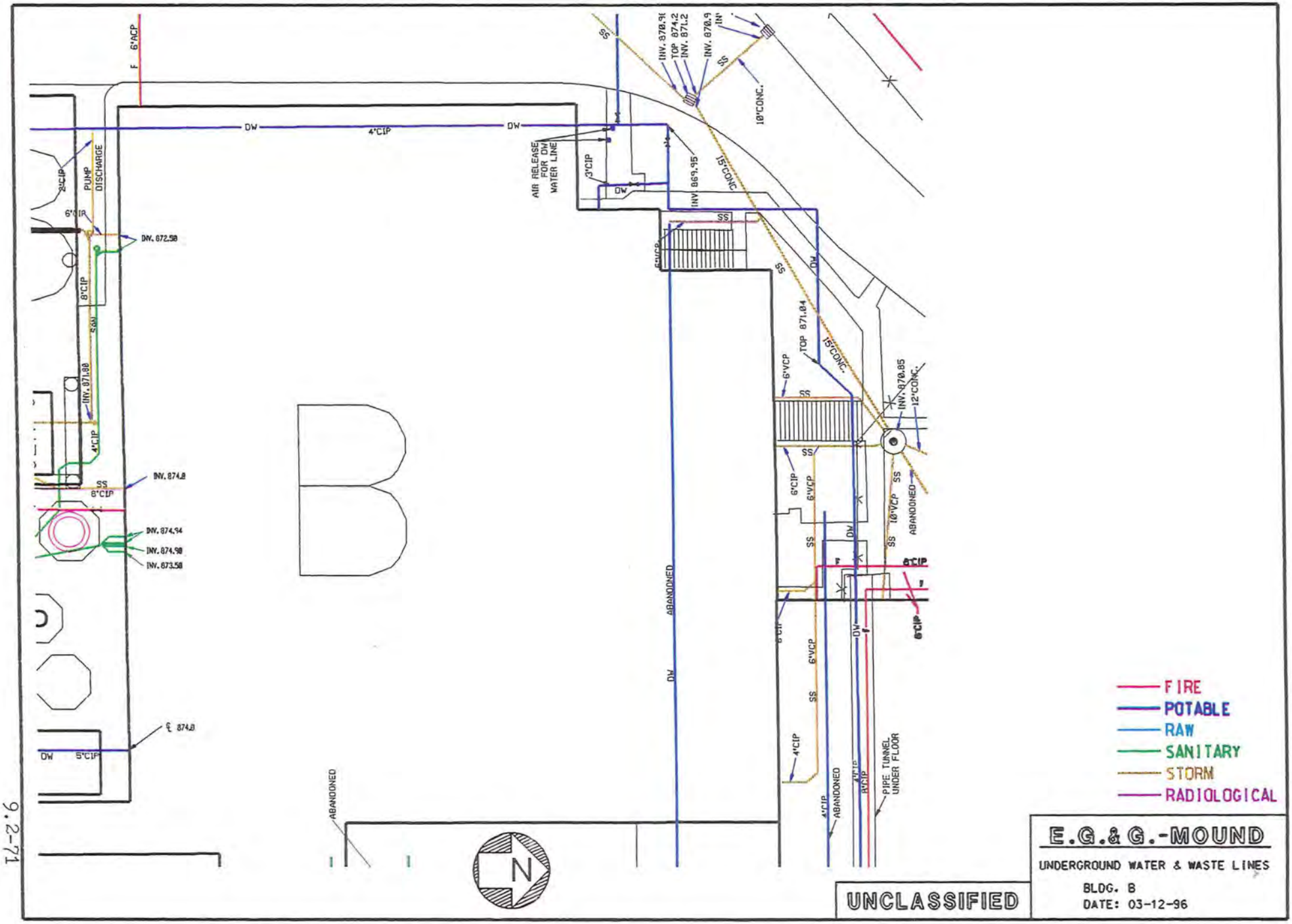
NOT FOR PUBLIC DISSEMINATION

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

DRAWING NUMBER	FSC9113Ø1
JOB NUMBER	12335
DRAWING CLASSIFICATION	UCNI
SIZE	C
CADD	14065
SCALE	AS NOTED
ISSUE	Ø
SHEET	2
STATUS	MD-REL-12/12/91

9.2-67

9.2.6.5 Underground Utility Lines


E.G.& G.-MOUND
UNDERGROUND WATER & WASTE LINES
BLDG. B
DATE: 03-12-96
UNCLASSIFIED
FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL
N
DW
4"CIP
AIR RELEASE FOR DW WATER LINE
3"CIP
INV. 869.95
15"CONC
10"CONC.
INV. 870.91
TOP 874.2
INV. 871.2
INV. 870.9
SS
6"ACP
F
PUMP DISCHARGE
2"CIP
6"CIP
INV. 872.50
8"CIP
RAW
INV. 871.80
4"CIP
INV. 874.0
INV. 874.94
INV. 874.90
INV. 873.50
5"CIP
℄ 874.0
ABANDONED
6"VCP
TOP 871.04
15"CONC.
INV. 870.85
12"CONC.
10"VCP
PIPE TUNNEL UNDER FLOOR

9.2.6.6 Photographs

Mound Plant Building B

9.3 BUILDING C

9.3.1 Scope of Building C 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 C on January 24, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.3.6.1). The appraisers were accompanied the manager responsible for the Safe Shutdown of Building C. The building manager was not present during the walk-through. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.3.6.2).

9.3.2 Description of Building C

Building C is a one-story structure, with a basement, constructed of concrete block with brick face exterior. The roof is a metal built-up membrane of coal tar. Building C was one of the original group of buildings constructed in 1948 and contains 13,403 square feet. The location is shown in Attachment 3 (Section 9.3.6.3). The building is bordered by a sidewalk on all sides. Adjacent buildings are Building A to the north, Building M to the south, Building 40 to the east, and Building H to the west. The building is serviced by central steam for heat and roof air conditioning *(Mound Facility Physical Characterization*, 12-1-93).

The building was originally the old cafeteria and provided that service until 1986. Afterwards the building was used for offices, record storage, engineering project storage, maintenance storage and as an Emergency Shelter. Floor plans are presented as Attachment 4 (Section 9.3.6.4). Currently, the building is empty and in Safe Shutdown. The building is not contaminated with radioactive or energetic materials.

9.3.3 Summary of Findings

Building C has been emptied, shut down and padlocked. Utility services are maintained at a minimum in order to prevent the fire suppression system and water lines from freezing. Future shutdown plans include shutting down the following services in March 1996: the fire suppression system, domestic water, and steam for heating. Electric service will probably remain on, however, all fans, blowers, and motors will be shut off. Projected plans are to demolish and remove the building, but no time schedule has been established. Safe Shutdown radiation surveys have been completed on Building C and all surveys indicate no contamination exists within the building. One issue of environmental concern was identified during the walk-through and during the review of reference materials.

9.3.4 Observations

9.3.4.1 Air Emissions

No air emissions permit application has been submitted to the Regional Air Pollution Control Agency (RAPCA). No sources of air emissions are listed in Mound's air emission inventory database or observed during the walk-through. There are no fuel-burning units in the building. There was no visual evidence of fugitive dust.

9.3.4.2 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.

9.3.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.3.6.5), the building is serviced by a sanitary line. It should be noted that, according to drawings, there is an abandoned segment of sanitary line that runs beneath the building. The confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort, therefore, neither dye tests nor smoke tests were conducted. There are no sinks or toilets in the building. Floor drains on both the first floor and in the basement appear to discharge to the sanitary sewer. According to the building manager, the sump pump in the basement discharges to the sanitary sewer. The sump was active at the time of the inspection and it appears to be a concrete pit. Water entering the sump is probably associated with drainage from around the building. The sump is not listed in the Active Underground Storage Tank (UST) Plan. There is no monitoring of building effluent. Based on current operations identified by the process owner, effluent from Building C should not deviate from that expected by the sanitary treatment plant manager.

9.3.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to Attachment 5 (Section 9.3.6.5). In particular, roof drains discharge to the 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 have entered the storm drainage system.

9.3.4.2.3 Process Wastewater

This building does not create or discharge radioactive wastewater to the WD facility. According to Attachment 5 (Section 9.3.6.5), no radioactive wastewater lines service Building C.

9.3.4.2.4 Chemicals

There are no chemicals stored in the building. Pesticides and herbicides have been sprayed in or around the building. At the time of the inspection, a lingering odor of a pesticide was noticeable in the basement. Although the floor drains are open, there was no visual evidence that chemicals have entered the storm or sanitary system. There have been no reported spills from Building C and none would be expected since it is empty and padlocked.

9.3.4.3 Potable and Service Water

Potable water is supplied to the building although there are no fountains or sinks in the building. Backflow prevention devices are installed at all visible points of potential cross-connections. Potable and service water lines are properly marked and easily identified.

9.3.4.4 Chemical Storage and Hazardous Materials

There are no chemicals or hazardous materials stored in the building. All entrances to Building C are secured by padlock to ensure this condition. Only Halon 1211 wall mounted fire extinguishers are in the building as part of its fire protection. There is an Emergency Evacuation Plan and signs remain posted in the building.

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

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

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

9.3.4.5 Solid, Hazardous, and Radioactive Wastes

No waste, solid or hazardous, is generated in the building. There are no drums of waste in or around the building.

9.3.4.6 Waste Minimization and Pollution Prevention

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

The building has undergone Safe Shutdown, waste minimization and pollution prevention activities are not applicable to an empty building. A cost savings will be incurred by not having to heat the building when the utilities are shutdown.

As a pollution prevention measure, oil was drained from a compressor and the hydraulic pump for the elevator. The air conditioner on the roof and the antiquated refrigeration equipment in the basement were drained of Freon.

9.3.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.3.6.6). The environmental appraisal of Building C indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

C-1. There is no inventory of sumps at Mound. This sump should be included in a site inventory, and it should be routinely inspected.

C-2. Power to the sump should be maintained to ensure that the basement remains dry. If the basement should flood, the water could possibly be contaminated with asbestos fibers. The sump should be checked periodically to ensure that the basement remains dry.

9.3.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name C.

Appraisers: Ronald Paulick
Name Discipline

Billie J. Atkins
Name Discipline

Name Discipline

Name Discipline

Building Manager:

Process Manager:

Date: 1-24-96

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: C Appraisers: Paulick / Adkins Date: 1-24-96

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 in building
	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	No sinks/toilets
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 Water floor around Y / N Y / N	Sump appears to drain water from around building foundation. Water was entering it at the time of the inspection
	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 chemicals in building

9.3-9

9.3-10

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adkins Date: 1-24-96

Clean Air Act (CAA) Screening Checklist

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

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	Y / N	
OAC 3745-31,35	If yes, are the terms and conditions of the permit or the information included on the application (see air emissions database) being followed? Note any differences and update the air emissions database.	Y / N	N/A
OAC 3745-31	Are there any sources that are not included in the air emissions database? If so, note the room, hood number, active or not, POC, and applicable air emission database information on Table B.	Y / N	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	

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adkins Date: 1-24-96

CAA Checklist

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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: _____

9.3-11

9.3-12

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adkins Date: 1-24-96

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	No chemicals in the building
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	Y / N	N/A
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	Building is 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	3 flammable cabinets have been removed from the building
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	Y / N	No chemicals
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: C Appraisers: Paulick/Adkins Date: 1-24-96

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
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	Building not in use but there is a site wide plan

9.3-13

9.3-14

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick / Adkins Date: 1-24-96

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

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

Source: _____

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adkins Date: 1-24-96

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	No sinks or water fixtures in the building
	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: _____

9.3-16

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adams Date: 1-24-96

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: C Appraisers: Paulick/Adkins Date: 1-24-96

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	

9.3-17

Environmental Appraisal Checklist

Building Name: C

Appraisers: Paulick/Adkins

Date: 1-24-96

RCRA Checklist

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Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	If a Satellite accumulation area has been abandoned and/or if waste left in place, and the containers may be subject to the 90-day-storage exclusion. If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:		
	Are the containers in good condition?	Y / N	
	Are the waste compatible with the containers?	Y / N	
	Are the containers kept closed except during filling?	Y / N	
	Are the containers managed in such a way, that they are not ruptured, or leaks caused?	Y / N	
	Is the area inspected at least once weekly?	Y / N	
	Is the inspection recorded? Where is the log? 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: C Appraisers: Faulick/Adkins Date: 1-24-96

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	Compressor, elevator hydraulic pump, air conditioner, frigerator unit could leak to sump
	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	

9.3-19

9.3-20

Environmental Appraisal Checklist

Building Name: C

Appraisers: Paulick / Adkins

Date: 1-24-96

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: C Appraisers: Paulick/Adkins Date: 1-24-96

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. Is there any evidence of friable asbestos?	(Y) / N Y (N)	Asbestos areas posted and access controlled by padlock.
	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	

9.3-21

9.3-22

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adkins Date: 1-24-96

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: C Appraisers: Paulick/Adkins Date: 1-24-96

TSCA Checklist

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

9.3-23

9.3-24

Environmental Appraisal Checklist

Building Name: C

Appraisers: Paulick/Adkins

Date: 1-24-96

TSCA Checklist

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Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's 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: C Appraisers: Paulick / Adkins Date: 1-24-96

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
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	

9.3-25

9.3-26

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick / Adams Date: 1-24-96

Low-Level Waste and Transuranic Waste Checklist Page intentionally left blank.

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter III, 3.d.	Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal?	Y / N	
	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: C Appraisers: Paulick / Adkins Date: 1-24-96

Low-Level Waste and Transuranic Waste Checklist

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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	

9.3-27

9.3-28

Environmental Appraisal Checklist

Building Name: C Appraisers: Pauluck/Adkins Date: 1-24-96

Low-Level Waste and Transuranic Waste Checklist Page intentionally left bla

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: C

Appraisers: Paulick/Adkins

Date: 1-24-96

Low-Level Waste and Transuranic Waste Checklist

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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:

9.3-29

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adkins Date: 1-24-96

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	N/A
	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: C Appraisers: Paulick/Adkins Date: 1-24-96

Waste Minimization/Pollution Prevention Activities Checklist Page intentionally left blank

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

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adkins Date: 1-24-96

Waste Minimization/Pollution Prevention Activities Checklist Page intentionally left blank

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: C Appraisers: Paulick / Adkins Date: 1-24-96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	N/A
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	(Y) / N	elevator out of service
	Transformer oil?	Y / (N)	
	Metal working fluids?	Y / (N)	
	Spent lubricating oils?	(Y) / N	compressor
	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?		oils to be drained from pumps
	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)	No rags
	Rags and absorbants used to their limit?	Y / (N)	None being used.

9.3-33

9.3-34

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick/Adkins Date: 1-24-96

Waste Minimization/Pollution Prevention Activities Checklist Page intentionally left blank

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

Environmental Appraisal Checklist

Building Name: C Appraisers: Paulick / Adkins Date: 1-24-96

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?	_____ _____	

9.3-35

This page intentionally left blank.

9.3.6.2 Building Manager's Questionnaire

DONE

Building Manager's Questionnaire

Building Name: C Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

   NONE

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

   NONE

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

   CRAWL SPACE AREA — ASBESTOS CONTAMI.
   UNEXCAVATED AREA —

4. Provide a physical description of the building.

Building is one story with a basement, 13,403-ft^2, concrete block structure with brick face exterior and BUM roof (coal tar). HVAC services are central steam and roof 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?

~~Records storage, AES project storage, offices.~~
SHUT DOWN - BUILDING IS EMPTY

Source: Mound Buildings, 5-9-95

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

Old cafe, RECORDS STORAGE, AES PROJECT STORAGE, OFFICES, EMERGENCY SHELTER
Maintenance storage

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: C Building Manager: W.H. Whitelow 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: NONE ~~Inactive records storage, maintenance planners, project material coordinator~~

How Wastes Are Generated:

No wastes are generated.

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: C Building Manager: W.H. Whitelow 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: C Building Manager: W.H. Whitelow 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? Roof Drains

15. Does the building discharge to the sanitary sewer? Yes No
Where? Lavs, Toilets, Floor Drains, Sump Pump

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

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

Building Manager's Questionnaire

Building Name: C Building Manager: W.H. Whitelow 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)
~~DIOCTYL~~	~~L~~	~~19.2~~
~~DIOCTYL PHTHALATE~~	~~S~~	~~2 LBS~~

Source: ~~Chemical Inventory 1994~~

9.3-43

Building Manager's Questionnaire

Building Name: C Building Manager: W.H. Whitelow 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 There are no chemicals in the building

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

ATTACHED

Chemical	Amount	Chemical	Amount
Roundup	AS NEEDED		
Pesticide			

Source: INDUST. HYG.

12-95

☐ INITIAL SERVICE
☑ REGULAR SERVICE
☐ EXTRA SERVICE

TERMINIX.

TERMITE and PEST CONTROL

COPY

COMMERCIAL SERVICE AND INSPECTION REPORT

BRANCH	ACCOUNT	RT.	TELEPHONE	GRID	S DAY	F	T	PRODUCTION	TIME IN	TIME OUT
2418	006092-	07	000/000-0000 513/865-3921	E30 -	2FR	S	P	00004577 09	7:45 AM	8:25 A

SERVICE PROPERTY AT

E G & G MOUND
P. O. #38224
MOUND AVE
MIAMISBURG OH 45342-0000

BRANCH

TERMINIX INTERNATIONAL
4712 PAYNE AVENUE
DAYTON OH 45414-0000
513/274-5800

OPERATOR NAME & CERTIFICATION NUMBER: [illegible] 1067

SUPERVISOR NAME & CERTIFICATION NUMBER: DANIEL J. STECK #1207

TARGET PEST(S): ☐ T2 Cockroaches ☑ T18 Rats ☐ Other: ____
☐ T3 Ants ☐ T19 Mice ☐ Other: ____

SERVICE AREAS:	INSPECTED	TREATED	PESTICIDE(S) TO BE APPLIED	EPA'S	T/C	AMOUNT	EQU
☐ C1 FOOD AREAS:	☐	☐	☐ P24 PT279 Engage (Chlorpyrifos) 0.5%	499-292			
			☐ ~~P10~~ PT565 + XLO (Pyrethrin) 0.5%	499-310	C	3	A
			☐ P04 Dursban L.O. (Chlorpyrifos) 0.5%	62719-55			
☐ C2 OFFICES:	☐	☐	☐ ~~P11~~ Conquer (Esfenvalerate) 0.05%	1021-1565-57076	C	[illegible]	A
			☐ P23 Tempo 20 WP (Cyfluthrin) 0.05%	3125-380			
			☐ P06 Ficam W (Bendiocarb) 0.5%	45639-1			
			☐ P21 Knox-Out 2FM (Diazinon) 1%	4581-335-AA-499			
☐ C3 STORAGE/UTILITY:	☐	☐	☐ P07 Gentrol (Hydroprene) 0.125%	2724-304-50809			
			☐ P12 Precor (Methoprene) 0.008%	2724-352-50809			
			☐ ~~P02~~ Drione Dust (Silica/Pyrethrin) 1%	4816-353AA			
☐ C4 PUBLIC AREAS:	☐	☐	☐ P05 Ficam D (Bendiocarb) 1%	45639-3			
			☐ P03 Dursban G (Chlorpyrifos) 0.5%	10370-36-432			
			☐ P08 Maxforce Bait (Hydramethylnon) 1.65%	64248-1			
			☐ P27 Avert Roach Bait (Avermectin) 0.05%	499-294			
☐ C5 REST ROOMS:	☐	☐	☐ P09 PT270 Dursban (Chlorpyrifos) 0.5%	499-147			
			☐ P25 PT280 Orthene (Acephate) 1%	499-230			
			☐ P26 Maxforce Gel (Hydramethylnon) 2.15%	64248-5			
☐ C6 EXTERIOR AREAS:	☐	☐	☐ P14 Ditrac All Weather Cake (Diphacinone) 0.005%	12455-5			
			☐ P20 Talon G (Brodifacoum) 0.005%	10182-38			
			☐ P47 Contrac Blox (Bromadiolone) 0.005%	12455-79			
			☐ P34 Ditrac Bait Pack (Diphacinone) 0.005%	12455-19			
☐	☐	☐	☐ P16 Glue Boards				
			☐ P17 Ketch-All/Tin Cat				
			☐ P19 Snap Traps				
☐	☐	☐					

TREATMENT CODE:
C = Crack & Crevice
S = Spot
G = General
T = Space Treatment
B = 3' Band

Supervisor's Comments: ☐ Treat for Infestation/Prevention or Inspect areas indicated.

EQUIP. CODE
F = Fogger
HD = Hand Dust
B&G = Comp. Air

SPECIAL SERVICE INSTRUCTIONS

SER. OLD CAFE, SMPP, GUARDS REST ROMS AND BASINS IN MEDICAL AREA
P. O. # 38224

BALANCE AS OF NOVEMBER 29
DEC CHARGE
SALES TAX
TOTAL DUE 9.3-45

CUSTOMER'S SIGNATURE: [illegible]

SERVICE TECHNICIAN'S SIGNATURE: [illegible] DATE: 12-15-94

AMOUNT PAID: ____ CASH ☐ CHECK ☐

☐ INITIAL SERVICE
☑ REGULAR SERVICE
☐ EXTRA SERVICE

TERMINIX.

TERMITE and PEST CONTROL

COPY

COMMERCIAL SERVICE AND INSPECTION REPORT

BRANCH	ACCOUNT	RT	TELEPHONE	GRID	S DAY	F	T	PRODUCTION	TIME IN	TIME
2419	006093-	07	000/000-0000 513/865-4585	E30 -	2FR	S	P	00005000 09	7:00 AM	8:25 AM

SERVICE PROPERTY AT	BRANCH
E G & G MOUND EARNIE HAYES 865-4310 MOUND AVENUE MIAMISBURG OH 45342-0000	TERMINIX INTERNATIONAL 4712 PAYNE AVENUE DAYTON OH 45414-0000 513/274-5800

OPERATOR NAME & CERTIFICATION NUMBER: [illegible] 1467

SUPERVISOR NAME & CERTIFICATION NUMBER: DANIEL J. STECK #1207

TARGET PEST(S): ☑ T2 Cockroaches ☑ T18 Rats ☐ Other: ____
☐ T3 Ants ☐ T19 Mice ☐ Other: ____

SERVICE AREAS:	INSPECTED	TREATED	PESTICIDE(S) TO BE APPLIED	EPA'S	T/C	AMOUNT	EQ
☐ C1 FOOD AREAS:	☐	☐	☐ P24 PT279 Engage (Chlorpyrifos) 0.5%	499-292			
			☑ P10 PT565 + XLO (Pyrethrin) 0.5%	499-310	C	[illegible]	A
			☐ P04 Dursban L.O. (Chlorpyrifos) 0.5%	62719-55			
☐ C2 OFFICES:	☐	☐	☑ P11 Conquer (Esfenvalerate) 0.05%	1021-1565-57076	C	[illegible]	A
			☐ P23 Tempo 20 WP (Cyfluthrin) 0.05%	3125-380			
			☐ P06 Ficam W (Bendiocarb) 0.5%	45639-1			
			☐ P21 Knox-Out 2FM (Diazinon) 1%	4581-335-AA-499			
☐ C3 STORAGE/UTILITY:	☐	☐	☐ P07 Gentrol (Hydroprene) 0.125%	2724-304-50809			
			☐ P12 Precor (Methoprene) 0.008%	2724-352-50809			
			☑ P02 Drione Dust (Silica/Pyrethrin) 1%	4816-353AA	C	[illegible]	A
☐ C4 PUBLIC AREAS:	☐	☐	☐ P05 Ficam D (Bendiocarb) 1%	45639-3			
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☐ C5 REST ROOMS:	☐	☐	☐ P09 PT270 Dursban (Chlorpyrifos) 0.5%	499-147			
			☐ P25 PT280 Orthene (Acephate) 1%	499-230			
			☐ P26 Maxforce Gel (Hydramethylnon) 2.15%	64248-5			
☐ C6 EXTERIOR AREAS:	☐	☐	☐ P14 Ditrac All Weather Cake (Diphacinone) 0.005%	12455-5			
			☐ P20 Talon G (Brodifacoum) 0.005%	10182-38			
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☐	☐	☐	☐ P16 Glue Boards				
			☐ P17 Ketch-All/Tin Cat				
			☐ P19 Snap Traps				
☐	☐	☐					

TREATMENT CODE:
C = Crack & Crevice
S = Spot
G = General
T = Space Treatment
B = 3' Band

Supervisor's Comments: ☐ Treat for Infestation/Prevention or Inspect areas indicated.

EQUIP. CODE
F = Fogger B = [illegible]
HD = Hand Dust A = [illegible]
B&G = Comp. Air T = [illegible]
____ = ____

SPECIAL SERVICE INSTRUCTIONS

GENERAL PC , C-BLDG. A-BLDG, MEDICAL, GH BLDG
SM CAFETERIA.(MONTHLY) -- OS-EAST CAFETERIA,
NEW CAFETERIA ONLY P.O. #38224

BALANCE AS OF
NOVEMBER 29
DEC CHARGE
SALES TAX
TOTAL DUE

CUSTOMER'S SIGNATURE: [illegible]

SERVICE TECHNICIAN'S SIGNATURE: [illegible] DATE: 12-15-95

AMOUNT PAID: 0 CASH ☐ CHECK ☐

9.3-4.6

Building Manager's Questionnaire

Building Name: C Building Manager: W.H. Whitelow 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
No Is it double-walled? What does it contain? water How many days per year is it filled? UNKNOWN
Is there an emergency overflow tank? Have there been previous overflows?
No unknown

Double-Walled	Contents	Days/Year in Use	Overflow Tank	Previous Overflow
Y / N	water	year around	Y / N	Y / N ?

Source: sump appears to be a concrete pit

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

Materials	Amount

Source: _____

9.3-47

Building Manager's Questionnaire

Building Name: C Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

28. Does the building have abandoned process equipment such as tanks, piping, containers, etc.? Yes No elevator/hydraulic pump. refrigeration unit, air conditioner, compressor,

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: C Building Manager: W.H. Whitelow 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: C Building Manager: W.H. Whitelow 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 KNOWN OF

Building Manager's Questionnaire

Building Name: C Building Manager: W.H. Whitelow 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.

N/A
Water & heat will be shut off in March 96.
Cost Savings from not having to heat C Building

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

N/A

9.3-51

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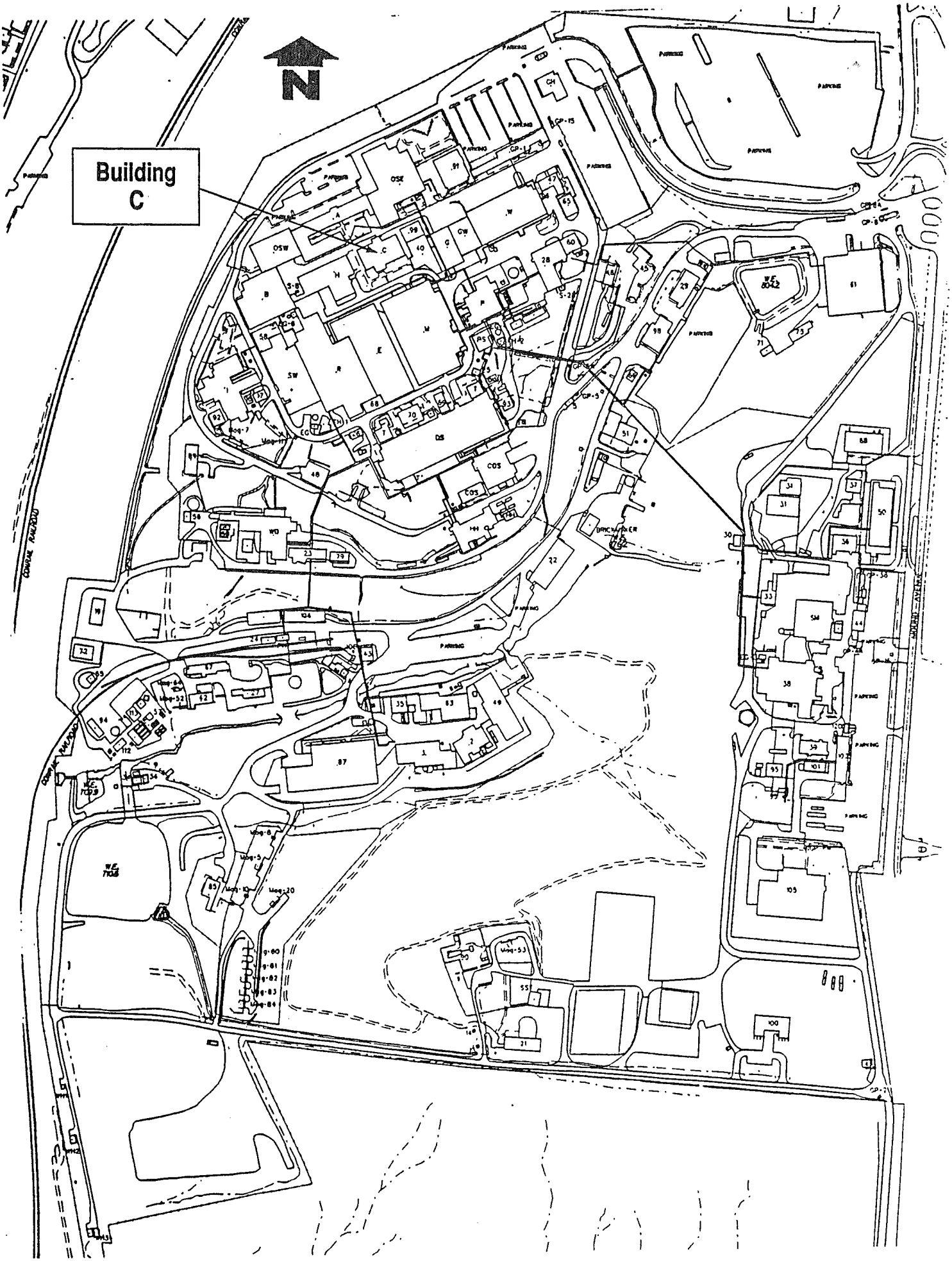
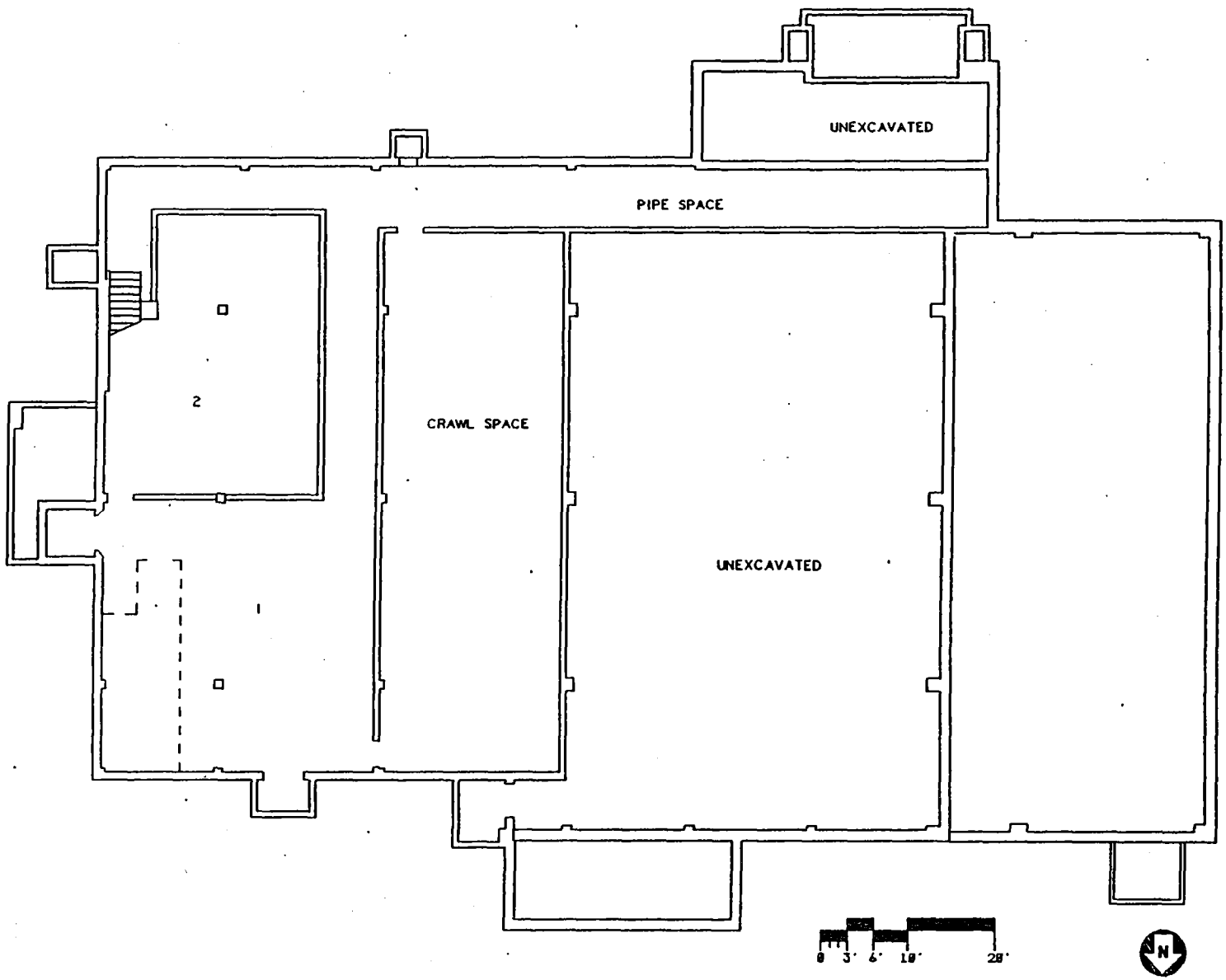
9.3.6.3 Location of Building C



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

9.3.6.4 Floor Plans for Building C

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



C BLDG
BASEMENT
BLDG CODE:3502

SHEET	1	2	3	4	5	6
ISSUE	0	0				

TITLE (U) TITLE CLASSIFICATION
C BLDG
FLOOR PLANS

PART CLASSIFICATION

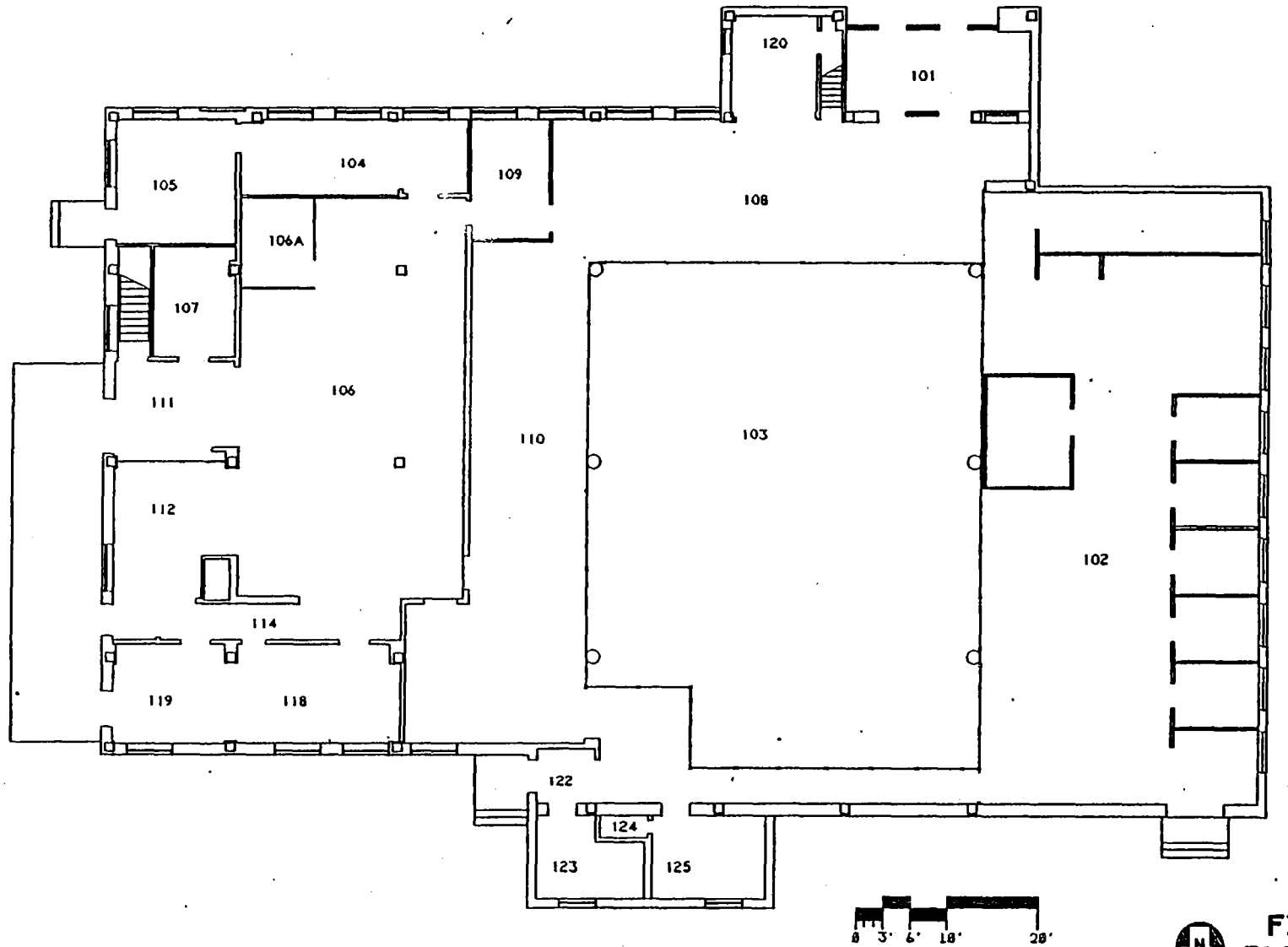
DRAWING CLASSIFICATION: UNCLASSIFIED | SIZE: C | DRAWING NUMBER: FSC911302 | JOB NUMBER: 12335

DWG TYPE: SFP | PARN: C BLDG | CAMEX: 14065 | SCALE: AS NOTED | SHEET 1 OF 2

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

APPROVALS: DATE:
SAFETY COMMITTEE ROBJURED:
___NONE ___TRUEBOC ___TEBOC ___EHBOC
TECH. REWP. ___
BR. MGR. ___
TRUEBOC ___
TEBOC ___
EHBOC ___

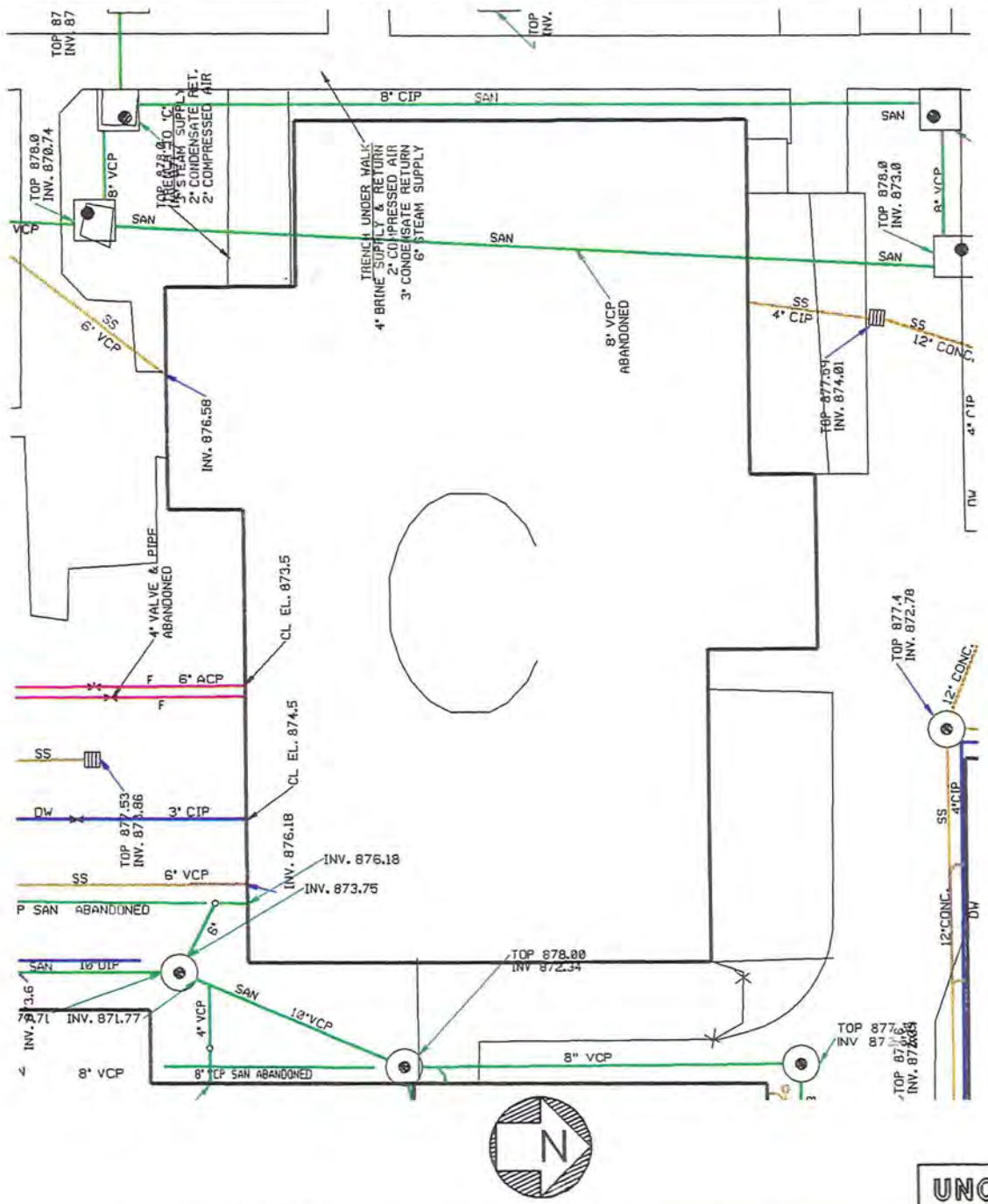
DESIGN ENG | PROJ MGR
SPONS | ENG SUPV
LP & EC | PEER REV
ENG MGR
APVD | DATE



C BLDG
FIRST FLOOR
BLDG CODE:3502

DRAWING NUMBER FSC911302	JOB NUMBER 12335
DRAWING CLASSIFICATION UNCLASSIFIED	
SIZE C	CHECK 14065 / SCALE AS NOTED
	ISSUE 0 / SHEET 2
STATUS MO-REL-12/12/91	

9.3.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

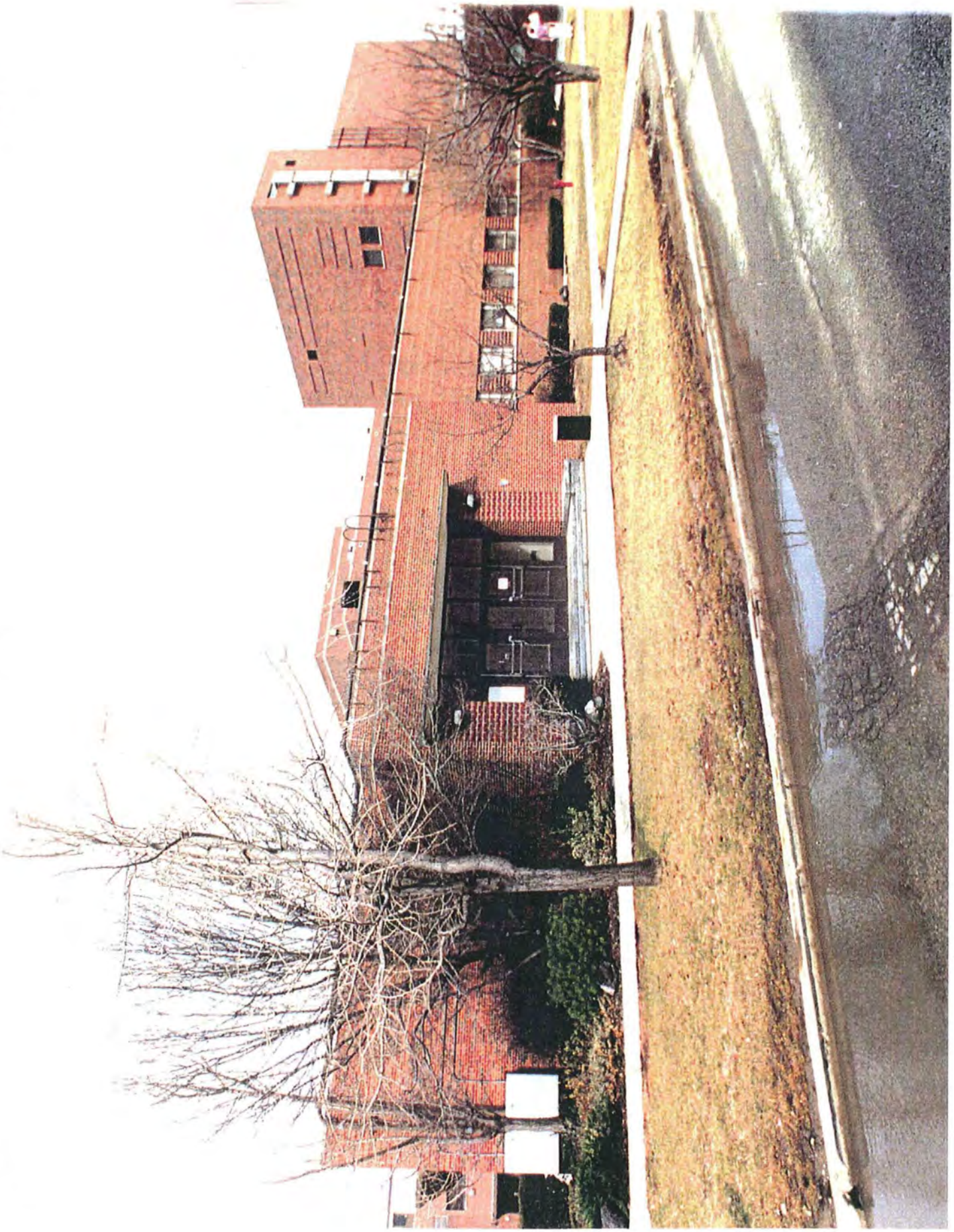
UNCLASSIFIED

E.G.& G.-MOUND

UNDERGROUND WATER & WASTE LINES

BLDG. C
DATE: 03-12-96

9.3.6.6 Photographs



Mound Plant Building C

9.4 BUILDING COS

9.4.1 Scope of Building COS Report

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

A team of environmental professionals did not perform an environmental appraisal on Building COS because it is a leased building.

9.4.2 Description of Building COS

Building COS is a 64,654-square-foot building that was used for production support for weapons components including explosives laboratories, a standards lab, and a robotics lab. The building is bordered by Building DS to the north, a hillside to the west, Building HH to the south, and a roadway to the east. Location is shown in Attachment 1 (Section 9.4.4.1).

The building was leased in 1995. The building had been used for the same purpose since construction and is now being used by several small businesses. The building may be slightly contaminated with energetic material (*Mound Facility Physical Characterization*, 12-1-93). It should not be contaminated with radioactive material because there is no known documented history of radiological processes.

9.4.3 Summary of Findings

Photographs were taken to document the building. They are included as Attachment 2 (Section 9.4.4.2).

Building COS has undergone Safe Shutdown which includes removal of wastes and other materials plus equipment which cannot be released. A Health Physics safety determination and a liabilities assessment were made. ESA's (ASTM E 1527-94 or ASTM E 1528-93) were not conducted. The building has been leased by DOE to the City of Miamisburg, which accepted the liabilities assessment. The General Purpose Lease between the DOE and the City of Miamisburg requires the sub-lessee to obtain and comply with regulatory agency permits.

Since the building has been leased, an Environmental Appraisal Checklist (EAC) was not prepared and no further action was taken concerning this building.

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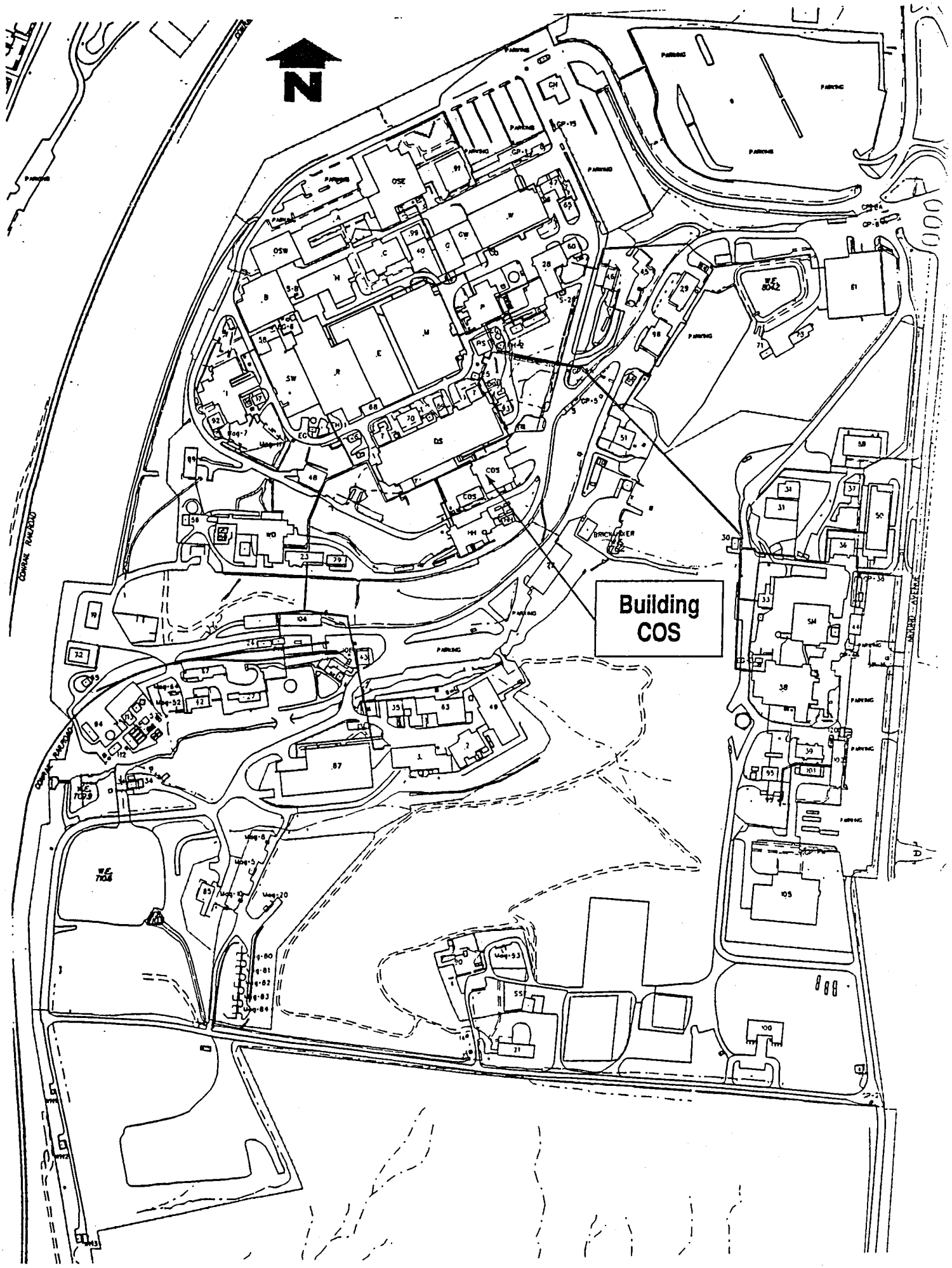
9.4.4.1 Location of Building COS



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

9.4.6.2 Photograph

Mound Plant Building COS

9.5 Building DS

9.5 BUILDING DS

9.5.1 Scope of Building DS 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 DS on February 19, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.5.6.1). Escorting the appraisers were 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 9.5.6.2).

9.5.2 Description of Building DS

Building DS is a one-story, 47,810-square foot structure of reinforced concrete and concrete block with a built-up membrane roof and three penthouses. Heating and air conditiong systems are central steam and chilled water *(Mound Facility Physical Characterization*, 12-1-93). The location of Building DS is shown in Attachment 3 (Section 9.5.6.3).

Building DS was constructed in 1965 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building was used for metrology, explosive production, and development. The building still houses metrology, however the majority of the building is in the process of safe shutdown. Floor plans for the building are included as Attachment 4 (Section 9.5.6.4). Some of the rooms are under the User's Center Agreement. Building DS is not known to be contaminated with any radioactive or energetic materials (*Mound Facility Physical Characterization*, 12-1-93).

9.5.3 Summary of Findings

Building DS houses metrology, receiving inspection, User Center laboratories, private industry, and laboratories in the process of Safe Shutdown. The third floor is a utility penthouse. The metrology area contains processes conventional to metrology: measurement, calibrations and testing for the following five areas: electrical, dimensional, physical, mass, and temperature. The User Center Agreement was not inspected. The building is well-maintained, with several issues of environmental concern identified during the walk-through or during review of reference materials.

9.5.4 Observations

9.5.4.1 Air Emissions

There are 28 sources listed on the checklist. Several fumehoods listed in the permit applications are no longer active. Active hoods should be evaluated to determine if they are *de minimis* and then documented as required. Permit applications have been filed with the Regional Air Pollution Control Agency (RAPCA). There is one permit associated with the building. The fumehood that is permitted is currently located in a lab that is under the User Center Agreement. Several applications were returned by RAPCA because emissions were *de minimis*. Associated documentation resides with the EG&G Technology and Monitoring Group. There are no fuel-burning units in the building. There is no evidence of fugitive dust.

Since explosive work had been performed in the building in the past, the air system should be evaluated to ensure against the presence of explosive contamination. Oversight responsibility has not been determined for leases issued under the User Center Agreement by the Department of Energy (DOE). Until this determination is made EG&G Mound is not assuming an oversight role for contractors or lessees who operate air emission sources.

9.5.4.2 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.

9.5.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.5.6.5), the building is serviced by a sanitary line. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort, therefore, dye tests or smoke tests were not conducted. This building is partially leased under the User Center Agreement.

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. EG&G MAT

has no oversight role for contractors or lessees who have the ability to discharge to the sanitary and storm systems. Based on operations data, supplied by the process owner, effluent from Building DS does not deviate from that expected by the sanitary treatment plant manager.

9.5.4.2.2 Storm Wastewater

The building is also serviced by storm drains according to Attachment 5 (Section 9.5.6.5). 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.

9.5.4.2.3 Chemicals

Many chemicals are stored and used in the building. A list of chemicals found in Building DS is included in the BMQ which is presented as Attachment 2 (Section 9.5.6.2). The information was gathered as part of the chemical inventory which is conducted annually. The inventory dates to 1994. Confirmation of the 1994 inventory was not attempted as 1995 data were being compiled at the time of the appraisal. It is not known what chemicals are used by lessees or contractors.

Storage, handling, and disposal of chemicals listed in the BMQ were reviewed to assure conformance to regulations related to 40 CFR 122, 40 CFR 261-265,268,265, 40 CFR 268, and 29 CFR 1910. None of the chemicals listed in the BMQ are Clean Water Act (CWA) priority pollutants. 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 DS.

9.5.4.3 Potable and Service Water

Potable water is supplied to the building. Backflow prevention devices are installed at all visible points of potential cross-connection. There are two water fountains located in the building. Their location and brand names are in Attachment 1 (Section 9.5.6.1) on the EAC. 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. There is service water supplied to the building; it is not distributed within the building.

9.5.4.4 Chemical Storage and Hazardous Materials

Chemicals used in the laboratories and associated processes are stored in Building DS. There are flammable storage cabinets 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 were stored in the cabinets designated for flammable chemicals. Oxygen, acetylene and other compressed gases listed in the BMQ, presented in Attachment 2 (Section 9.5.6.2), 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 manufacturers other than the manufacturer on the label were in use. Chemicals are stored in the building in accordance with applicable standards.

The building is equipped with appropriate emergency response equipment such as a chemical spill containment kit, eyewash, safety shower, and fire extinguisher. Fire extinguishers are bar-coded. The inspection date database is maintained in the fire station, Building 98. Inspection tags were present and current. 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 are no sumps, separators, or catch basins, in or around the building.

Pipes were properly marked and signs were posted indicating the presence of asbestos.

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

9.5.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated are primarily paper. There is paper, scrap metal, 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 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.

Hazardous wastes are generated by metrology and associated procedures (*Characterization of Mound's Hazardous, Radioactive, and Mixed Waste*, 8-16-90). All 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 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 wastes. All 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.

9.5.4.6 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. Some of the processes were no longer active, therefore they were not reviewed for waste minimization or pollution prevention techniques. Programs for waste minimization in place are aluminum can, white paper, and scrap metal recycling.

9.5.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.5.6.6). The environmental appraisal of Building DS indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

DS-1 Evaluate User Center Agreement to see if chemicals need to be identified for emergency response information. It is not known what chemicals are used by lessees or contractors.

DS-2 Evaluate User Center Agreement to determine if environmental permitting responsibilities are covered. EG&G MAT's oversight responsibility for contractors or lessees who have the ability to emit chemicals to the environment must be legally determined.

DS-3 Evaluate User Center Agreement to determine if environmental permitting responsibilities are covered. This building is partially leased under the User Center Agreement. There is no monitoring of wastewater from these laboratories.

DS-4 Evaluate air sources that are not permitted and document *de minimis* determinations in accordance with OAC 3745-15-05.

DS-5 Notify RAPCA that several hoods identified on the application are no longer active.

DS-6 Review contents in storage cabinets for compatibility requirements.

DS-7 Opportunities for waste reduction in Building DS should be considered. Review work practices.

DS-8 Evaluate the chemical inventory and remove chemicals not in use or outdated as waste in accordance with 40 CFR 261-265, 268.

DS-9 Evaluate the air vent system for explosive contamination.

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9.5.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name DS

Appraisers:

Name Discipline

Name Discipline

Name Discipline

Name Discipline

Building Manager: JEFFREY BOSTON

Process Manager: JEFFREY L. MATTHEWS

EDWARD D. BOGAN

Date: 2/19/96 & 2/20/96

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: DS

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

Date: 2/19/96 & 2/20/96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	(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 _____ _____	PARTS OF IT ARE DEDICATED TO SAFE SHUTDOWN, USER CENTERS. SOME OPERATIONS ARE STILL ACTIVE
	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	BOTH
	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)	DS 219 & 117A; STEAM CONDENSATE RETURN
	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	FLOOR DRAINS IN SOME ROOMS SEE PICTURE IT'S POSSIBLE

9.5-11

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2-19-96 + 2/20/96

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	SEE PAGE 35
OAC 3745-35	Using the air emissions inventory reference for this building, are there any sources in the building that are not documented?	(Y) / N	
	Is there evidence of fugitive dust emissions inside or outside of the building	Y / (N)	

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	Y / (N)	
OAC 3745-31,35	If yes, are the terms and conditions of the permit or the information included on the application (see air emissions database) being followed? Note any differences and update the air emissions database.	Y / N	N/A
OAC 3745-31	Are there any sources that are not included in the air emissions database? If so, note the room, hood number, active or not, POC, and applicable air emission database information on Table B.	(Y) / N	
OAC 3745-31-03	Are there sources which are lab equipment of lab fumeheads used exclusively for chemical or physical analyses and bench scale lab equipment? These sources do not require a permit. However, the air emissions database should be updated.	(Y) / N	
	Has there been any release of air contaminants from this building?	Y / (N)	NO ACCIDENTAL

Environmental Appraisal Checklist

Building Name: DS

Appraisers: SIZEMORE HOAGLAND GLANDER PUCKETT

Date: 2-19-96 & 2/20/96

CAA Checklist

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

TABLE A

	Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
A	firing chamber	227	22701	Y / (N)	(Y) / N					
	drying ovens	233		Y / (N)	Y / (N)	NA				
B	cleaning parts	226	226001	(Y) / N	(Y) / N	acetone				
C	cleaning	135	1350001	(Y) / N	(Y) / N	isopropanol ethanol	½ gal.			
		131		(Y) / N	Y / (N)	NA				

Jeff Mathews

A - document B - permit application returned as "deminimis;" however, chemical(s) have changed - should document.

Source: _____

C - permit application returned as "de minimis."

Environmental Appraisal Checklist

Building Name: DS

Appraisers: SIZEMORE HOAGLAND GLANDER PUCKETT

Date: 2-19-96 & 2/20/96

CAA Checklist

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

TABLE A

Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
cleaning	251	2150001	(Y) / N	Y / (N)	NA				
cleaning	251	2510002	(Y) / N	Y / (N)	NA				
shutdown	245	2450001	(Y) / N	Y / (N)	NA				
user centers	122 124 126		(Y) / N	Y / (N)	NA				
Development/ Standards	217	2170001	(Y) / N	Y / (N)	NA				

Source:

Environmental Appraisal Checklist

Building Name: DS

Appraisers: SIZEMORE HOAGLAND GLANDER RUCKETT

Date: 2-19-96 & 2/20/96

CAA Checklist

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

TABLE A

Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
hood	223	2230001	Y / N	Y / N	NA				
oven	223		Y / N	Y / N	NA				
firing chamber	218	~5' x 4'	Y / N	Y / N	NA				
firing chamber	218	218002 ~3' x 2'	Y / N	Y / N	NA				
oven	225		Y / N	Y / N	NA				

Source: _____

Environmental Appraisal Checklist

Building Name: DS

Appraisers: SIZEMORE HOAGLAND GLANDER PUCKETT

Date: 2-19-96

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
Develop./ Stds.	222	2220001 2220002	(Y)/N	Y/(N)	NA				
prime oven sonic cleaner chem. station	132 132 132	110184 110290 110183	(Y)/N	Y/(N)	NA				
chem. station chem. station spin coating	132 132 132	110186 112189 110320	(Y)/N	Y/(N)	NA				
cleaning	109B	109B0001	(Y)/N	(Y)/N	acetone ethanol Drakeol			312	0.02 0.01
Develop./ Stds.	125B	125B0001 2 3 4 5	(Y)/N	Y/(N)	NA				

* Document as "de minimis."

Source: _____

9.5-16

Environmental Appraisal Checklist

Building Name: DS

Appraisers: PUCKETT SIZEMORE HOAGLAND GLANDER

Date: 2-19-96 & 2/20/96

CAA Checklist

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

TABLE A

Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
Develop./ Stds.	118	1180001 2	Y / N	Y / N	NA				
ovens	125	1250001 2 3	Y / N	Y / N	NA				
	DS 209A	190001	Y / N	Y / N	N/A				
			Y / N	Y / N					
			Y / N	Y / N					

Source: _____

9.5-17

Environmental Appraisal Checklist

Building Name: DS

Appraisers: GLANDER PUCKETT SIZEMORE HOAGLAND

Date: 2-19-96 & 2/19/96

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 lb/yr	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions lb/h
oven	207		(Y)/N	Y/(N)	NA				
hood	207		(Y)/N	Y/(N)	NA				
* grinder	201	2010001	Y/(N)	(Y)/N	metal parts				metal – negligible
* cleaning	215	2150001	Y/(N)	(Y)/N	isopropanol ethanol acetone argon	1.6 1.6 3.3 780 cf	~Ø	~50	0.06 VOC 0.07 acetone ~16 cf/hr
	214	2140001	Y/(N)	Y/(N)					

Source: _____

* document as de minimis

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

CAA Checklist

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

TABLE A

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

Source:_____

9.5-19

9.5-20

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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)	MAJORITY OF CONTAINERS IN AREA ARE ID'ED the REMAINDER CAN BE ID'ED WITHIN 72 HRS.
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	Y / (N)	NOT ALL JANITORIAL CLOSETS HAD MSDSs AVAILABLE
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	Y / (N)	W SIDE OF FACILITY IS BEING SHUTDOWN & IS EXTREMELY CLUTTERED
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)	MULTIPLE LABS HAD AN INCOMPATIBILITY PROBLEM THIS WAS REMEDIED IN 72HRS.
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: DS

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

Date: 2/19-20/96

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
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)	VARIOUS LABS NOT IN COMPLIANCE PROCESS MGR CORRECTING
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 VS FULL CONTAINERS NOT ALWAYS SEGREGATED
CGA P-1 3.5.8	All compressed gas containers in service or in storage shall be stored standing upright and the container shall be secured.	(Y) / N	
CGA P-1 4.2.2	Oxygen cylinders shall be separated from flammable gas containers or combustible materials a minimum of 20 ft. or a noncombustible barrier 5 ft. high.	Y / N	N/A
29 CFR 1910.104(2)(10)	Oxygen stored as a liquid shall be on a noncombustible surface. Asphalt is considered combustible. Wood and long dry grass shall be cut back 15 ft. from the container.	Y / N	N/A
29 CFR 1910.104	Bulk oxygen storage shall be permanently placarded "OXYGEN - NO SMOKING - NO OPEN FLAMES".	Y / N	N/A
	Is there a sign posted in each work area regarding emergency egress and emergency response action?	(Y) / N	
	Is there an emergency response plan available?	(Y) / N	

9.5-21

9.5-22

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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	FERRIC CHLORIDE
	Is there proper containment?	Y / (N)	NO SECONDARY CONTAINMENT
	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: DS

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

Date: 2/19-20/96

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)	SOME WERE AND SOME WERE NOT; BROUGHT TO ATTENTION OF PROCESS MGR.
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y / N	SEE TABLE

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
DS	NEXT TO ROOM 254	?? C14GB2	WESTINGHOUSE
DS	CORRIDOR 2 AT WOMEN'S ROOM	UNKNOWN	OASIS

Source: _____

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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	BUT NOT ON ALL CONTAINERS SEVERAL CONTAINERS (SMALL WILL NEED 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	

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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	DS 258, 243, DS 127A ARE examples.
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	

9.5-25

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
II. HAZARDOUS WASTE STORED IN TANKS			
OAC 3745-52-32 (B)	Has any chemical waste stored in a tank, piece of process equipment or ancillary equipment been in storage in excess of 90-days?	Y / N	
	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	N/A
	Does the tank or equipment have secondary containment?	Y / N	
	Does the tank or equipment have leak detection device(s)?	Y / N	N/A
	Has spill control prevention been enacted?	Y / N	N/A
	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	POSSIBLY THIS NEEDS FURTHER INVESTIGATION DUE TO SAFE SHUTDOWN MODE AND USER AGREEMENTS
	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	

9.5-27

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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	AT offsite permitted facility
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	AT offsite permitted facility
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section	Y / (N)	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then not. Go to the next section.	Y / (N)	
OAC 3745-56	Has any of the waste been managed in a Waste Pile? If yes, then note. Go to the next section.	Y / (N)	

General Comments:

9.5-28

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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

9.5-29

Environmental Appraisal Checklist

Building Name: DS. Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, Mary Sizemore Date: 2/19-20/96

9.5-30

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: DS

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

Date: 2/19-20/96

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	

9.5-31

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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: DS

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

Date: 2/19-20/96

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	

9.5-33

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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	

9.5-35

Environmental Appraisal Checklist

Building Name: D'S

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

Date: 2/19-20/96

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: DS

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

Date: 2/19-20/96

Low-Level Waste and Transuranic Waste Checklist

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

9.5-37

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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	SAFE SHUTDOWN NEEDS TO EVALUATE WASTE MIN OPPORTUNITIES IN AREAS OF LEAD RECYCLING, BRASS, etc. DUE TO THE USER AGREEMENTS IT CAN NOT BE FULLY DETERMINED WHAT CHEMICALS ARE Prese
	Are there solvent wastes?	(Y) / N	LEFTOVER ACETONE ONLY
	Is vehicle maintenance performed?	Y / N	N/A
	Are oils used ?	(Y) / N	VACUUM PUMP OILS
	Are these corrosive wastes?	(Y) / N	FERRIC CHLORIDE
	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	N/A
	Ion exchange process?	Y / N	
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y / N	
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	
	Drying?	Y / N	

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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	N/A
	Solvent sink?	Y / N	N/A
	Solvent dunk bucket?	Y / N	N/A
	Solvent dip tank?	Y / N	N/A
	Are parts cleaning solvents used for anything else besides cleaning parts?	Y / N	N/A
	Are spills reduced by locating sinks or dunk buckets near auto service bays?	Y / N	N/A

9.5-39

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES			
	Are halogenated organic wastes used as fuel in cement kilns?	Y / N	
	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	(STAR CITY IS USING THE FERRIC CHLORIDE)

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.5-41

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	N/A
	Are drip tanks used to capture losses?	Y / N	N/A
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	N/A
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	N/A
OILS			
	What kind of oils are used?		VACUUM PUMP OIL, WD40
	Hydraulic oil?	Y / N	NEEDS VERIFIED
	Transformer oil?	Y / N	" "
	Metal working fluids?	(Y) / N	VACUUM PUMP OIL WD40
	Spent lubricating oils?	(Y) / N	VACUUM PUMP OIL.
	Can the process be modified or changed to use water-based fluids?	Y / (N)	SAFE SHUTDOWN
	Are these good housekeeping and operation practices used to minimize oil waste production?		N/A
	Use oils not contaminated with other liquids?	Y / N	
	Oil spills prevented?	Y / N	
	Drip pans installed?	Y / N	
	Oil soaked rags laundered?	Y / N	
	Rags and absorbants used to their limit?	Y / N	

Environmental Appraisal Checklist

Building Name: DS

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

Date: 2/19-20/96

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?	_____ _____		

9.5-43

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9.5.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

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

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

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

PPE IN VARIOUS LOCATIONS

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

4. Provide a physical description of the building.

Building DS is constructed of reinforced concrete and concrete blocks. The roof is BUM (asphalt). Total area is 47,800 ft^2. HVAC systems are central steam and chilled water. Asbestos has been found in the building. Building is not known to be contaminated with any radioactive ~~or energetic materials~~, although both types have been handled in the building. — DS must be sanitized to 3X level by 9/30/

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 metrology studies ~~and energetic materials production and development~~ and DOE user facility or lease to MMCIC and ~~Stat~~ SAFE shutdown activities

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

9.5-47

Building Manager's Questionnaire

Building Name: DS 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: Tape processing, slapper detonator development, process technology development, welding technology, off schedule production, energetic component development, low energy component development, x-ray processing, final acceptance, IMPAC, material handling, metrology

How Wastes Are Generated:

Tape Processing: Photoresist is put on a 250-ft roll of copper tape. A mask then covers part of the tape. The tape is exposed to ultraviolet light which hardens the unmasked photoresist. A dilute solution of Na_2CO_3 is used to remove the unhardened photoresist. This solution is flushed down the drain. The tape is passed through a ferric chloride solution to etch it. A dilute solution of KOH is then used to remove the hardened photoresist. The KOH solution is also washed down the drain.

Ferric chloride is handled as follows: A 55-gal drum of fresh solution is brought into the room where the processing machine is used. Seventeen gallons of ferric chloride is pumped into the machine. After 750 ft of tape are processed, the ferric chloride solution is pumped out of the machine and into a waste drum. The 17-gal tank in the machine is then filled with water, and the water is pumped into the waste drum. The tank is filled with water once again, and this water is flushed down the drain.

The tape then moves to the nickel plating room. Tape is put into the plater, which is connected to tanks containing three different materials: nickel sulfamate/water/boric acid solution, water, and sulfuric acid/water solution. First the delivery line is flushed with water, and that water goes down the drain. Sulfuric acid is used to clean the tape and is returned to its container. The delivery line is again flushed with water which goes in the drain. Nickel sulfamate solution is delivered to the tape, and some nickel is plated out. The solution is returned to its container. The line is flushed with water which is collected in a 15-gal waste drum.

Wastes from the plating operation are spent nickel sulfamate solution and water, dirty sulfuric acid (tank of acid is changed two or three times a year, depending on volume of production), and nickel cleanup waste, which includes any papers used to clean up spills.

Next, a bridge is bonded to the tape. HCl and ethyl alcohol are used to clean these two parts. Both cleaning agents are used in small quantities and are flushed down the drain.

Throughout the process, alcohol may be used to wipe the tape, but the alcohol evaporates, and there is no liquid waste to dispose of.

Current plans call for moving the production portion of tape processing to the basement of Building COS. The development portion will remain in DS. After the move is completed, ferric chloride may be

replaced with cupric chloride which can be regenerated with HCl. Cupric chloride can be reused. Some excess cupric chloride will be generated and will need to be disposed of.

Slapper Detonator Development: This work occasionally requires use of the tape processing equipment described above. Additional potentially hazardous materials are 50% HCl solution which is collected in waste cans for Waste Management to pick up; ethyl alcohol which is used for cleaning and, if used in significant quantities, is put in waste cans; nickel sulfamate and gold cyanide solutions which are used for plating nickel and gold on the tape and are collected in waste cans for disposal; acetone which is used in small quantities for cleaning and quickly evaporates; and small quantities of explosives (PETN, HMX, LX-16) whose wastes are put in "Explosive Waste" containers.

Process Technology Development: This group works on film fabrication and surface modification using both physical and chemical means at a variety of temperatures and pressures. They use small amounts of various chemicals. There is no significant waste stream.

Welding Technology: Acetone and 200-proof ethyl alcohol are used for wiping parts clean. The solvents evaporate. There is no hazardous waste stream.

Off Schedule Production: In this operation, orders for small numbers of parts are filled. The wastes include small amounts of explosive wastes which are sent to the burn area on site for destruction, hardened epoxies which go in a trash can, and solvents used for cleaning parts in an ultrasonic bath. The solvents used are Freon TF, tricholorethane, and ethyl alcohol. They are piped into the room, and spent solvents are poured into a sink which drains to a waste drum in the DS solvent shed.

Energetic Component Development: Secondary explosives are used in this work in small quantities. Explosive wastes in the form of paper, cloth, etc., contaminated with traces of explosives are put into lined containers which are emptied when they are about half full or contain about a gram of explosive. Wastes removed from the containers are packaged, labeled, and sent to the on-site burn area for destruction. Pieces of explosive which are to be discarded are packaged, labeled, and stored in a service bunker until they can be taken to the burn area. Solvents used in these labs are generally in squeeze bottles. They evaporate quickly and there is no liquid waste. Solvents include isopropyl alcohol, ethyl alcohol, acetone, toulene, Freon, and trichloroethane. Occasionally, Freon TF is used in a bath for high voltage testing, and ethylene glycol is used to make a black ink required to locate deviations from the desired surface contour for some parts. Wastes from these operations are put in cans for Waste Management to pick up.

Low Energy Component Development: Energetic components are fabricated using pyrotechnics and primary, secondary, and special explosives. Explosive wastes are put in marked containers and eventually sent to be burned on site. Ethanol and acetone are occasionally used for cleaning. The solvent is put on a Kimwipe which is then used to clean

the part. The solvent evaporates and the Kimwipe is put in the trash or explosive waste. No liquid hazardous wastes are generated.

X-Ray Film Processing: The x-ray film development in Building DS is done with a Hope model processor which uses Kodak chemicals (Kodak Industrex Developer and Replenisher, Kodak Industrex Fixer and Replenisher, Kodak Liquid Developer System Cleaner, and Kodak Fixer Wash System Cleaner). These chemicals are collected in a waste can for pickup by Waste Management. In February (1990) a new Fuji processor replaced the Hope model. Different chemicals are to be used, and Waste Management will help plan for waste disposal.

Metrology may generate 1 gal of solvent waste, primarily acetone, each year.

Final Acceptance, IMPAC, and Material Handling generate no hazardous wastes.

Contact: DON HOMAN
Phone #: 3116

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

Building Manager's Questionnaire

Building Name: DS 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
SAFE SHUTDOWN ACTIVITIES

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
USU Center	122	DS-122	Y / N					
USU Center	124	DS-124	Y / N					
Develop. Stds	125	125001	Y	Acetone ethanol alumina	.005 .002 .001		1.04 .416 .208	
Develop. Stds	125	1250002	Y	Isopropanol lead tin	.003 .001 0		6.24 .208 0	
Develop. Stds	125B	125B 0004	Y	Freon TF Ethanol Isopropanol Trichloroethane	.35 .0068 .051 .018		728 14.144 106.08 37.44	
Develop. Stds	125B	125B00005	Y	Freon TF Ethanol Trichloxoethane	.009 .002 .0048		1.404 .312 .7488	
Develop. Stds	127	1270001	Y	Ethanol	.248		6.448	
Develop. Stds	118		Y	Epichlorahydrin	.088		.352	
Develop. Stds	207	2070001	Y	Epichlorohydrin Acetone Isopropanol Diethanolamine	.0012 .016 .0756 .0012		.0624 .832 3.9312 .0624	
Develop. Stds	207	Oven	Y	Epichlorohydrin diethanolamine	.0023 .0003		3.68 .48	
Develop. Stds	226	22260001	Y	Epichlorohydrin	.0035		.014	
Develop. Stds	226	226002	Y	Epichlorohydrin misc HAP	.0012 .0066		.0624 .3432	
Develop. Stds	133	1330001	Y	Ethanol Freon Stoddard Solvent	.04 .1 .01		8.32 20.8 2.08	
Develop. Stds	135	1350001	Y	Isopropanol	.786		1.572	
Safe Shutdown	131		N					
Develop. Stds	251	DS2510001	Y	Isopropanol	.003		1.872	
Develop. Stds	251	DS2510002	Y	Isopropanol desolve It	.141 .0013		29.328 .2704	
Develop. Stds	245	DS2450001	Y	Acetone Isopropanol Ethanol medhanol Bioact EC-7	.08 .08 .08 .08 .01		3.84 3.84 3.84 3.84 .48	
User Center	124							
User Center	126A							
User Center	122/6							

Building Manager's Questionnaire

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

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
Develop. Stds	217	DS217 0001	Y	Epichlorohydrine petrol distillates Ethyl Orthosilicate	.0091 .0003 .0001		.2366 .0078 .0026	
Develop. Stds	222	DS222 0001	Y	Epichlorohydrin	.0001		.0208	
Develop. Stds	222	DS222 0002	Y	Epichlorohydrin	.0001		.0208	
Process Development	110	110183	Y	Ethanol Ammonium hydoxide dydrogen peroxide Acetone Freon 22	.005 .004 .0015 .0002 .0001		11.52 9.216 3.456 .4608 .2304	
Process Development	110	110184	Y	hexamethyl disilizane	.0001		.0032	
Process Development	110	110186	Y	Ethanol Ammonium Hydroxide Hydrogen Peroxide Acetone Freon 22	.005 .004 .0015 .0002 .0001		11.52 9.216 3.456 .4608 .2304	
Process Development	110	110290	Y	Ammonium hydroxide hydrogen peroxide	.0001 .0001		.8736 .8736	
Process Development	110	110320	Y	photoresist photoresist thinner photoresist developer acetonexoluene/ PMPS xylene/PMPS	.0008 .0009 .001 .0008 .001 .001		.32 .36 .4 .32 .4 .4	
Process Development	112	112189	Y	Ethanol Ammonium hydroxide hydrogen peroxide acetone Freon 22	.005 .004 .0015 .0002 .0001		11.52 9.216 3.456 .4608 .2304	
Process Development	109B	DS109B 0001	Y	Acetone Ethanol	.02 .012		6.24 3.744	
Develop. Stds	125B	125B 0001	Y	Epichlorohydrin	.012		.624	

Source: Mound Air Emissions Database 11/30/95

Building Manager's Questionnaire

Building Name: DS 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
Fumehood Room 122		demister and rough filter	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
Fumehood Room 122		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

9.5-53

Building Manager's Questionnaire

Building Name: DS 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. SEE ATTACHED LIST

Chemical Name	State	Amount (MAX)

Source: Chemical Inventory 1994

9.5-54

BABY POWDER DISINFECTANT	VALLEY JANITOR SUPPLY	14	OZ	14	OZ	0	OZ	DS	101	L	F	1	4	BORNEMANN
CRT CLEANING FL	INMAC	7		8	OZ	1	OZ	DS	101	L	N	1		BORNEMANN
DUST MOP TREATMENT	STANDARD SANITATION SYSTEMS	17	OZ	18	OZ	1	OZ	DS	101	L	F	1		BORNEMANN
INK #620 BLACK	AERO BRANDS	7	OZ	8	OZ	1	OZ	DS	101	L	N	1	4	BORNEMANN
LIQUID PAPER	GILLETTE	3.6	OZ	3.6	OZ	1	OZ	DS	101	L	N	1	4	BORNEMANN
MARKER BOARD CLEANER	WEBER COSTELLO	32	OZ	32	OZ	8	OZ	DS	101	L	N	1	4	BORNEMANN
POLISH LEMON FURNITURE	VALLEY JANITOR SUPPLY	34	OZ	5	OZ	17	OZ	DS	101	L	F	1	4	BORNEMANN
2-TON EPOXY	DEVCON CORP	28	G	28	G	4	G	DS	103	L	N	1	4	BORNEMANN
3 IN 1 OIL	BOYLE MEDWAY INC	48	OZ	48	OZ	9	OZ	DS	103	L	F	1	4	BORNEMANN
3-36 MULTI SPRAY	CRC CHEMICALS	16	OZ	16	OZ	0	OZ	DS	103	L	F	1	4	BORNEMANN
ACETONE	FISHER	10	ML	300	ML	290	ML	DS	103	L	M	1	4	BORNEMANN
ANTI-STATIC SOLUTION	DEVCON	1	GA	1	GA	0.25	GA	DS	103	L	N	1	4	BORNEMANN
BENZOLTRIAZOLE	FISHER	8	OZ	8	OZ	1	OZ	DS	103	L	N	1	4	BORNEMANN
CASTING POWDER	FACSIMILE	2	LB	3	LB	1	LB	DS	103	S	N	1	4	BORNEMANN
CASTONE	RANSOM & RANDOLPH CO	1.5	LB	2	LB	0.5	LB	DS	103	S	F	1	4	BORNEMANN
CURING LIQUID	FACSIMILE	3	PT	3	PT	0.5	PT	DS	103	L	F	1	4	BORNEMANN
DISINFECTANT/DEODORANT	BETCO CORP	14	OZ	14	OZ	1	OZ	DS	103	L	F	1	4	BORNEMANN
DUSTIN SHINE	MISCO INTERNATIONAL CHEMICALS INC	19	OZ	19	OZ	2	OZ	DS	103	L	F	1	4	BORNEMANN
EEL SKID	WILSON INSTRUMENTS	1.5	PT	1.5	PT	0.25	PT	DS	103	L	F	1	4	BORNEMANN
ETHYL ALCOHOL	FISHER	2	GA	2	GA	1	GA	DS	103	L	F	1	4	BORNEMANN
FORMULA 101	CROWN	12	QT	12	QT	2	QT	DS	103	L	F	1	4	BORNEMANN
GAGE BLOCK CLEANER	DO ALL	6	OZ	12	OZ	6	OZ	DS	103	L	F	1	4	BORNEMANN
GAGE BLOCK PRESERVATIVE	DO ALL	102	OZ	132	OZ	30	OZ	DS	103	L	F	1	4	BORNEMANN
HEAD CLEANER	HEWLETT PACKARD	6	OZ	8	OZ	2	OZ	DS	103	L	M	1	4	BORNEMANN
HEADSTART CLEANER	BUTCHER POLISH CO	8	OZ	8	OZ	2	OZ	DS	103	L	N	1	4	BORNEMANN
HOUSEHOLD OIL	GULF OIL CORP	4	OZ	4	OZ	2	OZ	DS	103	L	F	1	4	BORNEMANN
INTENSIVE CARE LOTION	CHEESEBROUGH PONDS	10	OZ	10	OZ	5	OZ	DS	103	L	N	1	4	BORNEMANN
KLEEN-SURF	DO ALL	45	OZ	45	OZ	10	OZ	DS	103	L	F	1	4	BORNEMANN
LENS CLEANER	FOGPRUF	8	OZ	8	OZ	3	OZ	DS	103	L	N	1	4	BORNEMANN
LIQUID PAPER	GILLETTE	7.2	OZ	7.2	OZ	1.2	OZ	DS	103	L	N	1	4	BORNEMANN
LIQUID WRENCH	RADIATOR SPECIALTY CO	4	OZ	4	OZ	2	OZ	DS	103	L	F	1	4	BORNEMANN
LUBRIPLATE	FISKE BROTHERS REF.	14	OZ	14	OZ	2	OZ	DS	103	L	F	1	4	BORNEMANN
M-1 RUST PREVENTATIVE	STARRETT	3	GA	3	GA	0	GA	DS	103	L	F	1	4	BORNEMANN
METAL LUSTER	HOLCOMB	384	OZ	384	OZ	32	OZ	DS	103	L	N	1	4	BORNEMANN
METAL MARKER	NISSEN	6	OZ	6	OZ	0	OZ	DS	103	L	R	1	4	BORNEMANN
MICRO CLEANER	INTERNATIONAL PRODUCTS INC	8	OZ	8	OZ	1	OZ	DS	103	L	N	1	4	BORNEMANN
MOBIL OIL	MOBIL (MOORE)	1	GA	1	GA	0.5	GA	DS	103	L	F	1	4	BORNEMANN
MULTI-PURPOSE GREASE	FISKE BROTHERS REFINING	29	OZ	29	OZ	2	OZ	DS	103	L	F	1	4	BORNEMANN
PAINT THINNER	ALLPRO CORP	1	GA	1	GA	0.5	GA	DS	103	L	N	1	4	BORNEMANN
PARTING AGENT	IMS COMPANY	12	OZ	12	OZ	0	OZ	DS	103	L	F	1	4	BORNEMANN
SEPARATOR	FLEXBAR MACHINE CORP	5	OZ	5	OZ	0.5	OZ	DS	103	L	M	1	4	BORNEMANN
SHINE-UP	JOHNSON WAX	15	OZ	15	OZ	8	OZ	DS	103	L	F	1	4	BORNEMANN
SOLDER, RESIN CORE	J.W. HARRIS CO	1	LB	1	LB	0	LB	DS	103	S	R	1	4	BORNEMANN
SPRA-LUBE SILICONE	GC ELECTRONICS	5	OZ	8	OZ	3	OZ	DS	103	L	F	1	4	BORNEMANN
STAINLESS STEEL CLEANER/POLISH	3M	250	OZ	279	OZ	20	OZ	DS	103	L	F	1	4	BORNEMANN

DS
p54

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
STARRETT PLATE CLEANER	SURRY CHEMICALS	5	GA	5	GA	1	GA	DS	103	L	N	1	4	BORNEMANN
STARRETT TOOL & INSTRUMENT OIL	WILLIAM F. NYE, INC	9	OZ	9	OZ	1	OZ	DS	103	L	F	1	4	BORNEMANN
STATIC NULL	GC ELECTRONICS	8	OZ	14	OZ	6	OZ	DS	103	L	F	1	4	BORNEMANN
STODDARD SOLVENT	SOHIO	2	GA	2	GA	1	GA	DS	103	L	F	1	4	BORNEMANN
SUPER-COTE	J&L METROLOGY	60	OZ	60	OZ	4	OZ	DS	103	L	N	1	4	BORNEMANN
VELOCITE #6	MOBIL (mOORE)	5	QT	5	QT	0	QT	DS	103	L	F	1	4	BORNEMANN
VINYL COATING	CROWN	104	OZ	120	OZ	15	OZ	DS	103	L	F	1	4	BORNEMANN
WAYLUBE 80	COLT LTD. ELOX DIV.	1	QT	1	QT	0.25	QT	DS	103	L	F	1	4	BORNEMANN
WD-40	WD-40 CO	2.5	QT	2.5	QT	0.5	QT	DS	103	L	F	1	4	BORNEMANN
INK STAMP PAD	SANFORD	2	OZ	2	OZ	1	OZ	DS	108A	L	M	1	4	BORNEMANN
3 IN 1 OIL	BOYLE MEDWAY	3	OZ	3	OZ	2	OZ	DS	109	L	F	1	4	BORNEMANN
ACETONE	FISHER	2	PT	2	PT	4	PT	DS	109	L	F	1	4	BORNEMANN
ALCOHOL	MIDWEST GRAIN	4	PT	4	PT	4	PT	DS	109	L	F	1	4	BORNEMANN
GLASS CLEANER	CARROL	1	GA	1	GA	0.75	GA	DS	109	L	N	1	4	BORNEMANN
JEWELERS ROUGE	DIVINE BROTHERS CO	3.75	OZ	4	OZ	0.25	OZ	DS	109	S	R	1	4	BORNEMANN
KRYLON MATTE	BORDEN	3	OZ	3	OZ	2	OZ	DS	109	L	F	1	4	BORNEMANN
RUBBER CEMENT	DENNISON MANUFACTURING CO	4	OZ	8	OZ	4	OZ	DS	109	L	N	1	4	BORNEMANN
WD-40	WD-40 CO	24	OZ	24	OZ	6	OZ	DS	109	L	F	1	4	BORNEMANN
3 IN 1 OIL	BOYLE MEDWAY	3	OZ	3	OZ	2	OZ	DS	110	L	F	1	4	BORNEMANN
CIRCUIT COOLER	SPC TECHNOLOGY	96	OZ	96	OZ	10	OZ	DS	110	L	F	1	4	BORNEMANN
CRT CLEANING SOLUTION	INMAC	4	OZ	4	OZ	2	OZ	DS	110	L	N	1	4	BORNEMANN
DARKEOL RQ	PENRECO	30	GA	30	GA	1	GA	DS	110	L	C	1	4	BORNEMANN
DRY LUBRICANT	MILLER STEPHENSON	16	OZ	16	OZ	0	OZ	DS	110	L	F	1	4	BORNEMANN
ETHYL ALCOHOL	MIDWEST GRAIN	8	OZ	8	OZ	4	OZ	DS	110	L	N	1	4	BORNEMANN
FREON TF	CHEMTRONICS INC	64	OZ	64	OZ	8	OZ	DS	110	L	F	1	4	BORNEMANN
RTV 102 SILICONE	GENERAL ELECTRIC	47	OZ	47	OZ	3	OZ	DS	110	L	R	1	4	BORNEMANN
SOLDER, MULTI-CORE SN60	MULTICORE SOLDERS LTD	2	LB	2	LB	0.5	LB	DS	110	S	R	1	4	BORNEMANN
WD-40	WD-40 CO	12	OZ	12	OZ	2	OZ	DS	110	L	F	1	4	BORNEMANN
LIQUID PAPER	GILLETTE	2.4	OZ	2.4	OZ	1	OZ	DS	112	L	N	1	4	BORNEMANN
FOGPRUF	MINE SAFETY APPLIANCES CO.	2	OZ	4	OZ	1	OZ	DS	115	L	N	1	4	BORNEMANN
LIQUID PAPER	GILLETTE	4.8	OZ	4.8	OZ	2	OZ	DS	115	L	N	1	4	BORNEMANN
ALCOHOL	MIDWEST GRAIN	8	OZ	8	OZ	2	OZ	DS	119	L	N	1	4	BORNEMANN
INTENSIVE CARE	PONDS	10	OZ	10	OZ	1	OZ	DS	119	L	N	1	4	BORNEMANN
MOBILE DTE	MOBIL	10	GA	10	GA	0	GA	DS	120	L	N	1	4	HARDEN
BONDER, SUPER LOCTITE 416	LOCTITE CORP.	1	OZ	1	OZ	0	OZ	DS	121	L	N	1	4	HARDEN
CLEANER,MARKER BOARD	WEBER COSTELO	16	OZ	16	OZ	0	OZ	DS	121	L	N	1	4	HARDEN
CORRECTION FLUID,LIQUID PAPER		0.6	OZ	0.6	OZ	0	OZ	DS	121	L	N	1	4	HARDEN
DUSTER	SPI SUPPLIES	280	OZ	280	OZ	0	OZ	DS	121	G	L	2	4	HARDEN
EPOXY,EXTRA FAST SETTING	COLE PARMER	3.5	OZ	3.5	OZ	0	OZ	DS	121	L	R	1	4	HARDEN
INK, QUICK DRY STAMP PAD,RED	SANFORD	5	OZ	5	OZ	0	OZ	DS	121	L	F	1	4	HARDEN
INK,INDIA,LATEX BASE DWG INK FOR	KOH-I-NOOR	5.25	OZ	5.25	OZ	0	OZ	DS	121	L	M	1	4	HARDEN
INK,STAMP PAD	SANFORD	4	OZ	4	OZ	0	OZ	DS	121	L	F	1	4	HARDEN
LOCTITE	LOCTITE CORP.	14.4	OZ	14.5	OZ	0	OZ	DS	121	L	N	1	4	HARDEN
ACETONE	FISHER SCIENTIFIC	4	L	4	L	0	L	DS	122	L	M	1	4	HARDEN
ACID,HYDROCHL	WHEATON	1	L	1	L	0	L	DS	122	L	M	1	[illegible]	HARDEN
ACID,NITRIC		120	ML	120	ML	0	ML	DS	122	L	N	1	[illegible]	HARDEN
		750	ML	750	ML	0	ML	DS	122	L	N	1	4	HARDEN

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
ALCOHOL,DEHYDRATED	MIDWEST GRAIN CO.	A 3	GA	3	GA	0	GA	DS	122	L	N	1	4	HARDEN
ALCOHOL,DEHYDRATED	MIDWEST GRAIN CO.	1	GA	1	GA	0	GA	DS	122	L	N	1	4	HARDEN
ALCOHOL,ETHYL		1	L	1	L	0	L	DS	122	L	N	1	4	HARDEN
ALCOHOL,ETHYL	WHEATON	1	L	1	L	0	L	DS	122	L	M	1	4	HARDEN
CEMENT,MULTI PURPOSE,CLEAR	HWI	8	OZ	8	OZ	0	OZ	DS	122	L	R	1	4	HARDEN
CEMENT,PVC,CLEAR	ACE HARDWARE	4	OZ	4	OZ	0	OZ	DS	122	L	R	1	4	HARDEN
CLEANER	MILLER STEPHENS	15	OZ	15	OZ	0	OZ	DS	122	L	Y	2	4	HARDEN
CLEANSER, AJAX	AJAX	14	OZ	14	OZ	0	OZ	DS	122	S	F	1	4	HARDEN
COPPER BRITE		16	QT	16	QT	0	QT	DS	122	L	N	1	4	HARDEN
DESICCANT,PROTEK-SORB ACTIVATED	DAVISON CHEMICAL	940	GM	940	CM	0	CM	DS	122	S	J	1	4	HARDEN
DESICCANT,SUPER PROTEK-SORB SILICA	DAVISON CHEMICAL	658	GM	658	GM	0	GM	DS	122	S	J	1	4	HARDEN
FERRIC CHLORIDE		1	OZ	1	OZ	0	OZ	DS	122	L	N	1	4	HARDEN
FLOURINERT		1.5	OZ	1.5	OZ	0	OZ	DS	122	L	J	1	4	HARDEN
FLUID,VACUUM PUMP DIRECT DRIVE		1	L	1	L	0	L	DS	122	L	N	1	4	HARDEN
FLUORINERT	3M	45	LB	45	LB	0	LB	DS	122	L	F	1	4	HARDEN
FLUX,ROSIN	UNICAL CHEMICAL	1	QT	1	QT	0	QT	DS	122	L	M	1	4	HARDEN
GEL,DUPRO QUICK SUPER GLUE	LOCTITE CORP.	0.6	OZ	0.6	OZ	0	OZ	DS	122	L	R	1	4	HARDEN
MICROCLEAN	COLE PARMER	4	OZ	4	OZ	0	OZ	DS	122	L	N	1	4	HARDEN
OIL,PUMP	ALCATEL	1	L	1	L	0	L	DS	122	L	F	1	4	HARDEN
POLISH,ALUMINUM	BUEHLER	6	OZ	6	OZ	0	OZ	DS	122	L	N	1	4	HARDEN
POWDER,SCOURING GLASS CLEANER		14	OZ	14	OZ	0	OZ	DS	122	S	F	1	4	HARDEN
PREPS,ALCOHOL,2PLY-MEDIUM	KENDAL WEBCOL	1200	BX	1200	BX	0	BX	DS	122	L	K	1	4	HARDEN
RE-NU,CONTACT	MILLER STEPHENS	16	OZ	16	OZ	0	OZ	DS	122	L	Y	2	4	HARDEN
SEALANT,GENERAL PURPOSE	DOW CORNING	3	OZ	3	OZ	0	OZ	DS	122	L	R	1	4	HARDEN
WASHING LIQUID,JOY LEMON FRESH	CONCORD	32	OZ	32	OZ	0	OZ	DS	122	L	N	1	4	HARDEN
WD-40	WD-40 CO.	9	OZ	9	OZ	0	OZ	DS	122	L	Y	2	4	HARDEN
WIPES,STATICIDE	ACACL INDUSTRIES	6	BX	6	BX	0	BX	DS	122	L	K	1	4	HARDEN
ARGON UPH	MATHESON	70	CF	70	CF	70	CF	DS	123	G	L	1	4	BORNEMANN
CARBON MONOXIDE IN AIR	MATHESON	54	CF	54	CF	54	CF	DS	123	G	L	1	4	BORNEMANN
NITROGEN UPH	MATHESON	64	CF	64	CF	64	CF	DS	123	G	L	1	4	BORNEMANN
OXYGEN IN ARGON	MATHESON	108	CF	108	CF	108	CF	DS	123	G	L	1	4	BORNEMANN
OXYGEN IN NITROGEN	MATHESON	108	CF	135	CF	135	CF	DS	123	G	L	1	4	BORNEMANN
CLEANER,COPPER	LONDON CHEMICAL	5	GA	5	GA	0	GA	DS	124	L	N	1	4	HARDEN
ELECTRO BRITE		5	GA	5	GA	0	GA	DS	124	L	N	1	4	HARDEN
LUBRICANT,FILM	IRACLE POWDER PRODUCT	6	OZ	6	OZ	0	OZ	DS	124	S	Y	2	4	HARDEN
PAINT	KRYLON	13	OZ	13	OZ	0	OZ	DS	124	L	Y	2	4	HARDEN
PAINT	CUSTOM TECH	6	OZ	6	OZ	0	OZ	DS	124	L	Y	2	4	HARDEN
PAINT	KRYLON	12	OZ	12	OZ	0	OZ	DS	124	L	Y	2	4	HARDEN
PRIME,COAT 1204	DOW CORNING	13.5	OZ	13.5	OZ	0	OZ	DS	124	L	F	1	4	HARDEN
PRIMER,SILICONE	GE	1	PT	1	PT	0	PT	DS	124	L	M	1	4	HARDEN
PUR-A-GOLD,POTASS.GOLD CYANIDE	SEL-REX	75	OZ	75	OZ	0	OZ	DS	124	S	N	1	4	HARDEN
STATIC FREE,C400	CHEMTRONICS	4	OZ	4	OZ	0	OZ	DS	124	L	Y	2	4	HARDEN
STIK FREE	BARD LAB	6	OZ	6	OZ	0	OZ	DS	124	L	Y	2	4	HARDEN
TRICH[illegible]ETHYLENE	MILLER STEPHENS	16	OZ	16	OZ	0	OZ	DS	124	L	Y	2	4	HARDEN
DHE[illegible] INSTANT	LOCKTITE	[illegible]	OZ	0.7	OZ	0	OZ	DS	126	L	N	[illegible]	4	HARDEN
HARDENING AGENT	SMOOTH-ON PRODUCTS	1.25	LB	1.25	LB	0	LB	DS	126	L	F	[illegible]	4	HARDEN

9.5-57

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
FREON	MILLER STEPHENSON	64	Z	63		0	OZ	DS	126	L	Y	2	4	HARDEN
GREASE,VACUUM	DOW-CORNING	2	OZ	2	OZ	0	OZ	DS	126	S	F	1	4	HARDEN
SEALING COMPOUND	KILLARD	64	OZ	64	OZ	0	OZ	DS	126	S	F	1	4	HARDEN
ACETONE	FISHER	500	ML	500	ML	100	ML	DS	131	L	N	1	4	HARDEN
EC7	BIOACT	500	ML	500	ML	0	ML	DS	131	L	M	1	4	HARDEN
ETHLENE GLYCOL		2	GA	2	GA	0	GA	DS	131	L	N	1	4	HARDEN
ETHYL ALCOHOL	MIDWEST GRAIN	3	GA	2	GA	1	GA	DS	131	L	N	1	4	HARDEN
HYDRAULIC OIL		500	ML	500	ML	0	ML	DS	131	L	N	1	4	HARDEN
HYDROLUBES		1	GA	1	GA	0	GA	DS	131	L	N	1	4	HARDEN
MET-L-X		3	LB	3	LB	0	LB	DS	131	S	F	1	4	HARDEN
MOLYBDENUM DISULFIDE	SIGMA ALDRICH CORP.	20	G	20	G	0	G	DS	131	S	M	1	4	HARDEN
OIL	TEXACO	1	QT	1	QT	0	QT	DS	131	L	F	1	4	HARDEN
PENETRATING OIL	BLUE RIBBON	4	OZ	4	OZ	0	OZ	DS	131	L	F	1	4	HARDEN
RUST REMOVER	CLING-SURFACE	1	PT	1	PT	0	PT	DS	131	L	N	1	4	HARDEN
SPAN 80	ICI AMERICAS IND	1	PT	1	PT	0	PT	DS	131	L	M	1	4	HARDEN
TRITON 101	ROHM & HAAS	500	ML	500	ML	0	ML	DS	131	L	M	1	4	HARDEN
VINYLTRICHLOROSILANE	FLUKA	500	ML	500	ML	0	ML	DS	131	L	F	1	4	HARDEN
DIFFUSION PUMP OIL	FIL-TECH	1	L	1	L	0	L	DS	131B	L	N	1	4	HARDEN
DUO SEAL PUMP	DUO SEAL	1	GA	1	GA	0	GA	DS	131B	L	N	1	4	HARDEN
PERFLUORO POLYETHER	MONTEFLUOS	3	GA	3	GA	0	GA	DS	131B	L	N	1	4	HARDEN
PUMP OIL	CVC	3	L	3	L	0	L	DS	131B	L	N	1	4	HARDEN
PUMP OIL,ALCATEL 100	ALEATEL	3	L	3	L	0	L	DS	131B	L	N	1	4	HADEN
TYRENO-12	FIL-TECH	2	L	2	L	0	L	DS	131B	L	N	1	4	HARDEN
ACETIC ACID	MALLINCKRODT	500	ML	500	ML	0	ML	DS	132	L	M	1	4	HARDEN
ACETONE	FISHER	8	L	8	L	2	L	DS	132	L	M	1		HARDEN
AMMONIUM HYDROXIDE	FISHER	2.5	L	2.5	L	0	L	DS	132	L	M	1	4	HARDEN
ETHYL ALCOHOL	AAPERM & McCORMICK	1	GA	1	GA	0	GA	DS	132	L	N	1	4	HARDEN
FERRIC CHLORIDE		1	L	1	L	0	L	DS	132	L	N	1	4	HARDEN
HYDROCHLORIC ACID	MALLINKRODT	14	LB	14	LB	0	LB	DS	132	L	M	1	4	HARDEN
HYDROGEN ELECTROLYTE	SENSIDYNE	200	ML	200	ML	0	ML	DS	132	L	N	1	4	HARDEN
HYDROGEN PEROXIDE	FISHER	1	L	1	L	0	L	DS	132	L	N	1	4	HARDEN
NITRIC ACID	MALLINKRODT	7	LB	7	LB	0	LB	DS	132	L	M	1	4	HARDEN
PHOSPHORIC ACID	MALLINCKRODT	500	ML	500	ML	0	ML	DS	132	L	M	1	4	HARDEN
PROPANOL	FISHER	1	GA	1	GA	0	GA	DS	132	L	M	1	4	HARDEN
SCOTCHWELD		0.5	PT	0.5	PT	0	PT	DS	132	S	M	1	4	HARDEN
SODIUM HYDROXIDE	MALLINKRODT	1	KG	1	KG	0	KG	DS	132	S	N	1	4	HARDEN
SODIUM SULFITE	FISHER	200	G	200	G	0	G	DS	132	L	M	1	4	HARDEN
STRIPPER (CHROME ETCHANT)	MICROPAC	1	L	1	L	0	L	DS	132	L	N	1	4	HARDEN
SULFURIC ACID	MALLINKRODT	7	LB	7	LB	0	LB	DS	132	L	M	1	4	HARDEN
TOULENE	MCB	2.5	L	2.5	L	0	L	DS	132	L	M	1	4	HARDEN
TRICHLOROETHANE	FISHER	4	L	4	L	0	L	DS	132	L	M	1	4	HARDEN
TRIMETHOXYSILYMETHACRYLATE	FLUKA	500	ML	500	ML	0	ML	DS	132	L	M	1	4	HARDEN
3 IN 1 OIL	BOYLE MEDWAY	6	OZ	6	OZ	2	OZ	DS	135	L	F	1	4	BORNEMA
ADHESIVE 1 SEALING COMP	STEVENS IND	1.75	OZ	1.75	OZ	0.2	OZ	DS	135	L	R	1	4	BORNEMA
AIR JET	GC ELECTRONICS	7.5	LB	9	LB	1.5	LB	DS	135	L	F	1	4	BORNEMA
ALCONOX DETERGENT	ALCONOX	2	LB	4	LB	1	LB	DS	135	S	K	1	4	BORNEMA

9.5-58

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
AQUEOUS ELEC...OLYTIC CONDUCTIVITY	NIST	1200	[illegible]	1300	ML	100	ML	DS	135	L	M	1	4	BORNEMANN
ARGON IN 5% O2	MATHESON	200	CF	200	CF	100	CF	DS	135	G	L	1	4	BORNEMANN
BIG BATH	GC ELECTRONICS	9	LB	9	LB	4	LB	DS	135	L	F	1	4	BORNEMANN
BORAX	NIST	2	OZ	16	OZ	2	OZ	DS	135	S	M	1	4	BORNEMANN
CEMENT RUBBER TO METAL	GC ELECTRONICS	2	OZ	2	OZ	0	OZ	DS	135	L	M	1	4	BORNEMANN
DIOCTYL SEBACATE	J.P. HALL CO	38	LB	40	LB	2	LB	DS	135	L	N	1	4	BORNEMANN
DISINFECTANT DEODORANT	STANDARD SANITATION SYSTEMS, INC	16	OZ	16	OZ	2	OZ	DS	135	L	F	1	4	BORNEMANN
DISODIUM HYDRO PHOSPHATE	NIST	4	OZ	16	OZ	0	OZ	DS	135	S	M	1	4	BORNEMANN
DUO SEAL PUMP OIL	SARGENT-WELCH SCIENTIFIC	42	OZ	52	OZ	10	OZ	DS	135	L	N	1	4	BORNEMANN
ETHYL ALCOHOL (190)	BAKER	1	GA	1	GA	0.5	GA	DS	135	L	F	1	4	BORNEMANN
FLUX SOLDERING	HARRIS CORP	10	OZ	12	OZ	2	OZ	DS	135	L	N	1	4	BORNEMANN
FURNITURE POLISH	RITE-OFF	14	OZ	14	OZ	2	OZ	DS	135	L	F	1	4	BORNEMANN
GLYCERINE	AVL CORP	1	GA	1	GA	0	GA	DS	135	L	N	1	4	BORNEMANN
GRAFO-404 LUBOIL	GRAFO COLLOIDS CORP	1	OZ	4	OZ	3	OZ	DS	135	L	F	1	4	BORNEMANN
HAND LOTION	PONDS	10	OZ	10	OZ	8	OZ	DS	135	L	N	1	4	BORNEMANN
HE 175 PUMP OIL	LEYBOLD HERAEUS CO	4	LB	5	LB	1	LB	DS	135	L	N	1	4	BORNEMANN
HE 200 PUMP OIL	LEYBOLD HERAEUS CO	0.5	GA	1	GA	0.5	GA	DS	135	L	N	1	4	BORNEMANN
INLAND-19 PUMP FLUID	INLAND VACUUM IND. INC.	2	GA	2	GA	0.5	GA	DS	135	L	N	1	4	BORNEMANN
KINDEST CARE SKIN CLEANER	MERCK	1	GA	1	GA	1	GA	DS	135	L	M	1	4	BORNEMANN
KRYLON SPRAY COATING	BORDEN	12	OZ	13	OZ	1	OZ	DS	135	L	F	1	4	BORNEMANN
LEAK-TEC	AMERICAN GAS AND CHEMICAL	1.5	OZ	4	OZ	2.5	OZ	DS	135	L	F	1	4	BORNEMANN
LIFT AWAY	RESEARCH PRODUCTS	2	QT	3	QT	1	QT	DS	135	L	N	1	4	BORNEMANN
LIFT-AWAY	RESEARCH PRODUCTS	4	QT	4	QT	1	QT	DS	135	L	N	1	4	BORNEMANN
LIQUID NITROGEN	AIR PRODUCTS	194	CF	194	CF	1000	CF	DS	135	L	L	1	4	BORNEMANN
LIQUID NITROGEN	AIR PRODUCTS	200	CF	200	CF	200	CF	DS	135	L	L	4	4	BORNEMANN
LIQUID PAPER	GILLETTE CO	0.6	OZ	0.6	OZ	0	OZ	DS	135	L	N	1	4	BORNEMANN
MERCURY	BETHLEHEM	52	LB	52	LB	1	LB	DS	135	L	N	1	4	BORNEMANN
MERCURY	BETHLEHEM	6	OZ	8	OZ	2	OZ	DS	135	L	N	1	4	BORNEMANN
METAL LUSTER CLEANER	HOLCOMB	1	LB	1	LB	0	LB	DS	135	L	N	1	4	BORNEMANN
METHANE	MATHESON	27	CF	27	CF	108	CF	DS	135	G	L	1	4	BORNEMANN
MICRO GLASS LAB CLEANER	INTERNATIONAL PRODUCTS CORP	2.5	LB	2.5	LB	0	LB	DS	135	L	N	1	4	BORNEMANN
MICRODUSTER	TEXWIPE	8	LB	8	LB	1	LB	DS	135	L	F	1	4	BORNEMANN
NITROGEN	AIR PRODUCTS	2200	CF	2200	CF	500	CF	DS	135	G	L	1	4	BORNEMANN
NITROGEN UPH	MATHESON	27	CF	27	CF	135	CF	DS	135	G	L	1	4	BORNEMANN
OCTOIL SILICONE OIL	DOW CORNING	4	OZ	5	OZ	1	OZ	DS	135	L	N	1	4	BORNEMANN
OXYGEN	MATHESON	28	CF	28	CF	25	CF	DS	135	G	L	1	4	BORNEMANN
OXYGEN IN NITROGEN	MATHESON	54	CF	27	CF	108	CF	DS	135	G	L	1	4	BORNEMANN
PHOTO MOUNT SPRAY ADHESIVE	3M	10	OZ	10	OZ	0	OZ	DS	135	L	F	1	4	BORNEMANN
POTASSIUM DIHYDRIDE PHOSPHATE	NIST	2	OZ	16	OZ	2	OZ	DS	135	S	M	1	4	BORNEMANN
POTASSIUM HYD. PHTHALATE	NIST	3	OZ	16	OZ	1	OZ	DS	135	S	M	1	4	BORNEMANN
PRISM ADHESIVE CEMENT	LOCTITE	2	OZ	3	OZ	1	OZ	DS	135	L	N	1	4	BORNEMANN
PROPANE	AIRCO	25	LB	25	LB	25	LB	DS	135	G	L	1	4	BORNEMANN
RUBBER CEMENT	AMERICAN WRITING INK	3	OZ	4	OZ	1	OZ	DS	135	L	M	1	4	BORNEMANN
SCOURING POWDER NSN7930-DD-9X5-6902	FITZPATRICK BROTHERS INC.	2	OZ	14	OZ	12	OZ	DS	135	S	F	1	4	BORNEMANN
SEALANT	DOW CORNING	6	OZ	6	OZ	0	OZ	DS	135	L	R	1	4	BORNEMANN
SODIUM BICARBONATE	NIST	4	OZ	16	OZ	0	OZ	DS	135	S	M	1	4	BORNEMANN
SODIUM CARBONATE	NIST	4	OZ	16	OZ	0	OZ	DS	135	S	M	1	4	BORNEMANN

9.5-59

CHEMICAL	MANUFACT	USE	[illegible]	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
SOLDER FLUX SI[illegible]	W. HARRIS CO	1	[illegible]	1	LB	1	LB	DS	135	S	F	1	4	[illegible]RNEMANN
SOLDER, ALPHA	ALPHA METALS	2	LB	5	LB	1	LB	DS	135	S	R	1	4	[illegible]RNEMANN
SOLDER, DIVCO	LEAD CO	8	OZ	16	OZ	4	OZ	DS	135	S	R	1	4	BORNEMANN
SOLDER, ERSIN MULTICORE	MULTICORE SOLDERS LTD	4.5	LB	5	LB	0.5	LB	DS	135	S	R	1	4	BORNEMANN
SOLDER, RESIN CORE	KESTER	4	OZ	16	OZ	4	OZ	DS	135	S	R	1	4	BORNEMANN
SPINNECTIC OIL (RUSKA)	EXXON	3	GA	4	GA	1	GA	DS	135	L	F	1	4	BORNEMANN
STAINLESS STEEL CLEANER/POLISH	3M	2.5	LB	2.5	LB	0.5	LB	DS	135	L	F	1	4	BORNEMANN
SULFER	MALLINCKRODT CHEMICAL WORKS	1	LB	1	LB	0	LB	DS	135	S	F	1	4	BORNEMANN
VACSORB MOLECULAR SIEVE	UOP	11	LB	12	LB	1	LB	DS	135	S	F	1	4	BORNEMANN
WD-40	WD-40 CO	18	OZ	18	OZ	6	OZ	DS	135	L	F	1	4	BORNEMANN
ETHYL ALCOHOL	MIDWEST GRAIN PRODUCTS	0.5	GA	1	GA	0.5	GA	DS	151	L	N	1	4	LOWREY
ALCOHOL	MIDWEST GRAIN	2	GA	2	GA	0	GA	DS	201	L	N	1	4	EGLESTON
ASILAMINE		500	ML	500	ML	0	ML	DS	201	L	N	1	4	EGLESTON
DUSTER	SIPI	14	OZ	14	OZ	2	OZ	DS	201	G	Y	2	4	EGLESTON
EPOXY	COLE PARMER	35	OZ	35	OZ	6	OZ	DS	201	L	J	1	4	EGLESTON
LOCKTITE	LOCKTITE	8	OZ	8	OZ	1	OZ	DS	201	L	N	1	4	EGLESTON
MOLD RELEASE	MILLER STEPHENSON	16	OZ	16	OZ	0	OZ	DS	201	L	Y	2	4	EGLESTON
MOLD RELEASE	AXEL	1	GA	1	GA	0	GA	DS	201	L	F	1	4	EGLESTON
OIL	LIQUID WRENCH	4	OZ	4	OZ	0	OZ	DS	201	L	F	1	4	EGLESTON
RTV SILICON	GE	10.3	OZ	10.3	OZ	0	OZ	DS	201	S	N	1	4	EGLESTON
SOLDER FLUX	UNK	4	OZ	4	OZ	0	OZ	DS	201	S	N	1	4	EGLESTON
SOLDER PASTE	RUBY CHEMNICAL							DS	201	S	F	1	4	F[illegible]
ULTRASONIC CLEANER	BRANSONIC	1	QT	1	QT	0	QT	DS	201	L	N	1	4	[illegible]STON
ULTRASONIC CLEANER	BRANSONIC	1	QT	1	QT	0	QT	DS	201	L	N	1	4	EGLESTON
WD-40	WD-40 CO.	9	OZ	9	OZ	0	OZ	DS	201	L	Y	2	4	EGLESTON
ARGON	AIR PRODUCTS	1500	CF	1500	CF	4500	CF	DS	206	G	L	2	4	MILLER
BUTANE	AIR PRODUCTS	8	OZ	8	OZ	1	OZ	DS	206	G	L	2	4	MILLER
3140 RTV COATING	DOW	16	OZ	16	OZ	0	OZ	DS	207	L	F	1	4	HARDEN
3141 RTV COATING	DOW	16	OZ	16	OZ	0	OZ	DS	207	L	F	1	4	HARDEN
ATC-3 ACCELERATOR	W.H.BRADY CO.	1	L	1	L	0	L	DS	207	L	N	1	4	HARDEN
ATC-3 ACCELERATOR	MILLER-STEPHENSON	6	GA	6	GA	0	GA	DS	207	L	F	1	4	HARDEN
EPON RESIN 828	MILLER-STEPHENSON	32	OZ	32	OZ	0	OZ	DS	207	L	N	1	4	HARDEN
EPON RESIN 828	MILLER-STEPHENSON	32	OZ	32	OZ	0	OZ	DS	207	L	N	1	4	HARDEN
EPOXY KIT	COLE PARMER	1	OZ	2	OZ	1	OZ	DS	207	P	K	1	4	HARDEN
EPOXYLITE HARDNER	EPOXYLITE CORP.	0.5	LB	0.5	LB	0.1	LB	DS	207	L	F	1	4	HARDEN
EPOXYLITE RESIN	EPOXYLITE CORP.	1.48	LB	1.48	LB	0.1	LB	DS	207	L	F	1	4	HARDEN
NADIC METHYL ANHYDRIDE	SPECTRUM CHEMICAL	2.5	KG	2.5	KG	0	KG	DS	207	L	M	1	4	HARDEN
NIAX 1025 POLYOL	UNION CARBIDE	5	GA	5	GA	0	GA	DS	207	L	F	1	4	HARDEN
NIAX POLYOL PPG-1025	W.H.BRADY	1	L	1	L	0	L	DS	207	L	N	1	4	HARDEN
PERMABOND 910	PERMABAOND INTL.	1	OZ	1	OZ	0.1	OZ	DS	207	L	N	1	4	HARDEN
PHFFT PRECISION DUSTER	FISHER	18	OZ	18	OZ	4	OZ	DS	207	G	Y	2	4	HARDEN
PLETHANOLAMINE	FISHER	500	ML	500	ML	0	ML	DS	207	L	M	1	4	HARDEN
SILICON RUBBER COMPOUND RTV 630A	GE	0.91	LB	1	LB	0.1	LB	DS	207	L	F	1	4	HARDEN
SILICONE PRIMER BLUE	GWE	1	PT	1	PT	0	PT	DS	207	L	M	1	4	HARDEN
SILICONE RUBBER CURING AGENT RTV630B	GE	0.09	LB	0.1	LB	0.01	LB	DS	207	L	N	1	4	HARDEN
THREAD LOCKER 222	LOCTITE	1.69	OZ	1.69	OZ	0.5	OZ	DS	207	L	N	1	4	HARDEN
[illegible]	[illegible]	2	QT	4	QT	1	QT	DS	216	L	M	1		[illegible]

9.5-60

HEMICAL	MANUFACT	USE	[illegible]	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TM[illegible]	SUPER
RGON	AIR PRODUCTS	600	[illegible]	600	CF	600	CF	DS	215	G	L	2	4	[illegible]ILLER
THYL ALCOHOL	FISHER	1	PT	1	PT	5	PT	DS	215	L	N	1	4	MILLER
LUX, RESIN 197	KESTOR SOLDER	1	QT	1	QT	0.1	PT	DS	215	L	N	1	4	MILLER
OPROPYL ALCOHOL	MALLINCKRODT	250	ML	250	ML	100	ML	DS	215	L	N	1	4	MILLER
XALIC ACID	MALLINCKRODT	500	G	500	G	50	G	DS	215	S	M	1	4	MILLER
LCONOX	CURTIS MATHESON	0.75	QT	2	QT	0.5	QT	DS	251	S	N	1	4	LOWREY
ESOLV-IT	ORANGE-SOL	8.5	GA	9	GA	0.5	GA	DS	251	L	K	1	4	LOWREY
ABELING ADHESIVE	3M	6	OZ	8	OZ	8	OZ	DS	251	L	F	1	4	LOWREY
EUTRA STAT	SIMCO	11	QT	11	QT	7	QT	DS	251	L	F	1	4	LOWREY
USTOLEUM	RUSTOLEUM	24	OZ	32	OZ	16	OZ	DS	251	L	N	1	4	LOWREY
PRAY PAINT	KRYLON	18	OZ	24	OZ	6	OZ	DS	251	L	F	1	4	LOWREY
VD-40	WD-40 CO.	22	OZ	27	OZ	4	OZ	DS	251	L	F	1	4	LOWREY

DS 459

Building Manager's Questionnaire

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

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?

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

23. Where do excess janitorial supplies go?

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

Building Manager's Questionnaire

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

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

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
68476-34-6	DIESEL FUEL	30 GAL		Y/N	
7697-37-2	NITRIC ACID	01 C		Y/N	
7440-37-1	ARGON	01 C		Y/N	215
7440-37-1	ARGON	02 C		Y/N	206
7440-37-1	ARGON	01 C			135
7440-37-1	ARGON	01 C			123
7664-93-9	SULFURIC ACID	01 C			132
7782--37-9	NITROGEN	03 C			135
7782-37-9	NITROGEN	04 C			135
7782-37-9	NITROGEN	02 C			135
7782-37-9	NITROGEN	01 C			123
7782-37-9	NITROGEN	01 C			135
7782-37-9	NITROGEN	04 C		Y/N	Outside

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

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

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

Source: _____

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

Materials	Amount
ATTACHED	

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

9.5-63

DS BLDG	CYANO PHENOL	D002	0.4
DS BLDG	DEVELOPER CD-30	D002	0.8
DS BLDG	DIETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	D001	36.2
DS BLDG	DIHYDROXY DIPHENYL SILANE	NONE	0.2
DS BLDG	DRAIN CLEANER	D002	5.7
DS BLDG	DRY ACID SALT WASTE	NONE	264.0
DS BLDG	DYKEM DX-296	D001	1.3
DS BLDG	ELECTRO BRITE	D002	1.4
DS BLDG	EPOXYLITE 8822 PART A	NONE	1.0
DS BLDG	EPOXYLITE 8822 PART B	NONE	0.5
DS BLDG	ETHYL ALCOHOL, WATER WASTE	D001	116.3
DS BLDG	ETHYLENE GLYCOL, WATER	NONE	480.0
DS BLDG	FERRIC CHLORIDE	D002 D006 D007 D008	644.4
DS BLDG	FERRIC CHLORIDE WASTE	D002	487.3
DS BLDG	FERRIC CHLORIDE WASTE	D002	464.2
DS BLDG	FERRIC CHLORIDE WASTE	D002	605.0
DS BLDG	FERRIC CHLORIDE WASTE	D002	313.0
DS BLDG	FREON WASTE	F002	738.5
DS BLDG	FREON WASTE	F002	737.0
DS BLDG	HAFNIUM HYDRIDE, ACETONE (FORMERLY LP91-1249)	D001 D003 F003	0.5
DS BLDG	HALTHANE 73-18 CURING AGENT	NONE	1.0
DS BLDG	HETRON 197	D001	89.6
DS BLDG	HYDROCHLORIC ACID	D002	7.1
DS BLDG	HYDROCHLORIC ACID	D002	2.0
DS BLDG	IODINE	NONE	2.0
DS BLDG	ISOPAR H	D001	36.8
DS BLDG	KEPRO 1G	D001	7.6
DS BLDG	KESTER FLUX	D001	2.0
DS BLDG	KONICA PCC-A	NONE	4.0
DS BLDG	LEAD FILTERS	D008	3.0
DS BLDG	LOCTITE 416	D001	1.1
DS BLDG	LUPERSOL DDM-9	D001	8.0
DS BLDG	MARKEM 7132 IVORY INK	NONE	0.1
DS BLDG	MARKEM 8829 BLACK INK	NONE	0.3
DS BLDG	MARKEM 8829 IVORY INK	NONE	0.1
DS BLDG	MERCURY WASTE	D009 U151	0.4
DS BLDG	METHYL ISOBUTYL KETONE	D001 F003	3.7
DS BLDG	MOLD RELEASE 225	D001	2.1
DS BLDG	NABC CLEANER	NONE	2.0
DS BLDG	NICKEL SULFATE	NONE	269.0
DS BLDG	NICKEL SULFATE CLEANUP MATERIAL	NONE	52.9
DS BLDG	PCB OIL BOTTLES	PCB2	25.0
DS BLDG	PHENANTHROLINE	NONE	0.1
DS BLDG	PHOTO RESIST	D002	1.8
DS BLDG	PHOTO RESIST	D002	1.7
DS BLDG	POLYAMIDE RESIN	D001	2.0
DS BLDG	PURPLE INK	D001	0.8
DS BLDG	RUSTICIDE	D002	1.0
DS BLDG	SILICA GEL	NONE	156.5
DS BLDG	SILICA GEL	NONE	126.5
DS BLDG	SILICA GEL WASTE	NONE	154.9
DS BLDG	SILICA GEL WASTE	NONE	257.5
DS BLDG	SILICON POWDER	NONE	0.1

p 7b

Bldg.

DS-125	ANTI STATIC SOLUTION	NONE	0.3
DS-125	ARSENOUS ACID	D002 D004	0.3
[illegible]-125	BARIUM CHLORIDE	D005	0.9
[illegible]25	BARIUM CHLORIDE	D005	2.2
[illegible]-125	BIOACT WASTE	D001 D040 F001 F003	106.8
DS-125	BLUE PAST 2301	NONE	51.9
DS-125	BLUE PASTE	NONE	0.9
DS-125	BROMINE	D002 D003	1.7
DS-125	COPPER METAL ACCELERATOR	NONE	8.7
DS-125	COPPER OXIDE	NONE	0.6
DS-125	COPPER STRIP ACCELERATOR	NONE	1.0
DS-125	DEXTROSE	NONE	12.9
DS-125	DIOCTYL PHTHALATE	NONE	4.6
DS-125	DIPHENYL METHANE 4,4 DIISOCYANATE	D001 D003	1.0
DS-125	EPON RESIN 828	NONE	5.5
DS-125	EPON RESIN 828	NONE	3.7
DS-125	EPON RESIN 828	NONE	0.6
DS-125	EPOXY RESIN	D001	1.8
DS-125	EPOXYLITE 8822 PART A	NONE	1.3
DS-125	EPOXYLITE 8822 PART A	NONE	1.3
DS-125	EPOXYLITE 8822 PART B	D002	0.5
DS-125	EPOXYLITE 8822 PART B	D002	0.5
DS-125	ETHANOL WASTE	D001	40.5
DS-125	ETHANOL WASTE	D001	41.1
DS-125	ETHANOL WASTE	D001	24.5
DS-125	ETHYL ALCOHOL	D001	8.2
DS-125	ETHYL ALCOHOL	D001	3.9
[illegible]-125	FREON	F002	7.9
[illegible]125	FREON TF	F002	40.0
[illegible]125	FREON WASTE	F002	7.5
DS-125	FREON WASTE	F002	27.2
DS-125	GE 630 PART A	NONE	1.9
DS-125	GE 630 PART B	NONE	0.2
DS-125	GE SILICON PRIMER SS4155	D001	1.4
DS-125	GREEN DYE	NONE	3.2
DS-125	GREEN GLUE	NONE	2.9
DS-125	IODINE	NONE	1.3
DS-125	IRON POWDER ACCELERATOR	D003	1.8
DS-125	KESTER SOLDERING FLUX 197	D001	1.0
DS-125	MAGNESIUM OXIDE	NONE	2.3
DS-125	MANGANESE DIOXIDE	D001	0.3
DS-125	METHANOL WASTE	D001 F003	4.0
DS-125	PATCHING COMPOUND	F003 F005	1.9
DS-125	PDI BLUE 2301	NONE	18.1
DS-125	PDI YELLOW 2248	NONE	19.3
DS-125	PERMABOND 910	NONE	0.1
DS-125	POTASSIUM BIIODATE	D001	0.9
DS-125	POTASSIUM BROMATE	D001	0.8
DS-125	POTASSIUM BROMIDE	NONE	1.2
DS-125	POTASSIUM DICHROMATE	D001 D007	0.4
DS-125	POTASSIUM FERROCYANIDE	D003	0.7
[illegible]S-125	POTASSIUM IODATE	D001	0.6
[illegible]S-125	PRINTED CIRCUIT BOARDS	D008	5.7
DS-125	RTV-630 PART B	F005	0.1
25	SILCON DIOXIDE	NONE	64.0

2 7d

DS-125	SILICA GEL	NONE	4.6
DS-125	SILICA GEL	NONE	16.5
DS-125	SILICA GEL PACKETS	NONE	18.4
DS-125	TIN METAL ACCELERATOR	NONE	0.4
DS-125	TRICHLORO ETHYLENE	D040 F001	2.2
DS-125	TRICHLOROETHYLENE WASTE	D040 F001	279.0
DS-125	TRIPHENYL PHOSPHITE	NONE	2.8
DS-125	TRIPHENYL PHOSPHITE	NONE	1.4
DS-125	VACUUM PUMP FLUID	NONE	3.8
DS-125	VERSAMID 140	NONE	3.1
DS-125	VERSAMID 140	NONE	3.4
DS-125	WELDWOOD CONTACT CEMENT	D001 F002 F005	1.5
DS-125	YELLOW PASTE	NONE	0.8
DS-125	YELLOW PASTE 2248	NONE	109.6
DS-126	AMMONIA THALOCYANINE	D002 D003	3.0
DS-126	AMMONIUM HYDROXIDE	D002	1.9
DS-126	AMMONIUM SULFATE	NONE	0.1
DS-126	BORON STANDARD SOLUTION	NONE	8.2
DS-126	BROMO CRESOL PURPLE	D001	0.2
DS-126	CHROMIC PERCHLORATE	D001 D007	0.1
DS-126	COPPER CLEANER WITH FERRIC CHLORIDE	D002	2.3
DS-126	EMRALON 320	D001	3.0
DS-126	FERRIC CHLORIDE SOLIDS	NONE	14.0
DS-126	MARKEM 207 CLEANER	F002	6.6
DS-126	METHYL ORANGE SOLUTION	NONE	3.4
DS-126	NICKEL STANDARD SOLUTION IN NITRIC	NONE	1.9
DS-126	NICKEL SULFATE	NONE	0.1
DS-126	ORION IONALYZER	NONE	0.1
DS-126	ORION IONALYZER	NONE	0.1
DS-126	SODIUM HYDROXIDE SOLUTION	D002	1.8
DS-126	SULFURIC ACID	D002	0.3
DS-126	TINNING SOLUTION	D002	2.2
DS-126	TOLUENE	D001 F005	0.3
DS-131	ACETIC ACID	D001 D002	3.8
DS-131	ACETIC ACID	D001 D002	2.0
DS-131	ASIMILINE 170	NONE	1.0
DS-131	BIOACT EC7	D001	7.1
DS-131	CABOSIL	NONE	10.0
DS-131	CARBON TETRA CHLORIDE	D019	1.8
DS-131	CYANOCURE	NONE	2.9
DS-131	DOW 705 FLUID	NONE	2.0
DS-131	DYMAN INK	D001	0.3
DS-131	ETHANOL	D001	6.9
DS-131	ETHANOL WASTE	D001	7.4
DS-131	ETHYL ALCOHOL	D001	4.2
DS-131	ETHYL ALCOHOL	D001	0.5
DS-131	EXTERNAL MOLD RELEASE	D001 D035 F002 F003 F005	8.0
DS-131	GE SILICONE SS4179	D001	1.5
DS-131	ISOPROPANOL	D001	8.6
DS-131	METHYL PYRRILODINONE (1-,-2-)	D001	1.3
DS-131	METHYLENE CHLORIDE	F002	9.4
DS-131	MICROPOSIT DEVELOPER CD-30	D002	8.9
DS-131	MICROPOSIT EDGE BEAD REMOVER	D001	33.9
DS-131	MICROPOSIT PHOTO RESIST	D001 F003	2.9
DS-131	MICROPOSIT PHOTO RESIST 51400	D001 F003	9.7

p 7e

DS-131	MICROPOSIT PRIMER	D001	2.5
DS-131	MICROPOSIT REMOVER	D001	9.0
[illegible]31	MICROPOSIT THINNER TYPE A	D001 F003	8.6
[illegible]1	MOLYBDENUM DISULFIDE	NONE	0.2
DS-131	PHENYL METHYL POLY SILANE	D001	0.8
DS-131	PHOSPHORIC ACID	D002	2.9
DS-131	PRIME COAT	D001	0.9
DS-131	RECORDER INK	D001	1.8
DS-131	SOLDER FLUX	D001	0.1
DS-131	SPAN 80	NONE	1.7
DS-131	STAY CLEAN	D002	2.0
DS-131	TETRAHYDROFURAN	D001 D003 U213	11.3
DS-131	TOLUENE	D001 F005 U220	8.9
DS-131	TRICHLOROETHANE (1,1,1-)	F002	14.3
DS-131	TRICHLOROETHYLENE	D040 F002	4.8
DS-131	TRITON N101	NONE	0.5
DS-131	ULTRASONIC CLEANER- GENERAL	D002	0.5
DS-131	ULTRASONIC CLEANER- INDUSTRIAL	D002	0.8
DS-131	WHITE GAS	D001	10.0
DS-135	BRAZING FLUX	NONE	1.2
DS-135	DE-OX-ID	D001	0.2
DS-135	DOW 560 FLUID	NONE	2.0
DS-135	DYKEM LAYOUT RED DX-296	D001	0.3
DS-135	FREON	F002	2.1
DS-135	GC RUBBER CEMENT	D001 D035 F005	0.1
DS-135	HEAT SINK COMPOUND	NONE	0.2
DS-135	LITHIUM CHLORIDE SOLID	NONE	0.7
[illegible]35	LITHIUM CHLORIDE SOLUTION	NONE	1.5
[illegible]35	LUDOX	D002	47.0
[illegible]35	METHYLENE BUTANE	D001	6.1
DS-135	METHYLENE CHLORIDE	F002	1.1
DS-135	MONOPLEX DOS	NONE	33.0
DS-135	OIL WASTE	NONE	3.6
DS-135	OIL WASTE	NONE	0.6
DS-135	PENTANE	D001	5.7
DS-135	PERMABOND 910	D001	0.1
DS-135	POTASSIUM IODIDE SOLUTION	NONE	1.1
DS-135	PVC SOLVENT CEMENT	D001	0.6
DS-135	RECORDER INK	D001	1.2
DS-135	RTV-7 CURING CATALYST	NONE	1.0
DS-135	RTV-7 SILICONE RUBBER	NONE	1.9
DS-135	RUBBER TO METAL CEMENT	D001 D035 F005	1.4
DS-135	SOLDERING PASTE	NONE	0.5
DS-135	VALVE LUBRICANT	NONE	8.6
DS-207	AEROJET ACCELERATOR ATC-3	D007	57.4
DS-207	DIETHANOL AMINE	NONE	2.0
DS-207	DOW 3140 RTV	NONE	2.6
DS-207	EPON 828	NONE	2.5
DS-207	EPOXYLITE 8822 PART A	NONE	1.3
DS-207	EPOXYLITE 8822 PART B	D002	0.5
DS-207	ETHYL ALCOHOL	NONE	9.9
[illegible]-207	GE SILICONE SS4155	D001	1.4
[illegible]-207	GLASS BUBBLES	NONE	21.6
DS-207	LOCTITE 222	D001	0.2
[illegible]07	MOLECULAR SEIVES	NONE	1.0

DS-207	MOLECULAR SEIVES	NONE	2.0
DS-207	MOLECULAR SEIVES	NONE	1.0
DS-207	MOLECULAR SEIVES	NONE	2.0
[illegible]07	MOLECULAR SEIVES	NONE	3.3
DS-207	NADIC METHYL ANHYDRIDE	D002	8.3
DS-207	NIAX POLYOL PPG-1025	NONE	42.4
DS-207	RTV 630 PART A	NONE	0.6
DS-214	ACETIC ACID SPILL CLEANUP	NONE	142.1
DS-214	ACETIC ACID SPILL CLEANUP	NONE	224.5
DS-215	EPOXY RESIN	D001	1.3
DS-215	EPOXY RESIN WITH POLYAMINE	D001	1.2
DS-216	SCOTCH WELD	D001	0.3
DS-217	COPPER BRITE	NONE	31.0
DS-217	PHOSPHORIC ACID	D002	1.0
DS-218	3M ELECTRICAL RESIN A	D001	0.5
DS-218	3M ELECTRICAL RESIN B	D001	0.5
DS-218	BELZONA E METAL BASE	NONE	2.8
DS-218	BELZONA META SOLIDIFIER	NONE	0.9
DS-218	CONAP CONATHANE EN7-B	NONE	0.5
DS-218	ELASTOMER CONDITIONER	NONE	0.5
DS-218	ENERGINE CLEANING FLUID	D001	0.5
DS-218	EPOXY CTBN	NONE	3.1
DS-218	EPOXYLITE 8822 PART A	NONE	1.5
DS-218	EPOXYLITE 8822 PART B	NONE	0.5
DS-218	MP FLUID ELASTOMER BASE	NONE	3.9
DS-218	MP FLUID ELASTOMER SOLIDIFER	NONE	1.9
DS-218	SILICONE	D001	2.0
DS-218	SILICONE	D001	6.0
[illegible]218	SILICONE CURING AGENT	D001	0.1
[illegible]18	TOLUENE DIISOCYANATE	D001	1.0
DS-225	ARMSTRONG ADEHSIVE	D001	15.8
DS-225	CARBON DISULFIDE	D001 F005	3.0
DS-225	CEMENT SOLVENT	D001	1.4
DS-225	CONATHANE EN7 PART B	NONE	0.5
DS-225	DE-OX-ID	D001	0.5
DS-225	EPON 828	NONE	4.5
DS-225	EPOXY RESIN	D001	1.0
DS-225	EPOXYLITE 8822 PART A	NONE	2.5
DS-225	EPOXYLITE 8822 PART B	D002	1.0
DS-225	FLUX 30	D002	0.4
DS-225	FLUX 30	D002	0.4
DS-225	HALTHANE CURING AGENT 73-18	NONE	0.1
DS-225	HALTHANE RESIN 73-18	NONE	0.2
DS-225	LEAD OCTOATE WITH SYRINGES	D008	5.0
DS-225	MARKEM BLACK INK	NONE	0.3
DS-225	NICKEL ACETATE	NONE	106.0
DS-225	NICKEL CHLORIDE	NONE	8.9
DS-225	RESIN WASTE	NONE	70.3
DS-225	RESIN WASTE	NONE	85.8
DS-225	RESIN WASTE	NONE	176.0
DS-225	SPRAY CLEAN	D001 D022	10.6
DS-225	SS 4155	D001	1.0
DS-225	TRIPHENYL PHOSPHATE	NONE	1.4
DS-225	TRIPHENYL PHOSPHITE	D001	1.4
[illegible]25	TRIPHENYL PHOSPHITE	NONE	6.2

DS-225	VERSIMID 125	NONE	1.0
DS-225	VERSIMID 140	NONE	1.0
[illegible]226	3M SCOTCHLITE	NONE	2.9
[illegible]26	CALCIUM SULFATE	NONE	4.1
DS-226	DIETHANOLAMINE	NONE	12.4
DS-226	DIPSODAL	NONE	1.2
DS-226	DUPONT 1202 THINNER	D001	7.2
DS-226	EPON RESIN 828	NONE	14.7
DS-226	ISOPROPANOL	D001	9.0
DS-226	KESTER FLUX 197	D001	4.8
DS-226	LACQUER THINNER	D001	6.9
DS-226	MARKEM 207 CLEANER	F002	15.1
DS-226	METHYLENE CHLORIDE	U080 F002	23.0
DS-226	NITRIC ACID	D002	7.0
DS-226	PDI BLUE 38010	NONE	9.1
DS-226	PDI BLUE PASTE	NONE	0.4
DS-226	PDI BLUE PASTE 22-38010	NONE	7.6
DS-226	PDI YELLOW 20480	NONE	7.8
DS-226	PDI YELLOW PASTE	NONE	0.5
DS-226	PDI YELLOW PASTE 22-20481	NONE	8.7
DS-226	SODIUM CHLORATE (.1%), WATER	D001	3.9
DS-226	VERSAMID 140	NONE	0.4
DS-227	CHROMIUM POWDER	D007	4.4
DS-227	GADOLINIUM METAL	NONE	0.4
DS-227	HASTELLOY	D006 D007	0.1
DS-227	MOLYBDENUM POWDER	D003	6.0
DS-227	NARLINER	D001 F005	5.8
[illegible]227	POTASSIUM BICARBONATE	NONE	2.0
[illegible]227	SUBMICRON MOLYBDENUM	D003	1.0
[illegible]27	TANTALUM POWDER	D003	3.6
DS-227	TITANIUM BORIDE	NONE	0.1
DS-227	TUNGSTEN POWDER	D003	2.2
DS-229	HALTHANE 7318 A	D003	0.2
DS-229	HALTHANE 7318 B	NONE	0.2
DS-229	KESTER 197 THINNER	D001	4.0
DS-229	SULFUR	NONE	2.0
DS-231	B4 HARDENER	D002	0.2
DS-231	DER 331	NONE	2.2
DS-231	OAKITE 33	D002	46.9
DS-231	VERSIMID 140	NONE	2.0
DS-246	ACETIC ACID	D001 D002	2.1
DS-246	ACETIC ACID, GLACIAL	D002	1.0
DS-246	ALUMINUM IODIDE	D003	0.2
DS-246	ALUMINUM POWDER	D003	0.1
DS-246	AMMONIUM ACETATE	NONE	1.1
DS-246	BARIUM GRANULES	D005	0.1
DS-246	BISMUTH LEAD	D008	0.2
DS-246	CALCIUM SHOT	D003	0.1
DS-246	CALCIUM SHOT	D003	0.1
DS-246	CHROMIUM IODIDE	D007	0.1
DS-246	CHROMIUM OXIDE	D007	0.1
[illegible]-246	CHROMIUM SHOT	D007	0.1
[illegible]-246	COBALTIC IODIDE	NONE	0.1
DS-246	CONDUCTIVE RED ENAMEL SOLVENT COATING	D001	1.1

DS-246	COPPER IODIDE	NONE	1.1
DS-246	COPPER OXIDE	NONE	0.1
DS-246	ETHANOL, ISOPROPANOL, ACETONE WASTE	D001	6.2
[illegible]6	FLUORAD FC430	NONE	0.3
DS-246	GLYCEROL	NONE	2.4
DS-246	HYDROCHLORIC ACID	D002	6.5
DS-246	HYDROFLUORIC ACID	D002 U134	0.3
DS-246	INDIUM POWDER	NONE	0.1
DS-246	KODAK PMT ACTIVATOR	NONE	10.2
DS-246	LEAD AND COPPER	D008	1.0
DS-246	MERCURY	D009	0.1
DS-246	MERCURY CONTAMINATED GLASSWARE	D009	6.2
DS-246	MERCURY, METALLIC	D009 U151	5.3
DS-246	MOCK EXPLOSIVE PINK POWDER	NONE	1.2
DS-246	MOLECULAR SEIVE	NONE	1.1
DS-246	MOLYBDENUM PENTACHLORIDE	NONE	0.1
DS-246	MOLYBDENUM TETRAOXIDE	NONE	0.2
DS-246	MOLYBDENUM TETRASULFIDE	D003	0.6
DS-246	MOLYBDENUM, MANGANESE POWDER	NONE	0.4
DS-246	MOLYDAG 210	NONE	0.1
DS-246	NICKEL FLAKE	D003	1.0
DS-246	NICKELOUS OXIDE	NONE	0.5
DS-246	NITRIC ACID	D002	5.7
DS-246	PHENYL SULFONE	NONE	0.1
DS-246	PHOSPHORIC ACID	D002	4.9
DS-246	PHOSPHORUS POWDER	D003	0.1
DS-246	POTASSIUM CARBONATE	NONE	1.7
DS-246	RTV 630 PART A	NONE	1.0
[illegible]246	RTV 630 PART B	NONE	0.1
[illegible]46	RUBBER CEMENT	D001	0.1
DS-246	SILICON DIOXIDE	NONE	0.5
DS-246	STRONTIUM GRANULES	D003	0.1
DS-246	TANTALUM BROMIDE	D003	0.1
DS-246	TEMPERATURE INDICATING FLUID	F002	2.0
DS-246	TIN FLUORIDE	NONE	0.1
DS-246	TITANIUM FOIL	D003	0.2
DS-246	TUNGSTEN CHLORIDE	NONE	0.1
DS-246	UROCHEM BLUE SOLVENT COATING	D001	1.0
DS-246	YTTRIUM CHLORIDE	NONE	0.1
DS-246	YTTRIUM FOIL	D003	0.2
DS BLDG	ACETIC ACID	D002	3.0
DS BLDG	AKROCHEM PETROREZ 801	NONE	1.0
DS BLDG	ALGINIC ACID	NONE	4.0
DS BLDG	ALUMINUM OXIDE	NONE	0.5
DS BLDG	ALUMINUM OXIDE	NONE	20.0
DS BLDG	AMSCO SOLVENT	D002	4.0
DS BLDG	CHEM MIX	D001	1.0
DS BLDG	CHESTERTRON BELT FLO	D001	4.8
DS BLDG	CHLOROFORM	D022	11.3
DS BLDG	CITRIC ACID SOLUTION	NONE	3.0
DS BLDG	CONATHANE EN-7 PART A	NONE	2.0
[illegible]LDG	CPVC SOLVENT CEMENT	D001	0.7

Building Manager's Questionnaire

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

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

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

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

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

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

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

Source: _____

Building Manager's Questionnaire

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

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

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

Source: _____

Building Manager's Questionnaire

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

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

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

Source: _____

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

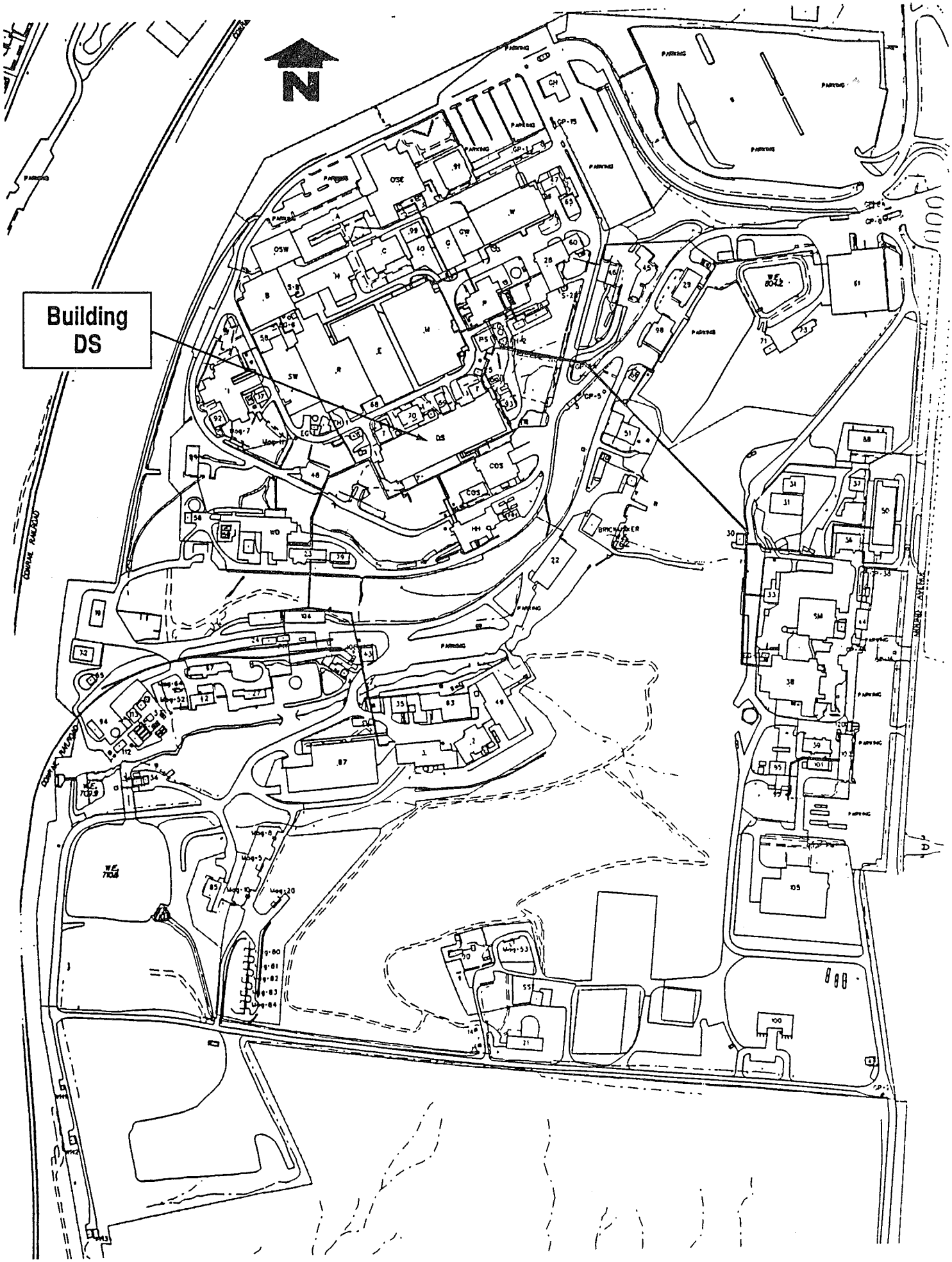
Building Manager's Questionnaire

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

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

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

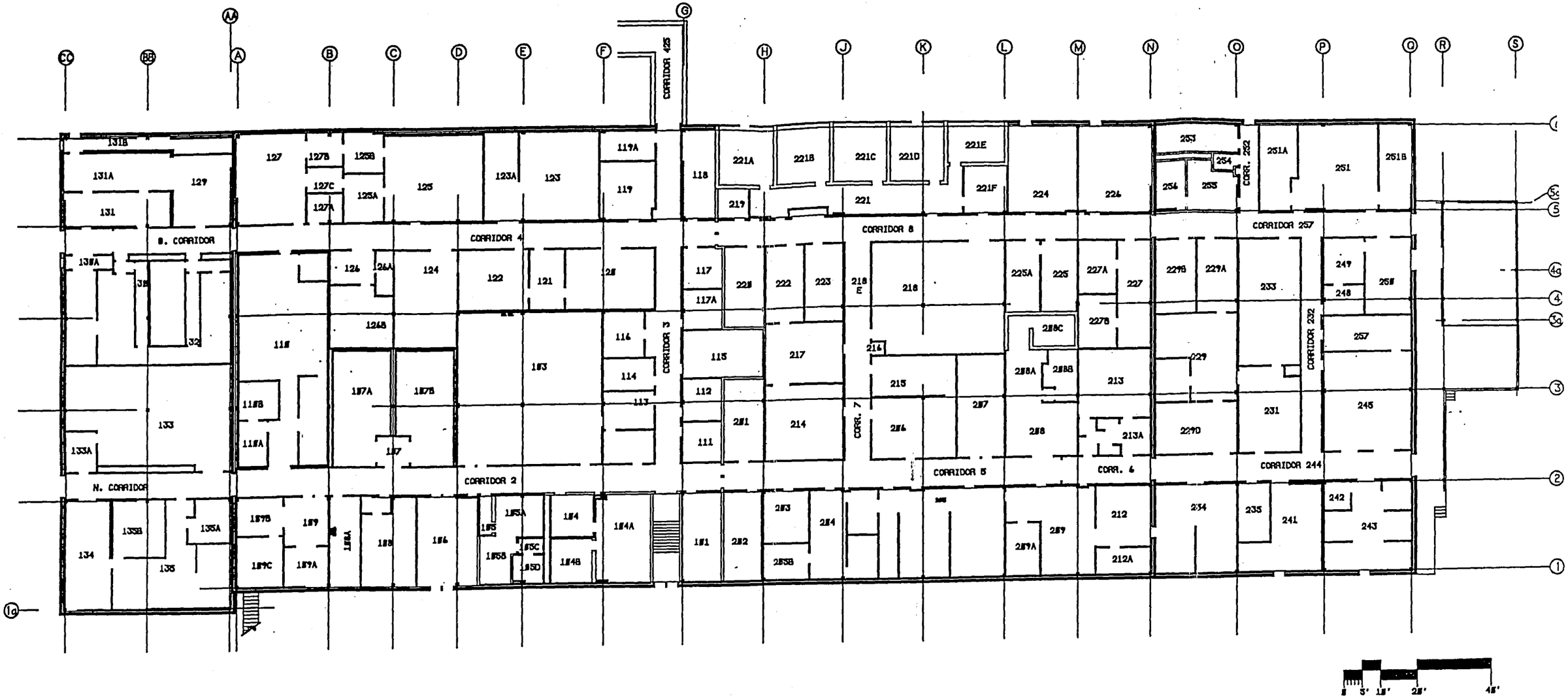
9.5.6.3 Location of Building DS



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

9.5.6.4 Floor Plans for Building DS

ISS	DATE	REVISION	BY	CHKR	ENG	LPMEC	APV
Ø	12/12/91	ASBUILT ISSUE	DCW				DVI



DERIVATIVE CLASSIFIER

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

UNCLASSIFIED

UNCLASSIFIED

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 & EC		PEER REV	
ENG MGR			
APVD		DATE	

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUEBOC ___TEBOC ___EHBOC
___. REMP. ___
___. MGR. ___
TRUEBOC ___
TEBOC ___
EHBOC ___

DS BLDG FIRST FLOOR BLDG CODE:3522

SHEET	1	2	3	4	5	6
ISSUE	Ø	Ø				

PART CLASSIFICATION

UNCLASSIFIED

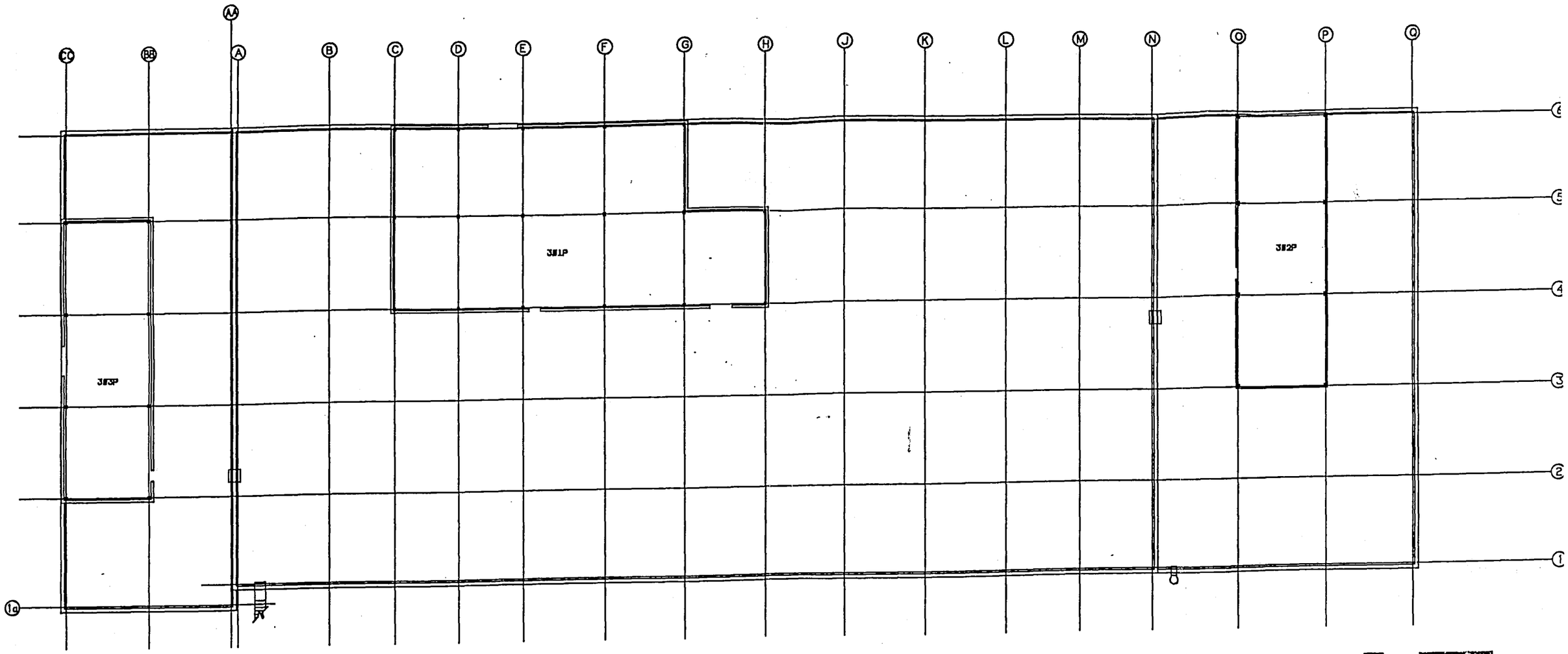
TITLE (U) TITLE CLASSIFICATION

DS BLDG
FLOOR PLANS

UNCLASSIFIED

SITE	DRAWING NUMBER	JOB NUMBER
B	FSD911304	12335

DWG TYPE	SFP	PROM	DS BLDG	CADEC	14065	SCALE	AS NOTED	SHEET 1 OF 2
STATUS	MD-REL-12/12/91			ORIGIN	MD-BR3-V3.Ø			



UNCLASSIFIED

DERIVATIVE CLASSIFIER

(Name)

(Title) (Date)

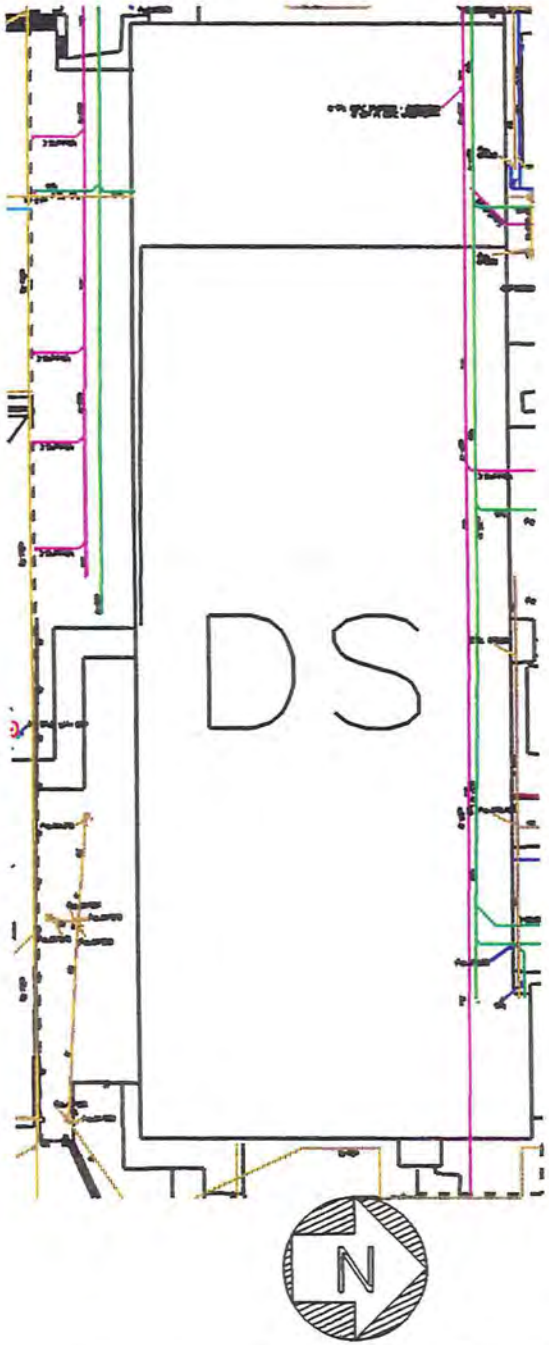
NOT FOR PUBLIC DISSEMINATION

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.

DS BLDG
PENTHOUSE
BLDG CODE:3522

DRAWING NUMBER	FSD911304
JOB NUM	1233
DRAWING CLASSIFICATION	UNCLASSIFIED
SIZE	D
CABEI	14065
SCALE	AS NOTI
ISSUE	0
SHEET	2
STATUS	MD-REL-12/12/91

9.5.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

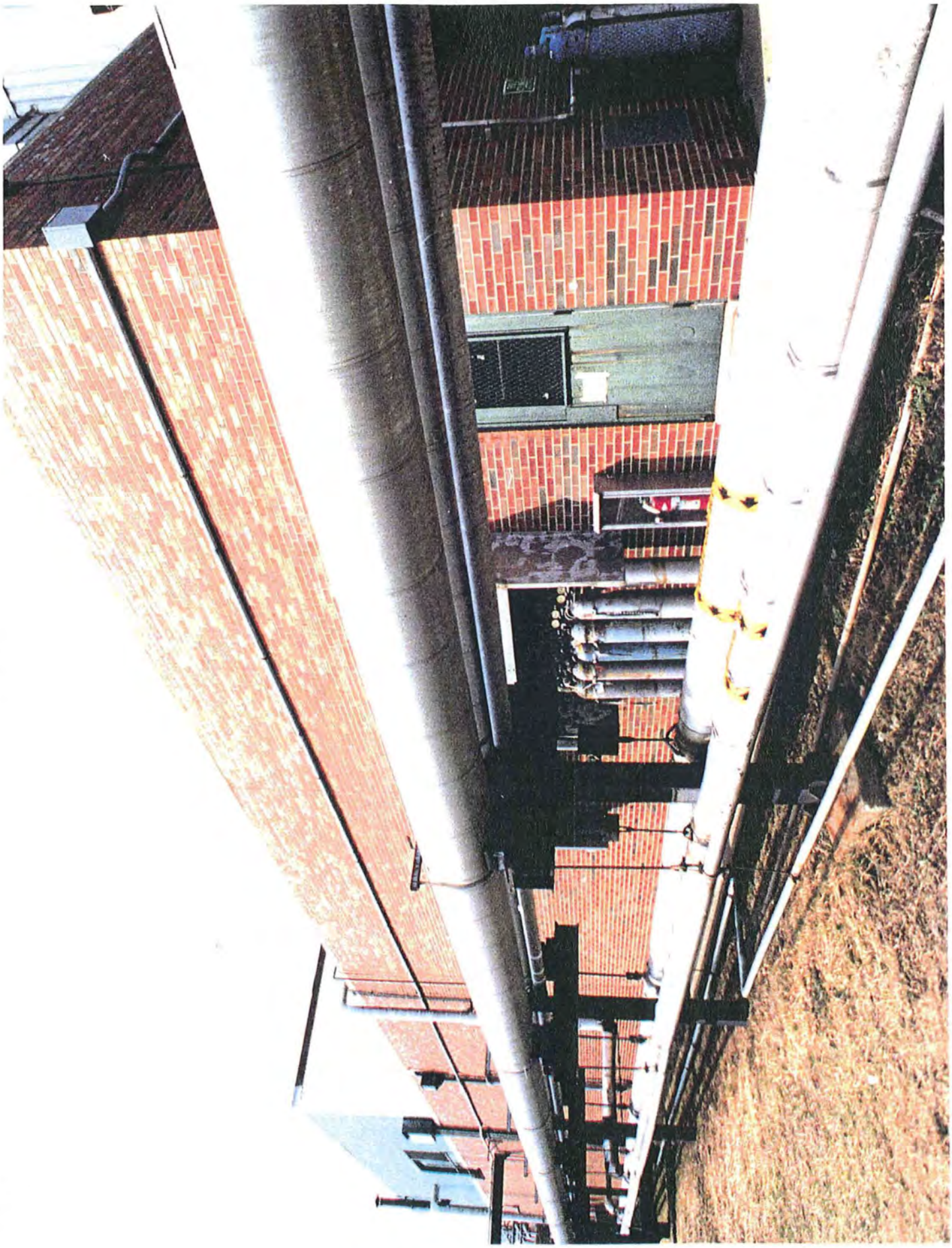
E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
DS BLDG.

DATE: 3-5-86

UNCLASSIFIED

9.5.6.6 Photographs



Mound Plant Building DS

9.6 BUILDING E/E Annex

9.6.1 Scope of Building E/E Annex 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 E/E Annex on February 27, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.6.6.1). Escorting the appraisers were 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 9.6.6.2).

9.6.2 Description of Building E/E Annex

Building E/E Annex is a two-story structure with a penthouse encompassing 45,755 square feet. It is a reinforced concrete block building with face brick and a metal built-up membrane roof of coal tar. Building E/E Annex was one of the original buildings constructed in 1948 and was expanded with additions to the north and south ends of the building. Building E/E Annex is located on the main hill as shown in Attachment 3 (Section 9.6.6.3). Adjacent buildings are Building H to the north, Building M to the east, Building DS to the south, and Building R to the west. The building is serviced by central steam for heat, chilled water, and electrical service of 480V (*Mound Facility Physical Characterization*, 12-1-93).

Building E/E Annex contains analytical laboratories used for environmental analysis. Other uses for the building include economic development and Safe Shutdown. Areas in Safe Shutdown were used for production support in a number of Mound programs. Portions of the building are leased to private enterprise to further economic development. Eighty percent of the space in Building E/E Annex is laboratories. Floor plans are presented as Attachment 4 (Section 9.6.6.4). The building is not contaminated with energetic materials. A minor chemical and radiological contamination may be present. Asbestos abatement may be required.

9.6.3 Summary of Findings

Building E/E Annex currently houses environmental laboratories and office space. The building is well-maintained, but several issues of environmental concern were identified during the walk-through and review of reference materials. Primary issues involve ensuring compliance with regulatory guidelines with air emissions and effluent discharges for operations involving private companies using Department of Energy (DOE) facilities under lease or user agreements. The handling process for planchets should be evaluated. A water fountain was identified as an Environmental Protection Agency (EPA) listed model suspected of lead contamination. Clean Water Act (CWA) pollutants are used in the building.

Chemicals used in the Environmental laboratory are acids, ammonium hydroxide, Ultima Gold, and radioactive tracers. These chemicals are used to prepare samples from air filters and water for counting. Ultima Gold is used for scintillation counting for some of these solutions. Acids are used for dissolving environmental samples for plutonium, uranium, and thorium analyses. Quantities of acids used vary but generally exceed 6 pounds per week. Chemicals stored in the laboratory appear to need process review, to determine if they are still needed since some processes have been modified or discontinued.

The building is equipped with appropriate emergency response equipment such as an eyewash, a safety shower, and fire extinguishers. Halon 1211 is the predominant fire extinguisher. Extinguishers are bar-coded to simplify inspections which are recorded in a database and maintained by the Fire Department. Inspection tags for safety showers and eyewashes are present and current. There is an Emergency Evacuation Plan, and signs were posted in work areas.

Although listed in the Attachment 2 (Section 9.6.6.2), the BMQ, no aboveground storage tanks in or around the building were observed. There are no sumps, separators, or catch basins, in or around the building. No underground storage tanks are listed in the Active Underground Storage Tank (UST) Plan and no UST's were observed during the walk-through of the building and premises.

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

No capacitors or transformers containing polychlorinated biphenyls (PCB's) were observed in the building. PCB transformers and capacitors were observed in the E Substation located outside of Building E/E Annex. They are scheduled for removal in calendar year 1996. The PCB area is appropriately identified and monitored (1995 PCB Annual Document Log).

9.6.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated by the Environmental labs are primarily paper, glass, aluminum cans, white styrofoam packing, and cardboard boxes. Solid wastes are removed by janitorial personnel to a local 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. There is no evidence that hazardous materials or wastes are mixed with solid waste streams. The team did not observe the solid waste disposal practices of private companies leasing space in the building.

There was no hazardous waste generation observed during the walk-through. Acid solutions used to process environmental samples are kept in containers, neutralized, and disposed of down the drain.

There are radioactive wastes generated by some of the analytical processes. These wastes consist of scintillation vials and planchets. The scintillation vials are collected as low-specific activity (LSA) waste. At the time of the walk-through, discussions were being held to evaluate the appropriate means for handling and disposal of scintillation vials. Information regarding the handling of planchets is not available at this time.

9.6.4.6 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 programs for paper, phone books, and aluminum cans are in place. Liquid waste is minimized by the neutralizing acid solutions.

9.6.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.6.6.6). The environmental appraisal of Building E/E Annex indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

E/E Annex-1 Operations of private companies using DOE facilities should be evaluated to ensure compliance with regulatory guidelines for air emissions and effluent discharges. Emissions data has been requested by EG&G MAT.

E/E Annex-2 The water fountain in Corridor 126 suspected of lead contamination should be replaced or removed.

E/E Annex-3 The current air permit requires monthly records. Records were not available for air emission sources, including leased areas.

E/E Annex-4 Chemicals should be stored such that they are compatible with each other. Sulfuric acid is a strong oxidizer and should be stored separately. Chemical storage compatibility should be evaluated for all labs containing chemicals.

E/E Annex-5 CWA pollutants and their continued use should be evaluated and, if appropriate, a substitute chemical used which has no health or environmental hazard. The Environmental Technology and Monitoring Section should be informed of this evaluation.

E/E Annex-6 Evaluate handling process for planchets.

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9.6.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name E

Appraisers:

Name Discipline

Name Discipline

Name Discipline

Name Discipline

Building Manager: _____

Process Manager: _____

_____

_____

_____

Date: 2-27-96

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]isal Checklist

Building Name: E Appraisers: Paulick, Adkins, Parker Date: 2/27/96

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	(Y)/ N (Y)/ N	Vinylacetate, Styrene, Xylene, methylamine, Benzyl chloride, Carbon Disulfide
	Is the building in operation? What are the processes and where do they discharge to?	(Y)/ N _____ _____	Leased portions of building unable to verify processes
	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	None listed in UST
	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)	

cyclohexane, ethylene diamine - unable to verify chemicals used by lessee's

9.6-11

9.6-12

Environmental Appraisal Checklist

Building Name: E Appraisers: Paulick, Adkins, Parker Date: 2-27-96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	(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	Unable to verify leased areas
	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)	Unable to verify leased areas
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	Unable to verify leased areas
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)	None known

Environmental Appraisal Checklist

Building Name: E

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

CAA Checklist Page intentionally left blank

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

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

Source: _____

9.6-13

9.6-14

Environmental Appraisal Checklist

Building Name: E

Appraisers: Paulick, Adkins, Parker

Date: 2/27/96

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	(Y) / N	
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	(Y) / N	Room 145
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	(Y) / N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	(Y) / N	
29 CFR 1910.106(d)(7)	Incompatible chemicals are ~~not~~ stored together.	Y / (N)	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y / N	N/A

Environmental Appraisal Checklist

Building Name: E

Appraisers: Pulick, Adkins, Parker

Date: 2/27/96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	(Y) / N	
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	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	

9.6-15

9-6-16

Environmental Appraisal Checklist

Building Name: E

Appraisers: Paulick, Adkins, Parker

Date: 2/27/96

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	N/A
	Is there an above ground storage tank? If so, complete Table B.	Y / (N)	

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

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

Source: _____

Environmental Appraisal Checklist

Building Name: E Appraisers: Paulick, Adkins, Parker Date: 2/27/96

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	(Y) N	
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	(Y)/ N	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	(Y) N	
	Does the facility contain any water coolers or fountains ~~that are not lead free?~~ Complete Table C.	(Y)/ N	

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
E	Corr 126	CP3	Oasis EPA *
E	Corr 188	5805	Halsey Taylor OK
		~~ELKA~~	~~E~~
E	Corr 209	EFRC-8	ELKAY OK
E	Corr 302	EFRC-8	ELKAY OK

Source: _____

9.6-17

Environmental Appraisal Checklist

Building Name: E Appraisers: Paulick/Adkins/Parker Date: 2/27/96

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)	Acid solution from AA. Acid solution from Resin Columns Various chemicals.
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 pr 3/13/96	

Environmental Appraisal Checklist

Building Name: E Appraisers: Paulick/Adkins/Parker Date: 2/27/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area?	~~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	

9.6-19

Environmental Appraisal Checklist

Building Name: E Appraisers: Paulick/Adkins/Parker Date: 2/27/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-52-11 (A)	If a Satellite accumulation area has been abandoned and/or if waste left in place, and the containers may be subject to the 90-day-storage exclusion. If this exclusion does not apply, go to the next section. If the containers have been in storage under this exclusion, answer the following:		Parts of the building are undergoing Safe Shutdown.
	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: E Appraisers: Paulick/Adkins/Parker Date: 2/27/96

RCRA Checklist

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

9.6-21

9.6-22

Environmental Appraisal Checklist

Building Name: E

Appraisers: Paulick/Adkins/Parker

Date: 2/27/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	N/A
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: E. Appraisers: Paulick, Adkins, Parker Date: 2-27-96

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	

9.6-23

9.6-24

Environmental Appraisal Checklist

Building Name: E. Appraisers: Paulick, Parker, Adkins Date: 2-27-96

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

Does this facility potentially contain any PCB's or PCB contaminated equipment?	Y / N	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	None observed in Building
	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	SUBSTATION Outside of E-BD has PCB trans/CAP
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	N/A
	If yes, are auditable records maintained.	Y / N	N/A
40 CFR.30 (a) (1) (ix)	Are any PCB transformers in use, or stored for possible reuse, that contain PCB's at concentrations of 500 ppm or greater?	Y / N	Substation E
	Are they visually inspected quarterly? If yes, are auditable records maintained?	Y / N	

Environmental Appraisal Checklist

Building Name: E

Appraisers: Paulick, Atkins, Parker Date: 2-27-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.30 (a) 1,viii	Are all combustible materials (i.e., paints, solvents, plastics, paper, sawn wood, etc.) cleared from areas containing PCB transformers to a distance of five meters?	Y / N	
40 CFR 761.65 (b) (8)	Are all PCB articles and containers labeled with the date they were placed in storage?	Y / N	N/A
	Are labeled PCB articles and containers stored so that the labels can be referenced?	Y / N	
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	

9.6-25

9.6-26

Environmental Appraisal Checklist

Building Name: E

Appraisers: Paulick, Atkins, Parker Date: 2-27-96

TSCA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's 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	N/A
40 CFR 761.45 and .65	Are all PCB storage areas marked with a large PCB mark as described in 40 CFR 761.45 (a)?	Y / N	
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: E

Appraisers: Paulick, Atkins, Parker Date: 2-27-96

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
Low-Level Waste			
DOE Order 5820.2A Chapter III	Can any waste generated in, or from, this building be characterized either through process knowledge or by analyses to determine if it is LLW ? If the answer is no, note. If the answer is yes, proceed with next section.	(Y) / N	Low-level liquid scintillation vials
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	unknown
	Based on field data, does the monitoring conducted in this area conform to the performance standard?	Y / N	unknown

9.6-27

Environmental Appraisal Checklist

Building Name: E

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A Chapter III, 3.d.	Based on field data, is the characterization of the materials in this area sufficient to assure proper segregation to assure proper segregation, treatment, storage, and disposal?	(Y) / N	
	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	unknown
	Volume of the waste (including solidification and absorbent material)?	Y / N	Still discussing with Will. The necessary details ✓
	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	N/A
	Are records maintained at the facility enabling this waste to be traced from its origin?	(Y) / N	

Environmental Appraisal Checklist

Building Name: E

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
TRU WASTE			
	Can any waste generated in, or from this building be characterized either through process knowledge or by analyses to determine if it is TRU waste? If no, note and stop. If yes, proceed with the next section.	Y / N	No TRU Waste OBSERVED
	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	

9.6-29

Environmental Appraisal Checklist

Building Name: E

Appraisers: Pauluk, Adkins, Parker Date: 2-27-96

Low-Level Waste and Transuranic Waste Checklist

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

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

Low-Level Waste and Transuranic Waste Checklist

Regulatory Guideline	Question	Response	Comments
DOE Order 5820.2A, Chapter II 3.e	Has the TRU waste been segregated in manner that will not permit commingling of TRU waste with LLW or high-level waste?	Y / N	NO TRU
	Has the TRU waste been protected from unauthorized access?	Y / N	WASTE OBSERVED
	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:

9.6-31

Environmental Appraisal Checklist

Building Name: E Appraisers: Bulick, Adkins, Parker Date: 2/27/96

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	N/A
	Ion exchange process?	Y / N	N/A
	Lead in gasoline lowered to reduce tank sludge toxicity?	Y / N	N/A
	Storage tank agitators installed?	Y / N	
	Corrosive resistant materials used?	Y / N	
	Prevention of crude oil oxidation ?	Y / N	N/A
	Drying?	Y / N	N/A

Environmental Appraisal Checklist

Building Name: E Appraisers: Pallick, Adkins, Parker Date: 2/27/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.6-33

Environmental Appraisal Checklist

Building Name: E

Appraisers: Paulick, Atkins, Parker

Date: 2/27/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are ion exchange resins used to remove heavy metals and cyanides from acid and base solutions?	Y / N	
	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	N/A
	Are any of these processes used to recycle cyanide wastes?	Y / N	
	Refrigeration/crystallization?	Y / N	
	Evaporation?	Y / N	
	Ion exchange?	Y / N	
	Membrane separation which includes reverse osmosis or electrodialysis?	Y / N	
VEHICLE MAINTENANCE			
	How are auto parts cleaned?	Y / N	N/A
	Solvent sink?	Y / N	
	Solvent dunk bucket?	Y / N	
	Solvent dip tank?	Y / N	
	Are parts cleaning solvents used for anything else besides cleaning parts?	Y / N	
	Are spills reduced by locating sinks or dunk buckets near auto service bays?	Y / N	

Environmental Appraisal Checklist

Building Name: E Appraisers: Paulick, Atkins, Parker Date: 2/27/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	Y / N	N/A
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			
	What kind of oils are used?		N/A
	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	

9.6-35

Environmental Appraisal Checklist

Building Name: E

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

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		N/A
	Reclaiming process to remove water and solvents by heat?	Y / N	
	Gravity setting?	Y / N	
	Screening?	Y / N	
	Centrifugation?	Y / N	
	Filtration?	Y / N	
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: E Appraisers: Pallick, Adkins, PARKER Date: 2/27/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	N/A
	Distillation?	Y / N	
	Solids removal?	Y / N	
	Dispersion breaking?	Y / N	
	Dissolved and emulsified organics recovery?	Y / N	
	Are any of these housekeeping procedures used to minimize the production of solvent wastes?		
	Separators cleaned and checked?	Y / N	
	Parts not allowed to enter the degreaser while wet?	Y / N	
	Sludge from the bottom of the tank not allowed to accumulate?	Y / N	
	Lids kept on tanks?	Y / N	
	Freeboard space on tanks increased?	Y / N	
	Are better operating practices used to reduce waste?	(Y) / N	
	How long is solvent waste stored and where?	E-142	

9.6-37

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9.6.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

1. What are the access requirements (training, clearance, etc.)?
   JERT for Environmental labs. Rad-Worker I during specific occasions; posted during that time with necessary RWP.

2. What protective equipment is required to enter the building?
   Safety glasses in all Environmental lab areas.

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

4. Provide a physical description of the building.

Building consists of 45,755 ft² in two stories. Construction is concrete block with face brick; roof is BUM (coal tar and metal). Building contains labs and offices. Building is not contaminated with any ~~radioactive or~~ energetic materials. A small amount of chemical contamination may be present. Asbestos abatement may be required. Eighty percent of space is laboratores; remainder is office-type area.

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 environmental analysis, ECONOMIC DEVELOPMENT + SAFE SHUTDOWN ~~general analytical services, and mechanical assembly of products in support of a wide range of Mound programs.~~

Source: Mound Buildings, 5-9-95

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

~~SEE ANALYTICAL SERVICES~~

Source: Mound Buildings, 5-9-95

9.6-41

Process(es) Housed:

Environmental sample analyses conducted in E-113, 133, 141, 142, 143, 144, 148, 150, and 156.

How Wastes Are Generated:

A variety of environmental sample analyses are performed, testing for both radiological and non-radiological parameters. Wastes such as paper, glass, styrofoam, cardboard, etc., are all recycled. Chemical laboratory wastes are neutralized, when applicable, and discharged to the sanitary treatment facility. Some chemicals are disposed of through the waste management program. The most significant contributor to the waste stream is liquid scintillation counting which results in 7-cm^3 plastic vials containing various volumes of scintillators and sample media. If the radioactivity in a vial exceeds 50 μCi/L it is treated as radioactive waste. Typically, the vials are less than this criteria and are treated as Low-level waste. Both are routinely picked up by waste management personnel.

SLH

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow 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: ~~Chemical analyses, particle size analysis,~~ environmental sample analysis~~, HP counting, metallurgy, materials qualification, production of inert electric assemblies, production of detonator safing strong link components~~

How Wastes Are Generated:

The solvent used in chemical analysis is primarily acetone. In many cases, explosives are dissolved in the acetone. All waste acetone, including that containing explosives, is put in a waste can for pickup by Waste Management. Any explosive powder waste is put in containers labeled "Explosive Waste," and is eventually packaged and sent to the on-site burn area for destruction.

Particle size analysis requires small amounts of solvents, primarily isopropyl alcohol. The wastes are put in containers which Waste Management picks up periodically.

In the Wet Analytical Lab raw materials such as plating solutions and compounds from Bonded Stores are tested to ensure that they meet specifications for production. Only small amounts of material are tested and there are few wastes. Samples from the Plating Shop are returned to that shop for disposal with their waste. Any other wastes are picked up by Waste Management.

Environmental sample analysis uses 7-cm^3 plastic vials containing 1 cm^3 of sample (potentially containing beta emitters) and 5 cm^3 of trimethylbenzene and scintillators. If the beta concentration is greater than 50µCi/L, the contents of the vial are treated as radioactive wastes. If the concentration of the vial is less than 50 µCi/L, the vial and its contents are treated as nonradioactive.

Air sample filters and smear samples are counted in E-105 D. After being analyzed, the dry samples are put in an LSA container. No more than two 55-gal drums of LSA waste are generated by this operation each year.

Nose wipes are dissolved in scintillation cocktail (xylene) for counting. The vials are taken to Building 68 when the analyses are finished.

Metallurgical work in this building consists of preparing and photographing samples for photomicroscopy. Metals are etched with nitric, hydrochloric, hydrofluoric, and sometimes oxalic acid. Potassium cyanide, ferric chloride, and sodium dichromate are also used occasionally. All these substances are used in small quantities and flushed down the drain. Alcohol, and, very rarely, acetone are used to clean the metal. The solvents are in squeeze bottles and are generally used in small quantities. They evaporate or are flushed down the drain. If larger quantities are used, the waste solvent is put in a solvent can. Metals are polished with a diamond slurry in water and ethylene glycol. Used slurry is flushed down the drain.

9.6-43

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

All photomicrographs are taken using Polaroid film. No developing chemicals are required.

Materials qualification is done in Building E for epoxy-type materials. The material is either cast as a "plug" or used to join two pieces of metal. The plug and joint materials are polished and mechanically tested. The polishing or grinding is done with silicon carbide, aluminum oxide, silicon oxide, and DP Lubricant which contains ethanol. The grinding compound is flushed down the drain. No chemicals are required for the mechanical testing. Hardened epoxy pieces that are no longer needed are thrown in the trash.

In another materials testing area, plastic-forming powders are mixed mechanically and heated to make a sample of the plastic. The sample is put in a high-temperature oil heater for a heat deflection test. The oil in the heater is changed every few years, and Waste Management takes the waste oil.

Halathane 88, Urethane 7200, and other epoxy-type materials (resins) are used in the production of inert electrical assemblies. Any unused resin is packaged for pickup by Waste Management. Resins that have hardened are put in a container for Waste Management. A number of solvents are used in cleaning parts for the assemblies. These solvents are isopropyl and ethyl alcohols which are used in ultrasonic baths, Freon, and trichloroethane. These solvents are put in separate, labeled containers for pickup by Waste Management. Acetone is used in small quantities to wipe parts, but it evaporates and there is no liquid waste. Methylene chloride has been used in the past, but it has been replaced by Freon TF.

Freon is used for cleaning during cable inspection. Any Freon that does not evaporate is put in a waste can for pickup by Waste Management.

Detonator safing strong link components are made of stainless steel parts. Metal parts are cleaned using a four-step process in an ultrasonic cleaner. Each step is a 3- to 5-min bath. The materials used in each of the four steps are 1, 1,1-trichloroethane, isopropyl alcohol, deionized water, and isopropyl alcohol. Trichloroethane and alcohol are put in separate, labeled waste cans after use. Occasionally (approximately once every two months) some rod material is passivated in a nitric acid/water bath. The waste nitric acid is poured into a solvent sink in another room in Building E. On the production line, isopropyl alcohol in squeeze bottles is used to clean tweezers or other small equipment. The alcohol evaporates and no liquid wastes are generated.

Contact: Steven Howard
Phone #: 4188

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

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

Building E Annex

Process(es) Housed: Offices, computer room

How Wastes Are Generated:

No hazardous wastes generated in this building.

Contact: W. H. Whitelow
Phone #: 3824

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

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow 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
E-EF-A	101	1010001	Y	Nitric acid hydrochloric acid Hydrofluoric acid acetic acid phosphoric acid lactic acid	0.0018 0.0006 0.001 0.003 0.0005 0.003		0.3744 0.1248 0.028 0.624 0.104 0.624	
E-EF-E	107	1070001	Y	hydrochloric acid nitric acid acetone isopropanol ethanol	0.0002 0.0004 0.006 0.0018 0.002		0.0624 0.1248 1.872 0.5616 0.624	
E-EF-C	112	E1120001	Y	methylene chloride acetone methanol	0.027 0.009 0.027		4.05 1.35 4.05	
E-EF-C	112A	E112A0001	Y	acetone ethanol hydrochloric acid methanol nitric acid	0.02 0.006 0.001 0.012 0.002		3 0.9 0.15 1.8 0.3	
E-EF-D	113	E1130001	Y	hydrochloric acid nitric acid	0.015 0.016		30 32	
E-EF-D	113	E1130002	Y	Freon TF	0.015		30	
E-EF-D	113	E1130003	Y	hydrochloric acid nitric acid sulfuric acid	0.0038 0.002 0.0003		7.6 4 0.6	
E-EF-E	120	E1200001	Y	nitric acid isopropanol	0.0015 0.066		0.936 41.184	
E-EF-H	123	E1230001	Y	Markem ink Marken 320 cleaner	0.0003 0.017		0.0156 0.884	
E-EF-J	123	E1230002	Y	isopropanol	0.0037		0.666	
E-EF-J	123	E1230004	Y	silver flake epichlorohydrin	0.0003 0.0002		0.096 0.064	
E-EF-J	123	E1230005	Y	silver flake bisphenol epichlorohydrin	0.0003 0.0002		0.096 0.064	
E-EF-G	123	E1230006	Y	molybdenum disulfide hysol adhesive conad sealant	0.0015 0.008 0.0003		3.12 16.64 0.624	
E-EF-H	123	E1230007	Y	molybdenum hysol adhesive conad sealant	0.0032 0.008 0.0009		0.3328 0.832 0.0312	
E-EF-H	123	E1230008	Y	molybdenum hysol adhesive conad sealant	0.0064 0.0069 0.0009		0.3328 0.3588 0.0468	
E-EF-H	123	E1230009	Y	freon TF isopropanol ethanol	0.2854 0.1052 0.1408		133.5672 49.2336 65.8944	
Safe Shutdown	130	E1300001	N	E-EF-I				

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
Safe Shutdown	130	E1300003	N	E-EF-K				
E-EF-1C	141	1410001,-2	Y	hydrochloric acid nitric acid	0.14 0.245		280 490	
E-EF-1C	142	1420001,-2,-3	Y	hydrochloric acid nitric acid	0.02 0.06		40 120	
E-EF-1C	143	143-1,-2,-3,-4	Y	hydrochloric acid nitric acid ammonium hydroxide	0.1 0.15 0.01		200 300 70	
E-EF-1C	144	1440001,-2	Y	hydrochloric acid nitric acid ammonium hydroxide	0.135 0.27 0.01		270 540 20	
E-EF-1C	150	E12500001	Y	hydrochloric acid nitric acid ammonium hydroxide	0.0225 0.0445 0.0025		45 90 5	
E-EF-1C	156	E1560001,-2	Y	hydrochloric acid nitric acid ammonium hydroxide	0.09 0.135 0.005		180 270 10	
Safe Shutdown	157	E1570001	N	E-HF-1				
Safe Shutdown	157	E1570002	N	E-HF-4				
Safe Shutdown	158	E1580001,2,3	N	E-HF-2				
Safe Shutdown	158	E1670001	N	E-HF-2				
Safe Shutdown	174	E1740001,2	N	E-HF-5				

Source: _____

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow 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: HF-1(157), 2(158, 167), 4(157) (174); EF-A (101), C(112), C(141, 142, 143, 144, 150, 156) (113), E(107), F(120), G(123), H(123) (130), J(123), K(130)		None	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: HF-1(157), 2(158, 167), 4(157) (174); EF-A (101), C(112), C(141, 142, 143, 144, 150, 156) (113), E(107), F(120), G(123), H(123) (130), J(123), K(130)	8570911961P003	Y / N	Maintain monthly records; maintain 2 years.

Source: Air Permits 2/4/95

13. Does the building have domestic water service? Yes No
Is there bottled water? Yes No
in E-142

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

15. Does the building discharge to the sanitary sewer? Yes No
Where? RESTROOMS, JAN. CLOS., FLOOR DRAINS

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

9.6-48

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? YES

Source: PCB ANNUAL DOCUMENT LOG

18. Has the building been identified as containing PCBs? YES

Source: PCB ANNUAL DOCUMENT LOG Sub Station -

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

9.6-49

9-6-50

CHEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TM	SUPER
ULTIMATE GOLD	8 PACKARD	6	GA	8	GA	24	GA	E	133	PL	N	1	4	FARMER
ACTIVATED CARBON	FISHER SCIENTIFIC	4	LB	1	LB	1	LB	E	141	S	M	1	4	CLOUD
AMMONIUM IODIDE	ALRICH CHEMICAL COMPANY	2.1	G	2.3	KG	400	G	E	141	PS	M	1	4	FARMER
HYDROIODIC ACID	MALLINCKRODT	500	ML	500	ML	250	ML	E	141	PL	M	1	4	FARMER
NITRIC ACID	FISHER SCIENTIFIC	15	L	25	L	165	L	E	141	PL	M	1	4	FARMER
PHOSPHORIC ACID	FISHER SCIENTIFIC	1	L	2	L	1	L	E	141	PL	M	1	4	FARMER
SODIUM NITRITE	FISHER	0.25	G	0.5	KG	100	G	E	141	P	N	1	4	CLOUD
ACETONE	FISHER SCIENTIFIC	14	L	28	L	48	L	E	142	L	M	1	4	FARMER
AMMONIUM HYDROXIDE	FISHER SCIENTIFIC	45	L	64	L	687	L	E	142	L	M	1	4	FARMER
ISOCLEAN CONCENTRATE	ISO LAB INC.	2	L	4	L	4	L	E	142	PL	M	1	4	FARMER
ISOPROPYL ALCOHOL	MALLINCKRODT	0.5	ML	1	ML	0.3	L	E	142	PL	M	1	4	FARMER
NITRIC ACID	FISHER SCIENTIFIC	32	L	64	L	690	L	E	142	PL	M	1	4	FARMER
PHOSPHORIC ACID	FISHER SCIENTIFIC	2	L	3	L	5	L	E	142	PL	M	1	4	FARMER
SULFURIC ACID	FISHER SCIENTIFIC	2	L	5	L	1	L	E	142	PL	M	1	4	FARMER
SULFURIC ACID	FISHER SCIENTIFIC	2.5	L	2.5	L	50	ML	E	142	PL	M	1	4	FARMER
AG1X4 RESIN ANION EXCHANGE	BIO-RAD	6	KG	12	KG	10	KG	E	143	PS	M	1	4	FARMER
AMMONIUM SULFATE	FISHER SCIENTIFIC	3	KG	3	KG	0		E	143	PS	M	1	4	FARMER
CALCIUM NITRATE	FISHER SCIENTIFIC	2	KG	3.5	KG	2.5	KG	E	143	PS	M	1	4	FARMER
HYDRIODIC ACID	MALLINCKRODT	1	L	1.5	L	3	L	E	143	PL	M	1	4	FARMER
LIQUA CLEAN DETERGENT	FISHER SCIENTIFIC	1	GA	2	GA	2	GA	E	143	PL	N	1	4	FARMER
SODIUM BISULFATE	MALLINCKRODT	0.5	KG	2.5	KG	0		E	143	PS	M	1	4	FARMER
ULTIMATE GOLD XR	PACKARD	4	GA	6	GA	24	GA	E	143	PL	N	1	4	FARMER
AG1X8-RESIN	RIO-RAD LABORATORIES	6	KG	12	KG	12	KG	E	144	PS	M	1	4	FARMER
HYDROCHLORIC ACID	FISHER SCIENTIFIC	40	L	60	L	410	L	E	144	PL	M	1	4	FARMER
ETHYLENE GLYCOL	FISHER SCIENTIFIC	36	PT	48	PT	340	I	E	156	PL	M	1	4	FARMER
~~FREON TF~~	~~FISHER~~	~~3~~	~~L~~	~~3~~	~~L~~	~~12~~	~~L~~	~~E~~	~~156~~	~~PL~~	~~M~~	~~1~~	~~4~~	~~FARMER~~
~~GLYCEROL~~	~~SARGENT-WELCH~~	~~1~~	~~PT~~	~~1~~	~~PT~~	~~0~~		~~E~~	~~156~~	~~PL~~	~~M~~	~~1~~	~~4~~	~~FARMER~~
METHYL RED	FISHER SCIENTIFIC	28	G	28	G	10		E	156	PL	M	1	4	FARMER
~~SOLUENE 350~~	~~PACKARD~~	~~90~~	~~ML~~	~~100~~	~~ML~~	~~10~~	~~ML~~	~~E~~	~~156~~	~~PL~~	~~M~~	~~1~~	~~4~~	~~FARMER~~
ULTIMATE GOLD	PACKARD	8	GA	8	GA	24	GA	E	156	PL	M	1	4	FARMER
ACETIC ACID	MALLINCKRODT	5	LB	10	LB	3.5	LB	E	157	LP	M	1	4	SCHUMACI
ACETONE	FISHER	1	L	2	L	1.5	L	E	157	LP	M	1	4	SCHUMACI
ACID POTASSIUM PHTHLATE [HYDROGEN]	NIST	57	G	60	G	3	G	E	157	SP	M	1	4	SCHUMACI
AJAX	COLGATE-PALMOLIVE	7	OZ	14	OZ	7	OZ	E	157	LP	R	1	4	SCHUMACI
ALCONOX	ALCONOX, INC.	3	LB	4	LB	2	LB	E	157	LP	K	1	4	SCHUMACI
ALIZARIN RED S MONOHYDRATE	ALDRICH	25	G	25	G	0.5		E	157	SP	M	1	4	SCHUMACI
AMMONIUM ACETATE	FISHER	200	G	200	G	0	G	E	157	SP	M	1	4	SCHUMACI
AMMONIUM CHLORIDE	FISHER	380	G	400	G	2	G	E	157	SP	N	1	4	SCHUMACI
AMMONIUM HYDROXIDE	FISHER	4.5	LB	3	LB	0.5	LB	E	157	LP	M	1	4	SCHUMACI
AMMONIUM MOLYBDATE	FISHER	480	G	490	G	2	G	E	157	SP	N	1	4	SCHUMACI
AMMONIUM NITRATE	FISHER	500	G	500	G	0		E	157	SP	N	1	4	SCHUMACI
AMMONIUM OXALATE	FISHER	447	G	450	G	0	G	E	157	SP	M	1	4	SCHUMACI
AMMONIUM PE[illegible]HLORATE	FISHER	4[illegible]	G	450	G	0		E	157	SP	M	[illegible]	4	SCHUMACI
AMMONIUM PL[illegible]LFATE	FISHER	3[illegible]	G	380	G	0.1	G	E	157	SP	N	[illegible]	4	SCHUMACI
AMMONIUM PHO[illegible]PHATE	MALLINCKRODT	499	G	500	G	0	G	E	157	SP	N	1	4	SCHUMACI

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
BIOCHEMICAL OXYGEN DEMAND GLUTAMIC	HACH	500	ML	500	ML	150	ML	E	113	ML	M	1	6	FARMER
BUFFER SOLUTIONS PH 4, 7 & 10	FISHER	1	L	0.5	L	4.5	L	E	113	PL	N	1	4	FARMER
CADMIUM 1000 MG/1	JOHNMATHEY	250	ML	500	ML	250	ML	E	113	PL	N	1	4	FARMER
CHEMICAL OXYGEN DEMAND DIGESTION	HACH	1	L	1	L	0.5	L	E	113	PL	M	1	6	FARMER
CHLORAMINE	FISHER	250	G	250	G	0		E	113	PS		1	4	FARMER
CHROMIUM 1000 MG/1	JOHNMATHEY	500	ML	500	ML	100	ML	E	113	PL	N	1	4	FARMER
COPPER 1000 MG/1	JOHNMATHEY	500	ML	500	ML	100	ML	E	113	PL	N	1	4	FARMER
DIMETHYLAMINOBENZALRHODANINE	ALPHA	5	G	5	G	0		E	113	PS	M	1	4	FARMER
DISODIUM EDTA	FISHER	0.5	LB	0.5	LB	10	G	E	113	PS	N	1	4	FARMER
DPD FREE CHLORINE PILLOWS	HACH	20	G	20	G	0.5	G	E	113	[S	R	1	6	FARMER
ERIOCHROME BLACK	FISHER	25	G	25	G	0		E	113	PS	M	1	4	FARMER
FLUORESCENT LIQUID CONCENTRATE	FORMULABS	1	QT	1	QT	0.1	QT	E	113	PL	N	1	4	FARMER
HYDROCHLORIC ACID	FISHER	1	L	1	L	0.5	L	E	113	PL	M	1	4	FARMER
HYDROXYLAMINE HYDROCHLORIDE	FISHER	25	G	25	G	0		E	113	PS	M	1	4	FARMER
ISOPROPYL ALCOHOL	FISHER	5	QT	5	QT	10	OZ	E	113	PL	M	1	4	FARMER
L-ASCORBIC ACID	FISHER	5	OZ	5	OZ	0		E	113	PS	M	1	4	FARMER
LAURYL TRIPTOSE/MUG SOLN.	HACH	750	ML	750	ML	100	ML	E	113	PL	R	1	6	FARMER
LEAD 1000 MG/L	JOHNMATHEY	500	ML	500	ML	100	ML	E	113	PL	N	1	4	FARMER
MAGNESIUM CHLORIDE	FISHER	500	ML	500	ML	100	ML	E	113	PL	N	1	4	FARMER
MERCURY 1000 MG/L	JOHN MATHEY	500	ML	500	ML	100	ML	E	113	PL	N	1	4	FARMER
METHYL RED INDICATOR	FISHER	20	G	20	G	0		E	113	PS	M	1	4	FARMER
NICKEL 1000 MG/L	JOHNMATHEY	1	ML	1	L	0.5	L	E	113	PL	N	1	4	FARMER
NITRIC ACID	FISHER	1	L	1	L	3	L	E	113	PL	M	1	4	FARMER
NITRIFICATION INHIBITOR	HACH	500	G	500	G	30	G	E	113	PS	N	1	4	FARMER
PHENOL RED	FISHER	10	G	10	G	0		E	113	PS	M	1	4	FARMER
PHENYL ARSINE OXIDE SOLN.	FISHER	2	L	2	L	500	ML	E	113	PL	M	1	4	FARMER
PHOSPHORIC ACID	FISHER	1	PT	1	PT	0		E	113	PL	M	1	4	FARMER
POTASSIUM 1000 MG/L	JOHNMATHEY	100	ML	100	ML	0		E	113	PL	N	1	4	FARMER
POTASSIUM CYANIDE	JTBAKER	500	G	500	G	250	G	E	113	PS	N	1	4	FARMER
POTASSIUM HYDROGEN PHTHALATE	FISHER	100	G	100	G	0		E	113	PS	N	1	4	FARMER
POTASSIUM IODIDE	ALLIED	1	LB	1	LB	0		E	113	PS	N	1	4	FARMER
POTASSIUM IODIDE 10%	FISHER	1	L	1	L	50	ML	E	113	PL	M	1	4	FARMER
POTASSIUM IODIDE 5%	FISHER	0.5	L	0.5	L	10	ML	E	113	PL	M	1	4	FARMER
PYRIDINE	FISHER	1	L	1	L	0		E	113	PL	M	1	4	FARMER
SILVER 1000 MG/L	FISHER	500	ML	500	ML	100	ML	E	113	PL	N	1	4	FARMER
SODIUM 1000 MG/L	JOHNMATHEY	500	ML	500	ML	0	0	E	113	PL	N	1	4	FARMER
SODIUM ACETATE	FISHER	1	KG	1	KG	0		E	113	PS	N	1	4	FARMER
SODIUM CHLORIDE	FISHER	2	LB	2	LB	200	G	E	113	PS	N	1	4	FARMER
SODIUM HYDROXIDE	FISHER	7	kg	7	LB	9	LB	E	113	PS	N	1	4	FARMER
SODIUM HYPOCHLORITE SOLN.	FISHER	4	L	4	L	100	ML	E	113	PL	N	1	4	FARMER
SODIUM PHOSPHATE MONOBASIC	FISHER	1	KG	1	KG	0		E	113	PS	N	1	4	FARMER
SODIUM TETRAHYDRIDOBORATE	ALPHA	150	G	200	G	50	G	E	113	PS	M	1	4	FARMER
SODIUM THIOSULFATE	JTBAKER	200	G	200	G	100	G	E	113	PS	N	1	4	FARMER
SULFURIC ACID	FISHER	4	L	7	L	3	L	E	113	PL	M	1	4	FARMER
TELLURIUM 1000 MG/L	ALPHA	500	ML	500	ML	5	ML	E	113	PL	N	1	4	FARMER

CHEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUP
TENAX GC	SUPELCO	5		5	G	0		E	112	PL	M	1	4	WIEDE
TERT BUTYL BENZENE	RFR COMPANY	10	MG	100	MG	0		E	112	PL	M	1	4	WIEDE
TERT. PENTYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDE
TETRAHYDRONAPHTHALENE	CHEMICAL SERVICES	10	ML	10	ML	0		E	112	PL	M	1	4	WIEDE
TNDENE	CHEMICAL SERVICES	1	G	1	G	0		E	112	PL	M	1	4	WIEDE
TOLUENE	MALLINCKRODT	1.5	L	1.5	L	0		E	112	PL	M	1	4	WIEDE
TOLUENE 25A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDE
TRI-(HEPTAFLUOROPROPYL)-S-TRIAZIN	PCR	2	G	2	G	0		E	112	PS	M	1	4	WIEDE
TRICHLORO-1,1,2-TRIFLUOROETHANE-1,2,2	BAKER	1	GA	1	GA	0	PT	E	112	L	M	1	4	WIEDE
TRIPTYCENE	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PL	M	1	4	WIEDE
TRIS-(PENTAFLUORO ETHYL)-S-TRIAZIN	PCR	2	G	2	G	0		E	112	PS	M	1	4	WIEDE
TRIS-(PERFLUOROHEPTYL)-S-TRIAZIN	PCR	2	G	2	G	0	G	E	112	PS	M	1	4	WIEDE
TRIS-(PERFLUORONONYL)-S-TRIAZIN	PCR	2	G	2	G	0		E	112	PS	M	1	4	WIEDE
TRIS-(TRIFLUOROMETHYL)-S-TRIAZIN	PCR	2	G	2	G	0		E	112	PS	M	1	4	WIEDE
VINYL ALCOHOL/VINYL BUTYRAL	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDE
VINYL CHLORIDE/VINYL ACETATE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDE
VINYL CHLORIDE/VINYL ACETATE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDE
VINYL CHLORIDE/VINYL ACETATE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDE
VINYL CHLORIDE/VINYL ACETATE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDE
VINYL CHLORIDE/VINYL ACETATE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDE
VINYL CHLORIDE/VINYL ACETATE/V	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDE
VINYL CHLORIDE/VINYL ACETATE/VINYL	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDE
VINYLIDENE CHLORIDE/VINYL CHLORIDE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	SM	M	1	4	WIEDE
ALUMINUM OXIDE	FISHER	200	G	200	G	0	G	E	112-A	PS	M	1	4	SCHUM
BORAX	SIGMA	100	G	100	G	100	MG	E	112-A	PS	N	1	4	SCHUM
BORON OXIDE	CERAC	150	G	150	G	1	G	E	112-A	PS	F	1	4	SCHUM
CHROMIUM OXIDE	ALFA	100	G	100	G	0		E	112-A	PS	N	1	4	SCHUM
CHROMIUM PHOSPHIDE	CERAC	25	G	25	G	0		E	112-A	PS	M	1	4	SCHUM
ETHYL ALCOHOL	FISHER	1	GA	1	GA	1	PT	E	112-A	PL	N	1	4	SCHUM
METHANOL	FISHER	1	GA	1	GA	1	PT	E	112-A	PL	M	1	4	SCHUM
NIOBIUM OXIDE	ALFA	150	G	150	G	0		E	112-A	PS	M	1	4	SCHUM
NITROGEN	AIR PRODUCTS	280	CF	280	CF	280	CF	E	112-A	PG	L	2	4	SCHUM
POTASSIUM CHLORIDE	ALFA	50	G	50	G	0	G	E	112-A	PS	N	1	4	SCHUM
POTASSIUM PERCHLORATE	BAKER	500	G	500	G	0	G	E	112-A	PS	M	1	4	SCHUM
SILVER NITRATE	BAKER	100	G	100	G	0		E	112-A	PS	M	1	4	SCHUM
SODIUM CHLORIDE	SARGENT-WELCH	500	G	500	G	0	G	E	112-A	PS	N	1	4	SCHUM
SODIUM PERCHLORATE	ALFA	2	LB	2	LB	0		E	112-A	PS	M	1	4	SCHUM
TITANIUM OXIDE	SIGMA	100	G	100	G	0	MG	E	112-A	PS	N	1	4	SCHUM
TITANIUM POWDER	ALFA	1	LB	1	LB	0		E	112-A	PS	M	1	4	SCHUM
ACETIC ACID (GLACIAL)	FISHER	1	L	1	L	0		E	113	PL	M	1	4	FARMER
ACETONE	MALLINCKRODT	6	L	6	L	0.5	L	E	113	PL	M	1	4	FARMER
ACETYLENE	AIR PRODUCTS	500	CF	500	CF	750	CF	E	113	PG	L	[illegible]	4	FARMER
AM[illegible]A-NITROGEN	HACH	0.5	L	0.5	L	0.25	L	E	113	PL	N	[illegible]	4	FARMER
AMM[illegible]UM CHLORIDE	FISHER	250	G	500	G	250	G	E	113	PS	N	1	4	FARMER
BARBITURIC ACID	FISHER	200	G	[illegible]	G	[illegible]		E	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TM	SUPER
ETHYLENE/MALL.. ANHYDRIDE COPOLYMER	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
ETHYLENE/VINLY ACETATE COPOLYMER 15B	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
ETHYLENE/VINYL ACETATE COPOLYMER 14	SCIENTIFIC POLYMER PRODUCTS	5	G5	5	G	0	5	E	112	S	M	1	4	WIEDENHEFT
ETHYLENE/VINYL ACETATE COPOLYMER 15	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
ETHYLENE/VINYL ACETATE COPOLYMER 15C	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
FLUORANTHENE	CHEMICAL SERVICES	5	G	5	G	0		E	112	PL	M	1	4	WIEDENHEFT
FLUORENE	CHEMICAL SERVICES	2.5	G	2.5	G	0		E	112	PL	M	1	4	WIEDENHEFT
GLYCEROL	MALLINCKRODT	500	ML	500	ML	0		E	112	PL	M	1	4	WIEDENHEFT
GLYCEROL	ALDRICH	500	ML	500	ML	1	ML	E	112	PL	M	1	4	WIEDENHEFT
GUAIAZULENE	CHEMICAL SERVICES	1	G	1	G	0		E	112	PL	M	1	4	WIEDENHEFT
HELIUM	MATHESON	1000	CF	1450	CF	4000	CF	E	112	G	M	1	4	WIEDENHEFT
HYDROCARBONS 25A	POLYSCIENCE CORPORATION	2	ML	2	ML	0	ML	E	112	L	M	1	4	WIEDENHEFT
HYDROXYBUTYL METHYL CELLULOSE 15	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
HYDROXYPROPYL CELLULOSE 16	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
HYDROXYPROPYL METHYL CELLULOSE 16	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
INDAN	CHEMICAL SERVICES	1	G	1	G	0		E	112	PL	M	1	4	WIEDENHEFT
ISOBUTYL BENZENE	RFR COMPANY	10	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
ISOPROPYL ALCOHOL	SHARPE CHEMICAL COMPANY	2	PT	2	PT	0		E	112	PL	M	1	4	WIEDENHEFT
ISOPROPYL BENZENE	RFR COMPANY	100	MG	100	MG	0	0	E	112	PL2	M	1	4	WIEDENHEFT
KEROSENE	FISHER	0.8	L	0.8	L	0		E	112	PL	M	1	4	WIEDENHEFT
M XYLENE	RFR COMPANY	10	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
M-XYLENE 25A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
METHANOL	MCB	1	L	1	L	0.5	L	E	112	L	M	1	4	WIEDENHEFT
METHANOL	BAKER	1	GA	1	GA	0		E	112	PL	M	1	4	WIEDENHEFT
METHANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIEDENHEFT
METHYL ALCOHOL	FISHER	4	L	5	L	1	L	E	112	L	M	1	4	WIEDENHEFT
METHYL AMMINE	HCI SIGMA	75	G	75	G	0		E	112	PL	M	1	4	WIEDENHEFT
METHYL DECANOATE CAPRATE 61A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
METHYL DECANOATE LAURATE 61A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
METHYL OCTADECANEATE STEARATE 61A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
METHYL TETRADECANOATE MYRISTATE 61A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
METHYL TETRADECONATE PALMITATE 61A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
METHYL VINYL ETHER/MALEIC ACID	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
METHYL-3-HEPTANONE 42A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
METHYLCYCLOHEXANE	KODAK	400	G	400	G	0		E	112	PL	M	1	4	WIEDENHEFT
METHYLENE CHLORIDE	BURDICK-JACKSON	7	L	7	L	1	L	E	112	L	M	1	4	WIEDENHEFT
METHYLENE CHLORIDE	FISHER	0.5	GA	0.5	GA	0		E	112	L	M	1	4	WIEDENHEFT
N NONYLBENZENE	RFR COMPANY	10	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
N,NDIMETHYL FORMAMIDE	FISHER	200	ML	200	ML	10	ML	E	112	PL	M	1	4	WIEDENHEFT
N-DOCOSANE 26A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
N-DODECANE 21A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
N-HEXADECANE 21A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
N-HEXANE 22A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
N-NONADECANE 26A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
[illegible]	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SU
N-TRIDECANE 2	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
N-VINYLPYROLIDONE/VINYL ACETATE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
NAPHTHACENE	CHEMICAL SERVICES	10	MG	10	MG	0		E	112	PL	M	1	4	WIED
NAPKTHALENE	CHEMICAL SERVICES	5	G	5	G	0		E	112	PL	M	1	4	WIED
NYLON 6 (POLY(CAPROLACTAM))16	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
O-XYLENE 25A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
OCTONE	KODAK	1	L	1	L	0		E	112	PL	M	1	4	WIED
OXLENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIED
P XYLENE	RFR COMPANY	10	MG	100	MG	0		E	112	PL	M	1	4	WIED
P-CYMEME 25A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
PENTAERYTHRITOL	ALDRICH	50	G	50	G	0		E	112	PL	M	1	4	WIED
PERFLUEROTRIBUTYLAMINE	PCR	2	G	2	G	0		E	112	PS	M	1	4	WIED
PERFLUORO KEROSENE H	PCR	4	ML	4	ML	0		E	112	PS	M	1	4	WIED
PERFLUORO KEROSENE L	PCR	2	G	2	G	0		E	112	PS	M	1	4	WIED
PERFLUORO-2-BUTYLTETRAHYDRFURAN	PCR	2	G	2	G	0		E	112	PS	M	1	4	WIED
PERFLUORO-2-BUTYLTETRAHYDRFURAN	PCR	2	G	2	G	0		E	112	PS	,	1	4	WIED
PERYLENE	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PL	M	1	4	WIED
PHENANTHRENE	CHEMICAL SERVICES	5	G	5	G	0		E	112	PL	M	1	4	WIED
PHENOXY RESIN 18	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY (2,6-DIMETHYL-P-PHENYLENE OXIDE) 8	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY (4-METHYL-1-PENTENE) 11	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY CAPROLOATONE 7	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY DIALLYL ISOPHTHALATE 8	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY DIALLYL PHTHALATE 8	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY PROPLYLENE, CHLORINATED 11	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(1,4-BUTYLENE TETREPHTHALATE) 7	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(1,4-CYCLOHEXENE DIMETHYLENE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(1-BUTENE) ISOTACTIC 7	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(ALPHA METHYLSTYRENE) 11	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(BUTYLMETHACRYLATE) 7	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(ETHYL METHACRYLATE) 10	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(ETHYLENE OXIDE) 10	SCIENTIFIC POLMYER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(ETHYLENE TERPHTHALATE) 11	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(HEXAMETHYLENE ADIPAMIDE) 17	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(HEXAMETHYLENE NONANEDIAMIDE) 17	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(HEXAMETHYLENE SABACAMIDE) 17	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(HEXAMETHYLENE TERPHTHALAMIDE)	SCIENTIFIC POLYMER PRODUCTS	5		5	G	0		E	112	MS	M	1	4	WIED
POLY(ISOBUTYL METHACRYLATE) 10	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	1	1	4	WIED
POLY(METHYL METHACRYLATE) 10	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(P-PHENYLENE ETHER SULFONE) 11	SCIENTIFIC POLMYER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
POLY(PHENYLENE SULFIDE) 11	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
Y(TETRAFLUORO ETHYLENE)12	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
Y(VINYL ACETATE) 12	SCIENTIFIC POLYMER PRODUC	5	G	5	G	0		E	112	MS	[illegible]	1	4	WIED
POLY(VINYL ALCOHOL) 12	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIED
[illegible]	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1		WIE

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
ACRYLONITRILE	SCIENTIFIC POLYMER PRODUCTS	5		5	G	0		E	112	MS	M	1	4	WIEDENHEFT
ACTIVATED CHARCOAL	PERKIN-ELMER	10	G	10	G	0		E	112	PL	M	1	4	WIEDENHEFT
ALGINIC ACID, SODIUM SALT,13	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
AMYL ACETATE	FISHER	1	PT	1	PT	0		E	112	PL	M	1	4	WIEDENHEFT
ANTHRACENE	CHEMICAL SERVICES	5	G	5	G	0		E	112	PL	M	1	4	WIEDENHEFT
ANTHRACENE-D10/NOPHTHALEN D8	SUPELCO	0.5	ML	0.5	ML	0.1	ML	E	112	PL	M	1	4	WIEDENHEFT
BENZ(A)ANTHRACENE	CHEMICAL SERVICES	0.1	-	0.1	-	0		E	112	PL	M	1	4	WIEDENHEFT
BENZO(A)PYRENE	CHEMICAL SERVICES	10	MG	10	MG	0		E	112	PL	M	1	4	WIEDENHEFT
BENZO(GHI)PERYLENE(1,12BENZOPERYLENE	CHEMICAL SERVICES	10	G	10	MG	0		E	112	PL	M	1	4	WIEDENHEFT
BENZYL CHLORIDE	SIGMA	250	ML	250	ML	0		E	112	PL	M	1	4	WIEDENHEFT
BUTYL CAPROATE 64A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
BUTYL HEPTANOATE 64A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
BUTYL METHACRYLATE/ISOBUTYL	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
BUTYL PROPIONATE 64A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
BUTYL VALERATE 64A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
CARBON DISULFIDE	SIGMA	2	L	2	L	0	L	E	112	L	M	1	4	WIEDENHEFT
CARBOPACK	SUPELCO	15	G	15	G	0		E	112	PL	M	1	4	WIEDENHEFT
CARBOPACK C	SUPELCO	20	G	20	G	0		E	112	PL	M	1	4	WIEDENHEFT
CARBOWAW 20M	SUPELCO	20	G	20	G	0		E	112	PL	M	1	4	WIEDENHEFT
CAROPACK B	SUPELCO	15	G	15	G	0		E	112	PL	M	1	4	WIEDENHEFT
CELLULOSE ACETATE 13	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
CELLULOSE ACETATE BUTYRATE 13	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
CELLULOSE PROPIONATE 13	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
CELLULOSE SULFATE, SODIUM SALT 14	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
CELLULOSE TRIACETATE 14	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
CHEMICAL SERVICES	9,10 DIMETHYLANTHRACENE	0.1	G	0.1	G	0		E	112	PS	M	1	4	WIEDENHEFT
CHLOROFORM	FISHER	150	ML	150	ML	0	ML	E	112	PL	M	1	4	WIEDENHEFT
CHRYSENE	CHEMICAL SERVICES	1	G	1	G	0		E	112	PL	M	1	4	WIEDENHEFT
CYCLOHEXANE	KODAK	2	PT	2	PT	0		E	112	PL	M	1	4	WIEDENHEFT
CYCLOHEXANE	EM SCIENCE	500	ML	500	ML	10	ML	E	112	PL	M	1	4	WIEDENHEFT
CYCLOHEXANOL 13A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
D2O	-	200	ML	200	ML	0		E	112	PL	M	1	4	WIEDENHEFT
DECACYCLENE	CHEMICAL SERVICES	1	G	1	G	0		E	112	PL	M	1	4	WIEDENHEFT
DIMETHYLHEXANE 22A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
EHTYLENE/VINYL ACETATE COPOLYMER 15A	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
ETHANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIEDENHEFT
ETHYL ACETATE 62A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
ETHYL ALCOHOL	AAPER ALCOHOL & CHEM COMPANY	1	GA	2	GA	0.5	GA	E	112	L	M	1	4	WIEDENHEFT
ETHYL BENZENE 26A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
ETHYL BUTYRATE 62A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
ETHYL CAPROATE 62A	POLYSICENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
ETHYL CELLULOSE 14	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	.S	.	1	4	WIEDENHEFT
ETHYL CELLULOSE 16	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
ETHYL PROPIONATE 62A	POLYSCIENCE CORPORATION	2	ML	2	0	0		E	112	ML	M	1	4	WIEDENHEFT
ETHYL VALERATE 62A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT

9.6-56

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SU
1-PENTANOL S[illegible]	POLY. SCIENCE COMPANY	1	[illegible]	1	ML	0		E	112	PL	M	1	4	WIED
1-PENTENE 23C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
1-PROPANOL STD.	POLY SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIED
1-PROPANOL-11A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
1-TETRADECENE 24C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
1-TRIDECENE 24C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
2 BUTANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIED
2 ETHYL TOLUENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIED
2 METHYL 1 BUTANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIED
2 METHYL 2 BUTANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIED
2 METHYL 2 PROPANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIED
2 METHYLANTHRACENE	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PS	M	1	4	WIED
2 METHYLNAPTHALENE	CHEMICAL SERVICES	5	G	5	G	0		E	112	PS	M	1	4	WIED
2 PENTANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIED
2 PROPANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIED
2,2,4-TRIMETHYLPENTANE 22A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
2,2,5-TRIMETHYLHEXANE 22A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
2,3 BENZOFLUORENE	CHEMICAL SERVICES	10	MG	10	MG	0		E	112	PS	M	1	4	WIED
2,3 DIMETHYLNAPTHALENE	CHEMICAL SERVICES	1	G5	1	G	0	1	E	112	PS	M	1	4	WIED
2,6 DIMETHYLNAPTHALENE	CHEMICAL SERVICES	1	G	1	G	0		E	112	PS	M	1	4	WIED
2,6-DIMETHYL-4-HEPTANONE 42A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
2-ETHYL-1-BUTANOL 11A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
2-ETHYL-1-BUTANOL 13A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
2-HEPTANONE 42A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
2-METHYL-1PROPANOL 11A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
2-METHYLPENTANE 22A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
3 ETHYL TOLUENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIED
3 METHANOL-1-BUTANOL STD.	POLY. SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIED
3-METHYL-3-PENTANOL 13A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
3-PENTANONE 41A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
4 ETHYL TOLUENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIED
4-HEPTANONE 41A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
4-HEPTANONE 42A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
4-METHYL-2-PENTANONE 41A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
4-METHYL-2PETANOL 11A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIED
5 METHY-2-HEXANONE 42A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	N	1	4	WIED
5 METHYL-3-HEPTANONE 42A	POLYSCIENCE CORPORATION	2	NL	2	ML	0		E	112	ML	M	1	4	WIED
5,-LIMONENE	ALDRICH	175	G	175	G	10	G	E	112	PL	M	1	4	WIED
7,12 DIMETHYLBENZ(A)ANTHRACENE	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PS	M	1	4	WIED
7-HEXYL BENZENE	RFR COMPANY	10	MG	100	MG	0		E	112	PL	M	1	4	WIED
9 METHYLANTHRACENE	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PS	M	1	4	WIED
9,10 DIPHENYLANTHRACENE	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PS	[illegible]	1	4	WIED
[illegible] APHTHYLENE	CHEMICAL SERVICES	1	G	1	G	0		E	112	PS	[illegible]	1	4	WIED
A[illegible] ALDEHYDE OXIME	SIGMA	100	GA	100	GA	0		E	112	PL	M	1	4	WIED
ACETONE	FISHER	3	I	3.5	I	1	I	E	[illegible]	I	M	[illegible]	[illegible]	[illegible]

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
SODIUM SULFITE		100		200	G	500	G	E	101	S	N	1	4	MILLER
SODIUM THIOSULFATE		20	G	400	G	400	G	E	101	S	N	1	4	MILLER
SULFURIC ACID		2	LB	6	LB	6	LB	E	101	L	M	1	4	MILLER
TRICHLOROETHANE		6	L	6	L	4	L	E	101	L	M	1	4	MILLER
(POLY(HEXAMETHYLENE DODECANE	SCIENTIFIC POLYMER PRODUCTS	5	G	5	G	0		E	112	MS	M	1	4	WIEDENHEFT
1 METHYLNAPTHALENE	CHEMICAL SERVICES	10	ML	10	ML	0		E	112	PS	M	1	4	WIEDENHEFT
1 PHENYL BUTENE 2	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1 PHENYLNAPTHALENE	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PS	M	1	4	WIEDENHEFT.
1,1,1-TRICHLOROETHANE	MILLER-STEPHENSON	1	LB	1	LB	0		E	112	PL	M	1	4	WIEDENHEFT
1,1-BINAPHTHYL(A BINEPHTHYL)	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PS	M	1	4	WIEDENHEFT
1,2 BENZOFLUORENE	CHEMICAL SERVICES	10	MG	10	MG	0		E	112	PS	M	1	4	WIEDENHEFT
1,2 DIETHYL BENZENE	RFR COMPANY	10	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,2 DIMETHYL 2 ETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,2 DIMETHYL 3 ETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,2 DIMETHYL 4 ETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,2,3 TRIMETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,2,3,4 TETRAMETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,2,3,5 TETRAMETHYLBENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,2,4 TRIMETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0	0	E	112	PL	M	1	4	WIEDENHEFT
1,2,4,5 DURENE	CHEMICAL SERVICES	5	G	5	G	0		E	112	PS	M	1	4	WIEDENHEFT
1,2,5,6 DIBENZANTHRACENE	CHEMICAL SERVICES	10	MG	10	MG	0		E	112	PS	M	1	4	WIEDENHEFT
1,2,6,7 TETRAHYDROPYRENE	CHEMICAL SERVICES	0.1	G5	0.1	G	0	.1	E	112	PS	M	1	4	WIEDENHEFT
1,3 DIETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,3 DIMETHYL 4 ETHYL BENZENE	RFR COMPANY	10	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,3 DIMETHYL 5-ETHYLBENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,3 DIMETHYLNAPHTHALENE	CHEMICAL SERVICES	0.1	G	0.1	G	0		E	112	PS	M	1	4	WIEDENHEFT
1,3,5 TRIMETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,4 DIETHYL BENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,4 DIMETHYL 2 ETHYLBENZENE	RFR COMPANY	100	MG	100	MG	0		E	112	PL	M	1	4	WIEDENHEFT
1,4, DIMETHYLNAPTHALENE	CHEMICAL SERVICES	0.1	G	0.1	G	0	.1	E	112	PS	M	1	4	WIEDENHEFT
1-BUTANOL 11A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-BUTANOL 12A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-BUTANOL STD.	POLY SCIENCE COMPANY	1	ML	1	ML	0		E	112	PL	M	1	4	WIEDENHEFT
1-DECENE 24C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-DODECENE 24C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-HEPTANOL 12A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-HEPTANOL 13A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-HEPTENE 23C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-HEXANOL 12A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-HEXANOL 13A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-HEXENE 23C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-INDECENE 24C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-NONENE 23C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-OCTENE 23C	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT
1-PENTANOL 11A	POLYSCIENCE CORPORATION	2	ML	2	ML	0		E	112	ML	M	1	4	WIEDENHEFT

ACETIC ACID	300	ML	500	ML	500	ML	E	101	L	M	1	4	MILLER
ACETONE	300	ML	500	ML	500	ML	E	101	L	N	1	4	MILLER
AMMONIUM PERSULFATE	100	G	500	G	100	G	E	101	S	N	1	4	MILLER
BORIC ACID	200	G	500	G	500	G	E	101	S	M	1	4	MILLER
CHROMIUM TRIOXIDE	100	G	200	G	200	G	E	101	S	M	1	4	MILLER
COPPER	0	G	250	G	250	G	E	101	S	M	1	4	MILLER
CUPRIC CHLORIDE	300	G	500	G	500	G	E	101	S	M	1	4	MILLER
EPOXY HARDENER (EIP THIN)	75	ML	0.5	G	0.5	G	E	101	L	N	1	4	MILLER
EPOXY RESIN (EPI-THIN)	0.1	L	1	L	1	L	E	101	L	N	1	4	MILLER
ETHYL ACETATE	0.5	QT	1	QT	1	QT	E	101	L	M	1	4	MILLER
ETHYL ALCOHOL	2	QT	4	L	6	L	E	101	L	N	1	4	MILLER
FERRIC CHLORIDE	500	G	1000	G	6000	G	E	101	S	M	1	4	MILLER
GLYCERIN	1	L	3	L	3	L	E	101	L	M	1	4	MILLER
HYDROCHLORIC ACID	0.5	LB	1	LB	1	LB	E	101	L	M	1	4	MILLER
HYDROFLORIC ACID	0.5	LB	1	LB	1	LB	E	101	L	N	1	4	MILLER
HYSOL DISSOLVER	5	LB	5	LB	12	LB	E	101	L	F	1	4	MILLER
HYSOL EPOXY	12	LB	24	LB	50	LB	E	101	L	F	1	4	MILLER
HYSOL HARDENER	4	LB	8	LB	8	LB	E	101	L	F	1	4	MILLER
ISOPROPYL ALCOHOL	500	ML	500	ML	3000	ML	E	101	L	M	1	4	MILLER
LACTIC ACID	400	ML	500	ML	1000	ML	E	101	L	M	1	4	MILLER
MOLYBDIC ACID	200	G	350	G	500	G	E	101	S	N	1	4	MILLER
NITRIC ACID	3	LB	5	LB	5	LB	E	101	L	M	1	4	MILLER
OXALIC ACID	500	G	1000	G	3000	G	E	101	S	N	1	4	MILLER
PHOSPHORIC ACID	50	L	1	L	1	L	E	101	L	M	1	4	MILLER
POTASSIUM BISULFITE	10	G	50	G	50	G	E	101	S	N	1	4	MILLER
POTASSIUM CYANIDE	400	G	1000	G	1300	G	E	101	S	M	1	4	MILLER
POTASSIUM FERRICYANIDE	10	G	0.3	G	0.3	G	E	101	S	M	1	4	MILLER
SILVER NITRATE	5	G	10	G	10	G	E	101	S	M	1	4	MILLER
SODIUK HYDROXIDE PELLETS	1.5	KG	3	KG	3	KG	E	101	S	N	1	4	MILLER
SODIUM ACETATE	0	G	400	G	400	G	E	101	S	M	1	4	MILLER
SODIUM BISULFATE	50	G	500	G	900	G	E	101	S	N	1	4	MILLER
SODIUM CARBONATE	500	G	1000	G	2000	G	E	101	S	M	1	4	MILLER
SODIUM CHLORIDE	50	G	500	G	1400	G	E	101	S	N	1	4	MILLER
SODIUM CYANIDE	50	G	400	G	400	G	E	101	S	M	1	4	MILLER
SODIUM DICHROMATE	750	G	1000	G	100	G	E	101	S	N	1	4	MILLER

CHEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TM	SUPER
HYDROFLORIC ACID		0.5	PT	1	PT	1	PT	E	174	L	N	1	4	MILLER
LACTIC ACID		1	LB	2	LB	4	LB	E	174	L	M	1	4	MILLER
NITRIC ACID		5	LB	7	LB	14	LB	E	174	L	M	1	4	MILLER
SODIUM CARBONATE		50	G	500	G	500	G	E	174	S	N	1	4	MILLER
SULFURIC ACID		2	LB	9	LB	9	LB	E	174	L	M	1	4	MILLER
ACRYLIC HARDENER		0	ML	500	ML	500	ML	E	175	L	M	1	4	MILLER
ACRYLIC RESIN		0	LB	1	LB	1	LB	E	175	S	N	1	4	MILLER
AMMONIUM PEROXYDISULFATE		50	G	500	G	500	G	E	175	S	N	1	4	MILLER
HYSOL EPOXY		9	LB	18	LB	18	LB	E	175	L	F	1	4	MILLER
SILICON SPRAY		8	OZ	8	OZ	15	OZ	E	175	L	A	1	4	MILLER
SODIUM BICARBONATE		50	G	500	G	500	G	E	175	S	N	1	4	MILLER
SODIUM CHLORIDE		0	G	500	G	500	G	E	175	S	N	1	4	MILLER
DIETHYL ETHER	UNKNOWN	4	L	4	L	4	L	E	176	PL	M	1	4	SCHUMACHE
METHYL ALCOHOL	MALLINCKRODT	4	L	4	L	1	L	E	176	PL	M	1	4	SCHUMACHE
METHYLENE CHLORIDE	UNKNOWN	1000	ML	1000	ML	100	L	E	176	PL	M	1	4	SCHUMACHE
METHYLENE CHLORIDE	FISHER	4	L	4	L	0.1	L	E	176	L	M	1	4	SCHUMACHE
NITROGEN	UNKNOWN	200	CF	200	CF	50	CF	E	176	PG	L	1	4	SCHUMACHE
ACETONE		20	ML	20	ML	20	ML	E	187	L	M	1	4	MILLER
ETHYL ALCOHOL		20	ML	20	ML	20	ML	E	187	L	M	1	4	MILLER
ZINC STEARATE		70	OZ	70	OZ	20	OZ	E	191	L	F	1	4	MILLER
GLYCERIN	FISHER	500	ML	500	ML	0		E	23	PL	M	1	4	SCHUMACHE
BORIC ACID	SPEX100	100	G5	100	G0	100	MG	E	112-A	PS	N	1	4	SCHUMACHE
NITROGEN	AIR PRODUCTS	280	CF	280	CF	280	CF	E	111	PG	L	2	4	SCHUMACHE

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TM	SUPE
SODIUM NITRITE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMA
SODIUM OXALATE	FISHER	454	G	454	G	0.1	G	E	167	PS	M	1	4	SCHUMA
SODIUM PERCHLORATE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMA
SODIUM PHOSPHATE DIBASIC	FISHER	50	G	50	G	1	G	E	167	PS	M	1	4	SCHUMA
SODIUM PHOSPHATE DIBASIC 7 H20	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMA
SODIUM PHOSPHATE MONOBASIC	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMA
SODIUM PHOSPHITE 5H20	RIEDEL	250	G	250	G	1	G	E	167	PS	M	1	4	SCHUMA
SODIUM PROPIONATE	FISHER	250	G	250	G	0.1	G	E	167	PS	N	1	4	SCHUMA
SODIUM PYROPHOSPHATE 10 H20	FISHER	5	G	5	G	0.1	G	E	167	PS	N	1	4	SCHUMA
SODIUM PYRUVATE	ALDRICH	25	G	25	G	1	G	E	167	PS	N	1	4	SCHUMA
SODIUM STANDARD (1000 PPM NA)	WESCAN	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUMA
SODIUM SUCCINATE	FISHER	500	G	500	G	0.1	G	E	167	PS	M	1	4	SCHUMA
SODIUM SULFANATE	FISHER	25	G	250	G	1	G	E	167	L	M	1	4	SCHUMA
SODIUM SULFATE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUMA
SODIUM SULFIDE	FISHER	500	G	500	G	5	G	E	167	PS		1	4	SCHUMA
SODIUM SULFITE	FISHER	25	G	25	G	0.1	G	E	167	PS	M	1	4	SCHUMA
SODIUM TETRABORATE	CTB	150	G	150	G	0.1	G	E	167	PS	M	1	4	SCHUMA
SODIUM TETRABORATE, ANHYD	ALFA	454	G	454	G	1	G	E	167	PS	M	1	4	SCHUMA
SODIUM THIOCYANATE	ALDRICH	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUMA
STARCH, SOLUBLE	FISHER	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHUMA
STEARIC ACID	SCHMIDT	50	G	50	G	0.1	G	E	167	PS	N	1	4	SCHUMA
STRONTIUM NITRATE (1000 PPM SR)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUMA
SULFAMIC ACID	FISHER	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHUMA
SULFATE STANDARD, 1000 PPM	NIST	60	ML	60	ML	10	ML	E	167	PL	N	1	4	SCHUMA
SULFUR, SUBLIMED	CHEM SERV.	10	G	10	G	1	G	E	167	PS	N	1	4	SCHUMA
SULFURIC ACID, CONCENTRATED	MALLINCKRODT	500	ML	500	ML	25	ML	E	167	PL	M	1	4	SCHUMA
TARTARIC ACID	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMA
TATB	UNKNOWNN	10	G	10	G	1	G	E	167	PS	N	1	4	SCHUMA
TETRABUTYLAMMONIUM HYDROXIDE	ALDRICH	250	G	250	G	5	G	E	167	PS	M	1	4	SCHUMA
TETRABUTYLAMMONIUM HYDROXIDE (0.1M)	DIONEX	100	ML	100	ML	10	ML	E	167	PL	N	1	4	SCHUMA
TETRAMETHLAMMONIUM HYDROXIDE 5 H20	ALDRICH	100	G	100	G	1	G	E	167	PS	M	1	4	SCHUMA
TETRAPENTYLAMMONIUM BROMIDE	KODAK	25	G	25	G	0.1	G	E	167	PS	M	1	4	SCHUMA
THAM	FISHER	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHUMA
TIRON	ALDRICH	100	G	100	G	0.1	G	E	167	PS	N	1	4	SCHUMA
TOLUENE	FISHER	4	L	4	L	0.1	L	E	167	L	M	1	4	SCHUMA
TRISHYDROXYMETHYLAMINOLMETHANE	ALDRICH	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHUMA
TRISHYDROXYMETHYLAMINOMETHANE HC1	SIGMA	450	G	450	G	0.1	G	E	167	PS	N	1	4	SCHUMA
TRITON X-100	ICN	100	G	100	G	1	G	E	167	PL	N	1	4	SCHUMA
TUNGSTIC ANYHDRIDE	FISHER	113	--	113	--	0.1	G	E	167	PS	M	1	4	SCHUMA
VALINE	ALDRICH	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHUMA
ZINC (II) NITRATE (1000 PPM ZN)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUMA
ZINC CHLORIDE	FLUKA	500	G	500	G	1	G	E	167	PS	N		4	SCHUMA
SOD[illegible] TARTRATE	FISHER		LG	1	LB	1	G	E	168	PS	M		4	SCHUMA
POTA[illegible]UM PERCHLORATE	G.F. SMITH	5	LB	5	LB	14	G	E	172	PS	M	1	4	SC[illegible]

CHEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TM	SUPER
POTASSIUM IODATE	FISHER	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
POTASSIUM IODIDE	MALLINCKRODT	454	G	454	G	1	G	E	167	PS	M	1	4	SCHUMACHER
POTASSIUM ION STANDARD (1000 PPMK)	WEXCAN	100	ML	100	ML	5	ML	E	167	PL	N	1	R	SCHUMACHER
POTASSIUM NITRATE	FISHER	450	G	450	G	1	G	E	167	PS	N	1	4	SCHUMACHER
POTASSIUM PERMANGANATE	BAKER	454	G	454	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
POTASSIUM PHOSPHATE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUMACHER
POTASSIUM SULFATE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUMACHER
POTASSIUM TETRACHLOROAURATE (III)	THIOKOL	5	G	5	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
POTASSIUM TETRACYANOPALLADATE	J. MATTHEY	1	G	1	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
POTASSIUM TETRACYANOPLATINATE	J. MATTHEY	1	G	1	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
POTASSIUM THIOCYANATE	FISHER	450	G	450	G	1	G	E	167	PS	M	1	4	SCHUMACHER
PYRIDINE	FISHER	1	L	1	L	10	ML	E	167	PL	M	1	4	SCHUMACHER
PYRIDINE-2,6-DICARBOXYLIC ACID	FLUKA	250	G	250	G	2	G	E	167	PS	M	1	4	SCHUMACHER
PYRIDYLAZO RESORCINOL	FLUKA	5	G	5	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
PYROCATECHOL VIOLET	ALDRICH	5	G	5	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
RDX	UNKNOWN	1	G	1	G	0.1	G	E	167	PS	N	1	4	SCHUMACHER
SALICYLIC ACID	FISHER	500	G	500	G	5	G	E	167	PS	N	1	4	SCHUMACHER
SILICA GEL	FISHER	500	G	500	G	5	G	E	167	PS	N	1	4	SCHUMACHER
SILICATE ION STANDARD (1000 PPM	WESCAN	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUMACHER
SILVER CHLORIDE	ALFA	10	G	10	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
SILVER NITRATE	ALFA/FISHER	50	G	50	G	1	G	E	167	PS	N	1	4	SCHUMACHER
SILVER POTASSIUM CYANIDE	J MATTHEY	25	G	25	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
SIMULATED RAINWATER	NIST	60	ML	60	ML	10	ML	E	167	ML	N	1	4	SCHUMACHER
SODIUM ACETATE	ALDRICH	500	G	500	G	100	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM ACETATE TRIHYDRATE	FISHER	500	G	500	G	100	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM ARSENITE	FISHER	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM AZIDE	FISHER	25	G	25	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM BICARBONATE	MALLINCKRODT	454	G	454	G	50	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM BISULFITE	FISHER	500	G	500	G	100	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM BORATE	BAKER	450	G	450	G	100	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM BROMIDE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM CARBONATE	FISHER	454	G	454	G	5	G	E	167	PS	N	1	4	SCHUMACHER
SODIUM CHLORIDE	SW	454	G	454	G	1	G	E	167	PS	N	1	4	SCHUMACHER
SODIUM CHLRITE	KODAK	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM CHROMATE	UNKNOWN	5	G	5	G	0.1	G	E	167	PS	N	1	4	SCHUMACHER
SODIUM CITRATE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMACHER
SODIUM CYANIDE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMACHER
SODIUM DITHIONATE	FISHER	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM FLUORIDE	FISHER	454	G	454	G	1	G	E	167	PS	N	1	4	SCHUMACHER
SODIUM FORMATE	ALDRICH	100	G	100	G	1	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM HYDROXIDE	FISHER	100	G	100	G	10	G	E	167	PS	N	1	4	SCHUMACHER
SODIUM HYDROXIDE, 50%	FISHER	500	ML	500	ML	10	ML	E	167	PL	N	1	4	SCHUMACHER
SODIUM HYPOPHOSPHITE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUMACHER
SODIUM IODIDE	FISHER	250	G	250	G	1	G	E	167	PS	M	1	4	SCHUMACHER

CHEMICAL	MANUFACT	USE		MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SU
LITHIUM CHLORI[illegible]	GFS	25	[illegible]	25	G	0.1	G	E	167	PS	N	1	4	SCHU
LITHIUM HYDROXIDE HYDRATE	FLUKA	250	G	250	G	1	G	E	167	PS	N	1	4	SCHU
LITHIUM STANDARD (1000 PPM LI)	WESCAN	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHU
MAGNESIUM CHLORIDE 6H20	FISHER	1000	G	1000	G	50	G	E	167	PS	N	1	4	SCHU
MAGNESIUM NITRATE (1000 PPM MG)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHU
MAGNESIUM NITRATE HEXAHYDRATE	ALDRICH	100	ML	100	ML	1	G	E	167	PS	M	1	4	SCHU
MAGNESIUM STANDARD (1000 PPM MG)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHU
MANGANESE NITRATE (1000 PPM MN)	ALFA	100	ML	100	ML	5	ML	E	167	PL	M	1	4	SCHU
MANNITOL	ALDRICH	50	G	50	G	1	G	E	167	PS	N	1	4	SCHU
METHOXYCHLOR	CHEM SERV.	1	G	1	G	0.1	G	E	167	PS	N	1	4	SCHU
METHYL CELLULOSE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHU
METHYL ISOBUTYL KETONE	FISHER	1	L	1	L	10	ML	E	167	PL	M	1	4	SCHU
METHYL SULFOXIDE	MCB	1	L	1	L	10	ML	E	167	PL	M	1	4	SCHU
MOLYBDIC ACID	UNKNOWN	5	G	5	G	0.1	G	E	167	PS	N	1	4	SCHU
MONOCHLOROACETIC ACID	FISHER	454	G	454	G	1	G	E	167	PS	M	1	4	SCHU
MORPHOLINEETHANESULFONIC ACID	ALDRICH	100	G	100	G	0.1	G	E	167	PS	N	1	4	SCHU
NICKEL(II) NITRATE(1000 PPM NI)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHU
NITRATE STANDARD (1000 PPM N03)	NIST	500	ML	500	ML	10	ML	E	167	PL	N	1	4	SCHU
NITRATE STANDARD (1000 PPM NO3)	EM SCIENCE	500	ML	500	ML	10	ML	E	167	PL	N	1	4	SCHU
NITRIC ACID	MALLINCKRODT	100	ML	100	ML	10	ML	E	167	PL	M	1	4	SCHU
NITRITE STANDARD (1000 PPM NO2)	EM SCIENCE	500	ML	500	NL	10	ML	E	167	PL	N	1	4	SCHU
NITROGEN	AIR PRODUCTS	200	CF	200	CF	50	CF	E	167	PG	L	1	4	SCHU
OCTANESULFONIC ACID, 0.1 M	DIONEX	100	ML	100	ML	10	ML	E	167	PL	N	1	4	SCHU
OCTANESULFONIC ACID, NA SALT	KODAK	25	G	25	G	1	G	E	167	PS	M	1	4	SCHU
OXALIC ACID DIHYDRATE	FLUKA	250	G	250	G	1	G	E	167	PS	N	1	4	SCHU
PALMITIC ACID	SIGMA	100	G	100	G	1	G	E	167	PS	M	1	4	SCHU
PERFLUOROHEPTANOIC ACID	TLUKA	25	ML	25	ML	1	ML	E	167	PL	M	1	4	SCHU
PERYLENE	CHEM SERV.	100	G	100	MG	10	.G	E	167	PS	M	1	4	SCHU
PETN	UNKNOWN	0.1	G	0.1	G	0.2	G	E	167	PS	N	1	4	SCHU
PHENOL	FISHER	100	G	100	.G	0.1	G	E	167	PS	M	1	4	SCHU
PHENOLPHTHALEIN	KODAK	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHU
PHENYLACETIC ACID	MCB	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHU
PHENYLENEDIAMINE HYDROCHLORIDE	ALDRICH	100	G	100	G	0.1	G	E	167	PS	M	1	4	SCHU
PHOSPHATE STANDARD, 1000 PPM PO4	EM SCIENCE	60	ML	60	ML	10	ML	E	167	PL	N	1	4	SCHU
PHOSPHATE STANDARD, 1000 PPM PO4	NIST	60	ML	60	NL	10	ML	E	167	PL	N	1	4	SCHU
PHTHALIC ACID	ALDRICH	10	G	10	G	1	G	E	167	PS	N	1	4	SCHU
PIVALIC ACID	EASTMAN	100	G	100	G	0.1	G	E	167	PL	M	1	4	SCHU
POTASSIUM CARBONATE	FISHER	500	G	500	G	100	MG	E	167	PS	M	1	4	SCHU
POTASSIUM CHLORATE	FISHER	454	G	454	G	1	G	E	167	PS	M	1	4	SCHU
POTASSIUM CHLORIDE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHU
POTASSIUM CHROMATE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHU
[illegible]SSIUM CYANIDE	BAKER	454	G	454	G	0.5	G	E	167	PS	[illegible]	1	4	SCHU
P[illegible]SSIUM DICHROMATE	NBS	100	G	100	G	0.1	G	E	167	PS	M	[illegible]	4	SCHU
POTASSIUM DICYANOAURATE (I)	THIOKOL	5	G	5	G	0.1	G	E	167	PS	M	1		

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
DIMETHYLFORM[illegible]DE	FISHER	1	L	1	L	10	ML	E	167	PL	M	1	4	SCHUMACHER
DIPHENYLCARBAZIDE	FISHER	25	G	25	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
DOWEX 50W-X16 RESIN	BIO-RAD	1	LB	1	LB	50	G	E	167	PS	M	1	4	SCHUMACHER
DRIERITE	HAMMOND	100	G	100	G	10	G	E	167	PS	N	1	4	SCHUMACHER
DUSTER (CC12F2)	MANASTAT	60	OZ	60	OZ	12	OZ	E	167	MG	R	1	4	SCHUMACHER
ETHYL	ALDRICH	5	G	5	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
ETHYL ALCOHOL	UNKNOWN	1000	ML	1000	ML	100	ML	E	167	PL	M	1	4	SCHUMACHER
ETHYLENDIAMINE	FISHER	500	ML	500	ML	1	ML	E	167	PL	M	1	4	SCHUMACHER
ETHYLENEDIAMINE TETRAACETIC ACID	ALDRICH	100	G	100	G	1	G	E	167	PS	N	1	4	SCHUMACHER
F-70 CONCERNTRATED ALKALINE CLEANER	FISHER	4	L	4	L	100	ML	E	167	MM	N	1	4	SCHUMACHER
FERRIC NITRATE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUMACHER
FERROUS AMMONIUM SULFATE	MALLINCKRODT	1	LB	1	LB	100	G	E	167	PS	N	1	4	SCHUMACHER
FIRE ORANGE FLUORESCENT PIGMENT	DAGLO	200	G	200	G	1	G	E	167	PS	N	1	4	SCHUMACHER
FLORISIL	UNKNOWN	100	G	100	G	100	G	E	167	PS	M	1	4	SCHUMACHER
FLUORIDE STANDARD (1000 PPM F)	NIST	60	ML	60	ML	10	ML	E	167	PL	N	1	4	SCHUMACHER
FORMALDEHYDE	FISHER	500	ML	500	ML	1500	ML	E	167	PL	M	1	4	SCHUMACHER
GLASS WOOL	FISHER	1	G	1	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
GLYCERINE	FISHER	2000	ML	2000	ML	100	ML	E	167	PL	M	1	4	SCHUMACHER
GLYCINE	SIGMA	100	G	100	G	1	G	E	167	PS	N	1	4	SCHUMACHER
GLYCOCHOLIC ACID	EASTMAN	5	G	5	G	0.1	G	E	167	PS	N	1	4	SCHUMACHER
GLYCOLIC ACID	EASTMAN	25	G	25	G	1	G	E	167	PS	M	1	4	SCHUMACHER
GOLD (I) POTASSIUM CYANIDE	MATTHEY	1	G	1	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
HELIUM	AIR PRODUCTS	200	CF	200	CF	600	CF	E	167	PG	L	1	4	SCHUMACHER
HEXANE	FISHER	4	L	4	L	1	L	E	167	PL	M	1	4	SCHUMACHER
HIPPURIC ACID	ALDRICH	100	G	100	G	1	G	E	167	PS	M	1	4	SCHUMACHER
HISTIDINE FREE BASE	SIGMA	25	G	25	G	0.1	G	E	167	PS	N	1	4	SCHUMACHER
HISTIDINE HC1 H20	FLUKA	100	G	100	G	1	G	E	167	PS	N	1	4	SCHUMACHER
HMX	UNKNOWN	100	G	100	G	10	G	E	167	PS	N	1	4	SCHUMACHER
HNS	UNKNOWN	100	G	100	G	10	G	E	167	PS	N	1	4	SCHUMACHER
HYDROCHLORIC ACID, 0.01 N	FISHER	1000	ML	1000	ML	50	ML	E	167	PL	N	1	4	SCHUMACHER
HYDROCHLORIC ACID, CONCENTRATED	MALLINCKRODT	500	NL	500	ML	200	NL	E	167	PL	M	1	4	SCHUMACHER
HYDROGEN PEROXIDE, 30%	SHARPE	500	ML	500	ML	20	ML	E	167	PL	N	1	4	SCHUMACHER
HYDROXY BENZONITRILE	ALDRICH	25	G	25	G	1	G	E	167	PS	M	1	4	SCHUMACHER
HYDROXYHIPPURIC ACID	ALDRICH	2.5	G	2.5	G	0.1	G	E	167	PS	M	1	4	SCHUMACHER
HYDROXYPROPHYMETHYLCELLULOSE	DOW	200	G	200	G	1	G	E	167	PS	N	1	4	SCHUMACHER
IMIDAZOLE	ALDRICH	100	G	100	G	1	G	E	167	PS	M	1	4	SCHUMACHER
IODIDE STANDARD (1000 PPM IODIDE)	WESCAN	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUMACHER
IRON (II) CHLORIDE	ALFA	100	G	100	G	1	G	E	167	PS	M	1	4	SCHUMACHER
IRON (II) SULFATE 7H20	UNKNOWN	10	G	10	G	1	G	E	167	PS	N	1	4	SCHUMACHER
IRON (III) NITRATE (1000 PPM FE)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUMACHER
IRON POWDER	MALLINCKRODT	1	LB	1	LB	10	G	E	167	PS	M	1	4	SCHUMACHER
ISOCTANE	FISHER	1	ML	1	ML	10	ML	E	167	L	M	1	4	SCHUMACHER
ISOPROPYL ALCOHOL (2-PROPANOL)	MALLINCKRODT	500	NL	500	ML	100	ML	E	167	PL	M	1	4	SCHUMACHER
LACTIC ACID	FISHER	500	ML	500	ML	1	ML	E	167	PL	M	1	4	SCHUMACHER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	167	[illegible]	[illegible]	1	4	[illegible]

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUI
BARIUM HYDRO[illegible]E	FLUKA	500	[illegible]	500	G	1	G	E	167	PS	N	1	4	SCHUI
BICARBONATE STANDARD (1000 PPM HC03)	WESCAN	50	ML	50	ML	5	ML	E	167	PL	N	1	4	SCHUI
BIS 2-ETHYLHEXYL PHTHALATE	CHEM SERV	1	G	1	G	0.1	G	E	167	PS	N	1	4	SCHUI
BISMUTH NITRATE	KODAK	500	G	500	G	5	G	E	167	PS	M	1	4	SCHUI
BORIC ACID	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUI
BORON STANDARD (1000 PPM B)	NIST	60	ML	60	ML	10	ML	E	167	PL	N	1	4	SCHUI
BORON TRIFLUORIDE, 14% IN METHANOL	SIGMA	100	ML	100	ML	5	ML	E	167	ML	N	1	4	SCHUI
BROMIDE STANDARD (1000 PPM BROMIDE)	EM SCIENCE	500	ML	500	ML	10	ML	E	167	PL	N	1	4	SCHUI
BROMIDE STANDARD (1000 PPM BROMIDE)	NIST	50	ML	50	ML	5	ML	E	167	PL	N	1	4	SCHUI
BUFFER, PH 10	FISHER	500	ML	500	ML	10	ML	E	167	ML	N	1	4	SCHUI
BUFFER, PH 4	FISHER	500	ML	500	ML	10	ML	E	167	ML	N	1	4	SCHUI
BUFFER, PH 7	FISHER	500	ML	500	ML	10	ML	E	167	ML	N	1	4	SCHUI
CADMIUM (II) NITRATE (1000 PPM CD)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUI
CADMIUM NITRATE 4 H20	MALLINCKRODT	454	G	454	G	1	G	E	167	PS	M	1	4	SCHUI
CALCIUM CHLORIDE (1000 PPM CA)	ALFA	100	ML	100	ML	5	ML	E	167	PL	M	1	4	SCHUI
CALCIUM HYPOCHLORITE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUI
CALCIUM NITRATE 4 H20	ALDRICH	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUI
CAPROIC ACID	SIGMA	100	ML	100	ML	0.05	ML	E	167	PL	M	1	4	SCHUI
CATION MIXTURE	DIONEX	50	ML	50	ML	5	ML	E	167	ML	N	1	4	SCHUI
CATION MIXTURE A	WESCAN	50	ML	50	ML	5	ML	E	167	ML	N	1	4	SCHUI
CERIC AMMONIUM NITRATE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUI
CESIUM NITRATE (1000 PPM CS)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUI
CETYLPYRIDINIMCHLORIDE H20	ALDRICH	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUI
CHELEX 100	BIO-RAD	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUI
CHLORAMINE-T	FISHER	259	G	250	G	5	G	E	167	PS	M	1	4	SCHUI
CHLORIDE STANDARD (1000 PPM CL)	NIST	50	ML	50	NL	5	ML	E	167	PL	N	1	4	SCHUI
CHLORINE TABLETS	MILIPORE	100	G	100	G	10	G	E	167	PS	N	1	4	SCHUI
CHLOROFORM	FISHER	11	L	11	L	10	ML	E	167	PL	M	1	4	SCHUI
CHLOROPHENOTHIAZINE	ALDRICH	25	G	25	G	1	G	E	167	PS	N	1	4	SCHUI
CHROMATE STANDARD (1000 PPM CR04)	NIST	60	ML	60	ML	10	ML	E	167	PL	N	1	4	SCHUI
CHROMIC NITRATE	FISHER	500	G	500	G	1	G	E	167	PS	M	1	4	SCHUI
CHROMIUM (III) CHLORIDE	UNKNOWN	5	G	5	G	0.1	G	E	167	PS	N	1	4	SCHUI
CHROMOTROPIC ACID, SODIUM SALT	FISHER	25	G	25	G	1	G	E	167	PS	N	1	4	SCHUI
CITRIC ACID MONOHYDRATE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUI
COBALT (II) NITRATE (1000 PPM CO)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUI
COPPER (II) CHLORIDE 2H20	ALFA	1	G	1	G	0.1	G	E	167	PS	N	1	4	SCHUI
COPPER CYANIDE	J. MATTHEY	250	G	250	G	1	G	E	167	PS	M	1	4	SCHUI
COPPER SULFATE PENTAHYDRATE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUI
COPPER(II) NITRATE (1000 PPM CU)	ALFA	100	ML	100	ML	5	ML	E	167	PL	N	1	4	SCHUI
CORN OIL	CHEM SERV.	10	G	10	G	1	G	E	167	PL	N	1	4	SCHUI
CP	UNIDYNAMICS	0.5	G	0.5	G	0.2	G	E	167	PS	N	1	4	SCHUI
CREATINE	SIGMA	25	G	25	G	1	G	E	167	PS	N	1	4	SCHUI
CL[illegible]RON	FISHER	500	G	500	G	100	G	E	167	PS	M	1	4	SCHUI
CL[illegible] SULFATE 5 H20	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUI
DIAMINOPROPIONIC ACID HC1	FLUKA	5	G	5	G	0.1	G	E	167	PS	M	1	4	SCHUI

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
GLYCEROL	MALLINCKRODT	2	[illegible]	1.5	PT	2	PT	E	159	PL	M	1	4	SCHUMACHER
GLYCEROL	MALLINCKRODT	2	PT	2	PT	0.1	PT	E	159	L	M	1	4	SCHUMACHER
IMMERSION OIL	CARGILLE	30	ML	30	NL	2	ML	E	159	PL	M	1	4	SCHUMACHER
PENTANE	J. T. BAKER	1	GA	1	GA	0	GA	E	159	L	M	1	4	SCHUMACHER
POLYMER SUSPENSION	DUKE SCIENTIFIC	40	ML	100	ML	2	ML	E	159	ML	M	1	4	SCHUMACHER
SEDISPERSE	MICROMERITICS	21	PT	24	PT	0.5	PT	E	159	L	N	1	4	SCHUMACHER
SILICON CARBIDE	DUKE	30	G	30	G	0	MG	E	159	PS	M	1	4	SCHUMACHER
SODIUM CHLORIDE	FISHER	6	LB	15	LB	5	LB	E	159	PS	N	1	4	SCHUMACHER
SODIUM CLORIDE	FISHER	6	LB	6	LB	2	LB	E	159	S	M	1	4	SCHUMACHER
SODIUM META-PHOSPHATE	FISHER	6	LB	6	LB	2	LB	E	159	S	M	1	4	SCHUMACHER
SODIUM PYROPHOSPHATE	FISHER/MCB	12	LB	17	LB	0.5	LB	E	159	S	M	1	4	SCHUMACHER
SODIUM STANDARD, 1000 PPM	ALTECH	60	ML	60	ML	10	ML	E	165	PL	N	1	4	SCHUMACHER
1-AMINO-2-NAPHTOL-4-SULFONIC ACID	KODAK	100	G	100	G	1	G	E	167	PS	M	1	4	SCHUMACHER
1-BUTANOL	FISHER	1000	ML	1000	ML	10	ML	E	167	PL	M	1	4	SCHUMACHER
2,2'-DIPYRIDYL PYRIDYL HYDRAZINE	PREPARED	50	G	50	G	1	G	E	167	PS	M	1	4	SCHUMACHER
3-AMINOPHTHALYDRAZIDE	ALDRICH	25	G	25	G	1	G	E	167	PS	N	1	4	SCHUMACHER
3-METHYL HIPPURIC ACID	PREPARED	50	G	50	G	0.1	G	E	167	PS	N	1	4	SCHUMACHER
5(-PDIMETHYLAMINOBENZAL)RHODAINE	KODAK	25	G	25	G	1	G	E	167	PS	N	1	4	SCHUMACHER
ACETIC ACID	MALLINCKRODT	500	M	500	ML	50	ML	E	167	PL	M	1	4	SCHUMACHER
ACETONE	FISHER	4	L	4	L	1	L	E	167	PL	M	1	4	SCHUMACHER
ACETONITRILE	FISHER	1000	ML	1000	ML	200	ML	E	167	PL	M	1	4	SCHUMACHER
ALANINE, BETA	SIGMA	100	G	100	G	1	G	E	167	PS	N	1	4	SCHUMACHER
ALLYL GLYCIDYL ETHER	ALDRICH	500	G	500	G	500	G	E	167	PS	M	1	4	SCHUMACHER
ALUMINA	FISHER	300	G	300	G	1	G	E	167	PS	N	1	4	SCHUMACHER
ALUMINUM POTASSIUM SULFATE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMACHER
ALUMINUM, POWDERED	FISHER	100	G	100	G	1	G	E	167	PS	N	1	4	SCHUMACHER
AMINO-N-CAPROIC ACID	SIGMA	100	G	100	G	1	G	E	167	PS	N	1	4	SCHUMACHER
AMINOMETHYL PROPANEDIOL	SIGMA	25	G	25	G	1	G	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM BROMIDE	UNKNOWN	5	G	5	G	0.1	G	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM CARBONATE	ALFA	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM CHLORIDE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM FLUORIDE	BAKER	454	G	454	G	1	G	E	167	PS	M	1	4	SCHUMACHER
AMMONIUM HYDROXIDE	BAKER	500	ML	500	ML	200	ML	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM MOLYBDATE 4H20	FISHER	500	G	500	G	10	G	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM NITRATE	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM PERCHLORATE	FISHER	454	G	454	G	1	G	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM PEROXYDISULFATE (AKA	FISHER	500	G	500	G	1	G	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM STANDARD (1000 PPM NH4)	EM SCIENCE	60	ML	60	ML	10	ML	E	167	PS	N	1	4	SCHUMACHER
AMMONIUM SULFATE	BAKER	454	G	454	G	1	G	E	167	PS	M	1	4	SCHUMACHER
ANION STANDARD	DIONEX	50	ML	50	ML	5	ML	E	167	ML	N	1	4	SCHUMACHER
ANION STANDARD	WESCAN	50	ML	50	ML	5	ML	E	167	ML	N	1	4	SCHUMACHER
ARGON	AIR PRODUCTS	1	CF	1	CF	0.1	CF	E	167	PG	L	1	4	SCHUMACHER
ARSENIC (III) OXIDE	FISHER	2	G	2	G	0.1	G	E	167	PS	N	1	4	SCHUMACHER
ASCORBIC ACID	ALDRICH	100	G	100	G	1	G	E	167	PS	M	1	4	SCHUMACHER
BARBITURIC ACID	FISHER	100	G	100	G	1	G	E	167	PS	M	1	4	SCHUMACHER

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPP
POTASSIUM THIOCYANATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUM
PYRIDINE	FISHER	1	L	1	L	0.5	L	E	157	ML	M	1	4	SCHUM
SILICA	FISHER	6	LB	6	LB	0		E	157	PS	M	1	4	SCHUM
SILVER DIETHYLDITHIOCARBAMATE	FISHER	4	G	5	G	0	G	E	157	PS	M	1	4	SCHUM
SILVER NITRATE	FISHER	15	G	20	G	1	G	E	157	PS	M	1	4	SCHUM
SODIUM BICARBONATE	FISHER	400	G	400	G	80	G	E	157	PS	N	1	4	SCHUM
SODIUM BISULFATE	FISHER	400	G	500	G	20	G	E	157	PS	M	1	4	SCHUM
SODIUM BISULFITE	FISHER	499	G	500	G	0.5	G	E	157	PS	M	1	4	SCHUM
SODIUM BROMIDE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUM
SODIUM CARBONATE	MALLINCKRODT	500	G	480	G	20	G	E	157	PS	N	1	4	SCHUM
SODIUM CHLORIDE	FISHER	480	G	500	G	10	G	E	157	PS	N	1	4	SCHUM
SODIUM CHROMATE	FISHER	490	G	490	G	0	G	E	157	PS	M	1	4	SCHUM
SODIUM DICHROMATE	FISHER	490	G	500	G	0	G	E	157	PS	N	1	4	SCHUM
SODIUM HYDROXIDE	FISHER	480	G	450	G	30	G	E	157	PS	N	1	4	SCHUM
SODIUM IODIDE	FISHER	550	G	600	G	5	G	E	157	PS	M	1	4	SCHUM
SODIUM NITRATE	FISHER	450	G	500	G	2	G	E	157	PS	N	1	4	SCHUM
SODIUM OXALATE	NIST	47	G	47	G	0		E	157	PS	M	1	4	SCHUM
SODIUM PHOSPHATE TARTRATE	FISHER	400	G	500	G	0		E	157	PS	N	1	4	SCHUM
SODIUM SULFATE	FISHER	450	G	500	G	2	G	E	157	PS	M	1	4	SCHUM
SODIUM SULFIDE	FISHER	400	G	500	G	5	G	E	157	PS	M	1	4	SCHUM
SODIUM SULFITE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUM
SODIUM THIOSULFATE	FISHER	450	G	500	G	2	G	E	157	PS	N	1	4	SCHUM
STANNOUS CHLORIDE	FISHER	100	G	100	G	0		E	157	PS	N	1	4	SCHUM
STARCH	FISHER	99	G	100	G	0.1	G	E	157	PS	M	1	4	SCHUM
SULFURIC ACID	MALLINCKRODT	1	L	5	L	5	L	E	157	PL	M	1	4	SCHUM
TEAM	J.T. BAKER	1	QT	1	QT	0		E	157	ML	N	1	4	SCHUM
TETRAETHYL - AMMONIUM BROMIDE	FISHER	400	G	500	G	0		E	157	PS	M	1	4	SCHUM
THAM	FISHER	90	G	100	G	0		E	157	PS	M	1	4	SCHUM
THYMOL BLUE	FISHER	4	G	4	G	1		E	157	PS	M	1	4	SCHUM
THYMOLPHTHALEIN	KODAK	9	G	10	G	0	G	E	157	PS	M	1	4	SCHUM
TIN	MALLINCKRODT	0.8	LB	0.8	LB	0	G	E	157	PS	M	1	4	SCHUM
TOLUENE	FISHER	1	L	1	L	1	L	E	157	PL	M	1	4	SCHUM
XYLENES	FISHER	500	ML	500	ML	10	ML	E	157	PL	M	1	4	SCHUM
ZINC	FISHER	400	G	500	G	0		E	157	PS	M	1	4	SCHUM
CHLORIDE STANDARD (1000 PPM CHLORIDE)	ORION	1	L	1	L	1	L	E	158	PL	N	1	4	SCHUM
IONIC STRENGTH ADJUSTOR	ORION	2	QT	2	QT	50	ML	E	158	PL	N	1	4	SCHUM
METHYLENE CHLORIDE	FISHER	1	L	1	L	10	L	E	158	PL	M	1	4	SCHUM
PETROLEUM ETHER	FISHER	200	ML	200	ML	25	ML	E	158	PL	N	1	4	SCHUM
TETRAPHENYL ARSONIUM CHLORIDE	F.G. SMITH	200	G	200	G	63	G	E	158	PS	N	1	4	SCHUM
1-BUTANOL	FISHER	6	QT	6	QT	2	PT	E	159	PL	M	1	4	SCHUM
2-PROPANOL	FISHER	5	GA	5	GA	0	GA	E	159	L	M	1	4	SCHUM
ACETONE	FISHER	1	PT	1	PT	0.5	PT	E	159	L	M	1	4	SCHUM
AMMONIUM THIOCYANATE	EM SCIENCE	5	LB	9	LB	2	LB	E	159	PS	N	1	4	SCHUM
AMMONIUM THIOCYANATE	EM SCIENCE	3	LB	3	LB	0.5	LB	E	159	S	M	1	4	SCHUM

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
LITHIUM CARBO[illegible]E	FISHER	400	[illegible]	500	G	100	G	E	157	PS	N	1	4	SCHUMACHER
MAGNESIUM CHLORIDE	FISHER	500	G	500	G	0		E	157	PS	N	1	4	SCHUMACHER
MANGANOUS SULFATE	FISHER	480	G	500	G	20	G	E	157	PS	M	1	4	SCHUMACHER
MANNITOL	FISHER	490	G	500	G	0	G	E	157	PS	N	1	4	SCHUMACHER
MERCURIC IODIDE	J.T. BAKER	0.9	LB	1	LB	0	LB	E	157	PS	M	1	4	SCHUMACHER
MERCURIC OXIDE	FISHER	1	OZ	1	OZ	0		E	157	PS	M	1	4	SCHUMACHER
MERCURIC OXIDE	JOHNSON MATTHEY	4	L	100	G	0	G	E	157	PS	M	1	4	SCHUMACHER
MERCURIC THIOCYANATE	EM SCIENTIFIC	100	G	100	G	0		E	157	PS	M	1	4	SCHUMACHER
METHANOL	FISHER	2	L	3	L	1	L	E	157	PL	M	1	4	SCHUMACHER
METHYL ETHYL KETONE	FISHER	400	ML	500	ML	150	ML	E	157	PL	M	1	4	SCHUMACHER
METHYL ISOBUTYL KETONE	FISHER	0.8	L	1	L	0	L	E	157	PL	M	1	4	SCHUMACHER
METHYL ORANGE	ALLIED CHEMICAL	3.9	OZ	4	OX	0.1	OZ	E	157	PS	N	1	4	SCHUMACHER
METHYL RED	FISHER	10	G	10	G	0.05	G	E	157	PL	M	1	4	SCHUMACHER
METHYLENE BLUE	FISHER	0.25	LB	0.25	LB	0.25	G	E	157	PS	M	1	4	SCHUMACHER
METHYLENE CHLORIDE	FISHER	500	ML	500	ML	0		E	157	PL	M	1	4	SCHUMACHER
MOLYBDIC ACID	FISHER	500	G	500	G	0		E	157	PL	M	1	4	SCHUMACHER
MUROXIDE	FISHER	4	G	5	G	0		E	157	PS	M	1	4	SCHUMACHER
N-HEXANE	FISHER	500	ML	500	ML	0		E	157	PL	M	1	4	SCHUMACHER
N-PENTANE	FISHER	1.5	L	1.5	L	0	L	E	157	PL	M	1	4	SCHUMACHER
NESSLER'S REAGENT	FISHER	495	ML	500	ML	5	ML	E	157	ML	M	1	4	SCHUMACHER
NITRIC ACID	MALLINCKRODT	13	LB	14	LB	1	LB	E	157	PL	M	1	4	SCHUMACHER
NITROBENZENE	FISHER	0.9	L	1	L	0	L	E	157	PL	M	1	4	SCHUMACHER
NITROGEN	AIR PRODUCTS	2300	LB	2300	LB	0		E	157	PG	C	2	4	SCHUMACHER
O-PHOSPHORIC ACID	FISHER	0.9	L	1	L	0.1	L	E	157	ML	M	1	4	SCHUMACHER
OIL, BATH	FISHER	10	L	20	L	10	L	E	157	PL	F	1	4	SCHUMACHER
OIL, VISCOSITY	CANNON	6	PT	3	PT	0	PT	E	157	PL	M	1	4	SCHUMACHER
P-METHYLAMINO-PHENOL SULFATE	KODAK	290	G	300	G	0	G	E	157	PS	M	1	4	SCHUMACHER
PERCHLORIC ACID	FISHER	1.5	L	1.5	L	0	L	E	157	ML	M	1	4	SCHUMACHER
PHENANTHROLINE	FISHER	4	G	4	G	0	G	E	157	PS	M	1	4	SCHUMACHER
PHENOL RED	FISHER	10	G	9.5	G	0.4		E	157	PS	M	1	4	SCHUMACHER
PHENOLPHTHALEIN	ALLIED CHEMICAL	99	G	99	G	2	G	E	157	PS	N	1	4	SCHUMACHER
PHTHALIC ANHYDRIDE	KODAK	500	G	500	G	0	0	E	157	PS	M	1	4	SCHUMACHER
PLATINUM COBALT	FISHER	490	ML	500	ML	0	ML	E	157	ML	M	1	4	SCHUMACHER
PLATINUM POTASSIUM CHLORIDE	FISHER	1	G	2	G	0	G	E	157	ML	M	1	4	SCHUMACHER
POTASSIUM BROMATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUMACHER
POTASSIUM BROMIDE	FISHER	495	G	500	G	0	G	E	157	PS	N	1	4	SCHUMACHER
POTASSIUM CARBONATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUMACHER
POTASSIUM CHLORIDE	FISHER	500	G	490	G	1		E	157	PS	M	1	4	SCHUMACHER
POTASSIUM CHROMATE	FISHER	450	G	450	G	0		E	157	PS	M	1	4	SCHUMACHER
POTASSIUM DICHROMATE	FISHER	1	L	1	L	0		E	157	ML	M	1	4	SCHUMACHER
POTASSIUM DICHROMATE	FISHER	100	G	100	G	0		E	157	PS	M	1	4	SCHUMACHER
POTASSIUM HYDROXIDE	J.T. BAKER	400	G	500	G	0	G	E	157	PS	N	1	4	SCHUMACHER
POTASSIUM IODATE	FISHER	1	L	1	L	0		E	157	ML	M	1	4	SCHUMACHER
POTASSIUM IODIDE	FISHER	175	G	200	G	0	G	E	157	PS	M	1	4	SCHUMACHER
POTASSIUM NITRATE	FISHER	450	G	450	G	0	G	E	157	PS	M	1	4	SCHUMACHER

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPI
ARSENIC TRIOXI[illegible]	FISHER	100	[illegible]	100	G	0		E	157	SP	M	1	4	SCHUM
BARIUM CHLORIDE	FISHER	850	G	1000	G	0	G	E	157	PS	N	1	4	SCHUM
BARIUM NITRATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUM
BROMINE	FISHER	47	G	50	G	0	G	E	157	PL	M	1	4	SCHUM
BROMOCRESOL	FISHER	9	G	8	G	1		E	157	PS	,	1	4	SCHUM
BROMOCRESOL PURPLE	KODAK	9.5	G	10	G	0	G	E	157	PS	M	1	4	SCHUM
BROMONAPHTHALENE	FISHER	500	ML	500	ML	0		E	157	PL	M	1	4	SCHUM
BROMOPHENOL BLUE	FISHER	5	G	5	G	0.1		E	157	PS	M	1	4	SCHUM
BROMOTHYMOL BLUE	FISHER	4	G	5	G	0.15	G	E	157	PS	M	1	4	SCHUM
BRUCINE SULFATE	FISHER	0.9	OZ	1	OZ	0	OZ	E	157	PS	M	1	4	SCHUM
BU CAIM	J.T. BAKER	1	QT	1	QT	0		E	157	PL	N	1	4	SCHUM
BUFFER SOLUTION	FISHER	1450	ML	1500	ML	10	ML	E	157	ML	N	1	4	SCHUM
CALCIUM CARBONATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUM
CALCIUM CHLORIDE	FISHER	450	G	450	G	0		E	157	PS	M	1	4	SCHUM
CALCIUM NITRATE	FISHER	490	G	490	G	0		E	157	PS	N	1	4	SCHUM
CERIC SULFATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUM
CHLOROBENZENE	FISHER	450	ML	450	ML	20		E	157	PL	M	1	4	SCHUM
CHLOROFORM	FISHER	1	L	2	L	0.1	L	E	157	PL	M	1	4	SCHUM
CHROMIUM TRIOXIDE	FISHER	500	G	600	G	0	G	E	157	PS	M	1	4	SCHUM
CHROMOTROPIC ACID (SODIUM SALT)	FISHER	20	G	20	G	0		E	157	PS	M	1	4	SCHUM
COBALT CHLORIDE	FISHER	450	G	450	G	0		E	157	PS	M	1	4	SCHUM
CRYSTAL VIOLET	FISHER	19	G	20	G	0	G	E	157	PS	M	1	4	SCHUM
CUPRIC SULFATE	FISHER	490	G5	500	G	0		E	157	PS	N	1	4	SCHUM
DIBUTYLAMINE (DIPHENYL THIOCARBAZONE)	FISHER	0.9	L	1	L	0	L	E	157	PL	M	1	4	SCHUM
DIETHANOLAMINE	FISHER	400	ML	400	ML	0		E	157	PL	M	1	4	SCHUMA
DISODIUM (ETHYLENEDIAMINE	FISHER	453	G	453	G	0		E	157	PS	M	1	4	SCHUMA
DRIERITE	FISHER	2	LB	2	LB	2	LB	E	157	PS	N	1	4	SCHUMA
ETHYL ALCOHOL	MIDWEST	2	GA	2	GA	1	GA	E	157	PL	N	1	4	SCHUMA
FERRIC AMMONIUM SULFATE	FISHER	500	G	500	G	0	G	E	157	PS	M	1	4	SCHUMA
FERRIC CHLORIDE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUMA
FERROUS AMMONIUM SULFATE	FISHER	500	G	500	G	0	G	E	157	PS	N	1	4	SCHUMA
FERROUS CHLORIDE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUMA
FERROUS SULFATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUMA
FORMIC ACID	FISHER	400	ML	500	ML	100	ML	E	157	PL	N	1	4	SCHUMA
GLYCERIN	FISHER	500	ML	500	ML	0		E	157	PL	N	1	4	SCHUMA
HYDRAZINE SULFATE	FISHER	490	G	500	G	0	G	E	157	PS	M	1	4	SCHUMA
HYDROBROMIC ACID	FISHER	490	ML	500	ML	0	ML	E	157	PL	M	1	4	SCHUMA
HYDROCHLORIC ACID	FISHER	6.6	LB	4.6	LB	2	LB	E	157	PL	M	1	4	SCHUMA
HYDROFLUORIC ACID	MATHESON	1	LB	1	LB	0		E	157	PL	N	1	4	SCHUMA
HYDROGEN PEROXIDE	FISHER	400	ML	400	ML	100	ML	E	157	PL	N	1	4	SCHUMA
HYDROXYLAMINE HYDROCHLORIDE	FISHER	90	G	100	G	0	G	E	157	PS	M	1	4	SCHUMA
INDO[illegible] 2,3-DIONE	KODAK	90	G	100	G	0		E	157	PS	M	1	4	SCHUMA
IOD[illegible]OL N/10	FISHER	[illegible]	L	2	L	0	L	E	157	ML	M	1	4	SCHUMA
ISOPR[illegible]YL ALCOHOL	FISHER	4	L	2	L	1	L	E	157	PL	M	1	4	SCHU[illegible]

CHEMICAL	MANUFACT	USE	Unit	MAX	Unit	AVG	Unit	BD	RM	STATE	STOR	PRES	TMP	SUPER
LITHIUM CARBO[illegible]E	FISHER	400	[illegible]	500	G	100	G	E	157	PS	N	1	4	SCHUMACI
MAGNESIUM CHLORIDE	FISHER	500	G	500	G	0		E	157	PS	N	1	4	SCHUMACI
MANGANOUS SULFATE	FISHER	480	G	500	G	20	G	E	157	PS	M	1	4	SCHUMACI
MANNITOL	FISHER	490	G	500	G	0	G	E	157	PS	N	1	4	SCHUMACI
MERCURIC IODIDE	J.T. BAKER	0.9	LB	1	LB	0	LB	E	157	PS	M	1	4	SCHUMACI
MERCURIC OXIDE	FISHER	1	OZ	1	OZ	0		E	157	PS	M	1	4	SCHUMACI
MERCURIC OXIDE	JOHNSON MATTHEY	4	L	100	G	0	G	E	157	PS	M	1	4	SCHUMACI
MERCURIC THIOCYANATE	EM SCIENTIFIC	100	G	100	G	0		E	157	PS	M	1	4	SCHUMACI
METHANOL	FISHER	2	L	3	L	1	L	E	157	PL	M	1	4	SCHUMACI
METHYL ETHYL KETONE	FISHER	400	ML	500	ML	150	ML	E	157	PL	M	1	4	SCHUMACI
METHYL ISOBUTYL KETONE	FISHER	0.8	L	1	L	0	L	E	157	PL	M	1	4	SCHUMACI
METHYL ORANGE	ALLIED CHEMICAL	3.9	OZ	4	OX	0.1	OZ	E	157	PS	N	1	4	SCHUMACI
METHYL RED	FISHER	10	G	10	G	0.05	G	E	157	PL	M	1	4	SCHUMACI
METHYLENE BLUE	FISHER	0.25	LB	0.25	LB	0.25	G	E	157	PS	M	1	4	SCHUMACI
METHYLENE CHLORIDE	FISHER	500	ML	500	ML	0		E	157	PL	M	1	4	SCHUMACI
MOLYBDIC ACID	FISHER	500	G	500	G	0		E	157	PL	M	1	4	SCHUMACI
MUROXIDE	FISHER	4	G	5	G	0		E	157	PS	M	1	4	SCHUMACI
N-HEXANE	FISHER	500	ML	500	ML	0		E	157	PL	M	1	4	SCHUMACI
N-PENTANE	FISHER	1.5	L	1.5	L	0	L	E	157	PL	M	1	4	SCHUMACI
NESSLER'S REAGENT	FISHER	495	ML	500	ML	5	ML	E	157	ML	M	1	4	SCHUMACI
NITRIC ACID	MALLINCKRODT	13	LB	14	LB	1	LB	E	157	PL	M	1	4	SCHUMAC
NITROBENZENE	FISHER	0.9	L	1	L	0	L	E	157	PL	M	1	4	SCHUMAC
NITROGEN	AIR PRODUCTS	2300	LB	2300	LB	0		E	157	PG	C	2	4	SCHUMAC
O-PHOSPHORIC ACID	FISHER	0.9	L	1	L	0.1	L	E	157	ML	M	1	4	SCHUMAC
OIL, BATH	FISHER	10	L	20	L	10	L	E	157	PL	F	1	4	SCHUMAC
OIL, VISCOSITY	CANNON	6	PT	3	PT	0	PT	E	157	PL	M	1	4	SCHUMAC
P-METHYLAMINO-PHENOL SULFATE	KODAK	290	G	300	G	0	G	E	157	PS	M	1	4	SCHUMACI
PERCHLORIC ACID	FISHER	1.5	L	1.5	L	0	L	E	157	ML	M	1	4	SCHUMACI
PHENANTHROLINE	FISHER	4	G	4	G	0	G	E	157	PS	M	1	4	SCHUMACI
PHENOL RED	FISHER	10	G	9.5	G	0.4		E	157	PS	M	1	4	SCHUMACI
PHENOLPHTHALEIN	ALLIED CHEMICAL	99	G	99	G	2	G	E	157	PS	N	1	4	SCHUMACI
PHTHALIC ANHYDRIDE	KODAK	500	G	500	G	0	0	E	157	PS	M	1	4	SCHUMACI
PLATINUM COBALT	FISHER	490	ML	500	ML	0	ML	E	157	ML	M	1	4	SCHUMACI
PLATINUM POTASSIUM CHLORIDE	FISHER	1	G	2	G	0	G	E	157	ML	M	1	4	SCHUMACI
POTASSIUM BROMATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUMACI
POTASSIUM BROMIDE	FISHER	495	G	500	G	0	G	E	157	PS	N	1	4	SCHUMACI
POTASSIUM CARBONATE	FISHER	500	G	500	G	0		E	157	PS	M	1	4	SCHUMACI
POTASSIUM CHLORIDE	FISHER	500	G	490	G	1		E	157	PS	M	1	4	SCHUMACI
POTASSIUM CHROMATE	FISHER	450	G	450	G	0		E	157	PS	M	1	4	SCHUMACI
POTASSIUM DICHROMATE	FISHER	1	L	1	L	0		E	157	ML	M	1	4	SCHUMACI
POTASSIUM DICHROMATE	FISHER	100	G	100	G	0		E	157	PS	M	1	4	SCHUMACI
POTASSIUM HYDROXIDE	J.T. BAKER	400	G	500	G	0	G	E	157	PS	N	1	4	SCHUMACI
POTASSIUM IODATE	FISHER	1	L	1	L	0		E	157	ML	M	1	4	SCHUMACI
POTASSIUM IODIDE	FISHER	175	G	200	G	0	G	E	157	PS	M	1	4	SCHU[illegible]
POTASSIUM NITRATE	FISHER	455	G	450	G	0	G	E	157	PS	M			

ord#	COMMON	CHEMICAL
1	BLUE MAX SPRAY BUFF	BLUE MAX SPRAY BUFF
2	CLEAN-N-DRY	CLEAN-N-DRY
3	CLR WINDOW	CLR WINDOW
4	CONQUEST	CONQUEST
5	DD/85 SPRAY	DD/85 SPRAY
6	DMQ	DMQ
7	DUO-POWDER	DUO-POWDER
8	FLOOR FINISH/ABOVE	FLOOR FINISH/ABOVE
9	FOUNTAIN HEAD	FOUNTAIN HEAD
10	GLOSS-EXTENDERA	GLOSS-EXTENDERA
11	GREASE-BE-GONE	GREASE-BE-GONE
12	HEAD START	HEAD START
13	INSECT SPRAY/CHERRY	INSECT SPRAY/CHERRY
14	INSECTICIDE/WAS	INSECTICIDE/WAS
15	KINDEST CARE	KINDEST CARE
16	LAVA HAND SOAP	LAVA HAND SOAP
17	LIL BROTHER SAM	LIL BROTHER SAM
18	NABC	NABC
19	NEUT. FLOOR CORP.	NEUT. FLOOR CORP.
20	ODOR BANE	ODOR BANE
21	ON-BASE SEALER	ON-BASE SEALER
22	ONE-STEP/SURE BET	ONE-STEP/SURE BET
23	POLISH/LEMON	POLISH/LEMON
24	PUMMEL HAND SOAP	PUMMEL HAND SOAP
25	RINSE FREE/STRIP	RINSE FREE/STRIP
26	SBS-61 LOTION SOAP	SBS-61 LOTION SOAP
27	SCRUB-ENDER	SCRUB-ENDER
28	SEAL, CON-SEAL	SEAL, CON-SEAL
29	SEALER/IRONSTONE	SEALER/IRONSTONE
30	SHINELINE BASE	SHINELINE BASE
31	SNAPOUT	SNAPOUT
32	SPIN-OUT	SPIN-OUT
33	SPOT, PILE DRIVER	SPOT, PILE DRIVER
34	SPOTTER, PULL OUT	SPOTTER, PULL OUT
35	STAINLESS CLEANER	STAINLESS CLEANER
36	STATCIDE, GP	STATCIDE, GP
37	STRIPPER, ZIP	STRIPPER, ZIP
38	SURFACE GLEEM	SURFACE GLEEM
39	TREATMENT/DUST	TREATMENT/DUST
40	TRIPLE SSS	TRIPLE SSS
41	VESTA POWER	VESTA POWER
42	WINDOW SHINE	WINDOW SHINE

Cus Todial Chemical list

9.6-70

Updated

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow 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
Nitric Acid	2 Liters	Neutralized

Source: _____

21. Where do waste chemicals go? to waste management or neutralized and put in sanitary.

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

ATTACHED

23. Where do excess janitorial supplies go?

E 226C, E 228, E 334

Source: _____

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

Chemical	Amount	Chemical	Amount
ROUNDUP	AS NEEDED		
ATTACHED			

Source: INDUSTRIAL HYG.

9.6-71

12-95

☐ INITIAL SERVICE
☑ REGULAR SERVICE
☐ EXTRA SERVICE

TERMINIX.

TERMITE and PEST CONTROL

COPY

COMMERCIAL SERVICE AND INSPECTION REPORT

BRANCH	ACCOUNT	RT	TELEPHONE	GRID	S DAY	F	T	PRODUCTION	TIME IN	TIME OUT
2410	006093-	07	000/000-0000 513/865-4585	E30 -	2FR	S	P	00005000 09	7:40 AM	8:25 AM

SERVICE PROPERTY AT	BRANCH
E G & G MOUND EARNIE HAYES 865-4310 MOUND AVENUE MIAMISBURG OH 45342-0000	TERMINIX INTERNATIONAL 4712 PAYNE AVENUE DAYTON OH 45414-0000 513/274-5800

OPERATOR NAME & CERTIFICATION NUMBER: [illegible] 1407

SUPERVISOR NAME & CERTIFICATION NUMBER: DANIEL J. STECK #1207

TARGET PEST(S): ☑ T2 Cockroaches ☑ T18 Rats ☐ Other: _____
☑ T3 Ants ☑ T19 Mice ☐ Other: _____

SERVICE AREAS:	INSPECTED	TREATED	PESTICIDE(S) TO BE APPLIED		EPA'S	T/C	AMOUNT	EQ
☐ C1 FOOD AREAS:	☐	☐	☐ P24	PT279 Engage (Chlorpyrifos) 0.5%	499-292			
			☑ P10	PT565 + XLO (Pyrethrin) 0.5%	499-310			
			☐ P04	Dursban L.O. (Chlorpyrifos) 0.5%	62719-55			
☐ C2 OFFICES.	☐	☐	☑ P11	Conquer (Esfenvalerate) 0.05%	1021-1565-57076	C		
			☐ P23	Tempo 20 WP (Cyfluthrin) 0.05%	3125-380			
			☐ P06	Ficam W (Bendiocarb) 0.5%	45639-1			
			☐ P21	Knox-Out 2FM (Diazinon) 1%	4581-335-AA-499			
☐ C3 STORAGE/UTILITY:	☐	☐	☐ P07	Gentrol (Hydroprene) 0.125%	2724-304-50809			
			☐ P12	Precor (Methoprene) 0.008%	2724-352-50809			
			☑ P02	Drione Dust (Silica/Pyrethrin) 1%	4816-353AA			
☐ C4 PUBLIC AREAS:	☐	☐	☐ P05	Ficam D (Bendiocarb) 1%	45639-3			
			☐ P03	Dursban G (Chlorpyrifos) 0.5%	10370-36-432			
			☐ P08	Maxforce Bait (Hydramethylnon) 1.65%	64248-1			
			☐ P27	Avert Roach Bait (Avermectin) 0.05%	499-294			
☐ C5 REST ROOMS:	☐	☐	☐ P09	PT270 Dursban (Chlorpyrifos) 0.5%	499-147			
			☐ P25	PT280 Orthene (Acephate) 1%	499-230			
			☐ P26	Maxforce Gel (Hydramethylnon) 2.15%	64248-5			
☐ C6 EXTERIOR AREAS:	☐	☐	☐ P14	Ditrac All Weather Cake (Diphacinone) 0.005%	12455-5			
			☐ P20	Talon G (Brodifacoum) 0.005%	10182-38			
			☐ P47	Contrac Blox (Bromadiolone) 0.005%	12455-79			
			☐ P34	Ditrac Bait Pack (Diphacinone) 0.005%	12455-19			
☐	☐	☐	☐ P16	Glue Boards				
			☐ P17	Kotch-All/Tin Cat				
			☐ P19	Snap Traps				
☐	☐	☐						

TREATMENT CODE:
C = Crack & Crevice
S = Spot
G = General
T = Space Treatment
B = 3' Band

Supervisor's Comments: ☐ Treat for Infestation/Prevention or Inspect areas indicated.

EQUIP. CODE
F = Fogger
HD = Hand Dust
B&G = Comp. Air

SPECIAL SERVICE INSTRUCTIONS

GENERAL PC , C-BLDG. A-BLDG, MEDICAL, GH BLDG
SM CAFETERIA.(MONTHLY) -- OS-EAST CAFETERIA,
NEW CAFETERIA ONLY , PO #38224

BALANCE AS OF
NOVEMBER 29
DEC CHARGE
SALES TAX
TOTAL DUE

CUSTOMER'S SIGNATURE: [illegible]

SERVICE TECHNICIAN'S SIGNATURE: [illegible] DATE: 12/15/95

AMOUNT PAID: 0 ☐ CASH ☐ CHECK

9.6-72

12-95

☐ INITIAL SERVICE
☑ REGULAR SERVICE
☐ EXTRA SERVICE

TERMINIX.

TERMITE and PEST CONTROL

COPY

COMMERCIAL SERVICE AND INSPECTION REPORT

BRANCH	ACCOUNT	RT	TELEPHONE	GRID	S DAY	F	T	PRODUCTION	TIME IN	TIME OUT
2418	006092-	07	000/000-0000 513/865-3921	E30 -	2FR	S	P	00004570 09	7:40 AM	8:25 A

SERVICE PROPERTY AT

E G & G MOUND
P. O. #38224
MOUND AVE
MIAMISBURG OH 45342-0000

BRANCH

TERMINIX INTERNATIONAL
4712 PAYNE AVENUE
DAYTON OH 45414-0000
513/274-5800

OPERATOR NAME & CERTIFICATION NUMBER [illegible] 1167

SUPERVISOR NAME & CERTIFICATION NUMBER DANIEL J. STECK #1207

TARGET PEST(S): ☐ T2 Cockroaches ☑ T18 Rats ☐ Other: _____
☐ T3 Ants ☐ T19 Mice ☐ Other: _____

SERVICE AREAS	INSPECTED	TREATED	PESTICIDE(S) TO BE APPLIED	EPA'S	T/C	AMOUNT	EQU
☐ C1 FOOD AREAS:	☐	☐	☐ P24 PT279 Engage (Chlorpyrifos) 0.5%	499-292			
			☐ ~~P10~~ PT565 + XLO (Pyrethrin) 0.5%	499-310	C	3	
			☐ P04 Dursban L.O. (Chlorpyrifos) 0.5%	62719-55			
			☐ ~~P11~~ Conquer (Esfenvalerate) 0.05%	1021-1565-57076	C	[illegible]	
☐ C2 OFFICES:	☐	☐	☐ P23 Tempo 20 WP (Cyfluthrin) 0.05%	3125-380			
			☐ P06 Ficam W (Bendiocarb) 0.5%	45639-1			
			☐ P21 Knox-Out 2FM (Diazinon) 1%	4581-335-AA-499			
☐ C3 STORAGE/UTILITY:	☐	☐	☐ P07 Gentrol (Hydroprene) 0.125%	2724-304-50809			
			☐ P12 Precor (Methoprene) 0.008%	2724-352-50809			
			☐ ~~P02~~ Drione Dust (Silica/Pyrethrin) 1%	4816-353AA	[illegible]	[illegible]	[illegible]
☐ G4 PUBLIC AREAS:	☐	☐	☐ P05 Ficam D (Bendiocarb) 1%	45639-3	[illegible]	[illegible]	
			☐ P03 Dursban G (Chlorpyrifos) 0.5%	10370-36-432			
			☐ P08 Maxforce Bait (Hydramethylnon) 1.65%	64248-1			
			☐ P27 Avert Roach Bait (Avermectin) 0.05%	499-294			
☐ C5 REST ROOMS:	☐	☐	☐ P09 PT270 Dursban (Chlorpyrifos) 0.5%	499-147			
			☐ P25 PT280 Orthene (Acephate) 1%	499-230			
			☐ P26 Maxforce Gel (Hydramethylnon) 2.15%	64248-5			
☐ C6 EXTERIOR AREAS:	☐	☐	☐ P14 Ditrac All Weather Cake (Diphacinone) 0.005%	12455-5			
			☐ P20 Talon G (Brodifacoum) 0.005%	10182-38			
			☐ P47 Contrac Blox (Bromadiolone) 0.005%	12455-79			
			☐ P34 Ditrac Bait Pack (Diphacinone) 0.005%	12455-19			
☐	☐	☐	☐ P16 Glue Boards				
			☐ P17 Ketch-All/Tin Cat				
			☐ P19 Snap Traps				
☐	☐	☐					

TREATMENT CODE:
C = Crack & Crevice
S = Spot
G = General
T = Space Treatment
B = 3' Band

Supervisor's Comments: ☐ Treat for Infestation/Prevention or Inspect areas indicated.

EQUIP. CODE
F = Fogger
HD = Hand Dust
B&G = Comp. Air
_____ = _____

SPECIAL SERVICE INSTRUCTIONS

SER. OLD CAFE, SMPP, GUARDS REST ROMS AND BASINS IN MEDICAL AREA
P. O. # 38224

BALANCE AS OF NOVEMBER 29
DEC CHARGE
SALES TAX
TOTAL DUE

9.6-73

CUSTOMER'S SIGNATURE [signature]

SERVICE TECHNICIAN'S SIGNATURE [signature] DATE 12-16-95

AMOUNT PAID
CASH
CHECK

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

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

Materials	Amount
ATTACHED	

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

9.6-74

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

N/A

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

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
7697-37-2	NITRIC ACID	01C		Y/N	
7697-37-2	NITRIC ACID	01C	We don't use		
7697-37-2	NITRIC ACID	03C	this storage		
7697-37-2	NITRIC ACID	01C	tank		
7697-37-2	NITRIC ACID	01C			
7697-37-2	NITRIC ACID	01C			
7440-59-7	HELIUM	01C			167
7440-59-7	HELIUM	01C			112
7664-93-9	SULFURIC ACID	01C			157
7664-93-9	SULFURIC ACID	01C	No "tank"		113
7664-93-9	SULFURIC ACID	01C	No "tank"		142
7664-93-9	SULFURIC ACID	01C	No "tank"		142
7664-93-9	SULFURIC ACID	01C			101
7664-93-9	SULFURIC ACID	01C			174
7664-93-9	SULFURIC ACID	01C			167
107-21-1	ETHYLENE GLYCOL	01C	No "tank"		156
107-21-1	ETHYLENE GLYCOL	01C			112
77882-37-9	NITROGEN	01C			112A
7782-37-9	NITROGEN	03C			157
7782-37-9	NITROGEN	01C			167
7782-37-9	NITROGEN	01C			111
7782-37-9	NITROGEN	01C		Y/N	176

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

BLDG	SODIUM ARSENATE	D004	1.0
BLDG	SODIUM CARBONATE	NONE	1.0
BLDG	SODIUM HYDROXIDE PELLETS	NONE	0.9
[illegible]G	SODIUM HYDROXIDE, CYANIDE SOLUTION	D002	1.8
BLDG	SODIUM HYDROXIDE, CYANOPHENOL	D002	0.8
BLDG	SODIUM PHOSPHATE	NONE	1.0
BLDG	SODIUM PHOSPHATE, DIBASIC	NONE	0.5
BLDG	SODIUM SULFITE	NONE	1.0
BLDG	SODIUM TETRA BORATE	NONE	1.1
BLDG	SODIUM TRIOSULFATE, HCL	D002	2.0
BLDG	STANNOUS CHLORIDE	NONE	1.0
BLDG	TETRA BUTYL AMMONIUM HYDROXIDE	D002	1.6
BLDG	TETRA PHENYL ARSONIUM CHLOIRDE	D004	0.5
BLDG	UREA	NONE	1.5
BLDG	XYLENES	D001 F003	3.2
BLDG- BRINE LINE	ASBESTOS WASTE, DEBRIS	NONE	3950.0
-101	3M ELECTRICAL RESIN PART A	NONE	0.7
-101	3M ELECTRICAL RESIN PART B	NONE	0.7
-101	ALUMINUM BUTOXIDE	D001 D003	0.1
-101	ALUMINUM ETHOXIDE	NONE	0.1
-101	ALUMINUM POWDER	D003	0.1
-101	ALUMINUM SILICOFLUORIDE	NONE	7.8
-101	AMMONIUM BISULFATE	NONE	0.2
-101	AMMONIUM PEROXYDISULFATE	D001	2.4
-101	AMMONIUM TARTRATE	NONE	0.4
-101	ANTHRACENE	NONE	0.1
-101	BISMUTH	D001 D003	2.0
-101	BORIC ACID	NONE	1.1
[illegible]01	BUTANEDIOLDIGLYCIDYL (1,4) ETHER	D001	1.2
[illegible]01	CAB-O-SIL	NONE	0.7
-101	CADMIUM WASTE WATER	D006	27.6
-101	CADMIUM WASTE WATER	D006	47.2
-101	CADMIUM, CHROMIUM SLUDGE	D006 D007	65.0
-101	CARBONILIDE	NONE	0.1
[illegible]1	CHLOROFORM	D022 U044	9.1
[illegible]1	CHROMIC ACID, PHOSPHORIC ACID	D001 D002 D007	9.6
[illegible]01	CHROMIUM OXIDE, WATER SOLUTION	D007	0.9
-101	CHROMIUM WASTE WATER	D007	63.7
-101	CHROMIUM WASTE WATER	D007	43.0
-101	CYANIDE, AMMONIUM PERSULFATE SOLUTION	D001 D003	4.2
-101	CYANOTETRAZOLE	NONE	0.1
-101	DIETHYLENE TRIAMINE	NONE	1.7
-101	E WASTE WATER	D006 D008	240.0
-101	E WASTE WATER	D006 D008	240.0
-101	E WASTE WATER	D006 D008	250.0
-101	E-101 CADMIUM WASTE WATER	D006 D007	250.0
-101	EPON 828 RESIN	NONE	7.8
-101	EPOXY (1,2) -3-PHENOXYPROPANE	D001	1.0
-101	ETHYL ALCOHOL	D001	24.1
-101	ETHYLENE GLYCOL, XYLENE CLEANUP	F003	85.3
-101	ETHYLENE GLYCOL, XYLENE WASTE	D001 F003	111.5
-101	ETHYLENE GLYCOL, XYLENE WASTE	D001 F003	95.5
-101	ETHYLENE GLYCOL, XYLENE WASTE WATER	D001 F003	110.0
[illegible]1	ETHYLENE GLYCOL, XYLENE WASTE WIPES	F003	23.3

BLDG	DIOXIN WASTE, TETRACHLOROPHENOL (2,3,5,6-)	F027	0.0
BLDG	DIOXIN WASTE, TRICHLOROPHENOL (2,3,4-)	F027	0.0
BLDG	DIOXIN WASTE, TRICHLOROPHENOL (2,3,5-)	F027	0.0
BLDG	DIOXIN WASTE, TRICHLOROPHENOL (2,3,6-)	F027	0.0
BLDG	DIOXIN WASTE, TRICHLOROPHENOL (2,4,5-)	D041 F027	0.0
BLDG	DIOXIN WASTE, TRICHLOROPHENOL (2,4,6-)	D042 F027	0.0
BLDG	DIOXIN WASTE, TRICHLOROPHENOL (3,4,5-)	F027	0.0
BLDG	DIOXIN WASTE, TRICHLOROPHENOXYACETIC ACID (2,4,5-)	F027	0.0
BLDG	E BLDG WASTE SOLUTION	D001	5.0
BLDG	EPON 828 RESIN	NONE	1.0
BLDG	EPON CURING AGENT U	D002	2.0
BLDG	FILM CLEANER	D022	4.3
BLDG	FREON WASTE	F002	475.8
BLDG	HACH DIGESTION SOLUTION	NONE	9.0
BLDG	HALTHANE 88-2	D001	1.0
BLDG	LEAD CARBONATE	D008	1.0
BLDG	MAGNESIUM PERCHLORATE	D001	2.0
BLDG	MANGANESE DIOXIDE	D001	1.5
BLDG	MERCURY WASTE	D009	0.2
BLDG	MERCURY WASTE	D009	1.9
BLDG	METHYLENE CHLORIDE	F002	0.1
BLDG	NITRIC ACID, >40%	D001 D002	1.8
BLDG	NONRAD SCINTILLATION VIALS	D001 F003	146.0
BLDG	NONRAD SCINTILLATION VIALS	D001 F003	100.0
BLDG	NONRAD SCINTILLATION VIALS	D001 F003	150.0
BLDG	NONRAD SCINTILLATION VIALS	D001 F003	178.2
BLDG	NONRAD SCINTILLATION VIALS	D001 F003	150.0
BLDG	NONRAD SCINTILLATION VIALS, XYLENE	D001 F003	206.8
BLDG	PHENOL RED	NONE	0.5
BLDG	POTASSIUM CARBONATE	NONE	1.0
BLDG	POTASSIUM CHLORIDE	NONE	1.0
BLDG	POTASSIUM DICHROMATE	D001 D007	0.5
BLDG	POTASSIUM HYDROXIDE BEADS	NONE	0.4
BLDG	POTASSIUM IODATE	D001 D007	3.3
BLDG	POTASSIUM PERCHLORATE	D001	1.7
BLDG	POTASSIUM PERCHLORATE	D001	0.1
BLDG	POTASSIUM PERMANGANATE	D001	0.4
BLDG	POTASSIUM PHOSPHATE	NONE	2.2
BLDG	POTASSIUM PHOSPHATE, MONOBASIC	NONE	0.5
BLDG	RESIN WASTE	NONE	99.0
BLDG	RESIN WASTE	NONE	200.0
BLDG	RINSE WATER	NONE	245.7
BLDG	SILVER CYANIDE	D003 D011	0.4
BLDG	SILVER NITRATE	D001 D011	0.3
BLDG	SLYGARD 184 CURING AGENT	NONE	0.1
BLDG	SLYGARD 184 ELASTOMER	NONE	1.0

p 7a

Bldg. E

:-101	ETHYLENE GLYCOL, XYLENE WASTE WIPES	D001 F003	446.0
:-101	FERRIC CHLORIDE	NONE	21.0
:-101	GLYCERIN	NONE	17.5
...1	GOODRICH A1177B1	D001	3.5
:-101	HYDROFLUORIC ACID	D002 U134	0.8
:-101	HYDROQUINONE	NONE	0.1
:-101	INDIUM CHLORIDE	NONE	0.1
:-101	INDIUM METAL	NONE	0.1
:-101	INK	D001	0.6
:-101	INK	D001	0.2
:-101	ISOPROPANOL	D001	18.6
:-101	LAPPING VEHICLE	D001 F002	4.8
:-101	LAURIC ACID	NONE	0.1
:-101	LEAD SOLDER	D008	3.6
:-101	LEAD WASTE PAPER	D008	0.8
:-101	LEAD, CADMIUM WASTE WATER	D006 D008	46.5
.-101	MAGNESIUM METAL	D003	0.1
:-101	MAGNESIUM NITRATE	D001	1.8
:-101	MAGNESIUM PERCHLORATE	D001	0.6
.-101	MARKEM BLACK INK 8629	NONE	2.1
:-101	MARKEM BLACK INK 8639	NONE	2.1
-101	MERCURY	D009 U151	0.9
.-101	METHYL SULFOXIDE	NONE	2.3
:-101	MIXED SOLVENT	NONE	7.4
:-101	MOCK EXPLOSIVE WITH CYANIDES	D003 P030	104.8
:-101	MOUND GREEN GLUE	NONE	1.1
:-101	NAPTHALENE	NONE	0.1
:-101	NICKEL SULFAMATE	NONE	0.4
:-101	NITROANILINE	D003 P077	0.1
...1	NUOSPERSE 657	D001	1.9
:-101	PALLADIUM WASTE	NONE	16.5
:-101	PHENACETIN	NONE	0.1
:-101	PHOTO FILM	D011	147.4
-101	PHOTO FILM	D011	21.7
:01	POTASSIUM BISULFATE	NONE	0.8
-101	POTASSIUM HYDROGEN PHTHALATE	NONE	1.5
-101	POTASSIUM PERCHLORATE	D001	0.1
-101	PVC CEMENT	D001	1.0
:-101	PVC CLEANER	D001	1.0
:-101	RINSE WATER, CERAMICS	NONE	178.8
:-101	RUBBER CEMENT	D001 D035 F005	0.4
:-101	SANDING DISKS WITH CADMIUM	NONE	1.1
.-101	SBS	D008	5.0
:-101	SCOTCHWELD EPOXY ADHESIVE 2214	D003	3.2
:-101	SILICA GEL	NONE	45.6
:-101	SILICON CARBIDE	NONE	2.0
:-101	SILVER NITRATE	D001 D011	0.3
:-101	SILVER POWDER	D011	0.3
:-101	SILVER WIRE	D011	0.2
:-101	SLYGARD 184 CURING AGENT	NONE	0.1
:-101	SLYGARD 184 SILICON ELASTOMER	NONE	0.9
:-101	SODIUM ACETATE	NONE	0.1
:-101	SODIUM ACETATE	NONE	2.0
:-101	SODIUM BISULFATE	NONE	1.7
...1	SODIUM DICHROMATE	D001 D007	8.1

-101	SODIUM DICHROMATE	D001 D007	0.7
-101	SODIUM DICHROMATE WASTE	D001 D007	1.6
10	SODIUM DICHROMATE WASTE	D001 D007	16.8
	SODIUM DICHROMATE, ETHANOL SOLUTION	D001 D007	6.5
-101	SODIUM DICHROMATE, SULFURIC ACID	D001 D002 D007	9.0
-101	SODIUM DICHROMATE, SULFURIC ACID ETCH SOLUTION	D001	9.2
101	SODIUM DICHROMATE, SULFURIC ACID SOLUTION	D001 D002 D007	10.6
01	SODIUM DICHROMATE, SULFURIC ACID SOLUTION	D001 D002 D007	5.7
-101	SODIUM DICHROMATE, SULFURIC ACID SOLUTION	D001 D002 D007	7.7
01	SODIUM DICHROMATE, SULFURIC ACID WASTE	D001 D002 D007	5.1
01	SODIUM SULFITE	NONE	0.5
01	SODIUM THIOSULFATE	NONE	1.2
-101	SULFURIC ACID, SODIUM DICHROMATE SOLUTION	D002 D007	10.1
-101	TIN METAL	NONE	1.2
-101	TITANIUM	NONE	0.5
-101	VERSAMID 140	NONE	3.7
-101	WASTE WATER	D006 D007 D008	76.4
-101	ZINC CHLORIDE	D002	4.3
-101	ZINC SHOT	NONE	0.3
105	ALUMINUM OXIDE	NONE	148.3
-105	DIALLYL PHTHALATE	NONE	9.3
-1	NONHAZ SCINTILLATION VIALS	NONE	260.2
-105	NONHAZ SCINTILLATION VIALS	NONE	198.0
5	NONHAZ SCINTILLATION VIALS	NONE	256.1
-105	NONHAZ SCINTILLATION VIALS	NONE	265.4
-105	NONHAZ SCINTILLATION VIALS	NONE	266.5
-105	NONHAZ SCINTILLATION VIALS	NONE	135.6
-105	NONHAZ SCINTILLATION VIALS	NONE	147.1
-105D	NONHAZ SCINTILLATION VIALS	NONE	162.3
-105D	NONHAZ SCINTILLATION VIALS	NONE	229.6
-105D	NONHAZ SCINTILLATION VIALS	NONE	268.7
-105D	NONHAZ SCINTILLATION VIALS	NONE	170.7
-105D	NONHAZ SCINTILLATION VIALS	NONE	259.4
-105D	NONHAZ SCINTILLATION VIALS	NONE	213.0
-105D	NONHAZ SCINTILLATION VIALS	NONE	155.9
-105D	NONHAZ SCINTILLATION VIALS	NONE	268.9
-105D	NONHAZ SCINTILLATION VIALS	NONE	270.2
-105D	NONHAZ SCINTILLATION VIALS	NONE	160.9
105D	NONHAZ SCINTILLATION VIALS	NONE	141.1
105D	NONHAZ SCINTILLATION VIALS	NONE	272.8
-105D	NONHAZ SCINTILLATION VIALS	NONE	233.4
-105D	NONHAZ SCINTILLATION VIALS	NONE	286.1
-105D	NONHAZ SCINTILLATION VIALS	NONE	226.8
-105D	NONHAZ SCINTILLATION VIALS	NONE	240.8
-105D	NONHAZ SCINTILLATION VIALS	NONE	228.9
-1	NONHAZ SCINTILLATION VIALS	NONE	100.4
-1	NONHAZ SCINTILLATION VIALS	NONE	142.6
-105D	NONHAZ SCINTILLATION VIALS	NONE	237.8
5D	NONHAZ SCINTILLATION VIALS	NONE	80.6

-107	ALUMINUM NITRATE	D001	1.7
-107	ATOM LIGHT SCINTILLATION VIALS	D001	5.3
-107	MAGNESIUM NITRATE	D001	1.5
-107	POTASSIUM SULFATE	NONE	1.7
-107	SODIUM IODIDE	D001	4.5
-107	SODIUM SULFATE	NONE	2.1
-107	ZINC CHLORIDE	NONE	1.6
-112	ACENAPHTHALENE	NONE	0.1
-112	ACENAPTHENE	NONE	0.1
-112	ACETIC ACID	D001 D002	0.1
-112	ACETONE	D001 F003 U002	2.4
-112	ACETONE	D001 F003	2.0
-112	ACETONE	D001 F003	2.0
-112	ACETONE	D001 F003	4.8
-112	ACETONE, WATER	D001 F003 U002	3.0
-112	ACRYLONITRILE RESIN	NONE	0.1
-112	ACTIVATED CHARCOAL	NONE	0.1
-112	ALGENIC ACID	NONE	0.1
-112	AMYL ACETATE	D001	1.5
-112	ANTHRACENE	NONE	0.1
-112	ANTHRACENE, METHYLENE CHLORIDE	D001 F002	0.1
-112	ANTHRACENE, METHYLENE CHLORIDE SOLUTION	F002	0.1
-112	ATOM LIGHT	D001	0.1
-112	AZALENE	NONE	0.1
-112	BECKMAN FILLING SOLUTION	NONE	0.1
-112	BENZANTHRACENE	U018	0.1
-112	BENZENE	D001 D018 U019	0.1
-112	BENZO PHENONE	NONE	0.1
-112	BENZO PYRENE	U022	0.1
-112	BENZOPHENONE	NONE	0.1
-112	BENZOPHENONE	NONE	0.1
-112	BENZYL CHLORIDE	P028	1.0
-112	BINAPHTHYL	NONE	0.1
-112	BIOACT EC-7	D001	0.4
-112	BIOACT EC7	D001	25.2
-112	BIOACT EC7	D001	0.9
-112	BORON POWDER	D001 D003	0.1
-112	BROMO FLUOROBENZENE	D018	0.3
12	BROMOBENZENE	D001	0.4
12	BUTANOL	D001 F003	0.1
12	BUTANOL (1-)	D001	0.1
112	BUTANOL (2-)	D001	0.1
-112	BUTANOLS (1-)	D001 U031	0.1
-112	BUTANONE (2-)	D001 D035 F005 U159	0.1
-112	BUTYL BENZENE	NONE	0.1
-112	BUTYL ESTERS	NONE	0.1
-112	BUTYL METHACRYLATE	NONE	0.1
12	CARBON DISULFIDE	D001 F005 P022	11.9
12	CARBON TETRACHLORIDE	D019 F002 U211	0.1
-112	CELLULOSE ACETATE BUTYRATE	NONE	0.1
-112	CELLULOSE ACETATE POWDER	NONE	0.1
-112	CELLULOSE PROPIONATE	NONE	0.1
-112	CELLULOSE SULFATE, SODIUM SALT	NONE	0.1
2	CELLULOSE TRIACETATE	NONE	0.1

-112	CHLORINATED RUBBER	NONE	0.1
-112	CHLOROBENZENE	D001 D021 U037	0.1
-112	CHLOROFORM	D001 D022	0.3
[illegible]	CHLOROFORM	D022 U044	0.1
-112	CHLOROFORM	D022 U044	1.1
-112	CHRYSENE	NONE	0.1
-112	CLEAR BATH	D001	3.0
-112	CUMENE	D001	0.1
-112	CYCLOHEXANE	D001 U156	2.8
-112	CYCLOHEXANE	D001 U056	1.5
-112	CYMENE	D001	0.1
-112	DECACYCLENE	NONE	0.1
-112	DIAMOND SLURRY	D001	7.9
-112	DIBENZANTHRACENE	U063	0.1
-112	DICHLOROBENZENE (1,4-)	D027 U072	0.1
-112	DICHLOROETHANE (1,2-)	D001 D028	0.1
-112	DIETHYL BENZENE (1,3-)	D001	0.1
-112	DIHYDRO ANTHRACENE	NONE	0.1
-112	DIMETHYL ANTHRACENE	NONE	0.1
-112	DIMETHYL BENZANTHRACENE	NONE	0.1
-112	DIMETHYL ETHYL BENZENE	NONE	0.1
-112	DIMETHYL ETHYL BENZENE	NONE	0.1
112	DIMETHYL FORMAMIDE	D001	1.6
12	DIMETHYL NAPHTHALENE	NONE	0.1
12	DINITRO TOLUENE (2,4-)	U105	0.1
112	DIPHENYL ANTHRACENE	NONE	0.1
-112	DIPHENYL METHANE	NONE	0.1
-11	DURENE	NONE	0.1
-1	ENGIS DIAMOND SLURRY	NONE	0.2
2	ETHANOL	D001	0.1
-112	ETHANOL	D001	0.4
-112	ETHYL ACETATES	D001 F003 U112	0.1
-112	ETHYL BENZENE	D001	0.1
-112	ETHYL CELLULOSE	NONE	0.1
-112	ETHYL ETHER	D001 D003	1.4
-112	ETHYL TOLUENE	NONE	0.1
-112	ETHYLENE COPOLYMER	NONE	0.1
-112	ETHYLENE GLYCOL	NONE	0.1
-112	ETHYLENE GLYCOL	NONE	3.6
-112	ETHYLENE GLYCOL, XYLENE	D001 F003	0.4
-112	ETHYLENE, ACRYLIC ACID COPOLYMER	NONE	0.1
-112	ETHYLENE, MALEIC ANHYDRIDE POWDER	NONE	0.1
-112	ETHYLENE, VINYL ACETATE COPOLYMER	NONE	0.3
-112	FLUORANTHENE	NONE	0.1
-112	FLUORENE	NONE	0.1
-112	GLYCEROL	NONE	4.5
-112	GUAIZULENE	NONE	0.1
-112	HEPTANES	D001	0.1
-112	HEXACHLORO BENZENE	D032 U127	0.1
-112	HEXACHLORO-1,3-BUTADIENE	NONE	0.1
-112	HEXACHLOROETHANE	U131	0.1
-112	HEXANE	D001	0.1
-11	HEXANE	D001	0.1
-112	HEXYL BENZENE	NONE	0.1
2	HYDROCHLORIC ACID	D002	1.4

E-112	HYDROCHLORIC ACID WASTE	D002	1.0
E-112	HYDROCHLORIC ACID WASTE	D002	12.8
E-112	HYDROXYL PROPYL CELLULOSE	NONE	0.1
[illegible]2	HYDROXYL PROPYL METHYL CELLULOSE	NONE	0.1
E-112	ISO PROPYL BENZENE	D001	0.1
E-112	ISOPROPANOL	D001	2.0
E-112	ISOPROPANOL	D001	1.3
E-112	ISOPROPANOL	D001	3.1
E-112	KETONES	D001	0.1
E-112	KODAK LENS CLEANER	NONE	0.6
E-112	LEAD SHEET	D008	1.4
E-112	LIMONENE	D001	1.4
E-112	LIMONENE	D001	2.0
E-112	MESITYLENE	D001	0.1
E-112	METHANOL	D001 F003	0.9
E-112	METHANOL	D001 F003 U154	2.4
E-112	METHANOL	D001 F003	6.4
E-112	METHANOL	D001 F003	6.5
E-112	METHANOL	D001 F003 U154	16.1
E-112	METHANOL	D001 F003 U154	0.1
E-112	METHANOL	D001 F003	10.8
E-112	METHANOL WASTE	D001 F003	1.8
E-112	METHANOL WASTE	D001 F003	29.2
E-112	METHANOL WASTE	D001 F003 U154	12.7
E-112	METHANOL, WATER WASTE	D001 F003	3.3
E-112	METHYL ALCOHOL	D001 F003 U154	0.4
E-112	METHYL ANTHRACENE	NONE	0.1
E-112	METHYL CELLULOSE	NONE	0.1
E-112	METHYL CYCLOHEXANE	D001	2.1
[illegible]2	METHYL ESTER MIXTURES	NONE	0.1
[illegible]2	METHYL PHENOL (2-)	NONE	0.1
[illegible]	METHYL PHENOL (4-)	NONE	0.1
[illegible]	METHYL STEARATE	NONE	0.1
[illegible]	METHYL VINYL ETHER	NONE	0.1
E-112	METHYL VINYL ETHER COPOLYMER	NONE	0.1
E-112	METHYL-1-BUTANOL (2-)	D001	0.1
E-112	METHYL-1-BUTANOL (3-)	D001	0.1
E-112	METHYL-1-PROPANOL	D001	0.1
E-112	METHYL-2-BUTANOL (2-)	D001	0.1
E-112	METHYL-2-PROPANOL	D001	0.1
E-112	METHYLAMINE HYDROCHLORIDE	NONE	0.5
E-112	METHYLENE CHLORIDE	D001 F002	0.1
E-112	METHYLENE CHLORIDE	D028 F002	5.1
E-112	METHYLENE CHLORIDE	D028 F002	5.0
E-112	METHYLENE CHLORIDE	D028 U080	3.9
E-112	METHYLENE CHLORIDE	F002 U080	35.0
E-112	METHYLENE CHLORIDE	F002 U080	45.6
E-112	METHYLENE CHLORIDE	F002 U080	10.2
E-112	METHYLENE CHLORIDE	F002 U080	0.1
E-112	METHYLENE CHLORIDE	F002 U080	9.4
E-112	METHYLENE CHLORIDE	F002 U080	2.4
E-112	METHYLENE CHLORIDE WASTE	D028 U080	6.5
E-112	METHYLENE CHLORIDE, ACETONE	F002 F003	3.1
E-112	METHYLENE NAPHTHALENE	NONE	0.1
[illegible]2	MOLECULAR SEIVES	NONE	0.7

:-112	MOLECULAR SEIVES	NONE	0.6
:-112	NAPHTHALENE	U165	0.1
:-112	NAPHTHALENE IN METHYLENE CHLORIDE	D001 F002	0.1
	NAPHTHALENE, METHYLENE CHLORIDE SOLUTION	F002	0.1
:-112	NITROBENZENE	D036 F004 U169	0.1
:-112	NONYL BENZENE	NONE	0.1
:-112	OCTANE	D001	2.2
:-112	PENTA ERYTHRITOL	NONE	0.3
:-112	PENTACHLOROPHENOL	F027	0.1
:-112	PENTANE	D001	1.4
:-112	PENTANOL (1-)	D001	0.1
:-112	PENTANOL (2-)	D001	0.1
:-112	PENTANOL (3-)	D001	0.1
:-112	PENTYL BENZENE	NONE	0.1
:-112	PENTYL BENZENE	NONE	0.1
:-112	PERYLENE	NONE	0.1
:-112	PHENANTHRENE	NONE	0.1
:-112	PHENOLIC RESIN	NONE	4.0
.-112	PHENOLIC RESIN	NONE	4.4
-112	PHENOXY RESIN	NONE	0.1
-112	PHENYL BUTENE	NONE	0.1
-112	PHENYL NAPHTHALENE	NONE	0.1
112	PLATINUM ACETYL ACETONATE	NONE	0.1
112	POLY ACETAL TRIOXANE	NONE	0.1
-112	POLY ACRYLIC ACID	NONE	0.1
:-112	POLY AMIDE RESIN	NONE	0.1
:-1	POLY BUTENE	NONE	0.1
	POLY BUTYL METHACRYLATE	NONE	0.1
.2	POLY BUTYLENE TETAPHTHALATE	NONE	0.1
:-112	POLY CAPROLACTONE	NONE	0.1
:-112	POLY CARBONATE RESIN	NONE	0.1
:-112	POLY CYCLO HEXANE TERAPHTHALATE	NONE	0.1
:-112	POLY DIALLYL PHTHALATE	NONE	0.1
.-112	POLY DIMETHYL PHENYLENE OXIDE	NONE	0.1
-112	POLY DIMETHYL SILOXANE	NONE	1.1
:-112	POLY DIPHENYL PROPANE FUMARATE	NONE	0.1
:-112	POLY ETHYL METHACRYLATE	NONE	0.1
:-112	POLY ETHYLENE	NONE	0.1
:-112	POLY ETHYLENE CHLOROSULFONE	NONE	0.1
:-112	POLY ETHYLENE OXIDE	NONE	0.1
:-112	POLY ETHYLENE TERAPHTHALATE	NONE	0.1
:-112	POLY HEXAMETHYLENE NYLON	NONE	0.6
:-112	POLY METHYL METHACRYLATE	NONE	0.1
:-112	POLY METHYL PENTENE	NONE	0.1
:-112	POLY PHENYLENE ETHER SULFONE	NONE	0.1
:-112	POLY PHENYLENE SULFIDE POWDER	D003	0.1
:-112	POLY PROPYLENE ISOTARTIC POWDER	NONE	0.1
:-112	POLY STYRENE BEADS	NONE	0.1
:-112	POLY TETRAFLUORO ETHYLENE POWDER	NONE	0.1
:-112	POLY VINYL ACETATE	NONE	0.1
:-1	POLY VINYL ALCOHOL	NONE	0.1
:-	POLY VINYL BUTYRAL	NONE	0.1
:-112	POLY VINYL CHLORIDE	D043 U043	0.1
2	POLY VINYL FLUORIDE	NONE	0.1

-112	POLY VINYL FORMALDEHYDE	NONE	0.1
-112	POLY VINYL PYRROLIDONE	NONE	0.1
-112	POLY VINYL STEARATE	NONE	0.1
!	POLY VINYLIDENE POWDER	NONE	0.1
-112	POLYACRYLAMIDE	NONE	0.2
-112	POLYETHYLENE	NONE	0.3
-112	POLYSULFONE RESIN	NONE	0.1
-112	PROPANOL (1-)	D001	0.1
-112	PROPANOL (2-)	D001	0.4
-112	PROPANOL (2-)	D001 U031	0.1
-112	PROPANOL (2-)	D001	0.4
-112	PROPYL ESTERS	D001	0.1
-112	PYRENE	NONE	0.1
-112	RTV CATALYST 4	NONE	0.1
-112	RTV-630 PART A	NONE	1.0
-112	RTV-630 PART B	D001	0.3
-112	RUBBER CEMENT	D001	0.5
-112	SLYGARD 182 CURING AGENT	NONE	0.3
-112	SLYGARD 182 SILICONE ELASTOMER	NONE	1.1
-112	STYRENE COPOLYMER	NONE	0.2
-112	STYRENE COPOLYMER	NONE	0.1
-112	STYRENE, BUTADIENE COPOLYMER	NONE	0.1
-112	STYRENE, ETHYLENE BLOCK	NONE	0.1
-112	STYRENE, ISOPRENE COPOLYMER	NONE	0.1
-112	STYRENE, MALEIC ANHYDRIDE COPOLYMER	NONE	0.1
-112	SUPELCO MIX 2003	D001	0.1
-112	SUPELCO MIX 8851	D001 D019 D021 D022	0.1
-112	SUPELCO MIX 8852	D001	0.1
12	SUPELCO MIX 8853	D001 D043	0.1
2	SUPELCO MOX 2002	D001	0.1
-112	SYLON	D001 F003	0.1
-112	SYLON	D001	2.7
-112	TERT BUTYL BENZENE	D001	0.1
-112	TETRA ETCH	D001	0.2
-112	TETRACHLORO ETHYLENE	D039 F002	0.1
-112	TETRAHYDRO NAPHTHALENE	NONE	0.1
-112	TETRAHYDRO PYRENE	NONE	0.1
-112	TETRAMETHYL BENZENE	NONE	0.1
12	TETRAMETHYL BENZENE (1,2,3,4-)	NONE	0.1
112	TOLUENE	D001 F005	0.1
-112	TOLUENE	D001 F005	0.3
-112	TOLUENE	D001 F005 U220	6.9
-112	TOLUENE	D001 F005 U220	0.1
-112	TOLUENES	D001 F005 U220	0.2
-112	TRICHLORO (1,1,2-) -1,2,2-TRIFLUOROETHANE	F002	15.5
-112	TRICHLORO PHENOL (2,4,5-)	D041 F027	0.1
-112	TRICHLORO PHENOL (2,4,6-)	D042 F027	0.1
-112	TRICHLOROETHANE	D040 F002 U228	0.1
-112	TRIMETHYL BENZENE (1,2,3-)	D001	0.1
-112	TRIMETHYL BENZENE (1,3,5-)	D001	0.1
-112	TRIPTYCENE	NONE	0.1
-112	VINYL ALCOHOL COPOLYMER	NONE	0.1
-112	VINYL CHLORIDE	D043 U043	0.1
2	VINYL CHLORIDE COPOLYMER	D043 U043	0.3

p 7i

Bldg. E

E-112	VINYL CHLORIDE, ACETATE COPOLYMER	D043	0.1
E-112	VINYL PYRROLIDONE COPOLYMER	NONE	0.1
E-112	VINYLIDENE CHLORIDE	D001	0.1
	VINYLIDENE CHLORIDE COPOLYMER	NONE	0.1
E-112	VINYLIDENE CHLORIDE COPOLYMER	NONE	0.1
E-112	XYLENE	D001 F003 U239	0.2
E-112	XYLENE	D001 F003 U239	0.1
E-112A	ALUMINUM POWDER	D003	0.2
E-112A	CADMIUM TELLURIDE	D006	0.1
E-112A	CHROMIUM OXIDE	D007	2.2
E-112A	COPPER OXIDE	NONE	0.1
E-112A	COPPER TELLURIDE	NONE	0.1
E-112A	CUPRIC TELLURIDE	NONE	0.1
E-112A	CUPRIC TELLURIDE	NONE	0.1
E-112A	CUPROUS TELLURIDE	NONE	0.1
E-112A	IODINE	NONE	0.2
E-112A	IRON FLUORIDE	NONE	0.1
E-112A	NICKEL FLUORIDE	NONE	0.1
E-112A	NICKEL METAL	D003	0.1
E-112A	NICKEL TELLURIDE	NONE	0.1
E-112A	NICKEL TELLURIDE	NONE	0.1
E-112A	NICKEL TELLURIDE	NONE	0.1
E-112A	PALLADIUM POWDER	NONE	0.1
E-112A	POTASSIUM CHLORIDE	NONE	0.4
E-112A	POTASSIUM HYDROXIDE	D002	1.0
E-112A	POTASSIUM SILICATE	NONE	0.2
E-112A	RUTHENIUM	NONE	0.1
E-1	SILVER PAINT	D001 D011	0.1
E-1	SODIUM FERROCYANIDE	D003	1.3
2A	TELLURIUM METAL	NONE	0.2
E-112A	TELLURIUM OXIDE	NONE	0.2
E-112A	TELLURIUM OXIDE	NONE	0.1
E-112A	TELLURIUM OXIDE	NONE	0.1
E-112A	TITANIUM POWDER	D003	0.1
E-112A	ZINC CHROMATE	D001 D007	1.3
E-112A	ZINC DICHROMATE	D001 D007	0.6
E-112A	ZIRCONIUM METAL	D003	~~0.1~~
~~E-113~~	ACETONE ~~, POLYACRYLONITRILE~~	~~D001~~	~~1.1~~
~~E-113~~	~~ACETYLACETONE~~	~~D001~~	1.0
E-113	ANTIMONY REFERENCE SOLN	D002	1.0
E-113	BISMUTH REFERENCE SOLN	D002	1.0
E-113	BORON REFERENCE SOLN	NONE	1.0
E-113	CADMIUM REFERENCE SOLN	D002 D006	2.0
~~E-113~~	~~CARBON DISULFIDE~~	~~D001 F005~~	~~0.7~~
~~E-113~~	~~CARBON TETRACHLORIDE~~	~~D001 D019 F002~~	~~4.6~~
~~E-113~~	~~CHLOROFORM~~	~~D001 D022~~	6.5
E-113	CHROMIUM REFERENCE SOLN	D007	2.0
E-113	COBALT REFERENCE SOLN	D001	2.0
E-113	COD SOLUTION	D002 D009 D011	10.0
E-113	COD SOLUTION	D002 D007 D009 D011	8.2
E-113	COD SOLUTION	D002 D007 D009 D011	8.5
E-113	COD SOLUTION 1500	D002 D007 D009 D011	8.6
E-	COD SOLUTION, NITRIC ACID	D002 D007 D009 D011	9.0
E-113	COPPER REFERENCE SOLN	D001	2.0
3	~~CUPRIC SULFATE~~	NONE	1.0

P 78

~~E-113~~	~~CYCLOHEXANONE~~	~~D001~~	~~0.5~~
~~E-113~~	~~DICHLOROMETHANE~~	~~D001 F003~~	~~3.5~~
~~E-113~~	~~DIETHYL OXALATE~~	~~D001~~	~~2.2~~
~~E-113~~	~~DIMETHYL PHTHALATE~~	~~D001~~	~~2.2~~
~~E-113~~	~~FLUORESCENT RED CONCENTRATE~~	~~NONE~~	11.9
~~E-113~~	~~FORMALIN ACETATE~~	~~D001~~	~~9.3~~
~~E-113~~	~~FURFURAL~~	~~D001~~	~~2.0~~
E-113	GOLD REFERENCE SOLN	D002	1.0
E-113	HYDROCARBON KIT	NONE	0.1
E-113	LEAD REFERENCE SOLN	D001 D008	1.0
E-113	MERCURY REF SOL	D009	1.0
~~E-113~~	~~METHYL ISOBUTYL KETONE~~	~~D001 F003~~	~~2.7~~
E-113	METHYLCHLORIDE	D001	2.0
E-113	METHYLENE CHLORIDE	D001 F002	2.7
E-113	MOLYBDENUM REF SOL	NONE	0.3
E-113	NICKEL REFERENCE SOLN	D001	2.0
~~E-113~~	~~PHENOL~~	~~NONE~~	1.0
E-113	PHENYLARSINE OXIDE	D004	4.9
E-113	PLATINUM REF SOL	D002	1.0
E-113	POTASSIUM CHLORIDE	NONE	2.7
E-113	POTASSIUM IODIDE	NONE	1.7
E-113	POTASSIUM REFERENCE SOLN	NONE	1.0
~~E-113~~	~~PYRRIDINE~~	~~D001 D038 F005 U196~~	~~1.3~~
E-113	SELENIUM REFERENCE SOLN	D010	1.0
E-113	SILICON REFERENCE SOLN	NONE	1.0
E-113	SILVER REF SOL	D011	1.0
E-113	SILVER REFERENCE SOLUTION	D001 D002 D011	5.2
E-113	SILVER REFERENCE SOLUTION, NITRIC ACID	D002 D011	3.2
~~E-113~~	~~SODIUM PHOSPHATE~~	NONE	1.3
E-113	STRONTIUM REFERENCE SOLN	D002	1.0
~~E-113~~	~~SULFAMIC ACID~~	~~NONE~~	~~2.2~~
~~E-113~~	~~SYLON CT~~	~~D001 F005~~	~~2.7~~
~~E-113~~	~~TOLUENE~~	~~D001 F005~~	~~2.5~~
~~E-113~~	~~TRICHLOROETHANE (1,1,1-)~~	~~D001 D022 F002~~	~~1.0~~
~~E-113~~	~~TRIMETHYL (2,2,4) PENTANE~~	NONE	2.9
~~E-113~~	~~VANADIUM REFERENCE SOLN~~	~~D002~~	~~1.0~~
~~E-113~~	~~XYLENE~~	~~D001 F003~~	~~1.3~~
E-117	METHYLENE CHLORIDE WASTE WATER	D028 F002	19.2
E-120	BIOACT EC-7	D001 F003	250.0
E-120	METHYLENE CHLORIDE	F002	28.5
E-123	ADSOL ADHESIVE	D001	4.5
E-123	ALCOHOL WASTE	D001 F003	270.0
E-123	AP-20 RESIN REMOVER	F002 D039	9.5
E-123	ARMSTRONG ADHESIVE	NONE	3.9
E-123	BIN	D001	2.0
E-123	CONAP CONATHANE EN7 PART A	NONE	21.1
E-123	CONAP CONATHANE EN7 PART B	NONE	5.6
E-123	CONAP EN-7 PART A	NONE	2.2
E-123	CONAP EN-7 PART A	D001	2.1
E-123	CONAP EN-7 PART B	NONE	0.5
E-123	CONATHANE EN7 PART A	D003	1.0
E-123	CONATHANE EN7 PART B	NONE	1.0
E-123	DIETHANOLAMINE	NONE	5.9
E-123	EPON 828	NONE	4.4

:-123	EPON CURING AGENT U	D002	3.7
:-123	EPON CURING AGENT U	D002	0.9
:-123	EPON RESIN 815	NONE	1.7
[illegible]	ETHACURE	NONE	2.5
:-12[illegible]	ETHYL LACTATE	D001	3.4
:-123	EVERLUBE 642	D001 F005	5.9
:-123	FREON TF	F002	14.9
:-123	FREON WASTE	F001	349.4
:-123	FREON WASTE	F002	15.2
:-123	GREEN GLUE	NONE	0.8
:-123	HYSOL EE4169	D001	1.5
:-123	IRGACURE 651	NONE	12.1
:-123	IRON POWDER	D003	2.5
:-123	ISOPROPANOL	D001	8.4
:-123	ISOPROPANOL WASTE	D001	24.8
:-123	ISOPROPYL ALCOHOL	D001	1.6
:-123	KESTER FLUX 197	D001	2.9
:-123	KODAK ACTIVATOR PART A	D001	0.7
:-123	LEAD DIOXIDE	D001 D008	0.3
:-123	LEAD, TIN SOLDER RODS	D008	4.0
:-123	LIQUII VAC	D001	0.3
:-123	LUBE LOK 4396	D001 D008 F005	14.1
:-123	MARKEM 320 CLEANER	D001 F003	3.3
:-123	MICROBALLOON	NONE	1.0
:-123	MICROBALLOONS RESIN	NONE	1.7
:-123	PM2 MIXTURE	D001 D013 D031	0.1
:-123	PM3 MIXTURE	D001 D012	0.1
:-123	PM4 MIXTURE	D001 D013 D031	0.1
[illegible]	POLYPHENYL ETHER	NONE	1.7
[illegible]	POLYSULFIDE PART A	D001	2.0
:-123	RESIN WASTE	NONE	200.0
:-123	RESIN WASTE	NONE	200.0
:-123	SCOTCH WELD 2214 EPOXY	D003	1.0
:-123	SCOTCH WELD 2214 EPOXY	D003	1.6
:-123	SILICA GEL PACKETS	NONE	4.5
-123	SILVER EPOXY	D011	10.3
.-123	SILVER EPOXY RESIN WASTE	D011	5.0
:-123	SILVER EPOXY WASTE	D011	4.4
:-123	SILVER FLARE	D011	1.0
:-123	SILVER PAINT	D011	0.1
:-123	SOLVENT 5060	D001	0.6
:-123	SUPERIOR FLUX	NONE	0.9
:-123	TRICHLOROETHANE (1,1,1-)	F002	7.7
:-123	TRICHLOROETHANE (1,1,1-)	F002	32.8
:-123	URETHANE 7200 A	NONE	3.0
:-123	URETHANE 7200 A	D008	0.5
:-123	URETHANE 7200 B	D008	3.0
:-123	URETHANE 7200 B	D001 D008	0.5
:-123	VERSAMID 140	NONE	1.4
:-123	VYDAX AR	F002	13.6
:-123	WS-516	D001 D003 F005	3.0
:-123	WS-516A	D001 D008	0.6
:-1[illegible]	ALUMINUM OXIDE	NONE	127.7
:-1[illegible]	ALUMINUM OXIDE	NONE	99.0
[illegible]5	ALUMINUM OXIDE	NONE	39.8

25	ALUMINUM OXIDE	NONE	30.0
28	ARMSTRONG A2 ADHESIVE	NONE	2.5
28	BIOACT EC-7	D001	33.2
	BKC 61003	NONE	2.7
28	EPON RESIN 828	NONE	1.5
28	EPOXY ADHESIVE 2214	NONE	0.4
28	ETHACURE 100	NONE	2.3
30	ALCOHOL WASTE	D001 F003	418.0
30	ALUMINUM OXIDE	NONE	50.0
30	ALUMINUM OXIDE	NONE	34.9
30	BIOACT EC-7	D001	40.4
30	BIOACT EC-7	D001	20.0
30	BIOACT EC-7	D001	20.0
30	CONAP CONATHANE EN7 PART A	NONE	2.1
30	CONAP INC AD1146	D001 F005	48.0
30	EPON RESIN	D001	5.0
30	EPON RESIN 828	NONE	7.1
30	ETHANOL WASTE	NONE	24.1
30	FREON TF	F002	31.0
30	GREEN GLUE	NONE	0.6
30	ISOPROPANOL	D001	27.1
30	ISOPROPANOL	D001	18.2
30	ISOPROPANOL	D001	6.0
30	ISOPROPANOL	D001	7.3
30	ISOPROPANOL	D001	6.0
30	ISOPROPANOL	D001	38.8
30	KESTER FLUX 135	D001	1.0
30	KESTER FLUX 197	D001	2.0
30	MICROBALLON RESIN	NONE	1.7
30	PDI BLUE 2301	NONE	10.3
30	PDI BLUE PAST 2301	NONE	3.3
30	PDI YELLOW 2248	NONE	10.1
30	PDI YELLOW PASTE 2248	NONE	3.4
30	SILVER PAINT	D001 D011	0.9
30	TRICHLOROETHANE (1,1,1-)	F002	27.5
30	TRICHLOROETHANE (1,1,1-)	F002	24.0
30	TRICHLOROETHANE (1,1,1-)	F002	41.2
	VERSAMID 140	NONE	0.8
33	NONHAZ SCINTILLATION VIALS	NONE	184.2
33	NONHAZ SCINTILLATION VIALS	NONE	157.4
33	NONHAZ SCINTILLATION VIALS	NONE	199.5
33	NONHAZ SCINTILLATION VIALS	NONE	176.2
33	NONHAZ SCINTILLATION VIALS	NONE	162.0
33	NONHAZ SCINTILLATION VIALS	NONE	222.1
33	NONHAZ SCINTILLATION VIALS	NONE	116.4
33	NONHAZ SCINTILLATION VIALS	NONE	203.0
33	NONHAZ SCINTILLATION VIALS	NONE	114.4
33	NONHAZ SCINTILLATION VIALS	NONE	177.8
33	NONHAZ SCINTILLATION VIALS	NONE	207.5
33	NONHAZ SCINTILLATION VIALS	NONE	201.3
33	NONHAZ SCINTILLATION VIALS	NONE	218.1
33	NONHAZ SCINTILLATION VIALS	NONE	175.8
33	NONHAZ SCINTILLATION VIALS	NONE	212.3
33	NONHAZ SCINTILLATION VIALS	NONE	200.7
33	NONHAZ SCINTILLATION VIALS	NONE	169.2

9.6-88

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133	NONHAZ SCINTILLATION VIALS	NONE	211.8
133	NONHAZ SCINTILLATION VIALS	NONE	207.9
133	NONHAZ SCINTILLATION VIALS	NONE	83.2
	NONHAZ SCINTILLATION VIALS	NONE	211.7
133	NONHAZ SCINTILLATION VIALS	NONE	127.9
133	NONHAZ SCINTILLATION VIALS	NONE	226.7
133	NONHAZ SCINTILLATION VIALS	NONE	113.2
133	NONHAZ SCINTILLATION VIALS	NONE	69.5
133	NONHAZ SCINTILLATION VIALS	NONE	192.3
133	NONHAZ SCINTILLATION VIALS	NONE	210.5
133	NONHAZ SCINTILLATION VIALS	NONE	213.0
133	NONHAZ SCINTILLATION VIALS	NONE	189.9
133	NONHAZ SCINTILLATION VIALS	NONE	188.4
133	NONHAZ SCINTILLATION VIALS	NONE	162.3
133	NONHAZ SCINTILLATION VIALS	NONE	208.9
133	NONHAZ SCINTILLATION VIALS	NONE	185.5
133	NONHAZ SCINTILLATION VIALS	NONE	156.6
~~145~~	~~ETHYLENE GLYCOL WITH DEAD~~ MICE	~~NONE~~	~~0.9~~
157	ACETIC ACID, POTASSIUM DICHROMATE MIX	D001 D007	1.7
157	ACETIC ANHYDRIDE	D002	5.0
157	ACETIC ANHYDRIDE	D001 D002	3.1
157	ACETIC ANHYDRIDE IN POTASSIUM HYDROXIDE	NONE	1.8
157	ACETONE,ACETIC ACID,PERCHLORIC ACID	D001	1.0
157	ACETONE,LIMONENE,URETHANE,ACETIC ACID,SODIUM THIOSULFATE	D001	1.0
157	ACID, NITROBENZENE WASTE SOLUTION	D002 D036 F004	1.6
	ACIDS, NITROBENZENE, CHLOROFORM, ACETONE MIX	D002 D022 D036 F003 F004	1.9
157	ADIPRENE L-100	NONE	1.3
157	ADIPRENE L-100	NONE	1.2
157	ALIZARIAN YELLOW	NONE	0.1
157	ALIZARIN	NONE	0.4
157	ALLYL GLYCIDYL ETHER	D001	1.9
157	ALUMINA	NONE	1.0
157	AMMONIUM ACETATE, PHENANTHROLENE SOLUTION	NONE	3.5
157	AMMONIUM CARBONATE	NONE	1.0
157	AMMONIUM CITRATE	NONE	1.1
157	AMMONIUM MOLYBDATE	NONE	4.4
157	AMMONIUM NITRATE	D001	0.5
157	AMMONIUM NITRATE	D001	1.5
157	AMMONIUM PERCHLORATE	D001	1.7
157	AMMONIUM PEROXY DISULFATE	D001	0.8
157	AMMONIUM PHOSPHATE	NONE	1.7
157	AMMONIUM SULFATE	NONE	2.2
157	AMMONIUM SULFATE	NONE	6.9
157	AMMONIUM SULFIDE	D003	1.6
157	AMMONIUM THIOCYANATE	NONE	2.6
157	AMMONIUM THIOCYANATE	NONE	0.9
157	AMMONIUM THIOCYANATE, ISOPROPANOL	D001	7.5
1	AMMONIUM VANADATE	P119	1.1
15	ARSENIC TRIOXIDE	D004	0.2
7	ARSENIC TRIOXIDE	D004 P012	0.4

9.6-89

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-157	ASBESTOS AND ORGANIC SAMPLE WASTE	NONE	1.5
-157	BARIUM CHLORIDE	D005	1.1
-157	BARIUM CHLORIDE	D005	1.9
[illegible]	BARIUM CHLORIDE, SILVER NITRATE, SODIUM DICHROMATE MIX	D005 D007 D011	1.0
-157	BARIUM HYDROXIDE	D005	1.1
-157	BARIUM NITRATE	D001 D005	3.3
-157	BARIUM NITRATE	D001 D005	2.6
-157	BARIUM NITRATE	D001 D005	1.7
-157	BARIUM, ARSENIC, SILVER, SULFURIC ACID WASTE SOLUTION	D001 D002 D004 D005 D011	1.5
[illegible]7	BARIUM, SILVER CHLORIDE, AND SODIUM CHROMATE	D005 D011	0.4
-157	BENZENE	D001 D018 F005	30.0
-157	BENZENE	D001 D018 F005 U019	3.0
-157	BENZOIC ACID	NONE	0.3
-157	BENZOIN	NONE	0.2
-157	BIOACT EC-7 WASTE	D001	3.6
-157	BROMINE	D002 D003	0.6
-157	BROMO NAPHTHALENE	NONE	2.4
-157	BROMOCRESOL GREEN	NONE	0.1
-157	BROMOCRESOL PURPLE	NONE	0.1
-157	BROMOCRESOL PURPLE	D023	0.1
-157	BROMONAPHTHALENE	NONE	4.0
-157	BROMOPHENOL BLUE	NONE	0.1
-157	BUTYL ALCOHOL	D001 F003 U001	19.5
-157	CALCIUM NITRATE	D001	1.2
-157	CALCIUM STEARATE	NONE	6.4
[illegible]7	CARBON TETRACHLORIDE	D001 D019 F002	2.5
[illegible]57	CARBON TETRACHLORIDE	D019 F002 U211	4.1
-157	CERIC SULFATE	D001 D002	1.9
[illegible]57	CERIC SULFATE SOLUTION	D001 D002	4.0
-157	CERIC SULFATE SOLUTION	D001 D002	3.4
-157	CHLOROBENZENE	D001 D021 U037	1.8
-157	CHLOROFORM	D001 D022	1.0
[illegible]7	CHLOROFORM	D001 D022	1.4
[illegible]	CHLOROFORM	D022 U044	16.4
[illegible]	CHLOROFORM WASTE	D001 D022 U044	3.0
[illegible]7	CHROMATROPIC ACID	NONE	0.1
[illegible]7	CHROMIUM SOLUTION	D007	0.3
[illegible]57	CHROMIUM TRIOXIDE	D001 D007	3.0
-157	COD SOLUTION 1500	D002	28.2
-157	COPPER METAL	NONE	0.5
-157	CRYSTAL VIOLET	NONE	0.1
-157	CTPN EPOXY	U081	3.0
-157	CUPRIC OXIDE	NONE	0.3
[illegible]57	CUPROUS CHLORIDE	NONE	0.3
[illegible]57	DIBUTYL AMINE	D001	2.7
-157	DIBUTYL AMINE, TOLUENE	D001 F005	1.6
[illegible]57	DICHLOROETHANE (1,2)	D001 D028	1.9
-157	DIETHANOL AMINE	NONE	1.8
-157	DIETHANOLAMINE	NONE	1.1
-157	DIETHANOLAMINE	NONE	0.1
-157	DIHYDROXY (4,5) -3-P-SULFOPHENYLAZO-TRISODIUM SALT	NONE	0.3

-157	DIMETHYL ETHANOLAMINE	D001 D002	6.7
-157	DIMETHYL SULFOXIDE	D001	2.0
-157	DIMETHYLGLYOXAMINE	NONE	0.2
	DINITRO PROPYL PROPIONOATE	D001	0.1
-157	DINITROPHENOL (2,4-)	P048	0.8
-157	DIOXANE (1,4-)	D001	1.8
-157	DIPHENYL CARBAZIDE	NONE	0.1
-157	DIPHENYL CARBAZONE	NONE	0.1
-157	DIPHENYL THIOCARBAZONE	NONE	0.2
-157	DIPHENYL TRICARBAZONE	NONE	0.1
-157	DOW CORNING 3140 RTV	NONE	2.3
-157	EDTA SOLUTION	NONE	2.6
-157	EPON 828	NONE	2.4
-157	EPON CURING AGENT U	D002	2.0
-157	EPON CURING AGENT U	D002	2.2
-157	ERIOCHROME BLACK	D007	0.1
-157	ERIOGLAUCINE	NONE	0.2
-157	ETHYLENE GLYCOL	NONE	2.1
-157	ETHYLENE GLYCOL MONETHYL ETHER	D001	1.0
-157	FERRIC CHLORIDE	D002	4.4
-157	FERRIC CHLORIDE	D002	1.1
-157	FERRIC CHLORIDE	D002	1.0
-157	FERRIC CHLORIDE ETCHANT	D002	7.0
-157	FERRIC NITRATE	D001	1.1
-157	FERROUS AMMONIUM SULFATE	NONE	0.4
-157	FISCHER MIX	D001	1.9
-157	FLUX	NONE	0.1
-157	FORMALDEHYDE SOLUTION	D001	2.0
-157	FREON,METHANOL,ETHANOL,KARL FISCHER REAGENT	D001 F002 F003	1.0
-157	HALTHANE	D001	2.0
-157	HALTHANE,ISOPROPYL,TOLUENE,HYDROCHLORIC ACID	D001 F005	2.0
-157	HCL BUFFER SOLUTION	NONE	1.3
-157	HCL SOLUTION	D002	1.9
-157	HEXANE	D001	4.5
-157	HEXANE	D001	2.9
-157	HYDRAZINE SULFATE	NONE	1.9
-157	HYDROBROMIC ACID	D002	2.4
-157	HYDROBROMIC ACID	D002	2.4
-157	HYDROCHLORIC ACID	D002	1.0
-157	HYDROCHLORIC ACID	D002	1.2
-157	HYDROCHLORIC ACID	D002	1.1
-157	HYDROCHLORIC ACID SOLUTION	D002	1.7
-157	HYDROCHLORIC ACID, CHROMIC ACID SOLUTION	D002 D007	2.2
-157	HYDROCHLORIC ACID, CHROMIC ACID SOLUTION	D002 D007	2.2
-157	HYDROPHILIC TEST, METHANOL	D001 F003	0.3
-157	HYDROQUINONE	NONE	1.1
-157	INDOLE-2,3-DIONE	NONE	0.7
-157	IODINE	NONE	0.3
-157	IODINE SOLUTION	NONE	0.6
-157	IODINE SOLUTION	NONE	6.0
7	ISO AMYL ALCOHOL	D001	2.0

-157	ISOAMYL ACETATE	D001	0.5
-157	ISOAMYL AMINE	D001 D002	0.1
157	ISOAMYL ETHER	D001	0.4
7	ISOAMYL NITRATE	D001	0.3
-157	ISOAMYL NITRITE	D001	0.6
-157	ISOBUTYL ACETATE	D001	0.2
-157	ISOBUTYL AMINE	D001	0.7
-157	ISOBUTYL NITRATE	D001	0.2
157	ISOBUTYL NITRILE	D001	1.0
-157	ISOBUTYRO-NITRILE	D001	8.8
-157	ISOPROPANOL	D001	3.8
-157	ISOPROPYL ACETATE	D001	0.7
-157	ISOPROPYL ETHYLENE DIAMINE	D001 D002	0.1
-157	ISOPROPYL NITRATE	D001	0.5
157	KARL FISCHER REAGENT	D001 D038 F003 F005	11.7
-157	KARL FISCHER REAGENT	D001 D038 F005	6.3
-157	KARL FISCHER REAGENT	D001 D038 F005	4.0
-157	KARL FISCHER WASTE	D001 D038 F005	3.0
157	KARL FISCHER, METHANOL	D001 D038 F003	1.9
-157	KODAK NILE BLUE A	NONE	0.1
-157	LEAD	D001 D008	0.7
-157	LEAD ACETATE	D008 U144	1.7
-157	LEAD NITRATE	D001 D008	0.4
-157	LEAD NITRATE, SODIUM SULFIDE, HYDROCHLORIC ACID WASTE SOLUTION	D001 D002 D003 D008	2.0
-157	LIMONENE WASTE	D001	3.0
-157	LIPOPHILIC TEST, TOLUENE	D001 F005	3.0
-157	LITHIUM CARBONATE	NONE	1.1
7	MAGNESIUM ACETATE	NONE	1.0
7	MAGNESIUM NITRATE	D001	2.3
157	MAGNESIUM PERCHLORATE	NONE	1.0
57	MANGANOUS SULFATE	NONE	2.2
7	MANGANOUS SULFATE	NONE	1.1
157	MARTIUS YELLOW	NONE	0.1
-157	MERCURIC CHLORIDE	D009	0.2
7	MERCURIC CHLORIDE	D009	0.2
	MERCURIC CHLORIDE	D009	0.2
	MERCURIC IODIDE	D009	1.6
7	MERCURIC OXIDE	D009	0.1
57	MERCURIC SULFATE	D009	1.0
-157	MERCURIC THIOCYANATE	D009	0.5
-157	MERCURY (II) OXIDE	D009	0.5
-157	MERCURY METERS	D009	0.2
-157	MERCURY NITRATE	D001 D009	0.3
157	MERCURY OXIDE	D009	0.3
-157	MERCURY SOLUTION	D009	0.2
-157	MERCURY THERMOMETER	D009	0.1
157	METAL WASTE	NONE	0.9
157	METHANOL	D001 F003	1.3
-157	METHANOL, KARL FISCHER REAGENT	D001 D038 F003 F005	0.3
-157	METHANOL, LIMONENE	D001	1.0
-157	METHANOL, PYIDINE, SODIUM HYDROXIDE SOLUTION	D002 D038 F003 F005	4.4
-157	METHANOL, PYRIDINE, SODIUM HYDROXIDE SOLUTION	D002 D038 F003 F005	2.2

-157	METHANOL, PYRIDINE, SULFURIC ACID SOLUTION	D001 D002 D038	2.0
-157	METHANOLIC POTASSIUM HYDROXIDE	D001 D002 F003	2.9
7	METHANOLIC POTASSIUM HYDROXIDE	D001 D002 F003	5.9
-157	METHYL ALCOHOL	D001 U154	0.3
-157	METHYL AMINO PHENYL SULFATE	NONE	1.0
-157	METHYL AMINO PHENYL SULFATE	NONE	1.0
-157	METHYL ANHYDRIDE	F005	1.9
-157	METHYL ETHYL KETONE	D001 D035 F005 U159	1.9
-157	METHYL ETHYL KETONE	D001 D035 F005 U159	1.0
-157	METHYL ISO BUTYL KETONE	D001	5.2
-157	METHYL ISOBUTYL KETONE	D001 F003 U161	2.7
-157	METHYL RED	NONE	0.1
-157	METHYL-1-PENTYL-3-OL	D001	0.3
-157	METHYLENE CHLORIDE	D028 F002	1.2
-157	METHYLENE CHLORIDE	F002 U080	1.9
-157	METHYLENE CHLORIDE	F002 U080	1.0
-157	METHYLENE CHLORIDE, ACETONE, HEXANE	D001 D028 F002 F003	40.2
-157	MUREXIDE TABLETS	NONE	0.1
-157	NADIC METHYL ANHYDRIDE	D002 D003	7.8
-157	NESSLERS REAGENT	D002 D009	2.0
-157	NESSLERS REAGENT	D002 D009	2.2
-157	NESSLERS REAGENT	D002 D009	2.2
-157	NICKEL CHLORIDE	NONE	0.2
-157	NICKEL METAL POWDER	D003	0.2
-157	NICKEL NITRATE	D001	1.0
-157	NICKEL POWDER	D003	0.3
-157	NICKEL SULFATE	NONE	0.2
[illegible]	NICKEL SULFATE	NONE	1.2
[illegible]57	NICKEL SULFATE, CORROSIVE MIXTURE	D002	9.4
-157	NICKEL SULFIDE	NONE	0.1
-157	NIESSLERS	D009	1.5
-157	NILE BLUE A	NONE	0.1
-157	NITRIC ACID WASTE	D001 D002	1.1
-157	NITRILO TRIACETIC ACID	NONE	0.5
-157	NITRO CYCLOPENTANE	D001	0.1
-157	NITRO HEXANE	D001	0.1
-157	NITROBENZENE	D036 F004 U169	0.9
-157	NITROBENZENE, PERCHLORIC ACID SOLUTION	D002 D036 F004	1.1
-157	NITROBENZENE,VERSIMID 140,ACETIC ACID,LIMONENE	D001	1.0
-157	NITROPENTANE	D001	0.1
-157	NITROPROPANE (1-)	D001	0.5
-157	NITROPROPANE (2-)	D001	0.6
-157	NOCHROMIX	D001 D007	2.0
-157	OXALIC ACID	NONE	1.0
-157	PAINT WASTE- WATER BASED	NONE	33.6
-157	PENTANE	D001	2.5
-157	PENTANE	D001	8.3
-157	PENTANE	D001	1.2
-157	PERCHLORIC ACID	D001	8.0
-15[illegible]	PERCHLORIC ACID	D002	7.8
-15[illegible]	PERCHLORIC ACID,ACETIC ACID,CRYSTAL VIOLET	D002	1.0

E-157	PERCHLORIC, ACETIC ACID WASTE	NONE	2.0
E-157	PETROLEUM ETHER	D001	3.8
E-157	PHENOL RED	NONE	0.1
E-157	PHENOLPHTHALEIN POWDER	NONE	0.2
E-157	PHOSPHOMOLYBDIC ACID	NONE	0.3
E-157	PHOSPHORIC ACID	D002	2.6
E-157	PHTHALIC ANHYDRIDE	NONE	3.0
E-157	PHTHALIC ANHYDRIDE	U190	2.0
E-157	PLATINUM COBALT	NONE	1.6
E-157	PLATINUM POTASSIUM CHLORIDE	NONE	0.1
E-157	POTASSIUM BISULFATE	NONE	0.3
E-157	POTASSIUM BITARTRATE	NONE	1.0
E-157	POTASSIUM BROMATE	D001	1.1
E-157	POTASSIUM BROMATE	D001	1.7
E-157	POTASSIUM CHLORATE	D001	1.0
E-157	POTASSIUM CHROMATE	D007	1.8
E-157	POTASSIUM DICHROMATE	D001 D007	3.3
E-157	POTASSIUM DICHROMATE	D001 D007	0.5
E-157	POTASSIUM FERROCYANIDE	D003	0.7
E-157	POTASSIUM HYDROXIDE	D002	5.9
E-157	POTASSIUM HYDROXIDE SOLUTION	D002	4.7
E-157	POTASSIUM IODATE	D001	1.1
E-157	POTASSIUM IODATE SOLUTION	D001	3.3
E-157	POTASSIUM NITRATE	D001	1.4
E-157	POTASSIUM PERCHLORATE	D001	1.0
E-157	POTASSIUM PERCHLORATE	D001	1.1
E-157	POTASSIUM PERCHLORATE IN AMMONIUM THIOCYANATE	D001	34.0
E-157	POTASSIUM PERMANGANATE	D001	1.0
E-157	POTASSIUM PERMANGANATE SOLUTION	D001	2.9
E-157	POTASSIUM PERSULFATE	D001	1.0
E-157	POTASSIUM PHOSPHATE	NONE	1.2
E-157	POTASSIUM PHTHALATE	NONE	0.4
E-157	POTASSIUM THIOCYANATE	NONE	2.0
E-157	POTASSIUM THIOCYANATE	NONE	1.8
E-157	PYRIDINE	D001 D038 F005 U196	4.9
E-157	PYRIDINE WASTE	D001 D038 F005	3.0
E-157	PYRIDINE, CHLOROFORM SOLUTION	D022 D038 F003 F005	2.2
E-157	PYRIDINE, ETHANOL, METHANOL, METHYL ISOBUTYL KETONE SOLUTION	D001 D038 F003 F005	1.7
E-157	PYRIDINE, METHANOL, CHLOROFORM MIX	D001 D022 D038 F003 F005	1.9
E-157	PYRIDINE, METHANOL, TOLUENE SOLUTION	D001 D038 F003 F005	1.0
E-157	PYRIDINE, METHYL ISOBUTYL KETONE	D038 F003 F005	1.7
E-157	PYRIDINE, MIXED SOLVENTS	D001 D038 F005	3.0
E-157	PYRIDINE, TOLUENE, HYDROCHLORIC ACID SOLUTION	D001 D038 F005	2.2
E-157	PYRIDINE, TOLUENE, METHANOL SOLUTION	D001 D038 F003 F005	1.8
E-157	PYRIDNE, SILVER WASTE SOLUTION	D001 D011 D038 F005	1.7
E-157	PYRRIDINE WASTE	D001 D038 F005 U196	8.1
E-157	PYRRIDINE WASTE	D001 D038 F005 U196	3.0
E-157	REFERENCE SOLUTION	NONE	1.5
E-157	SILICA GEL	NONE	1.5
E-157	SILVER DIETHYL DITHIOCARBOMATE	D011	0.1

E-157	SILVER DIETHYLDITHIOCARBONATE	D011	0.1
E-157	SILVER IODATE	D001 D011	0.1
[illegible]7	SILVER NITRATE	D001 D011	1.1
[illegible]	SILVER NITRATE	D001 D011	0.1
E-157	SILVER NITRATE	D001 D011	1.7
E-157	SILVER NITRATE 10%	D001 D011	1.6
E-157	SILVER NITRATE, POTASSIUM PERMANGANATE SOLUTION	D001 D011	1.9
E-157	SILVER NITRATE, SULFURIC ACID SOLUTION	D001 D002	1.9
E-157	SILVER SALT WIPES	D011	0.1
E-157	SILVER SALTS	D011	0.2
E-157	SILVER SOLUTION	D011	0.1
E-157	SILVER SULFATE	D011	0.1
E-157	SODIUM ARSENITE	D004	1.0
E-157	SODIUM ARSENITE SOLUTION	D004	1.0
E-157	SODIUM BROMIDE	NONE	1.0
E-157	SODIUM CHLORATE	D001	1.0
E-157	SODIUM CHROMATE	D007	1.7
E-157	SODIUM CHROMATE WIPES	D007	0.1
E-157	SODIUM CITRATE	NONE	1.1
E-157	SODIUM CYANIDE	NONE	0.5
E-157	SODIUM CYANIDE	NONE	0.7
E-157	SODIUM DICHROMATE	D007	0.9
E-157	SODIUM DICHROMATE, SILVER NITRATE, SULFURIC ACID SOLUTION	D001 D002 D007 D011	2.0
E-157	SODIUM DITHIOCARBONATE	NONE	0.2
[illegible]7	SODIUM HYDROXIDE	D002	2.2
[illegible]7	SODIUM HYDROXIDE	D002	0.4
[illegible]7	SODIUM HYDROXIDE SOLUTION	D002	4.3
E-157	SODIUM HYDROXIDE SOLUTION	D002	13.9
E-157	SODIUM IODIDE	NONE	1.7
E-157	SODIUM IODIDE	NONE	0.4
E-157	SODIUM META PHOSPHATE	NONE	0.8
E-157	SODIUM META PHOSPHATE	NONE	1.8
E-157	SODIUM METABORATE	NONE	1.0
E-157	SODIUM METAPHOSPHATE	NONE	1.0
E-157	SODIUM METAPHOSPHATE	NONE	1.7
E-157	SODIUM NITRATE	D001	1.1
E-157	SODIUM NITRATE	D001	0.9
E-157	SODIUM OXALATE	NONE	0.2
E-157	SODIUM PERCHLORATE	D001	1.1
E-157	SODIUM PERIODATE	D001	0.3
E-157	SODIUM PEROXIDE	D001 D003	1.0
E-157	SODIUM PHOSPHATE	NONE	1.0
E-157	SODIUM POTASSIUM TARTRATE	NONE	1.1
E-157	SODIUM PYROPHOSPHATE	NONE	6.0
E-157	SODIUM PYROPHOSPHATE	NONE	3.2
E-157	SODIUM PYROPHOSPHATE	NONE	6.0
E-157	SODIUM SULFIDE	D003	2.0
E-157	SODIUM SULFIDE	D003	1.9
[illegible]7	SODIUM SULFITE	NONE	1.1
[illegible]57	SODIUM THIOSULFATE	NONE	0.3
E-157	SODIUM THIOSULFATE	NONE	9.5
[illegible]7	SOLVENT WASTE WITH PYRIDINE	D001 D038 F005	3.2

E-157	SULFAMIC ACID	NONE	1.1
E-157	SULFAMIC ACID	NONE	0.2
E-157	SULFANILIC ACID	NONE	0.2
E-157	SULFANILIC ACID	NONE	0.3
E-157	SULFOSALICYLIC ACID	NONE	0.3
E-157	SULFUR POWDER	D003	1.0
E-157	SULFURIC ACID	D002	11.4
E-157	SULFURIC ACID, BARIUM CHLORIDE, SILVER NITRATE SOLUTION	D001 D002 D005 D011	1.4
E-157	SULFURIC ACID, SILVER NITRATE SOLUTION	D001 D002 D011	1.9
E-157	SULFURIC, PHOSPHORIC, CHROMIUM WASTE WATER	D001 D002 D007 D009	1.7
E-157	TERTRAPHENYL ARSONIUM CHLORIDE, POTASSIUM PERCHLORATE	D001 D004	1.8
E-157	TETRA PHENYL ARSONIUM CHLORIDE, POTASSIUM PERCHLORATE	D001 D004	9.5
E-157	THYLMOLPHTHALEIN	NONE	0.1
E-157	THYMEL BLUE	NONE	0.1
E-157	TIN METAL	NONE	1.3
E-157	TOLIDINE DIHYDROCHLORIDE	NONE	0.2
E-157	TOLUENE	D001 F005 U220	2.5
E-157	TOLUENE, ETHANOL WASTE	D001 F003 F005	1.5
E-157	TOLUENE, ETHANOL, BaCl, NaCrO4, MERCURIC IODIDE MIX	D005 D007 D009 F003 F005	1.7
E-157	TOLUENE, ISOPROPANOL SOLUTION	D001 F005	1.9
E-157	TOLUENE, METHANOL, ISOPROPYL	D001 F003 F005	1.9
E-157	TOLUENE, MIXED SOLVENTS	D001 F005	1.3
E-157	TOLUENE, MIXED SOLVENTS	D001 F005	0.8
E-157	TOLUENE, SILVER WASTE SOLUTION	D001 D011 F005	1.5
E-157	TRICALCIUM PHOSPHATE	NONE	0.4
E-157	TRICHLOROBENZENE (1,2,4)	D001	2.5
E-157	VACUUM PUMP FLUID	NONE	1.4
E-157	VERSAMID 140	NONE	1.1
E-157	VERSAMID 140	NONE	1.1
E-157	VERSIMID 125	NONE	1.5
E-157	VERSIMID 125	NONE	1.2
E-157	VERSIMID 125	NONE	1.0
E-157	VERSIMID 125	NONE	1.0
E-157	VERSIMID 125	NONE	1.1
E-157	VERSIMID 140, ETHANOL, NITROBENZENE MIX	D001	1.1
E-157	VERSIMID, ACETIC ACID, NITROBENZENE	D001 D036 F004	0.9
E-157	XYLENE	D001 F003 U239	2.9
E-157	XYLENE SOLUTION	D001 F003	9.8
E-157	XYLENES	D001 F003	1.7
E-157	ZINC OXIDE	NONE	4.0
E-157	ZINCATE, BARIUM CHLORIDE	D005	3.0
E-157	ZIRCONYL NITRATE	D001	0.3
E-157-ETSC	ISOPROPYL ETHER, FORMERLY LP93-010	D001	1.5
E-158	ACETIC ACID, CHROMIC ACID, SULFURIC ACID SOLUTION	D002 D007	3.0
E-158	ACETIC ANHYDRIDE, PYRIDINE, NaOH	D038 F005	1.5
E-158	ACETONE	D001 F003	10.6
E-158	ACETONE, ETHYL ETHER	D001 F003	9.0

E-158	ACETONE, ETHYL ETHER	D001 F003	10.6
E-158	ACETONITRILE	D001	1.4
[illegible]	ACETONITRILE	D001	11.3
[illegible]	ACETONITRILE	D001	1.5
E-158	ACETONITRILE	D001 U003	11.8
E-158	ACETONITRILE	D001 U003	14.1
E-158	ACETONITRILE 60%	D001	11.1
E-158	ACETONITRILE WASTE	D001	4.0
E-158	ACETONITRILE, ACETONE	D001 F003	10.2
E-158	ACETONITRILE, ACETONE, WATER	D001 F003	10.7
E-158	ACETONITRILE, METHANOL, ACETONE SOLUTION	D001 F003	11.0
E-158	ACETONITRILE, SULFURIC ACID SOLUTION	D001	1.0
E-158	ACETONITRILE, THF, METHANOL SOLUTION	D001 F003	22.0
E-158	ACETONITRILE, WATER	D001	11.0
E-158	ACETONITRILE, WATER	D001	3.3
E-158	ACETONITRILE,WATER	D001	20.7
E-158	ACETONOTRILE, METHANOL SOLUTION	D001 F003	40.0
E-158	ACID MIX	D002	14.7
E-158	AMMONIUM HYDROXIDE	D002	3.3
E-158	AMMONIUM HYDROXIDE	D002	4.7
E-158	AMMONIUM MOLYBDATE	NONE	4.0
E-158	AMMONIUM MOLYBDATE, SULFURIC ACID SOLUTION	D002	4.8
[illegible]8	AMMONIUM PERCHLORATE	D001	4.0
[illegible]8	BLEACH	D002	0.1
[illegible]8	CHROMIC NITRATE	D007	1.0
[illegible]8	CHROMIC, ACETIC ACID SOLUTION	D002 D007	2.0
E-158	CHROMIUM, GOLD, ARSENIC SOLUTION	D004 D007	1.9
E-158	CHROMOSORB	NONE	0.5
E-158	COPPER CHROMATE	D007	0.1
E-158	CP (.01g), SODIUM CHLORATE (.1%) IN WATER	D001	1.7
E-158	CP, AMMONIUM PEROXYDISULFIDE, ACETONE	D001 F003	1.4
E-158	CYANIDE SOLUTION	D003	0.5
E-158	DIPHENYL AMINE	NONE	2.0
E-158	DIPSIDOL	D001 D003	0.1
E-158	DUPONT VYDAX	F002	0.1
E-158	E WASTE SOLVENT	D001 D035 F001 F003 F005	88.4
E-158	E-158 SOLVENT	D001 F005	11.1
E-158	EMERY 9872A	NONE	1.0
E-158	ETHYL ETHER, ACETONE	D001 F003	2.8
E-158	FERROFLUID	NONE	0.1
E-158	FORMALDEHYDE SOLUTION	D001	2.8
E-158	FORMIC ACID	D002 U123	1.0
E-158	HCL, TOLUENE, KARL FISCHER SOLUTION	D001 D038 F005	1.8
E-158	HYDROCHLORIC ACID	D002	2.9
[illegible]58	IODINE	NONE	2.5
[illegible]58	IRON POWDER, PHENOLIC WASTE	NONE	4.0
E-158	KODAK DEVELOPER	D002	34.0
E-158	KODAK FIXER WASH	NONE	8.2
[illegible]8	LEAD NITRATE AND SULFURIC ACID	D002	8.9

E-158	MERCURY THERMOMETER	D009 U151	0.2
E-158	METHANOL	D001 F003	1.6
E-158	METHANOL, ACETONE, WATER, ACETONITRILE	D001 F003	10.4
E-158	METHANOL, ACETONITRILE, ACETONE	D001 F003	10.0
E-158	METHYL AMINO PHENOL SULFATE	NONE	0.2
E-158	METHYLENE DIISOCYANATE, HALTHANE, TETRAHYDROFURAN	D001 D003	3.0
E-158	NESSLERS REAGENT	D009	2.0
E-158	NITRO PHENYL AMINE (2-)	NONE	2.0
E-158	ORANGE RED PIGMENT	NONE	1.1
E-158	PHENOLIC WASTE	NONE	5.6
E-158	PHOSPHORIC ACID SOLUTION	D002	0.6
E-158	PHTHALIC ACID	NONE	0.1
E-158	POLY ETHER SULFONE	NONE	0.1
E-158	POTASSIUM PERCHLORATE 70%, TETRAPHENYL ARSONIUM CHLORIDE 30%	D001	3.9
E-158	POTASSIUM PERCHLORATE, AMMONIUM THIOCYANATE, ISOPROPANOL SOLUTION	D001 D003	28.3
E-158	POTASSIUM PERCHLORATE, TETRAPHENYL ARSONIUM	D001 D004	3.0
E-158	POTASSIUM PERCHLORATE, TETRAPHENYL ARSONIUM CHLORIDE	D001 D004	7.0
E-158	POTASSIUM PERCHLORATE, TETRAPHENYL ARSONIUM CHLORIDE	D001 D004	3.2
E-158	POTASSIUM PERCHLORATE, TETRAPHENYL ARSONIUM CHLORIDE SOLUTION	D001 D004	4.9
E-158	POTASSIUM PERMANGANATE	D001	0.2
E-158	SILVER NITRATE, NITRIC ACID, BARIUM CHLORIDE SOLUTION	D002 D005 D011 F005	2.0
E-158	SODIUM CHLORATE, CP WASTE	D001	6.5
E-158	SODIUM HYDRIDE, SODIUM ACETATE, ETHYLENE DIAMINE	NONE	1.2
E-158	SODIUM HYDROXIDE	D002	1.6
E-158	SODIUM HYPOCHLORITE	D001	5.0
E-158	SODIUM SULFATE SOLUTION	NONE	1.7
E-158	SOLVENT WASTES	D001 F003	0.9
E-158	STYPHNIC ACID	D001 D002 D003	1.5
E-158	SULFURIC ACID, ACETONITRILE	D001	1.7
E-158	TETRA PHENYL ARSONIUM CHLORIDE, POTASSIUM PERCHLORATE	D001 D004	4.7
E-158	TETRAHYDROFURAN	D001 D003	5.9
E-158	TETRAHYDROFURAN	D001 D003	3.1
E-158	TETRAHYDROFURAN	D001 D003	7.6
E-158	TETRAHYDROFURAN	D001 D003 U213	8.0
E-158	TETRAHYDROFURAN	D001 D003 U213	5.3
E-158	TETRAHYDROFURAN WASTE	D001 D003 U213	3.0
E-158	TETRAHYDROFURAN, ACETONE	D001 F003	6.2
E-158	TETRAHYDROFURAN, DIALLYL PHTHALATE, POLTSTYRENE	D001 D003 U213	3.0
E-158	TOLUENE, HCL, ISOPROPANOL SOLUTION	D001 F005	2.0
E-158	TOLUENE, HCL, ISOPROPANOL SOLUTION	D001 F005	2.5
E-158-ETSC	DINITRO PHENYL AMINE (2,4-), FORMERLY LP93-1090	NONE	2.3
39	AMMONIUM THIOCYANATE	NONE	7.0

E-159	AMMONIUM THIOCYANATE	NONE	1.6
E-159	CALCIUM CHLORIDE	NONE	1.0
[illegible]	CALCIUM NITRATE	D001	1.0
[illegible]	CALCIUM SULFATE, MOLECULAR SEIVES	NONE	1.0
E-159	IRON POWDER	D003	0.1
E-159	MAGNESIUM PERCHLORATE	D001	1.4
E-159	MERCURY DEBRIS	D009	2.0
E-159	METHANOL, KARL FISCHER REAGENT	D001 D038 F003 F005	1.1
E-159	POTASSIUM DICHROMATE SOLUTION	D001 D007	3.3
E-159	POTASSIUM HYDROXIDE	D002	1.5
E-159	POTASSIUM IODIDE	NONE	1.1
E-159	SEDISPERSE A-11	D001	16.8
E-159	SODIUM IODIDE	NONE	0.3
E-159	SODIUM SULFATE	NONE	1.3
E-159	TITANIUM POWDER	D003	1.1
E-159	TOLUENE, KARL FISCHER REAGENT	D001 D038 F005	1.6
E-167	ACETALDEHYDE OXIME	NONE	0.1
E-167	ACETALDEHYDE OXIME	NONE	0.2
E-167	ACETIC ACID, PERCHLORIC ACID	D001 D002	2.8
E-167	ACETONE RINSE WASTE	D001 F003	1.0
E-167	ACETONE, METHYLENE CHLORIDE WASTE	D001 F003	5.4
E-167	ACETONITRILE	D001	2.0
E-167	ACETONITRILE	D001 U003	1.6
E-167	ACETONITRILE WASTE SOLVENT	D001	2.1
E-167	ACETONITRILE WASTE WATER	D001	1.0
E-167	ACETONITRILE WITH TRACE PETN	D001	1.6
[illegible]57	ACETONITRILE WITH TRACE RDX, HMX, NITROPHENYL AMINE	D001	1.5
[illegible]57	ACETONITRILE, HYDROCHLORIC ACID	D002	1.9
[illegible]67	ACETONITRILE, SULFURIC ACID	D001 U003	3.7
E-167	ACETONITRILE, SULFURIC ACID SOLUTION	D001	1.3
E-167	ACETONITRILE, TRACE SULFURIC ACID WASTE	D001	2.4
E-167	ACETOPHENONE	U004	0.1
E-167	ACID WASTE	D002	4.7
E-167	ACID WASTE	D002	2.2
E-167	ACID WASTE SOLUTION	D002	5.2
E-167	ACID WASTE SOLUTION	D002	3.9
E-167	ACID WASTE SOLUTION	D002	4.1
E-167	ACID WASTE SOLUTION	D002	5.1
E-167	ACID WASTE SOLUTION	D002	4.4
E-167	ADHESIVE	D001	0.4
E-167	ALANINE	NONE	0.3
E-167	ALKALINE WASTE SOLUTION	D002	4.9
E-167	ALKALINE WASTE- DILUTE	NONE	1.5
E-167	ALUMINA	NONE	0.1
E-167	ALUMINA	NONE	2.6
E-167	ALUMINA ADSORPTION	NONE	1.9
E-167	ALUMINA CERAMIC ADHESIVE	NONE	0.5
[illegible]167	ALUMINA POWDER	NONE	2.9
[illegible]167	ALUMINUM	D003	0.1
E-167	ALUMINUM FLAKE	D003	0.1
E-167	ALUMINUM METAL	NONE	0.1
[illegible]57	ALUMINUM OXIDE	NONE	0.1

E-167	ALUMINUM OXIDE	NONE	0.5
E-167	ALUMINUM POTASSIUM SULFATE	NONE	1.2
E-167	AMINO CAPROIC ACID	NONE	0.3
E-167	AMINO METHANE	NONE	0.4
E-167	AMINO-2-METHYL-1,3-PROPANDIOL	NONE	0.1
E-167	AMMONIUM ACETATE	NONE	5.3
E-167	AMMONIUM BISULFITE	NONE	1.8
E-167	AMMONIUM CARBONATE, COPPER SULFATE, SODIUM CARBONATE WASTE	D002	3.2
E-167	AMMONIUM FLUORIDE	NONE	2.5
E-167	AMMONIUM HYDROXIDE	D002	2.9
E-167	AMMONIUM HYDROXIDE, ACETIC ACID, RESORCINOL WASTE	D002	4.7
E-167	AMMONIUM MOLYBDATE SOLUTION	D002	5.1
E-167	AMMONIUM MOLYBDATE, AMMONIUM HYDROXIDE SOLUTION	D002	1.0
E-167	AMMONIUM MOLYBDATE, AMMONIUM HYDROXIDE SOLUTION	D002	5.0
E-167	AMMONIUM MOLYBDATE, AMMONIUM HYDROXIDE SOLUTION	D002	0.3
E-167	AMMONIUM PERCHLORATE	D001	0.1
E-167	AMMONIUM PEROXYDISULFATE	D001	1.2
E-167	ANTIMONY SULFIDE	D003	0.1
E-167	AQUEOUS BUFFER SOLUTION	NONE	0.4
E-167	AQUEOUS BUFFER SOLUTION	NONE	0.5
E-167	ASORBIC ACID	NONE	0.5
E-167	ASPRIN, METHANOL, SULFURIC ACID	D002	3.0
E-167	ASPRIN, OIL, SULFURIC ACID, METHANOL SOLUTION	D001 D002 F003	0.7
E-167	BARBITURIC ACID	NONE	0.6
E-167	BARBITURIC ACID	NONE	0.4
E-167	BARIUM CHROMATE	D001 D005 D006	0.1
E-167	BORON	D003	0.1
E-167	BORON	D003	0.1
E-167	BUTYL CARBITOL	NONE	0.1
E-167	BUTYROPHENONE	NONE	0.1
E-167	CADMIUM NITRATE	D001 D006	1.7
E-167	CALCIUM CHROMATE	D001 D007	0.1
E-167	CALCIUM HYDROXIDE SOLUTION	D002	47.7
E-167	CALCIUM HYPOCHLORITE	D001	1.7
E-167	CALCIUM NITRATE TETRAHYDRATE	D001	1.7
E-167	CALCIUM STEARATE	NONE	0.1
E-167	CALCIUM SULFATE	NONE	2.1
E-167	CAPROIC ACID	D002	0.4
E-167	CARBON DISULFIDE	D001 F005 P022	23.0
E-167	CERIC AMMONIUM NITRATE	D001	1.4
E-167	CETYPYRIDINIUM MONOHYDRATE	NONE	1.2
E-167	CFAK	NONE	1.3
E-167	CHELEX RESIN 100	NONE	1.6
E-167	CHLORO (2-) PHENOTHIAZINE	NONE	0.1
E-167	CHLOROBENZENE	D001 D021 U037	10.5
E-167	CHLOROBUTANE (1-)	D001	2.3
E-167	CHLOROFORM	D022 U044	1.4
E-167	CHLOROMINE, PYRIDINE, BARBITURIC ACID, SODIUM PHOSPHATE	D038 F005	4.1

E-167	CHROMOSORB	D007	0.7
E-167	CHROMOTROPHIC ACID	NONE	0.3
[illegible]	CIMPERIAL 1011	NONE	0.1
[illegible]	CITRIC ACID	NONE	2.4
E-167	COPFERRON	NONE	1.1
E-167	COPPER CYANIDE	D003 P029	1.1
E-167	COPPER CYANIDE SOLUTION	D003	1.6
E-167	COPPER OXIDE	NONE	0.1
E-167	COPPER SILICATE	NONE	0.1
E-167	CORROSIVE WASTE	D002	4.5
E-167	CREATINE	NONE	0.1
E-167	CYANIDE SALT DEBRIS	D003 P030	7.0
E-167	CYANIDE SOLUTION	D003	0.6
E-167	CYANIDE SOLUTION	D003	0.7
E-167	CYANIDE WASTE WATER	D003	2.5
E-167	CYANOPHENOL	D003	2.0
E-167	DECANOPHENONE	NONE	0.1
E-167	DIALLYL PHTHALATE	NONE	1.3
E-167	DIALLYL PHTHALATE	NONE	0.4
E-167	DIAMINO PROPIONIC ACID	NONE	0.8
E-167	DICHLOROETHANE (1,2-)	D001 D028	2.0
E-167	DIETHYLENE TRIAMINE	NONE	2.5
E-167	DIETHYLENE TRIAMINE	D002	1.3
E-167	DIGLYCOLIC ACID	NONE	0.2
E-167	DILUTE HYDROCHLORIC ACID	NONE	0.6
E-167	DIMETHYL NAPHTHYLAMINE	NONE	0.5
[illegible]	DIMETHYL SULFOXIDE	NONE	1.7
[illegible]	DINITRO (2,2-) DIPHENYL AMINE	NONE	0.2
[illegible]	DINITRO (4,4-) DIPHENYL AMINE	NONE	0.2
[illegible]	DINITROPHENYL AMINE (2,4-)	NONE	1.1
E-167	DIOXIN WASTE, CONTAMINATED WIPES	D027 D030 D036 D037	4.8
E-167	DIPHENYL AMINE	NONE	1.1
E-167	DIPHENYL GUANIDINE	NONE	0.1
E-167	DIPYRIDYL (2,2-) HYDRAZONE	NONE	0.3
E-167	DIPYRIDYL-2-PYRIDYLHYDRAZONE	D001	0.1
E-167	E-167 ACID SOLUTION	D002	5.2
E-167	E-167 WASTE SOLUTION	D002	5.3
E-167	ETHACURE, CYANOPHENOL (P-)	D003	1.0
E-167	ETHACURE, METHYLENE CHLORIDE	F002	0.3
E-167	ETHANOL, CP, HYDROCHLORIC ACID, AMMONIUM PEROXYDISULFATE	D001 D002	1.1
E-167	ETHYL ACETATE	D001 F003 U112	5.1
E-167	ETHYL ETHER	D001	2.0
E-167	ETHYL ETHER	D001	2.0
E-167	ETHYL ETHER	D001	3.9
E-167	ETHYL ETHER, ISOPROPANOL WASTE	D001	2.9
E-167	ETHYL ETHER, ISOPROPANOL WASTE	D001	3.0
E-167	ETHYL ETHER, METHANOL	D001 F003	12.3
E-167	ETHYL-4-CHLORO-2-FLUOROSULFONYL CARBXYLATE	NONE	0.2
E-167	EXPLOSIVE DEBRIS (WETTED) CONTAMINATED WITH TRACE PETN, HMX, HNS	NONE	2.7
E-167	FERRIC NITRATE	D001	1.7
[illegible]	FLUOREL	NONE	0.1

E-167	FLUORESCENT PIGMENT	NONE	0.5
E-167	FORMALDEHYDE TEST REAGENT	D002	3.8
E-167	G.P. CLEANER- BUTOXY ETHANOL	D002	9.1
E-167	GLACIAL ACETIC ACID	D001 D002	3.6
E-167	GLYCERIN	NONE	0.2
E-167	GLYCERIN	NONE	8.3
E-167	GLYCINE	NONE	0.2
E-167	GLYCOCHOLIC ACID	NONE	0.2
E-167	HALON	NONE	0.1
E-167	HCL WASTE SOLUTION	D002	2.4
E-167	HEXANE WASTE	D001	1.8
E-167	HEXAPHENONE	NONE	0.1
E-167	HIPPURIC ACID	NONE	0.5
E-167	HISTIDINE	NONE	0.1
E-167	HYDROCHLORIC ACID	D002	0.3
E-167	HYDROCHLORIC ACID	D002	22.5
E-167	HYDROCHLORIC ACID	D002	4.6
E-167	HYDROCHLORIC ACID	D002	30.0
E-167	HYDROCHLORIC ACID, DIALLYL PHTHALATE	D002	1.4
E-167	HYDROCHLORIC ACID, ETHANOL, PYRIDINE WASTE	D002 D038 F005	0.5
E-167	HYDROCHLORIC ACID, PYRIDINE	D002 D038 F005	0.5
E-167	HYDROCHORIC ACID, PYRIDINE	D001 D002 D038 F005	4.8
E-167	HYDROXY BENZONITRILE	D001	0.8
E-167	HYDROXY BENZONITRILE, STEARIC ACID, ISOPROPANOL	D001	2.5
E-167	HYDROXY HIPPURIC ACID	NONE	0.1
E-167	HYDROXY METHYL AMINO METHANE	NONE	0.5
E-167	HYDROXY PROPYL METHYL CELLULOSE	NONE	0.8
E-167	HYSOL CASTING COMPOUND 4169	NONE	1.1
E-167	IAMINAC	NONE	0.1
E-167	INK	NONE	0.4
E-167	IRON OXIDE, ALUMINUM	NONE	0.1
E-167	IRON POWDER	D003	0.2
E-167	IRON POWDER	D003	1.2
E-167	ISOPROPYL ALCOHOL	D001	3.5
E-167	KODAK CHROMIUM INTENSIFIER	D001 D007	0.5
E-167	LACTIC ACID	D002	2.0
E-167	LAUROPHENONE	NONE	0.1
E-167	LEAD OXIDE	D008	1.2
E-167	LEAD SALT	D008	16.0
E-167	LINSEED OIL	NONE	1.1
E-167	LITHIUM CHLORIDE	NONE	0.1
E-167	LUMINOL WASTE	D001 D002 D003	1.0
E-167	MAGNESIUM	D003	0.1
E-167	MAGNESIUM CHLORIDE	NONE	3.0
E-167	MAGNESIUM CHLORIDE SOLUTION	NONE	0.9
E-167	MAGNESIUM CHLORIDE, SULFURIC ACID	D002	12.8
E-167	MAGNESIUM NITRATE HEXAHYDRATE	D001	0.5
E-167	MAGNESIUM OXIDE	NONE	0.1
E-167	MANNITOL	NONE	0.1
E-167	MERCURY	D009 U151	0.5
E-167	MERCURY	D009 U151	10.9
E-167	MERCURY THERMOMETER WASTE	D009	0.3

E-167	MERCURY WASTE	D009 U151	5.4
E-167	MERCURY, COPPER, ZINC, CEMENT	D009	9.9
E-167	MES HYDRATE	NONE	0.2
[illegible]	METHANOL	D001 F003 U154	9.4
E-167	METHANOL	D001 F003	3.8
E-167	METHANOL WASTE	D001 U154	9.1
E-167	METHANOL WASTE	D001 F003	2.8
E-167	METHANOL, ACETONITRILE, WATER WASTE	D001 F003	8.9
E-167	METHANOL, SULFURIC ACID WASTE	D001 D002	0.9
E-167	METHANOL, SULFURIC ACID WASTE	D001 D002 F003	1.8
E-167	METHYL (3-) HIPPURIC ACID	NONE	0.3
E-167	METHYL ALCOHOL	D001 F003	6.2
E-167	METHYL CELLULOSE	NONE	2.5
E-167	METHYL ETHYL KETONE	D001 D035 F005 U159	1.6
E-167	METHYLENE CHLORIDE	F002	30.1
E-167	METHYLENE CHLORIDE	F002	5.0
E-167	METHYLENE CHLORIDE	U080	13.5
E-167	METHYLENE CHLORIDE	U080	14.9
E-167	METHYLENE CHLORIDE	D028 F002	13.4
E-167	METHYLENE CHLORIDE	D028 F002	14.8
E-167	METHYLENE CHLORIDE	D028 U080	38.9
E-167	METHYLENE CHLORIDE	D028 F002	3.1
E-167	METHYLENE CHLORIDE	F002 U080	15.4
E-167	METHYLENE CHLORIDE	F002 U080	28.6
E-167	METHYLENE CHLORIDE	F002	14.7
E-167	METHYLENE CHLORIDE	F002 U080	30.6
E-167	METHYLENE CHLORIDE	F002 U080	4.9
E-167	METHYLENE CHLORIDE	F002 U080	105.1
[illegible]	METHYLENE CHLORIDE CALIBRATION MIX	F002	0.1
[illegible]	METHYLENE CHLORIDE WASTE	D028 U080	29.4
E-167	METHYLENE CHLORIDE, ACETONE, HEXANE	D001 D028 F002 F003	9.2
E-167	METHYLENE CHLORIDE, ACETONE, HEXANE	D001 D028 F002 F003	9.6
E-167	METHYLENE CHLORIDE, ACETONE, HEXANE WASTE	D001 D028 F002 F003	34.7
E-167	METHYLENE CHLORIDE, ACETONE, METHANOL, HEXANE, TOLUENE WASTE	D001 F002 F003 F005	8.4
E-167	METHYLENE CHLORIDE, METHOXYCHLOR	D014 D028 F002	14.8
E-167	METHYLENE CHLORIDE, METHOXYCHLOR, ACETONE, HEXANE WASTE	D001 D014 D028 F002 F003	25.7
E-167	METHYLENE CHLORIDE, METHYOXYCHLOR	D014 D028 F002	13.7
E-167	METHYLENE CHLORIDE, WATER	F002	9.8
E-167	METHYLENE CHLORIDE, WATER	F002	4.7
E-167	MONOCHLOROACETIC ACID	D002	1.2
E-167	MYRISTOPHENONE	NONE	0.1
E-167	NICKEL OXIDE	NONE	0.1
E-167	NITRIC ACID, >40%	D001	0.7
E-167	NITRO DIPHENYL AMINE (2-)	NONE	1.1
E-167	NITRODIPHENYL AMINE (4-)	NONE	0.4
E-167	NITROSO DIPHENYL AMINE	NONE	0.4
E-167	OAKITE 30	D002	0.3
E-167	OCTANOPHENONE	NONE	0.1
E-167	ORION APPLICATION SOLUTION	D001	8.1
E-167	ORION ION ANALYZER	NONE	0.4
E-167	OXALIC ACID	NONE	0.6
[illegible]	PALLADIUM	NONE	0.1

E-167	PALMITIC ACID	NONE	0.6
E-167	PHENOL	U188	1.6
E-167	PHENOL PHTHALEIN	NONE	0.6
E-167	PHENOL RED INDICATOR WASTE	NONE	0.1
E-167	PHENYL ACETIC ACID	NONE	0.7
E-167	PHOSPHORIC ACID, CHROMIC ACID	D002 D007	6.4
E-167	PHTHALIC ACID	NONE	0.1
E-167	PIVOLIC ACID	NONE	1.4
E-167	POLY CAPROLACTAM	NONE	0.8
E-167	POLYAMID-6	NONE	0.3
E-167	POLYAMIDE RESIN	NONE	1.0
E-167	POLYSULFIDE MONOMER	NONE	0.2
E-167	POTASSIUM CHROMATE	D007	0.1
E-167	POTASSIUM CYANIDE, PYRIDINE, SODIUM PHOSPHATE, BARBITURIC ACID	D001 D003 D038 F005	26.9
E-167	POTASSIUM CYANIDE, SODIUM HYDROXIDE	D002 D003	4.6
E-167	POTASSIUM DICHROMATE	D001 D007	0.3
E-167	POTASSIUM DICYANOAURATE	NONE	0.1
E-167	POTASSIUM FERROCYANIDE	D003	0.3
E-167	POTASSIUM HEXACYANO COBALTATE (III)	NONE	0.1
E-167	POTASSIUM NITRATE	D001	0.1
E-167	POTASSIUM PERCHLORATE	D001	0.1
E-167	POTASSIUM PERCHLORATE	D001	3.9
E-167	POTASSIUM PERCHLORATE, TETRA PHENYL ARSONIUM CHLORIDE	D001 D004	5.6
E-167	POTASSIUM TETRA CYANOPHTHALATE	NONE	0.1
E-167	POTASSIUM TETRA PALLADATE	NONE	0.1
E-167	PROPANOL (2-)	D001	15.9
E-167	PROPIOPHENONE	NONE	0.1
E-167	PYRIDINE CARBOXYLIC ACID (-2,6-)	NONE	3.7
E-167	PYRIDINE, BARBITURIC ACID, HYDROCHLORIC ACID	D001 D038 F005	0.8
E-167	PYRIDINE, POTASSIUM CYANIDE SOLUTION	D003 D038 F005	5.1
E-167	PYRIDINE-2,6-DICARBOXYLIC ACID	NONE	1.2
E-167	PYROCATECHOL VIOLET	NONE	0.1
E-167	PYRUVIC ACID	D002	1.0
E-167	PYRUVIC ACID SODIUM SALT	NONE	0.3
E-167	QUININE SULFATE	NONE	0.1
E-167	QUINONE (P) DIOXIDE	NONE	0.1
E-167	RED IRON OXIDE	D003	0.1
E-167	RED LEAD OXIDE	D001 D008	0.1
E-167	RTV CATALYST F	NONE	0.1
E-167	SALICYLIC ACID	NONE	2.3
E-167	SILICA CERAMIC ADHESIVE	NONE	0.3
E-167	SILICA GEL	NONE	1.8
E-167	SILICA GEL	NONE	3.9
E-167	SILICON CARBIDE	NONE	0.1
E-167	SILVER NITRATE	D001 D011	0.5
E-167	SILVER NITRATE, POTASSIUM CHROMATE SOLUTION	D001 D007 D011	3.8
E-167	SILVER NITRATE, SODIUM CHLORIDE, POTASSIUM CHROMATE, POTASSIUM CYANIDE WASTE	D001 D002 D003 D007 D011	5.4
E-167	SILVER POTASSIUM CYANIDE	D003 D011	0.2

p 7 cc

E-167	SODIUM ACETATE TRIHYDRATE	NONE	0.5
E-167	SODIUM AZIDE	P105	0.3
E-167	SODIUM CHROMATE TETRAHYDRATE	D007	0.3
E-167	SODIUM CITRATE	NONE	1.2
E-167	SODIUM CYANIDE	D003 P106	0.5
E-167	SODIUM CYANIDE	D003 P106	1.9
E-167	SODIUM DITHIONATE	NONE	0.5
E-167	SODIUM HYDROXIDE	D002	1.0
E-167	SODIUM HYDROXIDE	D002	0.4
E-167	SODIUM HYDROXIDE, ETHYLENE DIAMINE	D002	2.0
E-167	SODIUM HYDROXIDE, PYRIDINE	D001 D002 D038 F005	5.4
E-167	SODIUM HYPOPHOSPHITE	D003	1.7
E-167	SODIUM META-BISULFITE	NONE	1.7
E-167	SODIUM PERCHLORATE	D001	9.4
E-167	SODIUM PHOSPHATE MONOBASIC	NONE	0.3
E-167	SODIUM PROPIONONATE	NONE	2.3
E-167	SODIUM SUCCINATE	NONE	1.8
E-167	SODIUM SULFATE	NONE	1.2
E-167	SODIUM SULFATE	NONE	3.0
E-167	SODIUM SULFATE, METHYLENE CHLORIDE	F002	8.4
E-167	SODIUM SULFITE	NONE	1.7
E-167	SODIUM SULFITE	NONE	1.2
E-167	SODIUM SULFITE, SODIUM METASULFATE	NONE	0.3
E-167	SODIUM TARTRATE	NONE	1.9
E-167	SODIUM TETRABORATE	NONE	0.9
E-167	SODIUM THIOCYANATE	NONE	1.9
E-167	STEARIC ACID	NONE	0.1
E-167	STEARIC ACID, PROPANOL, SULFURIC ACID, AMMMONIUM HYDROXIDE	D002	11.9
E-167	SULFANILIC ACID	NONE	1.1
E-167	SULFUR	D003	0.1
E-167	SULFURIC ACID	D002	1.7
E-167	SULFURIC ACID	D002	4.8
E-167	SULFURIC ACID	D002	0.4
E-167	SULFURIC ACID WASTE SOLUTION	D002	5.3
E-167	SULFURIC ACID, ACETONITRILE	D002	4.0
E-167	SULFURIC ACID, ACETONITRILE	D001	0.5
E-167	SULFURIC ACID, ACETONITRILE SOLUTION	D001 D002	4.5
E-167	SULFURIC ACID, ACETONITRILE SOLUTION	D001	1.3
E-167	SULFURIC ACID, MAGNESIUM CHLORIDE	D002	3.0
E-167	SULFURIC ACID, METHYLENE CHLORIDE	D002	2.9
E-167	TARTARIC ACID	NONE	1.2
E-167	TETRA BUTYL AMMONIUM HYDROXIDE	D002	1.0
E-167	TETRA BUTYL AMMONIUM HYDROXIDE	D002	1.2
E-167	TETRA BUTYL AMMONIUM HYDROXIDE	D002	0.9
E-167	TETRA PHENYL ARSONIUM CHLORIDE	D004	0.1
E-167	TETRA PHENYL ARSONIUM CHLORIDE	D004	0.2
E-167	TETRA PHENYL ARSONIUM CHLORIDE	D004	0.2
E-167	TETRA PHENYL ARSONIUM CHLORIDE	D004	0.2
E-167	TETRA PHENYL ARSONIUM CHLORIDE	D004	3.8
E-167	TETRAPHENYL ARSONIUM CHLORIDE, POTASSIUM PERCHLORATE	D001 D004	1.5
E-167	TIRON	NONE	0.3

E-167	TITANIUM POWDER	D001 D003	0.1
E-167	TRICHLOROETHANE (1,1,1-)	F002	11.8
E-167	TRICHLOROETHYLENE	F002 D040 U228	15.9
E-167	TRICHLOROTRIFLUOROETHANE (1,1,2-)	F002	8.7
E-167	TRIMSOL	NONE	0.3
E-167	TRITON X-100	NONE	0.5
E-167	TUNGSTIC ANHYDRIDE	NONE	0.5
E-167	ULTIMA GOLD	NONE	15.7
E-167	VALEROPHENONE	NONE	0.1
E-167	VALINE	NONE	0.5
E-167	XYLENES	F005	1.0
E-167	ZINC HYDROXIDE, ZINC BROMIDE SOLUTION	NONE	3.4
E-167	ZIRCONIA CEMENT	NONE	2.0
E-167	ZIRCONIA CERAMIC ADHESIVE	D003	0.4
E-168	NICKEL CARBONATE	NONE	16.0
E-179	ACETANILID	NONE	0.1
E-179	ALUMON D	NONE	1.0
E-179	AMCHEM COATING	NONE	4.0
E-179	AMMONIUM HYDROXIDE	D002	8.8
E-179	AMMONIUM MOLYBDATE	NONE	0.7
E-179	AMMONIUM TARTRATE	NONE	1.0
E-179	AMYL ACETATE	D001	5.5
E-179	ANTHRACINE	NONE	0.2
E-179	AQUADAG	D003	0.1
E-179	AZOBENZOL	NONE	0.1
E-179	BENZANILID	NONE	0.1
E-179	BENZIL	NONE	0.1
E-179	BIO RAD ZP-1	NONE	1.1
E-179	BIO RAD ZT-1	NONE	1.1
E-179	BROMINE	D002 D003	1.0
E-179	BUEHLER RESIN	D001	2.2
E-179	BURNLEY SOLDERING PASTE	NONE	0.5
E-179	BUTANONE (2) PEROXIDE	D001 D003 U160	1.1
E-179	BUTYL ACETATE	D001	0.7
E-179	BUTYL ALCOHOL	D001	1.8
E-179	CADMIUM METAL	D006	4.6
E-179	CARTERS RUBBER CEMENT	D001	0.1
E-179	CATALYST 9	D001	0.4
E-179	CELLODION	D001	0.5
E-179	CELLULOSE ACETATE	D003	2.9
E-179	CELLULOSE ACETATE	D003	1.1
E-179	CELLULOSE ACETATE	D003	1.0
E-179	CHEMCO HARDENER-MEK PEROXIDE	D001 D003	0.1
E-179	CHROME METAL	D007	0.5
E-179	CHROMIUM OXIDE	D007	0.6
E-179	CYCLOHEXANE	D001	1.1
E-179	D-19	NONE	1.3
E-179	DICYANDIAMID	NONE	0.1
E-179	E-SOLDER 3026	D008	0.5
E-179	EPOXY (1,2) -3-ISOPROXYPROPANOL	D001	0.1
E-179	ETHYLENE DICHLORIDE	D001	0.1
E-179	ETHYLENE GLYCOL MONOBUTYL ETHER	D001	9.6
E-179	FORMICA CEMENT	D001	1.7
E-179	GACO	D001	5.0

p 7 ee

E-179	GC RUBBER TO METAL	D001	0.1
E-179	GELATIN	NONE	0.2
E-179	HYDROCHLORIC ACID	D002	0.5
[illegible]	HYDROFLUORIC ACID	D002	1.1
E-179	HYSOL H-4-34D	D001	1.1
E-179	INK	D001	1.1
E-179	KLEAR MOUNT CATALYST	D001 D003	2.2
E-179	KLEAR MOUNT CATALYST	D001 D003	0.1
E-179	KOLDMOUND POWDER- METHYL METHACRYLATE	D001 D003	10.0
E-179	KOLDMOUNT	NONE	5.0
E-179	LACQUER	D001	0.1
E-179	MAGNESIUM FLUORIDE	NONE	1.2
E-179	METHYL (2) SULFOXIDE	D001	0.2
E-179	METHYL (N) PIPERIDINE	D001	0.5
E-179	METHYL ACETATE	D001	3.2
E-179	METHYL ISOBUTYL KETONE	D001 F003	1.0
E-179	METHYL-N-HEXYLCARBONAL	NONE	1.5
E-179	NITROCELLULOSE STRIPS, ACETONE (FORMERLY LP91-1250)	D001 D003 F003	0.5
E-179	NOXON	NONE	1.3
E-179	OXALIC ACID	NONE	1.4
E-179	PERCHLORIC ACID	D001 D002	0.8
E-179	PHENANTHROL (1,10) INEMONOHYDRATE	NONE	0.1
E-179	POLY VINYL ALCOHOL	NONE	0.5
E-179	POLYSTYRENE PELLETS	NONE	0.3
E-179	POTASSIUM BISULFATE	NONE	0.5
E-179	POTASSIUM CYANIDE	NONE	0.3
[illegible]	POTASSIUM FERROCYANIDE	NONE	0.2
[illegible]	POTASSIUM IODIDE	NONE	1.0
E-179	PROPANOL (2)	D001	3.1
E-179	SACCHARIN	NONE	0.1
E-179	SALOPHEN	NONE	0.1
E-179	SILICIC ACID	NONE	2.7
E-179	SILVER	D011	0.2
E-179	SODIUM ACETATE ANHYDROUS	NONE	2.8
E-179	SODIUM ARSENITE	D004	0.1
E-179	SODIUM FLUORIDE	NONE	1.5
E-179	SODIUM PHOSPHATE	NONE	0.6
E-179	SOLDERING PASTE FLUX	NONE	1.0
E-179	STAY CLEAN	NONE	2.0
E-179	SULFURIC ACID	D002	16.2
E-179	THIOSINAMINE	NONE	0.2
E-179	THIOUREA	NONE	3.2
E-179	TOLUENE	D001 F005	5.5
E-179	UCARSIL	D001	1.0
E-179	XYLENE	D001 F003	0.9
E-179	ZINC SULFIDE	NONE	0.1
E-179	ZINC SULFIDE	NONE	0.1
E-187	AMPLEX DIAMOND THINNER COMPOUND	D001	8.4
E-187	EZ MOUNT HARDENER	D002	0.8
E-187	EZ MOUNT RESIN	NONE	2.8
E-187	POLYESTER RESIN	D001	1.3
E-191	CALCIUM CARBONATE	D006	7.8
[illegible]	OIL WASTE	D001	450.0

E BLDG	ALCOHOL WASTE	D001 F003	169.4
E BLDG	ALCOHOL WASTE	D001 F003	418.1
E BLDG	AMMONIUM CHLORIDE	NONE	1.0
E BLDG	AMMONIUM HYDROXIDE	D002	1.4
E BLDG	ATOM-LIGHT	D001	4.6
E BLDG	BROMO NAPHTHALENE	NONE	1.1
E BLDG	BUBBER TO METAL CEMENT	D001 F005	0.8
E BLDG	CABOSIL	NONE	0.5
E BLDG	CHLOROBENZENE	D001 D021	0.9
E BLDG	CHROMIUM TRIOXIDE	D001	1.3
E BLDG	CYANIDE SOLUTION	D003	0.1
E BLDG	DE-OX-ID	D001 D035	0.6
E BLDG	DIOXIN WASTE, PENTACHLOROPHENOL	D037 F027	0.0
E BLDG	DIOXIN WASTE, TETRACHLOROPHENOL (2,3,4,5-)	F027	0.0

E-191	SILVER SOLDER FLUX	D011	0.2
E-191	ZINC CHLORIDE	NONE	0.4
E-195	DIALLYL PHTHALLATE	NONE	21.1

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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

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

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

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: _____

9.6-109

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

33. Is TRU radioactive waste generated, stored, or disposed of from the building?
Yes (No) No, for ETom
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: _____

9.6-110

Building Manager's Questionnaire

Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Process	Waste	Stored	Disposed	Logs
LSC	Low-level LSC vials	Y / N N/A	Y / (N) Waste Mgt. picks up vials	Y / (N)
		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 KNOWN OF

9.6-111

Building Manager's Questionnaire

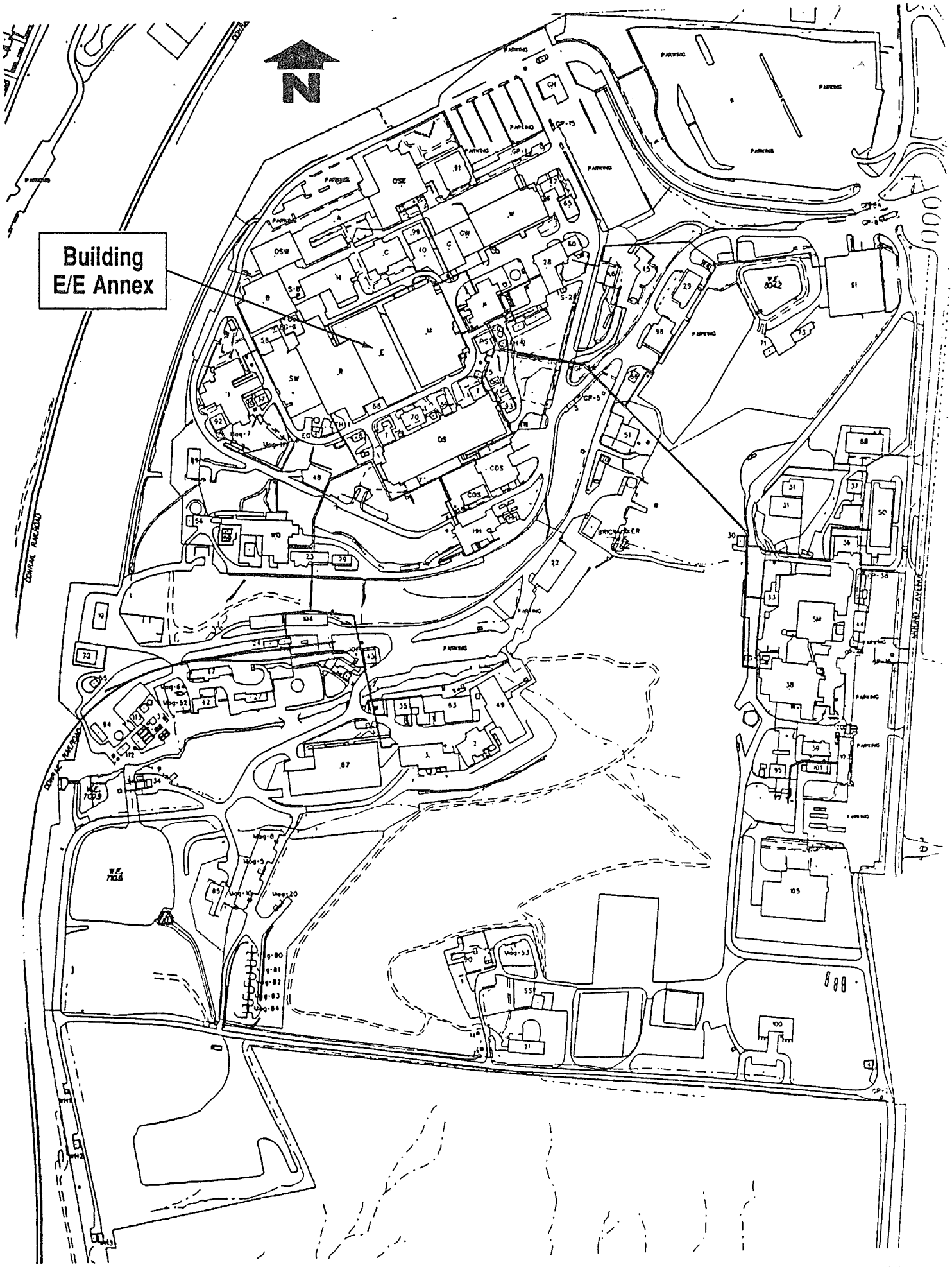
Building Name: E Building Manager: W.H. Whitelow Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

36. Is there a waste minimization program in the building? (Yes) No
Discuss your ideas about how to minimize waste.
For ET+M
Styrofoam, paper, glass, card-board are recycled.

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

9.6-112

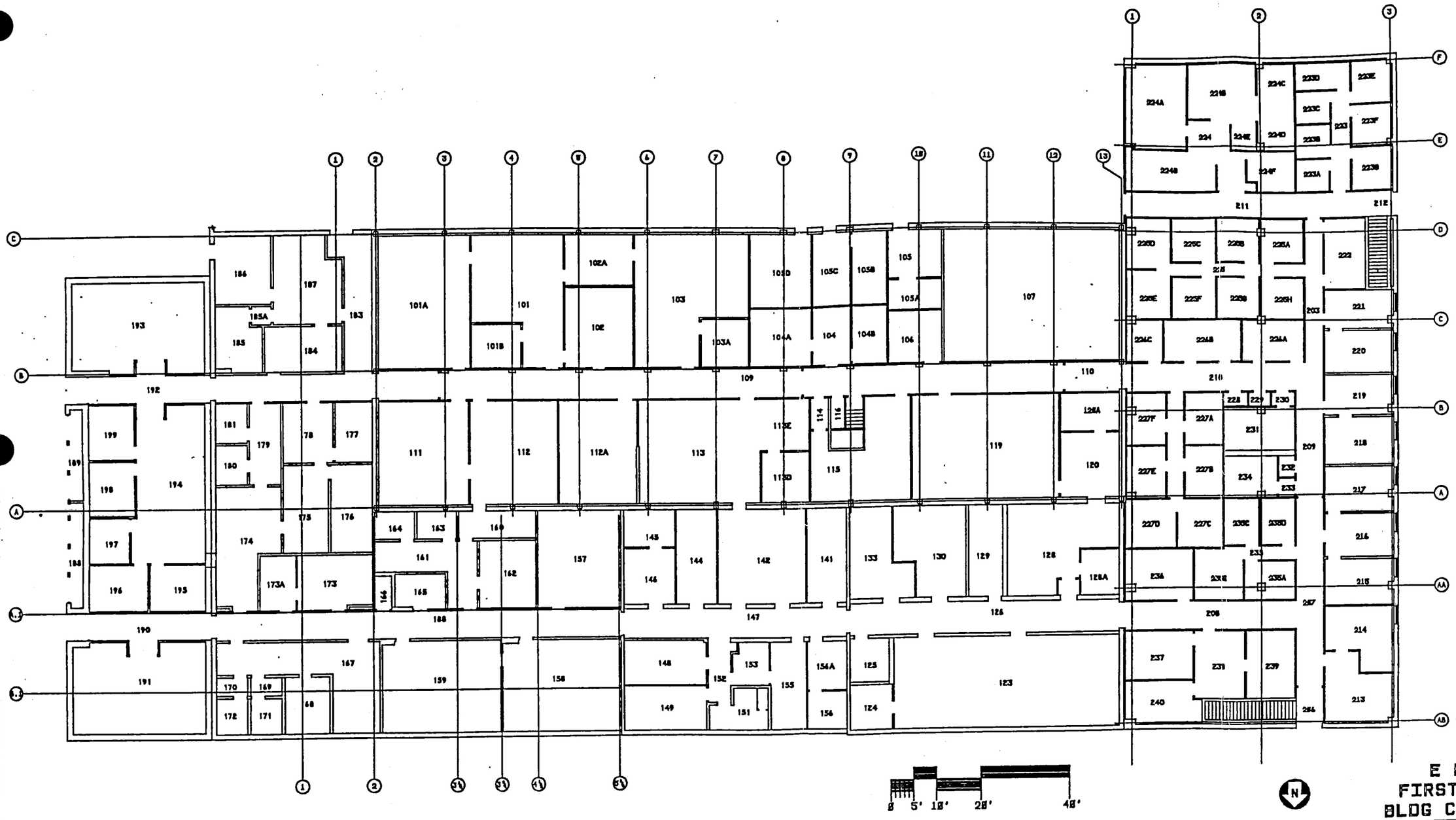
9.6.6.3 Location of Building E



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

9.6.6.4 Floor Plans for Building E

ISS	DATE	REVISION	BY	CHKR	ENB	LPAEE	APVD	M
Ø	12/12/91	ASBUILT ISSUE	DCW				DVD	



E BLDG
FIRST FLOOR
BLDG CODE:3503

UNCLASSIFIED

DERIVATIVE CLASSIFIER
R D Myers
Sr Class Anal 2/20/96
(Title) (Date)

NOT FOR PUBLIC DISSEMINATION

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

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUEBOC ___TEBOC ___EMBOC
TECH. REMP. ___ ___
BR. MGR. ___ ___
TRUEBOC ___ ___
TEBOC ___ ___
EMBOC ___ ___

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

SHEET	1	2	3	4	5	6
ISSUE	Ø	Ø				

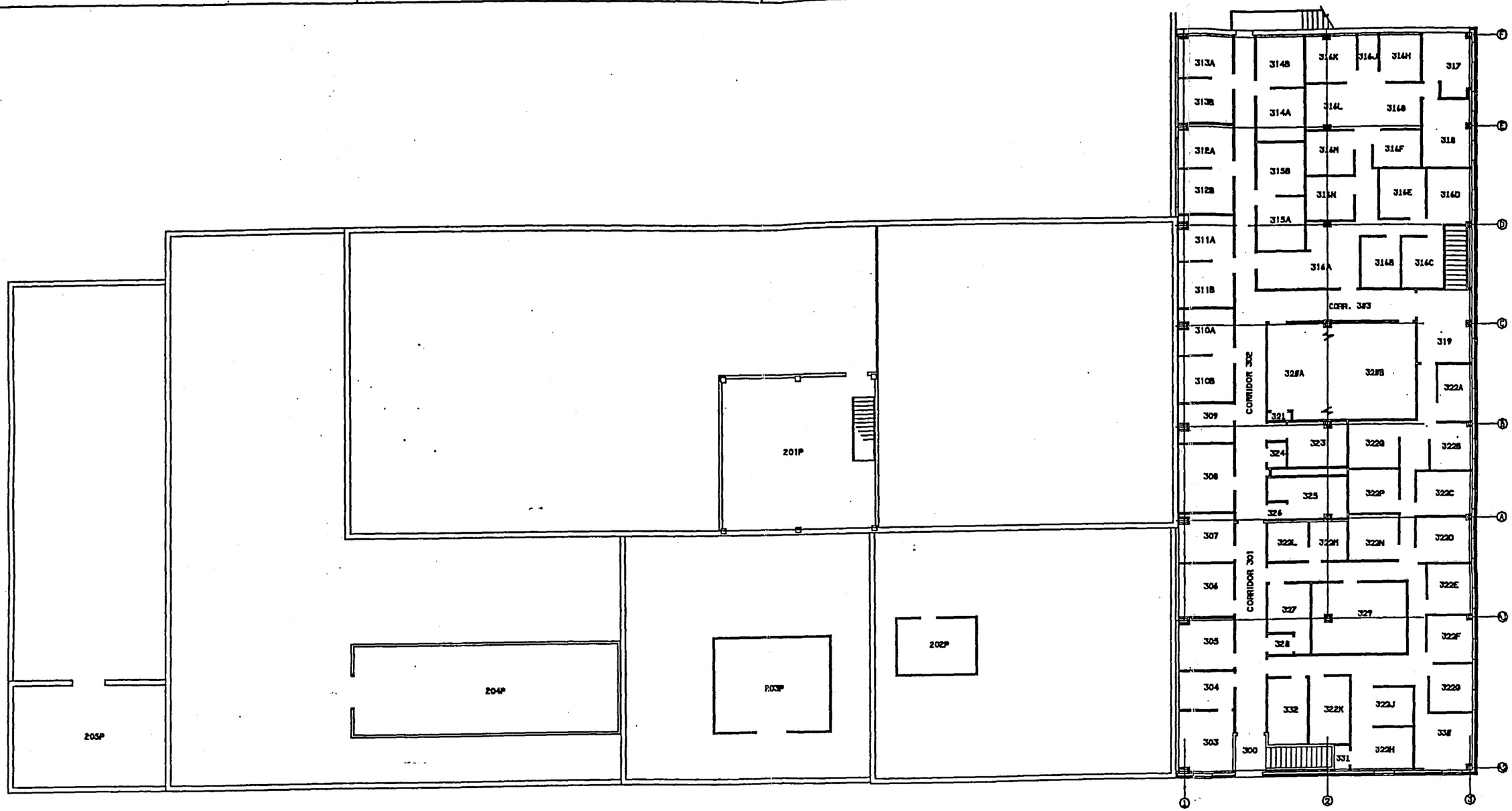
PART CLASSIFICATION
DRAWING CLASSIFICATION ~~UCNI~~

(U) TITLE CLASSIFICATION
TITLE E BLDG FLOOR PLANS

SIZE	DRAWING NUMBER	JOB NUMBER
D	FSD911305	12335

DWG TYPE SFP | PROM E BLDG | CADEC 14065 | SCALE AS NOTED | SHEET 1 OF 2
STATUS MD-REL-12/12/91 | ORIGIN MD-BRJ-V3.Ø

9 6-119



0 5' 10' 20' 40'

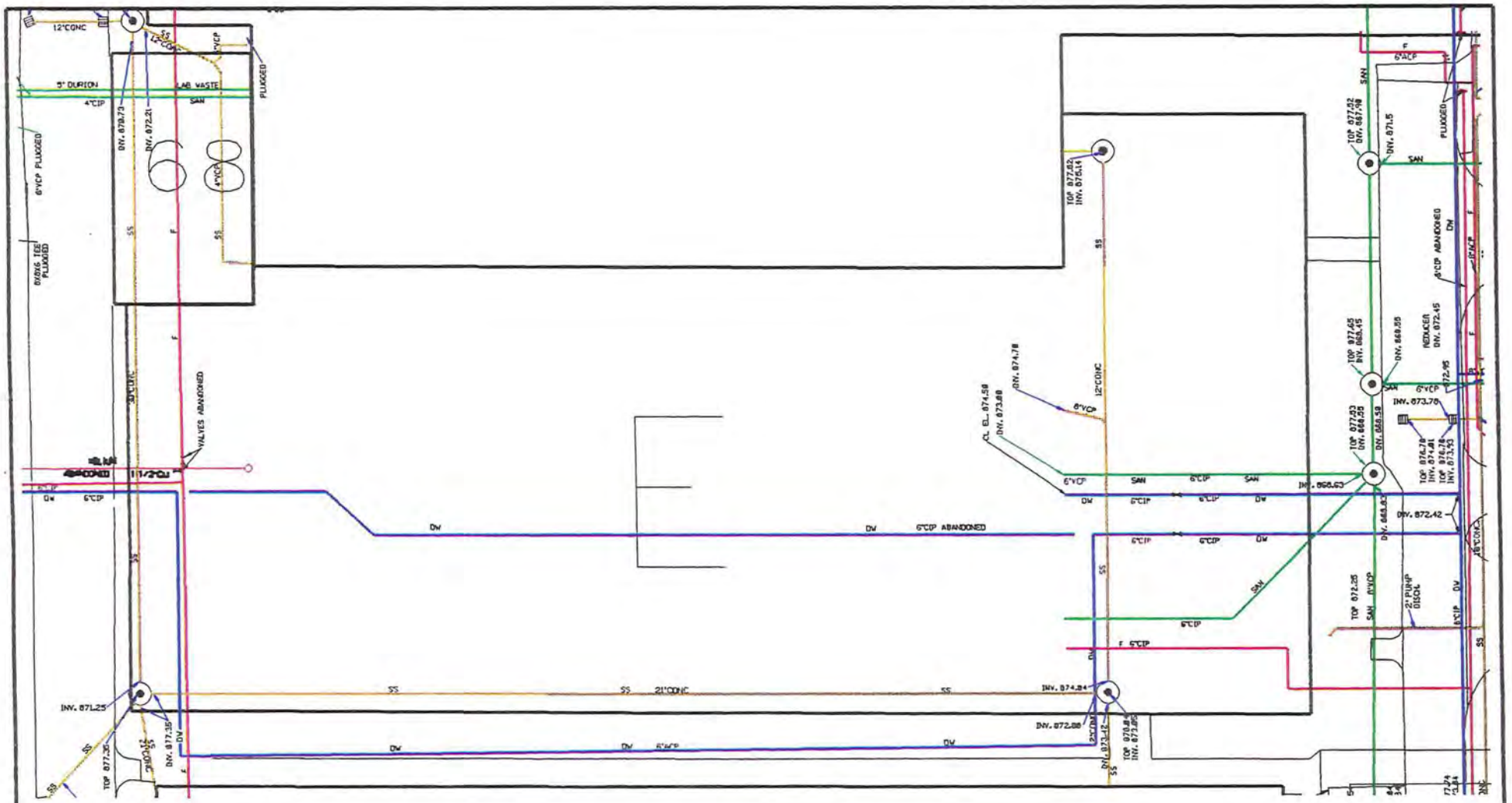
E BLDG
SECOND FLOOR
BLDG CODE:3503

DRAWING NUMBER	JOB NUMBER
FSD911305	12335

DRAWING CLASSIFICATION: UNCLASSIFIED

SIZE	CABEC 14065	SCALE AS NOTED
D	ISSUE 0	SHEET 2
STATUS	MD-REL-12/12/91	

9.6.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G.& G.-MOUND

UNDERGROUND WATER & WASTE LINES

BLDG. E

DATE: 03-12-96

9.6.6.6 Photographs

Mound Plant Building E/E Annex

9.7 BUILDING G (Garage)

9.7.1 Scope of Building G (Garage) 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 G (Garage) on February 26, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is found in Attachment 1 (Section 9.7.6.1). The appraisers were accompanied by the building manager and the process manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.7.6.2).

9.7.2 Description of Building G

Building G is a one-story, 7,518-square-foot concrete block building with brick facing and a metal built-up membrane roof. Building G services 137 fleet vehicles and 26 pieces of heavy-duty equipment. The facility is overcrowded with supplies and equipment. Approximately one-fourth of the building houses a caged storage area for janitorial and grounds maintenance supplies and equipment. The location is shown in Attachment 3 (Section 9.7.6.3). Adjacent buildings are Building OSE to the north, Building 40 to the west, Building GW to the east, and Building P to the south. Floor plans are presented as Attachment 4 (Section 9.7.6.4). The building is serviced by central steam for heat, chilled water, and electrical service (*Mound Facility Physical Characterization,* 12-1-93).

Building G was constructed in 1948. The building has been used for the same purpose since construction. The building is not contaminated with any radioactive or energetic materials (*Mound Facility Physical Characterization*, 12-1-93).

9.7.3 Summary of Findings

Building G (garage) is used for the maintenance and repair of all Government Services Administration (GSA) vehicles, carts, and heavy-duty equipment. The building is also used to store janitorial, grounds maintenance supplies and equipment. The building is well-maintained, but has several issues of environmental concern identified during the walk-through or during review of reference materials.

9.7.4 Observations

9.7.4.1 Air Emissions

The air emission sources are identified on the EAC, in Attachment 1 (Section 9.7.6.1). There is a recirculating parts cleaner that uses mineral spirits and the vehicle exhaust is combined and vented out of the building. These sources should be evaluated to determine air permit applicability. The air emissions inventory status is listed on the EAC. No air emission permit applications have been submitted to the Regional Air Pollution Control Agency (RAPCA) for activities in the building. While the emissions are probably *de minimis*, the determination should be documented. There are no fuel-burning units in the building. There is no evidence of fugitive dust.

9.7.4.2 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.

9.7.4.2.1 Sanitary

The building does have sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.7.6.5), 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 G does not deviate from that expected by the sanitary treatment plant manager.

9.7.4.2.2 Storm Wastewater

The building does appear to be serviced by storm drains according to Attachment 5 (Section 9.7.6.5). 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 have entered the storm drainage system.

The exterior of the building is serviced by storm drains via Building GW according to Mound drawings #350400-04001 and #352000-04001. These drawings also indicate that two drains, with a longitudinal grate running the length of the inside service area, are connected to the storm drain. The interior and exterior grates and drains were not tested to confirm that they connect to the storm drainage system. Inspection outside showed no sign of odors, colored discharges, or scarring which would indicate that any materials other than storm water have entered the storm drainage system. Inspection inside showed signs of colored discharges and scarring which indicate that materials such as hydrocarbon products, mixed hydrocarbon products, antifreeze, and/or water and antifreeze from vehicles undergoing maintenance and repair or from cleaning the concrete floor have entered the storm drainage system. There are no oil/water separators. However, there have been no known spills reported from Building G.

9.7.4.2.3 Chemicals

A list of chemicals found in Building G is included in the BMQ, Attachment 2 (Section 9.7.6.2). The information was gathered as part of the chemical inventory which is conducted annually. The inventory information dates to 1994, as 1995 data were not yet available when the appraisal was conducted. Confirmation of the 1994 inventory by the appraisal team was not attempted, as the 1995 survey was in progress. However, storage, handling, and disposal of chemicals in the BMQ were reviewed to assure conformance to regulations related to 40 CFR 122 and 29 CFR 1910.

There is asbestos in the building materials. Asbestos is identified as a Clean Water Act (CWA) toxic pollutant and xylene is identified as a hazardous substance in 40 CFR Part 122, Appendix D, Table V. The chemical inventory list is included in Attachment 2 (Section 9.7.6.2), the BMQ. Motor oil, power steering fluid, kerosene, hydraulic oil, antifreeze, and transmission and lubricating oils are stored in 55-gallon containers on a rack located on the southwest side of the building. Secondary containment is not provided. 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 G.

9.7.4.3 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. Sources of service water were posted as non-potable.

9.7.4.4 Chemical Storage and Hazardous Materials

Chemicals used in the garage and associated processes are stored in Building G. There is a flammable storage cabinet which meets standard National Fire Protection Association (NFPA) requirements. Chemicals are stored in the building in accordance with applicable standards. Material Safety Data Sheets (MSDS's) were available in the building. Some of the chemicals in the flammable storage cabinet and in the work areas had faded labels. Containers of 1,1,1-trichloroethane were stored in the flammable storage containers.

The building is equipped with appropriate emergency response equipment such as an eyewash, safety shower, and fire extinguishers. Extinguishers are bar-coded. The inspection date database is maintained in the Fire Station, Building 98. Emergency safety showers have been modified with a siphon to keep the piping flushed and cleared of debris. There is an Emergency Evacuation Plan, and signs were posted in work areas.

There are two 5,000-gallon aboveground storage tanks that service the garage. These tanks are located between Building 22 and Building 51. One tank contains gasoline and the other contains diesel fuel. The tanks have secondary containment. However, the integrity of the containment needs to be tested, since it appears to have cracked. There are two portable diesel tanks which are estimated to have a volume of 250 gallons each. A 1,000-gallon capacity diesel tank is located in the spoils area and is not in use and is being maintained until it is determined if it will be needed for an upcoming decontamination and decommissioning (D&D) project. There is no preventive maintenance of the tanks for testing. Hoses which dispense fuels are changed as needed and are visually inspected at the time of use for wear. They are identified on the BMQ, in Attachment 2 (Section 9.7.6.2). There are no sumps, separators, or catch basins, in or around the building. There are no underground storage tanks associated with this building.

The building was tested and does contain asbestos-containing building material (*Asbestos Program Manual*, 9-6-95). There is no evidence of friable asbestos. Pipe lagging was intact.

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

9.7.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated are primarily rags, empty oil filters, used tires and batteries. Solid wastes are removed by janitorial personnel to a local collection point, then shipped offsite to a local landfill by a contractor. Used oil filters are drained until empty into the waste oil drum. The empty filter is disposed of in a solid waste dumpster. 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 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.

Solid hazardous wastes generated by Building G's process, maintenance and cleaning, is stored in a SAA located inside the building proximate to and within eye contact of the work area. Cleaning rags contaminated with oil and solvents are disposed in solid waste containers for disposal. The disposal practice of cleaning rags should be reviewed. Some of the materials that may be on the rags include trichloroethane.

Waste oil generated by the process, maintenance, and cleaning operations is stored in a SAA located adjacent to the building in a 55-gallon drum that is kept locked except when adding wastes. Liquid hazardous waste (spent solvents) are stored in 5-gallon containers located in a SAA located in the building. The SAA procedures and appearance conform to Resource Conservation and Recovery Act (RCRA) requirements. Wastes are collected and transported by a representative of the Waste Management Group, and are stored in Building 72 for ultimate disposal. There is no onsite treatment of waste. All wastes sent to Building 72 are disposed of under a service contract. Waste disposal manifests and Certificates of Disposal are maintained by the EG&G Waste Management Group. They conform to RCRA requirements.

9.7.4.6 Waste Minimization and Pollution Prevention

At Mound, there is an active program to minimize waste streams, in accordance with local and federal requirements and Executive Order 12856. Programs for waste minimization include reclamation/recycling of lead-acid batteries and replacing chlorinated solvents with mineral spirits. Exhaust systems are dismantled and sent to solid waste for disposal. The ozone-depleting compound, 1,1,1-trichloroethane, could also be evaluated for nonessential use.

9.7.5 Findings and Recommendations

The environmental appraisal of Building G indicates that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place. Photographs were taken to document inspection findings. They are included as Attachment 6 (Section 9.7.6.6).

G-1 Evaluate air sources that are not permitted and document results in accordance with OAC 3745-31. Update information for the Mound air emissions inventory as appropriate.

G-2 The drains serving the vehicle maintenance area of the building do not have an oil/water separator or other means of precluding the discharge of chemicals into the storm water collection system. In the event there is a discharge, a potential violation of the NPDES permit and the Clean Water Act (CWA) could occur. Evaluate alternative protective measures. If the drains remain active within the building, the discharge point should be listed as an NPDES point source, and best treatment methods for wastewater evaluated. Evaluate the current NPDES application to determine if discharge is listed; if not, revise application.

G-3 Cleaning rags are contaminated with hazardous waste, including trichloroethane. This waste stream should be stored and disposed of in accordance with the Mound's Part B Permit Application and OAC 3745-52-11, OAC 3745-52-34 (c), and OAC 3745-59. A satellite accumulation area should be used for storage.

G-4 Consider evaluating waste oil and solvent-based degreasing as target assessments for reduction, including the use of filtration technology to reuse used oil.

G-5 Evaluate to ensure there is an automated preventive maintenance program for tank integrity testing.

G-6 Evaluate the integrity of the containment berm for the aboveground storage tanks.

G-7 Purge the empty diesel tank located in the spoils area.

G-8 Evaluate the operations and determine the necessity for expansion into another building. In the interim consider moving janitorial supplies to another storage facility.

G-9 Consider installing a portable berm under the 55-gallon containers of oil to reduce and control spillage.

G-10 Re-inventory the flammable storage cabinets and evaluate for compatibility and storage.

G-11 Restrict the use of products containing, 1,1,1-trichloroethane, an ozone depleting chemical.

9.7.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name GARAGE

Appraisers:

Name Discipline

Name Discipline

Name Discipline

Name Discipline

Building Manager: JEFFREY L. BOSTON

Process Manager: PAUL G. DETRO

Date: 2/26/96

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: GARAGE

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

Date: 2/26/96

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	Y / N NA	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	asbestos
	Is the building in operation? What are the processes and where do they discharge to?	(Y) / N _____ _____	vehicle maintenance
	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	drawings suggest sanitary.
	Is there a sump/pit in the building? If so, what does it contain? How often is it pumped out? Does water collect in sump? Does sump have secondary containment?	Y / (N) _____ _____ Y / N Y / N	 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	 If spilled.

9.7-11

9.7-12

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	(Y) / N	Vehicle exhaust combines & vents outside
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	see above - and Recirculating Parts Cleaner
	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	NA
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	Bd. exhaust Parts cleaner
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: GARAGE

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

Date: 2/26/96

CAA Checklist

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

TABLE A

Process Source	Room Number	Hood Number	In Database	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Hours/Yr. Operation	Air Emissions
Combined vehicle exhaust	1	NA	Y / N	Y / N	gasoline	To Be Determined	none	varies	NOx SO2 VOCs CO Particulate
Recirculating Parts Cleaner	1	NA	Y / N	Y / N	Mineral Spirits 66 (naphtha)	about 60 ga/yr (from Chem. Inv. CY95)	To Be Determined	varies	VOCs
			Y / N	Y / N					
			Y / N	Y / N					
			Y / N	Y / N					

Source: Paul Detro

9.7-13

9.7-14

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	(Y) / N	SOME FADED AND DIFFICULT TO READ, SPILLS IN CABINET WILL REMEDY IN 72 HRS.
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	(Y) / N	NEEDS UPDATED
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	DRUMS OK AILSLES OK
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)	FLAMMABLES STORED WITH COMBUSTIBLES NEED TO EVAL. CHEMICALS IN FLAMMABLE CABINETS
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: GARAGE

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

Date: 2/26/96

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	(Y) / N	
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	(Y) / N	ON PIPEFITTER PREVENTATIVE MAINTENANCE CHECK, PIPES ARE CLEAR OF DEBRIS
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)	ACETYLENE / O^2 USED FOR CUTTING & WELDING - REMOVE AFTER EACH USE
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	SEPARATELY - OLD CONTAINERS
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	O2 & ACETYLINE STOREDON CART
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	

9.7-15

9.7-16

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y / N	
	Does it have proper containment?	Y / N	
	Is there a liquid bulk transfer area?	(Y) / N	
	Is there proper containment?	Y / (N)	SEE TABLE - CRACK IN CEMENT WALL *
	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 (GAL)	In Service	Containment	Visual Stains/ Contamination	If Empty, Flushed
* BETWEEN 51 AND 22	5,000 GALLONS	GASOLINE	1,000-2500	(Y) / N	(Y) / N	Y / (N)	Y / N N/A
* BETWEEN 51 AND 22	5,000 GALLONS	DIESEL FUEL	1,000-2500	(Y) / N	(Y) / N	Y / (N)	Y / N N/A
SPOILS AREA	500 GALLONS	DIESEL FUEL	250	(Y) / N	Y / (N)	Y / (N)	Y / N N/A
SPOILS AREA	500 GALLONS	DIESEL FUEL	250	(Y) / N	Y / (N)	Y / (N)	Y / N N/A
SPOILS AREA	1000 GALLONS	DIESEL FUEL	EMPTY	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: PAUL DETRO

Environmental Appraisal Checklist

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

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	(Y)/ N	
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	(Y)/ N	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	(Y)/ N	
	Does the facility contain any water coolers or fountains that are not lead free? Complete Table C.	Y/ N	SEE BELOW

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
NEND of G BLDG	GARAGE	CAN NOT SEE	OASIS

Source: PAUL DETRO

9.7-17

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

RCRA Screening Checklist

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

RCRA Checklist

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

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

Date: 2/26/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
I. HAZARDOUS WASTE STORED IN CONTAINERS			
	Is there an area in the building that could qualify as a Satellite Accumulation Area?	Y / N	
	Is it treated as such?	Y / N	
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	

9.7-19

9.7-20

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

RCRA Checklist

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

Environmental Appraisal Checklist

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

RCRA Checklist

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

9.7-21

9.7-22

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	OFFsite TSD Facility
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: GARAGE

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

Date: 2/26/96

TSCA Checklist

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

9.7-23

9.7-24

Environmental Appraisal Checklist

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

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

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

TSCA Checklist

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

Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Screening Checklist

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

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	

9.7-25

9.7-26

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

TSCA Checklist

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

GENERAL COMMENTS:

Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Screening Checklist

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

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	

9.7-27

9.7-28

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

9.7-29

9.7-30

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

9.7-31

9.7-32

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist.

Regulatory Guideline	Question	Response	Comments
	Based on available information and a walk through, are there any apparent opportunities to curtail the consumption of raw materials (including but not limited to paper, chemicals, electricity, and etc.). If yes, list candidate areas in the comment section.	(Y) / N	CITRUS BASED CLEANERS COULD BE EVALUATED FOR USE
	Are there solvent wastes?	Y / N	SELF CONTAINED PARTS WASHER MINERAL SPIRITS
	Is vehicle maintenance performed?	(Y) / N	
	Are oils used ?	(Y) / N	
	Are these corrosive wastes?	Y / (N)	ACID BATTERIES
	Are there sludges?	(Y) / N	PARTS WASHER
	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: GARAGE Appraisers: Terry Glander, Mary-Louis Hoagland, John Puckett, Mary Sizemore Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.7-33

9.7-34

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are 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	DIP TANK Between 2 Bays

Environmental Appraisal Checklist

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

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are cleaned parts drained on the sink to minimize solvent spills?	(Y) / N	
	Are drip tanks used to capture losses?	(Y) / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	(Y) / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	(Y) / N	
OILS			
	What kind of oils are used?		
	Hydraulic oil?	(Y) / N	
	Transformer oil?	Y / (N)	
	Metal working fluids?	Y / (N)	
	Spent lubricating oils?	(Y) / N	WD-40
	Can the process be modified or changed to use water-based fluids?	Y / N SEE COMMENTS	THIS PROCESS COULD BE EVALUATED TO USE CITRUS BASED CLEANER
	Are these good housekeeping and operation practices used to minimize oil waste production?		
	Use oils not contaminated with other liquids?	(Y) / N	CARTS - HAVE OIL AND GAS MIXTURE WHEN MALFUNCTIONING
	Oil spills prevented?	(Y) / N	USE of ABSORBAL FOR SPILLS
	Drip pans installed?	(Y) / N	
	Oil soaked rags laundered?	Y / (N)	THROWN IN DUMPSTER
	Rags and absorbants used to their limit?	(Y) / N	

9.7-35

9.7-36

Environmental Appraisal Checklist

Building Name: GARAGE

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

Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	Are these treatment techniques used to promote separation of oil/water wastes?		NO OIL/WATER SEPARATOR IN DRAINS
	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	REPLACED WITH MINERAL OIL
	Reducing the use of solvents?	Y / N	
	Reducing the loss of solvents?	Y / N	DIP TANK IN USE
	Increasing recyclability?	Y / N	
	Are solvents segregated?	Y / N	ONLY ONE KIND USED
	Are waste solvents free from water and garbage?	Y / N	
	Are recycled solvent containers labeled as such?	Y / N	N/A
	Are containers kept closed?	Y / N	N/A
	Free and sheltered from the elements?	Y / N	N/A
	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: GARAGE Appraisers: Terry Glander, John Puckett, Mary-Louis Hoagland, Mary Sizemore Date: 2/26/96

Waste Minimization/Pollution Prevention Activities Checklist

Regulatory Guideline	Question	Response	Comments
	If there is a recycling program, what technique is used?	Y / N	
	Distillation?	Y / N	
	Solids removal?	Y / N	
	Dispersion breaking?	Y / N	
	Dissolved and emulsified organics recovery?	Y / N	
	Are any of these housekeeping procedures used to minimize the production of solvent wastes?.		
	Separators cleaned and checked?	Y / N	
	Parts not allowed to enter the degreaser while wet?	Y / N	
	Sludge from the bottom of the tank not allowed to accumulate?	Y / N	
	Lids kept on tanks?	Y / N	
	Freeboard space on tanks increased?	Y / N	
	Are better operating practices used to reduce waste?	Y / N	
	How long is solvent waste stored and where?	_____ _____	KEEP WASTE UNTIL 5 GALLON CONTAINER IN FULL AND MOVED IN TWO DAYS

9.7-37

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9.7.6.2 Building Manager's Questionnaire

Building Manager's Questionnaire

Building Name: G Building Manager: J.L. Boston Phone: 3262 Date: 12-07-95
Alternate: [illegible] Phone: [illegible]

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

N/A

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

SAFETY GLASSES WITH SIDE SHIELDS
HARD TOE SHOES (SAFETY)
~~[illegible]~~

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

4. Provide a physical description of the building.

Building G is a one-story, concrete block (with facing brick) structure containing 7,518 ft². It has a BUM roof (coal tar); HVAC systems are central steam and window air conditioning. Building contains several hydraulic lifts. Building is not contaminated with any radioactive or energetic materials. BUILDING HAS EXHAUST SYSTEM USED TO REMOVE EXHAUST FUMES WHEN VEHICLES ARE TEST RUN

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Used for maintenance and repair of all plant GSA vehicles. CARTS & HEAVY DUT. EQUIPT & LARGE EQUIPT Also used to store yards and grounds equipment and tools. Contains office space to support above activities.

Source: Mound Buildings, 5-9-95

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

ALWAYS BEEN USED FOR GARAGE

Source: Mound Buildings, 5-9-95

9.7-41

Building Manager's Questionnaire

Building Name: G 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: Garage, pesticide and herbicide storage, custodial supply storage

How Wastes Are Generated:

Used batteries and tires from Mound's vehicles are treated as hazardous wastes and picked up by Waste Management for disposal.

Oil drained from vehicles during oil changes is put in a 55-gal waste drum. Small amounts of transmission fluid, ~~antifreeze~~, and Stoddard Solution (used to clean metal parts) are also added to this drum. When the drum is nearly full, it is set outside for Waste Management to pick up. ETHYLGLYCOL HAS A SEPERATE DRUM

Some asbestos waste is generated when brake shoes are replaced.

Pesticides and herbicides are stored in Building G in a locked cabinet. Use of these materials generates no hazardous waste. Empty containers of products that must be mixed with water, such as Roundup herbicide, are triple rinsed before being put in the trash. Rinse water is put in the spray tank and sprayed on weeds.

Some custodial supplies are stored in Building G. No hazardous wastes are generated by using these supplies. If the product in a container is not completely used (e.g., a new product is tried and found to be unacceptable), Waste Management is asked to pick up the partially full bottle.

Contact: PAUL DETRO
Phone #: 3246

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

9.7-42

Building Manager's Questionnaire

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

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

10. Does the building have air emission sources? No

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

Source: Mound Air Emissions Database 11/30/95

9.7-43

Building Manager's Questionnaire

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

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

Building Manager's Questionnaire

Building Name: G 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)
PUMMEL HAND SOAP	L	124 GA
RINSE-FREE SOAP	L	48 GA
SBS LOTION SOAP	L	24 GA
SEAL-CON-SEAL	L	24 GA
SEALER IRONSTONE	L	24 GA
SHINELINE BASE	L	24 OZ
SPIN-OUT	L	48 GA
SPOT,PILE DRIVER	L	12 OZ
STAINLESS CLEANER	L	12 OZ
STATCIDE	L	24 GA
STRIPPER	L	12 GA
SYRFACE GLEEM	L	12 OZ
TREATMENT/DUST	L	12 OZ
VESTA POWER	L	24 GA
WINDOW SHINE	L	36 GA
LAVA SOAP	G	4 OZ
BLUE MAX SPRAY BUFF	L	36 GA
CLEAN-N-DRY	L	36 GA
CLR WINDOW	L	60 GA
CONQUEST	L	16 GA
DD/85 SPRAY	L	48 GA
DMQ	L	36 GA
DOU-POWDER	S	15 OZ
FLOOR FINISH/ABOVE	L	24 GA
FOUNTAIN HEAD	L	48 GA
GLOSS EXTENDER	L	48 GA
GREASE-BE-GONE	L	36 GA
HEAD START	L	48 GA
INSECT SPRAY/CHERRY	L	24 OZ
INSECTICIDE/WASP	L	12 OZ
KINDEST CARE	L	48 PT
LAVA HAND SOAP	S	80 OZ
LIL BROTHER SAM	L	48 PT

9.7-45

Building Manager's Questionnaire

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

Chemical Name	State	Amount (MAX)
NABC	L	60 QT
NEUT.FLOOR CORP.	L	75 OZ
ODOR BANE	L	36 GA
ON-BASE SEALER	L	36 GA
ONE-STEP SURE BET	L	24 GA
POLISH/LEMON	L	12 OZ

Source: Chemical Inventory 1994

NOTE - NEED TO ADD GARAGE CHEMICALS INVENTORY

9.7-46

Building Manager's Questionnaire

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

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?
WASTE MANAGEMENT BLDG 72

22. What janitorial supplies are stored inside or outside of the building?
SEE PAGE 5 + 5A

23. Where do excess janitorial supplies go?
WASTE MANAGEMENT

Source: _____

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

Chemical	Amount	Chemical	Amount
ROUNDUP	1 8 GAL		
SPECTICIDE	1 PT		

Source: _____

9.7-47

Building Manager's Questionnaire

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

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

NONE

Registration Number	Content	Quantity	Last Inspection Date	Preventive Maintenance Performed	Inside Or Outside
~~8006-61-9~~	~~GASOLINE~~	~~30 GAL~~		Y/N	
				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	

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

Building Manager's Questionnaire

Building Name: G 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: _____

9.7-49

Building Manager's Questionnaire

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

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

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

Source: _____

Building Manager's Questionnaire

Building Name: G 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

9.7-51

Building Manager's Questionnaire

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

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

recycle oil, Antifreeze & white paper

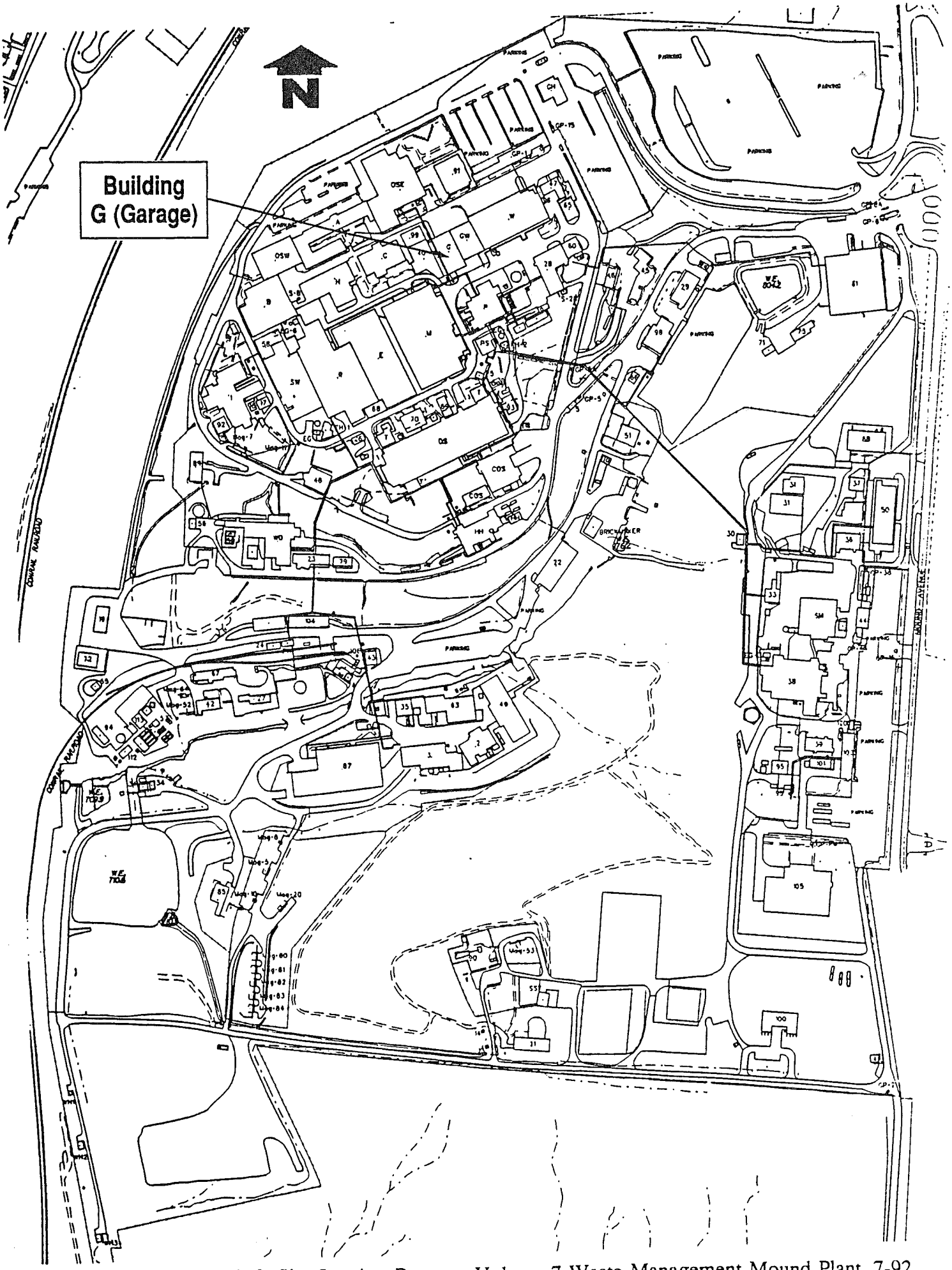
37. Has a pollution prevention program been developed for the building? Yes No

UNKNOWN

GARAGE	OIL WASTE	NONE	323.4
GARAGE	OIL WASTE	NONE	455.4
E	OIL WASTE	NONE	457.7
GE	OIL WASTE	NONE	275.0
GARAGE	OIL WASTE	NONE	350.0
GARAGE	OIL WASTE	NONE	422.4
GARAGE	OIL WASTE	NONE	378.4
GARAGE	OIL WASTE	D001	438.8
GARAGE	OIL WASTE	NONE	425.5
GARAGE	OIL WASTE	D001	401.0
GARAGE	OIL WASTE	D001	384.0
GARAGE	OIL WASTE, FUEL OIL	NONE	240.9
GARAGE	OIL WASTE, GAS	D001	384.1
GARAGE	OIL WASTE, GAS	D001	446.6
GARAGE	OIL WASTE, GAS	D001	450.4
GARAGE	OIL WASTE, GAS	D001	470.0
GARAGE	OIL WASTE, GAS	D001	572.0
GARAGE	OIL WASTE, GAS	D001	459.9
GARAGE	OIL WASTE, GAS	D001	453.0
GARAGE	OIL WASTE, GAS	D001	410.9
GARAGE	OIL WASTE, GAS	D001	425.6
GARAGE	OIL WASTE, GAS	D001	415.1
GARAGE	OIL WASTE, HYDRAULIC	NONE	439.7
GARAGE	OIL WASTE, HYDRAULIC OIL	NONE	214.4
GARAGE	OIL, GAS SAMPLE, 94-333	D001	0.9
GARAGE	OIL, GAS SAMPLE, 94-357	D001	0.9
GE	OIL, GAS WASTE	D001	428.5
GE	OIL, GAS WASTE	D001	434.0
GE	OIL, GAS WASTE	D001	352.8
GE	OIL, GAS WASTE	D001	444.9
GARAGE	OIL, GAS WASTE	D001	453.2
GARAGE	OIL, GAS WASTE	D001	231.1
GARAGE	OIL, GAS WASTE	D001	412.6
GARAGE	OIL, GAS WASTE	D001	411.6
GARAGE	OIL, GAS WASTE	D001	442.9
GARAGE	OIL, GAS WASTE	D001	426.2
GARAGE	OIL, GAS WASTE	D001	444.6
GARAGE	OIL, GAS WASTE	D001	457.8
GARAGE	OIL, GAS WASTE	D001	324.2
GARAGE	OIL, GAS WASTE	D001	429.5
GARAGE	OIL, GAS WASTE	D001	449.0
GARAGE	OIL, GAS WASTE	D001	452.4
GARAGE	OIL, GAS WASTE	D001	452.0
GARAGE	OIL, GAS WASTE	D001	434.7
GARAGE	OIL, GAS WASTE	D001	320.8
GARAGE	OIL, GAS WASTE	D001	414.4
GARAGE	OIL, GAS WASTE	D001	441.0
GARAGE	OIL, GAS WASTE	D001	438.0
GARAGE	OIL, GAS WASTE	D001	361.8
GARAGE	OIL, GAS WASTE SAMPLE, 95-001	D001	1.0
GARAGE	OIL, HYDRAULIC OIL WASTE	NONE	313.1
GE	PCB BALLAST (1) (BULKED INTO 92-167 ON 07-27-92)	PCB2	5.0
GARAGE	PCB BALLASTS (10) >500PPM, OUT OF SERVICE DATE 03-17-92, MODEL#: 72F655	PCB2	601.0

GARAGE	ANTIFREEZE WASTE	NONE	417.7
GARAGE	ANTIFREEZE WASTE	NONE	283.3
GARAGE	ANTIFREEZE WASTE	NONE	533.1
GARAGE	ASBESTOS WASTE	NONE	200.2
GARAGE	CHILDERS CP-10	NONE	49.1
GARAGE	DIESEL FUEL, WATER	NONE	345.4
GARAGE	DIESEL FUEL, WATER WASTE	D001	114.6
GARAGE	DIESEL FUEL, WATER WASTE	D001	432.5
GARAGE	DIESEL FUEL, WATER WASTE	D001	434.7
GARAGE	DIESEL FUEL, WATER WASTE	D001	285.4
GARAGE	NITRIC ACID	D002	2.7
GARAGE	OIL WASTE	NONE	461.9
GARAGE	OIL WASTE	NONE	350.1
GARAGE	OIL WASTE	NONE	292.0
GARAGE	OIL WASTE	D001	435.0
GARAGE	OIL WASTE	D001	442.7
GARAGE	OIL WASTE	D001	405.0
GARAGE	OIL WASTE	D001	444.2
GARAGE	OIL WASTE	D001	482.0
GARAGE	OIL WASTE	D001	379.2
GARAGE	OIL WASTE	D001	416.0
GARAGE	OIL WASTE	D001	460.3
GARAGE	OIL WASTE	D001	230.9
GARAGE	OIL WASTE	NONE	433.4

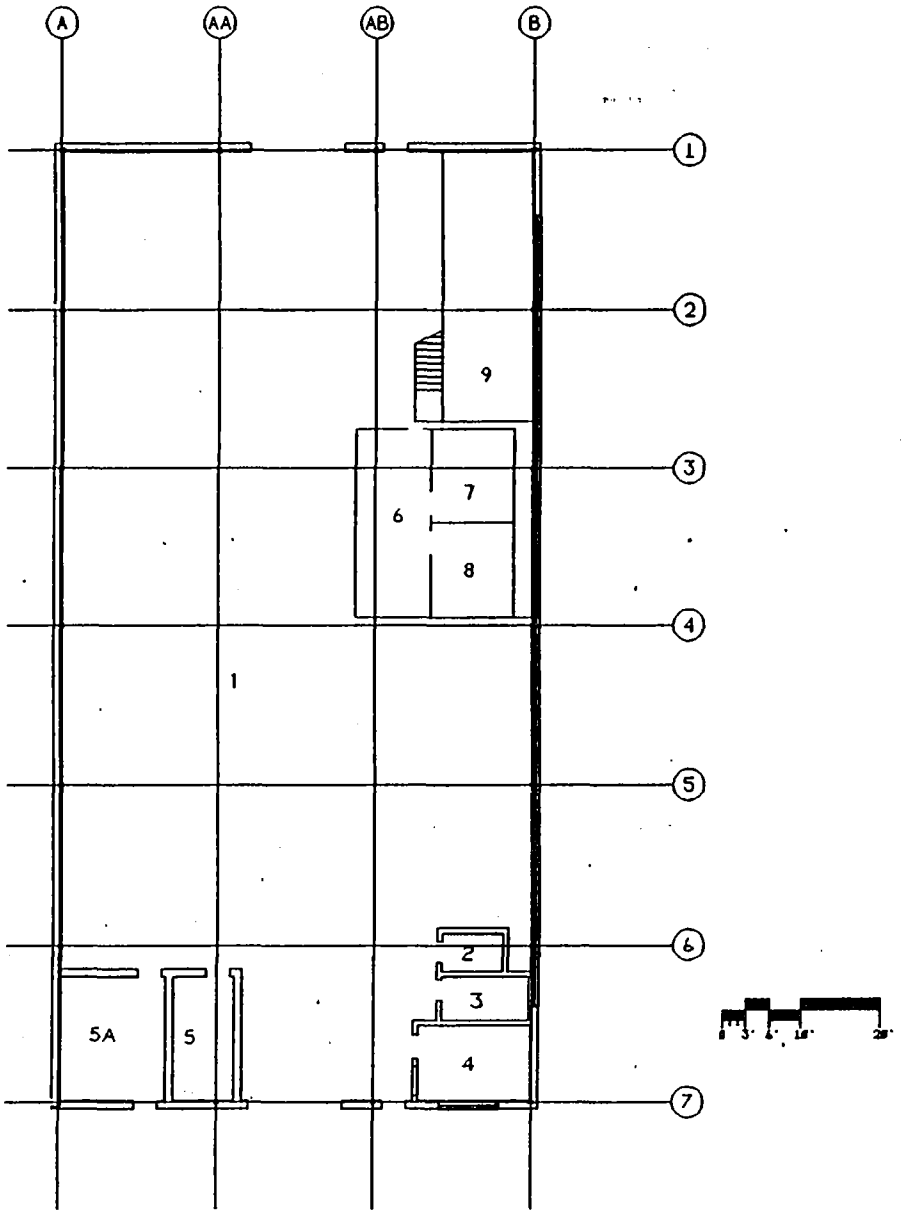
9.7.6.3 Location of Building G (Garage)



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

9.7.6.4 Floor Plans for Building G (Garage)

ISS	DATE	REVISION	BY	CHKR	DWN	LPMED	APVD	FI
Ø	12/12/91	ASBUILT ISSUE	DCW				DVD	



G BLDG
FIRST FLOOR
BLDG CODE:3504

SHEET	1	2	3	4	5	6
ISSUE	Ø					

TITLE (U) TITLE CLASSIFICATION
G BLDG
FLOOR PLANS

PART CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED

SIZE: C | DRAWING NUMBER: FSC911306 | JOB NUMBER: 12335

DWG TYPE: SFP | FROM: G BLDG | CHECK: 14865 | SCALE: AS NOTED | SHEET 1 OF 1

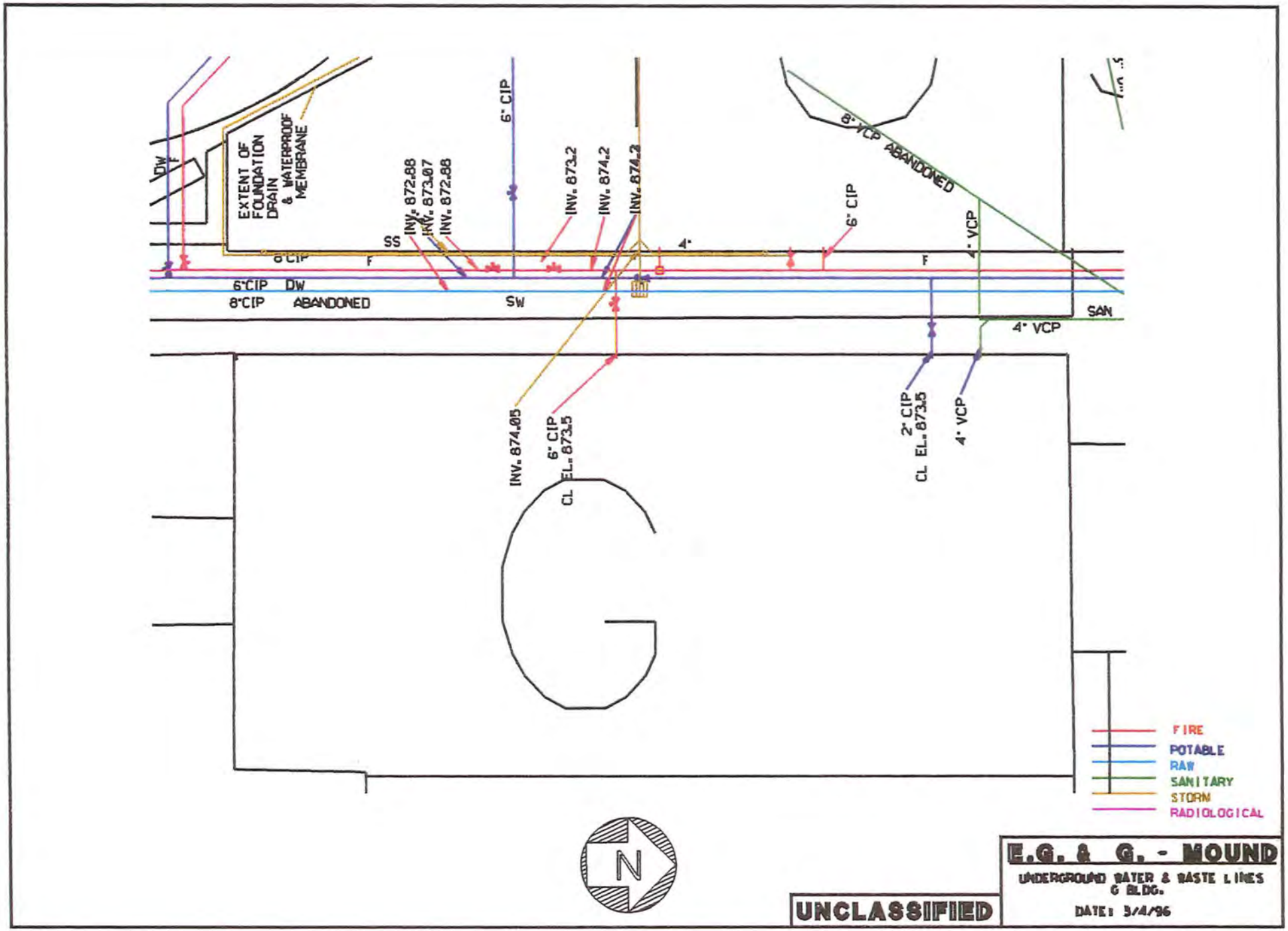
STATUS: MD-REL-12/12/91 | ORIGIN: MD-BR3-V3.Ø

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

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___ HOME ___ TRUEBOC ___ TEBOC ___ EHBOC
TECH. REXP. ___
SR. MGR. ___
TRUEBOC ___
TEBOC ___
EHBOC ___

9.7-61

9.7.6.5 Underground Utility Lines


EXTENT OF FOUNDATION DRAIN & WATERPROOF MEMBRANE
DW
F
SS
INV. 872.88
INV. 873.07
INV. 872.88
6" CIP
INV. 873.2
INV. 874.2
INV. 874.2
4"
6" CIP
8" VCP ABANDONED
4" VCP
F
8" CIP
6" CIP DW
8" CIP ABANDONED
SW
SAN
4" VCP
INV. 874.05
6" CIP
CL EL. 873.5
2" CIP
CL EL. 873.5
4" VCP
FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL
N
UNCLASSIFIED
E.G. & G. - MOUND
UNDERGROUND WATER & WASTE LINES
G BLDG.
DATE: 3/4/96

9.7.6.6 Photographs

Mound Plant Building G (Garage)

An oil drip pan for vehicles is located next to a drain.

Floor drain in garage goes to the storm wastewater collection system.

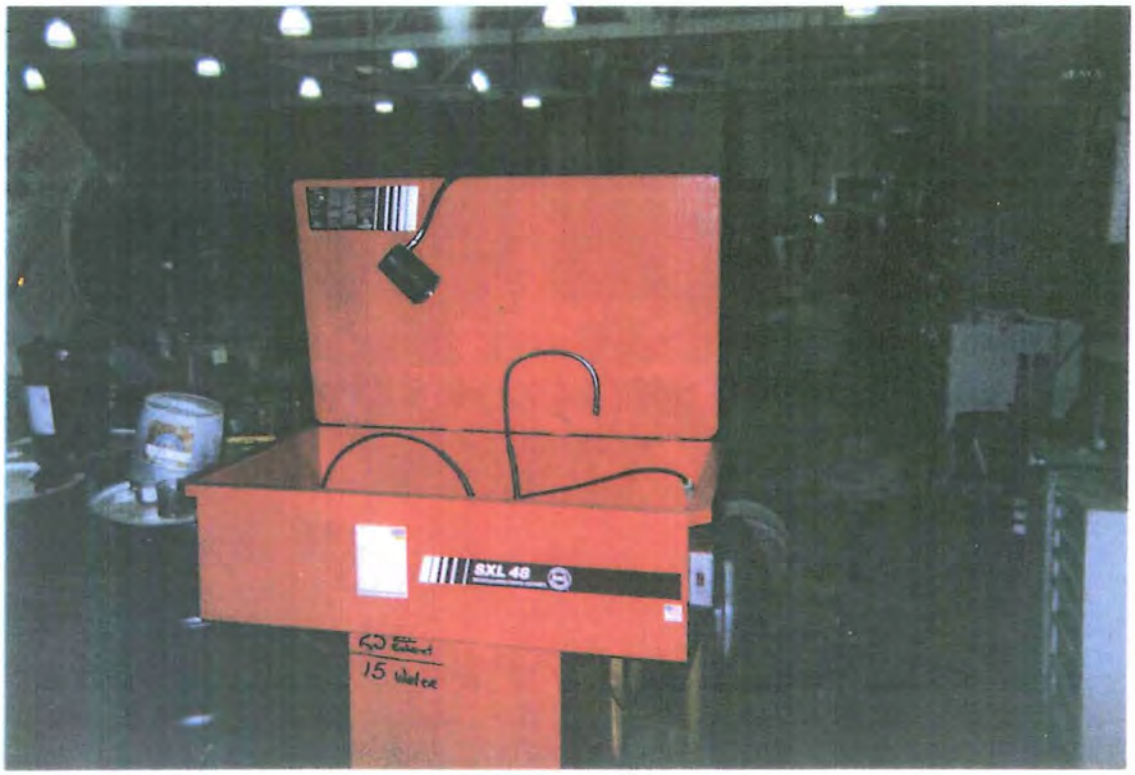
Oil drums are stored without containment in a work area.

Scarring and staining on floor next to drain indicates chemical spills.

Floor scarring and stains are signs of chemical spills.

Oil is stored in barrels without containment.

Flammable chemicals are stored on top of tool cabinet.



Solvent parts washer should be evaluated for air permit applicability.

9.8 BUILDING GH

9.8.1 Scope of Building GH 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 GH on the morning of February 7, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is presented as Attachment 1 (Section 9.8.6.1). The appraisers were not accompanied by the building manager. Bob Race, an outplacement professional and a contractor to EG&G MAT, has an office in the building. He was present for the walk-through. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.8.6.2).

9.8.2 Description of Building GH

Building GH houses the Mound Transition Center. It is located on the northern main hill of the site, and is surrounded by parking lots. It is northeast of Building W and south of Building GIS. Its location is shown in Attachment 3 (Section 9.8.6.3).

The building is a 5347-square-foot concrete block structure with a brick face. It has a utility penthouse, and a built-up-membrane coal tar roof. The building is supplied with central steam and has package HVAC units (a self-contained heating and air conditioning unit). It was constructed in 1948. The floor plans are shown in Attachment 4 (Section 9.8.6.4).

The building is currently used as an outplacement office for the Transition Center. It was previously used as visitor control and as office space. It was converted to use as the Transition Center in 1994.

9.8.3 Summary of Findings

Building GH appeared to be a clean, well-maintained facility. Some issues of environmental concern were identified during the walk-through and review of reference materials.

9.8.4 Observations

9.8.4.1 Air Emissions

There is no active process or fuel-burning unit in the building. There is no evidence of fugitive dust. No permit applications have been submitted for activities in the building.

9.8.4.2 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.

9.8.4.2.1 Sanitary Wastewater

The building has sanitary service. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.8.6.5), the building is serviced by a sanitary line.

9.8.4.2.2 Storm Wastewater

The building is serviced by storm drains according to the diagram of underground utility lines in Attachment 5 (Section 9.8.6.5). Exterior grates and drains were not tested to confirm 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.

9.8.4.3 Potable and Service Water

Potable and service water are supplied to the building. Backflow preventors are in place as appropriate. 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.

9.8.4.4 Chemical Storage and Hazardous Materials

There were no chemicals or hazardous materials stored in or around Building GH, with the exception of routine janitorial supplies. There were no Material Safety Data Sheets (MSDS's) available in the building for the janitorial supplies used and stored in the building. According to janitors, MSDS sheets are maintained at a central location, but not in the building.

The building is equipped with fire extinguishers. Inspection tags were present and current. There is an emergency evacuation plan, and signs were posted in work areas.

There were no aboveground tanks in or around the building. A covered sump is located on the south side of the building. It was not opened during the walk-through. According to information provided by the building manager in the BMQ, at various times the sump may contain a liquid, presumably water, and it has overflowed in the past. There are no records to indicate there has been maintenance or inspection of the sump. The sump is not included in the EG&G MAT Active Underground Storage Tank (UST) Plan. A second sump, indicated by the building manager as located in the mechanical room, was not observed by the appraisal team.

The building has been tested and does contain asbestos building material (MD-10391, *Asbestos Program Manual*, 9-14-95). There is no visual evidence of friable asbestos. Pipe-lagging was well maintained, and piping was well-marked.

There is no record of current or past presence of polychlorinated biphenyls (PCB's) in the PCB Annual Document Log. However, there is a transformer on the roof which does not bear a tag indicating PCB content.

9.8.4.5 Solid, Hazardous, and Radioactive Wastes

There are no hazardous or radioactive wastes generated in Building GH by process. Solid waste consists of typical office waste streams. Solid wastes are removed by janitorial personnel to a site collection point, then are shipped offsite to a local landfill by a contractor. Aluminum cans, glass, and cardboard are removed by janitorial personnel to specific collection points, then sent offsite to be recycled by a contractor. White paper is collected and sent offsite to be recycled by a service contractor. Waste management contains all contracts for these services.

9.8.4.6 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 as described in the previous section of the report.

9.8.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal. They are included as Attachment 6 (Section 9.8.6.6). Findings related to the environmental appraisal of Building GH indicate that the following action items, in priority order, should be planned and scheduled for accomplishment thus assuring that best management nd operating practices are in place.

GH-1 Procedures should be developed for routine inspection and maintenance related to the sump. Action should be taken to determine its content and test the sump integrity. The sump should be added to those listed in the EG&G MAT Active UST Plan.

GH-2 The transformer on the roof should be tagged to show PCB content, in accordance with 40 CFR 761. If the transformer is the dry type, no tag is required. However the building manager should be apprised.

GH-3 MSDS's should be readily available to employees, in accordance with 29 CFR 1910.1200(g). In addition to storage by the janitorial staff in a central location, they should be available in the buildings where the supplies are used and stored.

9.8.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name GH

Appraisers:

John Hauskeal
Name Discipline

Mike Minker
Name Discipline

Randy Vizzi
Name Discipline

Name Discipline

Building Manager: Kathy Kiehler

Process Manager: Bob Rae

Date: 3-7-96 am

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: GH Appraisers: Vyas/Hausfeld/Merker Date: 2-7-96 am

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	Y / N	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	

Well maintained indoors + outdoors.

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	Janitorial chemicals not included in checklist.
	Is the building in operation? What are the processes and where do they discharge to?	Y / N _____ _____	Office
	Do the floor drains, sinks & toilets appear to be draining properly?	Y / N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	sanitary & storm service per site drawings
	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 Not known	Sump in mechanical room Per BMQ may contain H_2O May overflow
	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 / MN Y / N Y / N	

6-8-9

Office bldg – transition ctr. housing old placement specialists. Formerly [illegible]

• Check BUSTR report to confirm if sump is registered, leak tested, construction details.
• [illegible]

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Vyas / Hausfeld / Merker

Date: 2-7-96

Clean Air Act (CAA) Screening Checklist

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

CAA Checklist

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

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Uyas / Hausfeld / Merker

Date: 2-7-96

CAA Checklist

NOT COMPLETED

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

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

Source: _____

9.8-11

9.8-12

Environmental Appraisal Checklist

Building Name: G4 Appraisers: Uyes/Hawfield/Merker Date: 2-7-96am

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.

Janitoral equipment

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	need to move janitoral MSDS to Bldg G4
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 NA	
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	

• Recommend that MSDS for janitorial supplies be distributed to buildings.

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Ugo/Hauspeed/Merker

Date: 2-7-96 am

HM Checklist

Pipes well marked.

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.106(d)(7)	All flammable/combustible storage locations have at least one 12-B portable fire extinguisher located outside and within 10 ft. of a door opening into any room for storage. No smoking signs are posted.	Y / N NA	
29 CFR 1910.151	Eyewashes/showers shall be provided within the work area. Ensure unit is operational.	Y / N none	
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 non	
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 none	
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 none	
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	
	Is there an emergency response plan available?	Y / N	

9.8-13

9.8-14

Environmental Appraisal Checklist

Building Name: GH Appraisers: Vyas/Hausfeld/Merker Date: 2-7-96

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

Building	Capacity (Gal.)	Contents	Estimated Volume	In Service	Containment	Visual Stains/ Contamination	If Empty, Flushed
	None			Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				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: GH Appraisers: Vogo / Hausfeld / Merker Date: 2-7-96 am

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	(Y) / N	
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	(Y) / N	
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	(Y) / N	
	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
GH	14	Oasis	8644285239
GH	corridor 9	~~Ellkay~~ Elkay not	no number

Source: _____

check prints for service water

8.8-15

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Vyas/Hausfeld/Merker Date: 2-7-96am

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: GH

Appraisers: Uyso/Hansfeld/Merker

Date: 2-7-96am

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	

9.8-17

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Vyas/Hausfeld/Merker

Date: 2-7-96 am

NOT completed

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: GH

Appraisers: Vigus/Hausfeld/Merkel

Date: ~~2-26-9~~ 2-7-96 am

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 tanks no chem waste
	If the answer was ~~no~~ yes, 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	

9.8-19

9.8-20

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Vyas/Hauxfeld/Merker

Date: 2-7-96 am

RCRA Checklist

Not Completed

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: 64 Appraisers: Vyas/Hausfeld/Merker Date: 2-7-96am

Asbestos Screening Checklist

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

Asbestos Checklist

pipe lagging in good condition

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	

9.8-21

9.8-22

Environmental Appraisal Checklist

Building Name: GH Appraisers: Vyas/Hausfield/Merker Date: 2-7-96 am

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	transformers in roof not marked with blue sticker
	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 NOT KNOWN	No information on PCB. annual ~~report sum~~ Document Log re: contamination in OH
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	

- Sample transformer to determine PCB content, Affix stel - for content.

Environmental Appraisal Checklist

Building Name: 6+1 Appraisers: Vyas/Hausfeld/Merker Date: 2-7-96am

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	

9.8-23

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Vyas/Hausfeld/Merker

Date: 2-7-96 am

TSCA Checklist

NOT completed

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's 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: 674 Appraisers: Vejas / Hausfeld / Merker Date: 2-7-96am

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	

9.8-25

9.8-26

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Vigas/Hausfeld/Merker

Date: 2-7-96 am

NOT COMPLETED

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: 6H Appraisers: Vyas/Hausfeld/Merker Date: 2-7-96 am

Low-Level Waste and Transuranic Waste Checklist

~~Not completed~~

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	

9.8-27

9.8-28

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Vigas / Hausfeld / Merker Date: 2-7-96 am

NOT COMPLETED

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: GH

Appraisers: Vyas / Hausfeld / Merker

Date: 2-7-96 am

NOT completed

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:

9.8-29

9.8-30

Environmental Appraisal Checklist

Building Name: GH Appraisers: Vyas / Hausfeld / Merker Date: 2-7-96 am

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	office wastes.
	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	

Perform energy audit to reduce heat / lite use

CAN + PAPER recycli
turn off lites - 1 person - [illegible] list

Environmental Appraisal Checklist

Building Name: GH Appraisers: Vogs/Hausfeld/Merker Date: 2-7-96 am

NOT completed

Waste Minimization/Pollution Prevention Activities Checklist

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

9.8-31

Environmental Appraisal Checklist

Building Name: GH

Appraisers: Vigas/Hallofield/Merker

Date: 2-7-96 am

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			NA
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y / N	
	Are any of these processes used to recycle cyanide wastes?	Y / N	
	Refrigeration/crystallization?	Y / N	
	Evaporation?	Y / N	
	Ion exchange?	Y / N	
	Membrane separation which includes reverse osmosis or electrodialysis?	Y / N	
VEHICLE MAINTENANCE			NA
	How are auto parts cleaned?	Y / N	
	Solvent sink?	Y / N	
	Solvent dunk bucket?	Y / N	
	Solvent dip tank?	Y / N	
	Are parts cleaning solvents used for anything else besides cleaning parts?	Y / N	
	Are spills reduced by locating sinks or dunk buckets near auto service bays?	Y / N	

Environmental Appraisal Checklist

Building Name: GH Appraisers: Vyas/Hausfeld/Merker Date: 2-7-96am

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		NA	
	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	

9.8-33

Environmental Appraisal Checklist

Building Name: GH Appraisers: Vigas/Hausfeld/Merker Date: 2-7-96am

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	NA		
	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: GH Appraisers: Vyas/Hausfeld/Merker Date: 2-7-96 am

Not completed

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?	_____ _____	

9.8-35

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M o u n d Electronic Message/AOS

From :John Hausfeld

HAUSJR

Dept. :ES&H

Tel. No :4216

Date :14-Feb-1996 07:23am EST

Subject :Env. Appraisal

TO :Katherine Koehler (KOEHKG)

CC :Eunice Warmoth(NANCY VYAS) (WARMEM)

CC :Michael Merker (MERKMJ)

CC :Susan Cloud (CLOUSA)

CC :Alton Brown (BROWAW)

Kathy,

Mike Merker, Nancy Vyas and I visited several buildings last Wednesday, February 7, completing the areas that you serve as building manager. They were: GH, GP-1, GIS, GP-8, Modular 4, and Building 100. Our recommendations are as follows:

GH building

Bob Race answered whatever questions we had. The building was very orderly and extremely clean. Heat and lights are turned off every night. Asbestos insulation on pipes was well labeled. The only action item discovered during

the tour is that the transformers on the roof needed to be labeled that they do not contain PCB's.

GP-1

Alton Brown accompanied us during the tour of GP-1. Overall, the building was in great condition. The items in the flammable cabinet were neatly stored and labeled. All areas were well labeled with their appropriate signs, including all trash receptacles. The janitors closet was very orderly, but did not contain any MSDS sheets for their supplies. Alton's MSDS's were readily available and he appears to be very conscious on Waste Minimization.

A couple of questions did arise. 1) In the utility room, room 119, is there a back-flow preventer on the system? 2) Is the sump in the firing range, rooms 23 & 24, active; and if so, when and where is it pumped? 3) Also, the lead dust that is vacuumed from the firing range is combined with the solvent rags. Our recommendation is that the two be separated so that the rags could possibly be sent out for recycling.

GIS

No problems.

GP-8

Could use some general housekeeping. Fire extinguisher needs up-dated tag -

9.8.6.2 Building Manager's Questionnaire

THE FOLLOWING QUESTIONAIRE HAS BEEN ANSWERED TO THE BEST OF MY KNOWLEDGE. PLEASE VERIFY ANY & ALL STATEMENTS WHICH ARE PERTINENT.

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95 KG Koehler
Alternate: _____ Phone: _____

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

NONE DURING NORMAL WORKING HOURS
CARD READER ACCESS AFTER NORMAL HOURS

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 5,347-ft^2 concrete block building with a brick face. The building has a penthouse. It has a BUM roof (coal tar). It has central steam and package HVAC units. The building is not contaminated with radioactive or energetic materials.

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

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

~~Offices and computer lab.~~ TRANSITION CENTER - EMPLOYMENT CENTER FOR LAID OFF OR RETIRED EX-MOUND EMPLOYEES

Source: Mound Buildings, 5-9-95

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

Previously used as office space for uncleared employees, part-time employees, and new employees. Planned for conversion to its present use in January of 1994.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Process(es) Housed: Offices

How Wastes Are Generated:

No hazardous wastes are generated in this building. OTHER THAN NORMAL OFFICE WASTES (WHITE OUT ETC,)

Contact:
Phone #:

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

9.8-42

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

10. Does the building have air emission sources? No

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

Source: Mound Air Emissions Database 11/30/95

9.8-43

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

PLEASE CLARIFY UTILITY DRAWINGS BUT SEPARATE THEY ARE NOT IN AS BUILT CONDITION.

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 LIKELY
Where? ALL LOCATIONS NOT KNOWN

15. Does the building discharge to the sanitary sewer? (Yes) No
Where? TOILETS / RESTROOMS

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

9.8-44

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? ~~No~~ YES BUT NOT PCB TRANSFORMERS

    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		
OFFICE SUPPLIES		
JANITORIAL SUPPLIES		

Source: Chemical Inventory 1994

9.8-45

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go? —

UNKNOWN

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

UNKNOWN - CONTACT JEANIE BLEVINS

23. Where do excess janitorial supplies go?

UNKNOWN - CONTACT JEANIE BLEVINS

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

9.8-46

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

NONE SUMP IN MECHANICAL ROOM → UST

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? WATER How many days per year is it filled? MANY
Is there an emergency overflow tank? Have there been previous overflows?
HISTORIC OVERFLOWS LIKELY

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

Source: TALK WITH

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

UNKNOWN

Materials	Amount
LEAD WATER	179.2
LEAD WATER	282.0
LEAD WATER	271.8

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

9.8-47

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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: _____

9.8-48

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

9.8-49

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

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

N.A.

9.8-50

Building Manager's Questionnaire

Building Name: GH Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

JOB POSTINGS COULD BE PLACED ONLINE

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

9.8-51

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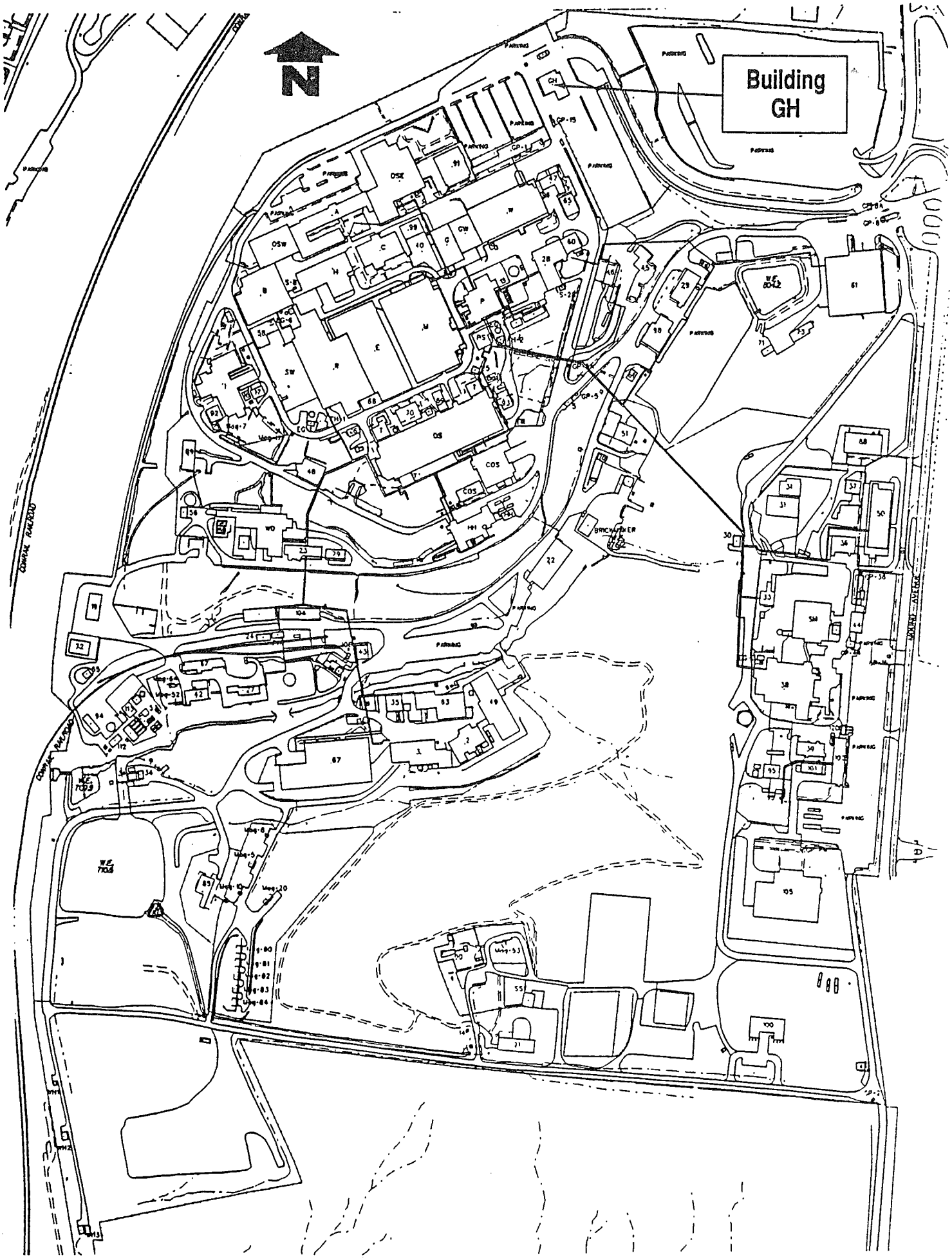
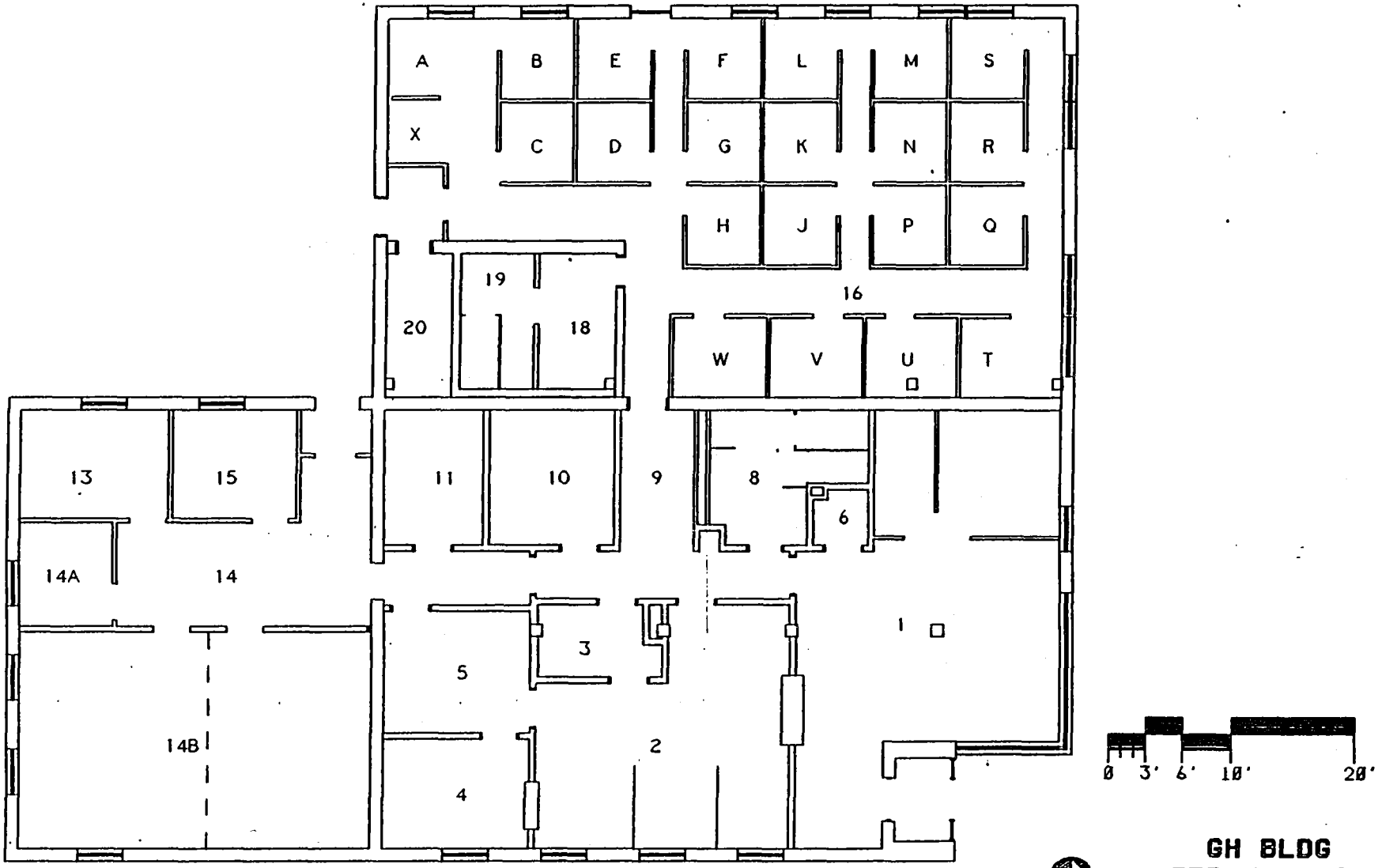
9.8.6.3 Location of Building GH



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

9.8.6.4 Floor Plans for Building GH

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



GH BLDG
FIRST FLOOR
BLDG CODE:3507

SHEET	1	2	3	4	5	6
ISSUE	0	0				

TITLE (U) TITLE CLASSIFICATION
GH BLDG
FLOOR PLANS

PART CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED

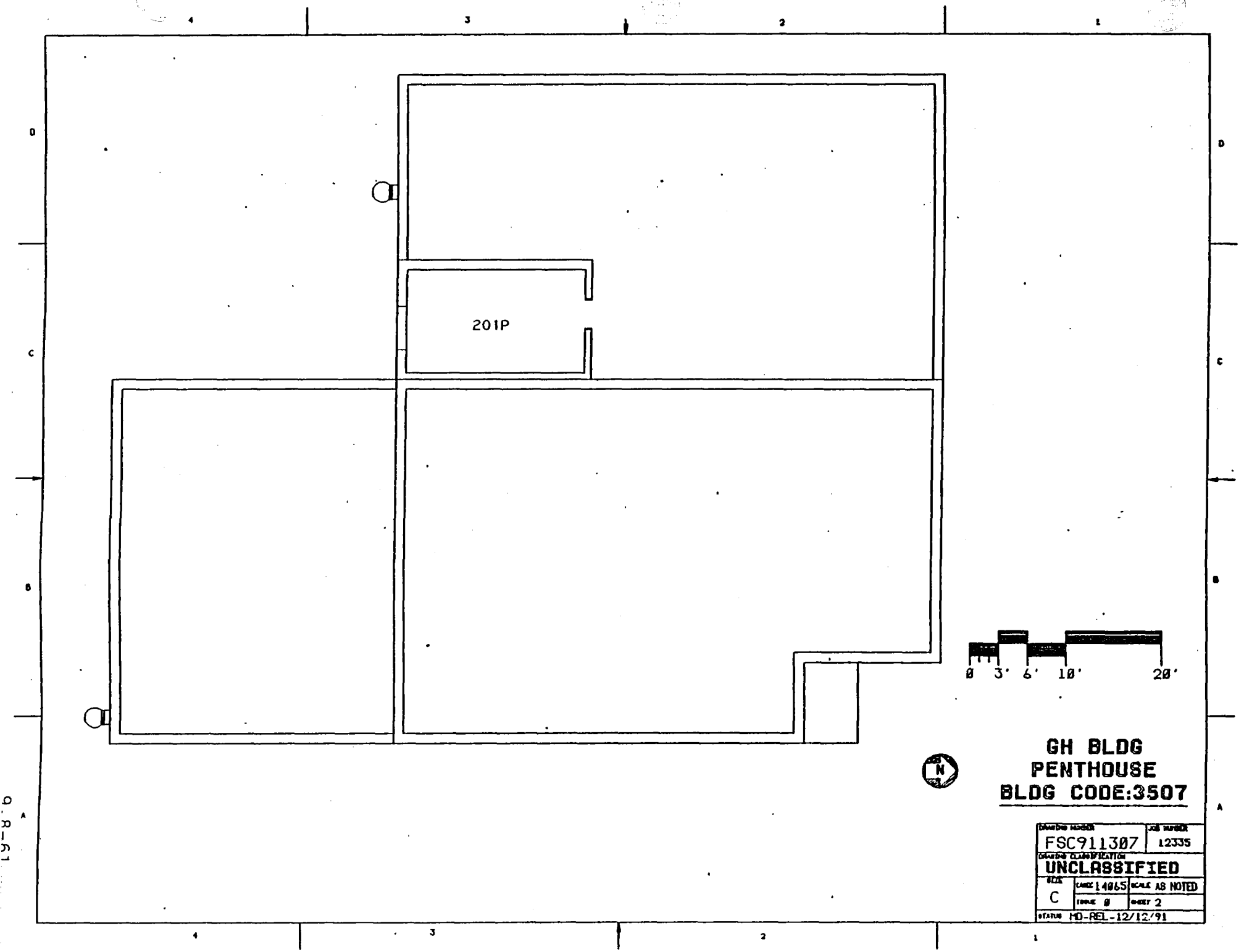
SIZE C | DRAWING NUMBER FSC911307 | JOB NUMBER 12335

DWG TYPE SFP | PROJ GH BLDG | CADD 14065 | SCALE AS NOTED | SHEET 1 OF 2

STATUS MD-REL-12/12/91 | ORIGIN MD-BR3-V3.3

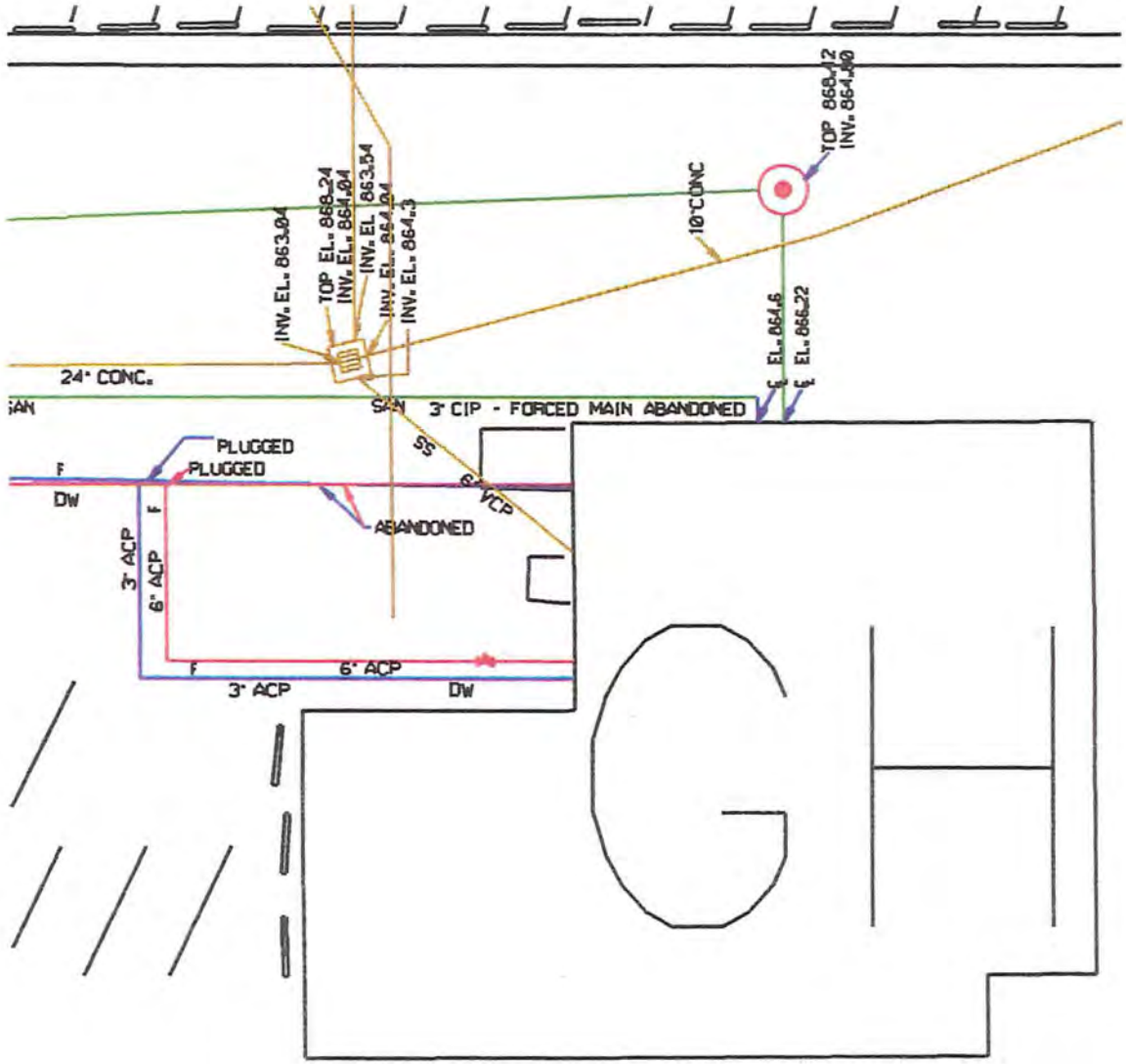
APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUEDOC ___TEDOC ___EMDOC
TECH. REP. ___
BR. MGR. ___
TRUEDOC ___
TEDOC ___
EMDOC ___

DESIGN ENG | PROJ MGR
SPONS | ENG REPV
LP & CC | FCCR REV
ENG MGR
APVD | DATE


201P
0 3' 6' 10' 20'
N
GH BLDG
PENTHOUSE
BLDG CODE:3507
FSC911307
12335
UNCLASSIFIED
C
14065
AS NOTED
0
2
MD-REL-12/12/91

9.8-61

9.8.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
GH BLDG.

DATE: 9-4-96

9.8-65

9.8.6.6 Photographs

Mound Plant Building GH

9.9 BUILDING GIS

9.9.1 Scope of Building GIS 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 on the morning of February 7, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.9.6.1). The appraisers were not accompanied by the building manager or the process manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.9.6.2).

9.9.2 Description of Building GIS

Building GIS is an unoccupied guard post. It is located on Mound Road at the northern end of the Mound Plant, north of Building GH. The location is shown in Attachment 3 (Section 9.9.6.3).

The building is a 166-square-foot building with a brick face, glass windows and a built-up membrane asphalt roof. There is electrical service of 240V, electric heat, and a window air conditioner. It was constructed in 1948. A floor plan is presented as Attachment 4 (Section 9.9.6.4).

The building is currently unoccupied. Previously, it was used as a checkpoint island for security when entering the main hill portion of the plant. The building is scheduled for demolition.

9.9.3 Summary of Findings

No environmental concerns were identified during the walk-through or by review of reference documents.

9.9.4 Observations

9.9.4.1 Air Emissions

There are no processes or fuel-burning units in the building. Heat is provided by electric resistance units. There are no sources of emissions. There is no fugitive dust. No air permits have been submitted for activities in this building.

9.9.4.2 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.

9.9.4.2.1 Sanitary Wastewater

The building has no sanitary service. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.9.6.5), the building is serviced not by a sanitary line.

9.9.4.2.2 Storm Wastewater

The building is not serviced by storm drains according to drawings presented in Attachment 5 (Section 9.9.6.5). 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.

9.9.4.2.4 Chemicals

There are no Clean Water Act designated chemicals used in the building, with the exception of asbestos. There is no evidence that any chemicals have entered the wastewater collection system.

9.9.4.3 Potable and Service Water

Potable and service water are not supplied to the building.

9.9.4.4 Chemical Storage and Hazardous Materials

There are no chemicals or hazardous wastes stored in the building. There are no janitorial supplies. According to the *Mound Facility Physical Characterization* report (12-1-93), the building is not contaminated with radioactive or energetic materials.

There are no capacitors or transformers in the building. According to the 1995 PCB Annual Document Log, the building does not contain polychlorinated biphenyls (PCB's)

The building contains asbestos building materials, according to the MD-10391, *Asbestos Program Manual*, 9-14-95, Issue 3. There was no visual evidence of friable asbestos.

9.9.4.5 Solid, Hazardous, and Radioactive Wastes

There are no solid, hazardous, or radioactive wastes generated in Building GIS by any process.

9.9.4.6 Waste Minimization and Pollution Prevention

There are no waste minimization or pollution prevention activities appropriate to this building.

9.9.5 Findings and Recommendations

Photographs were taken to document the environmental appraisal activities. They are found in Attachment 6 (Section 9.9.6.6). There are no findings or action items related to the environmental appraisal of Building GIS.

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9.9.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name GIS-1

Appraisers:

Nancy Vyas
Name Discipline

John Hausfeld
Name Discipline

Mike Merker
Name Discipline

Name Discipline

Building Manager: Kathy Koehler

Process Manager:

Date: 2-7-96 am

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: G/S Appraisers: Vyas Hausfeld Merker Date: 2-7-96am

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	NO STORM PIPE SEPE drain
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	

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	

9.9-9

9.9-10

Environmental Appraisal Checklist

Building Name: G/S Appraisers: Vyas Hauefeld Merker Date: 2-7-96 am

Clean Air Act (CAA) Screening Checklist

Regulatory Guideline	Question	Response	Comments
	Are there any rooms that have air emissions sources that vent to the outside of the building, e.g., fumehoods, equipment? If so, note the rooms.	Y / N	
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: GIS Appraisers: Vyas Hausfeld Merker Date: 2-7-96

CAA Checklist

NOT COMPLETED

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

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

Source:_____

9.9-11

9.9-12

Environmental Appraisal Checklist

Building Name: GIS Appraisers: Vgas Hauefeld Merker 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.

No Janitor supplies

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: GIS

Appraisers: Vigo Hausfeld Merker

Date: 2-7-96am

N/A

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	

9.9-13

9.9-14

Environmental Appraisal Checklist

Building Name: GIS

Appraisers: Vyas Hausfeld Merker

Date: 2-7-96

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

Building	Capacity (Gal.)	Contents	Estimated Volume	In Service	Containment	Visual Stains/ Contamination	If Empty, Flushed
	NONE			Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				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: G15 Appraisers: Vegas/Merker/Hausfeld Date: 2-7-96

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	Y / N	
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	Y / N	
	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: _____

9.9-15

9.9-16

Environmental Appraisal Checklist

Building Name: G1S Appraisers: Vyas Hausfeld Merker 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 Appraisal Checklist

Building Name: GIS Appraisers: Vyas Hausfeld Merker Date: 2-7-96

NOT COMPLETED

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	

9.9-17

9.9-18

Environmental Appraisal Checklist

Building Name: G15 Appraisers: Vyas / Merker / Hausfeld Date: 2-7-96

NOT COMPLETED

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: GIS Appraisers: Nygas/Hausfeld/Merker Date: 2-7-96

RCRA Checklist

NOT COMPLETED

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	

9.9-19

9.9-20

Environmental Appraisal Checklist

Building Name: G15 Appraisers: Hausfeld/Merker/Vyas Date: 2-7-96

RCRA Checklist

NOT completed

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: GIS Appraisers: Vogs/Hansfeld/Merkey Date: 2-7-96

Asbestos Screening Checklist

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

Asbestos Checklist NOT KNOWN

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	

NOT INCLUDED IN ASBESTOS SCEENING OF SITE per Asbestos program manual.

9.9-21

9.9-22

Environmental Appraisal Checklist

Building Name: G1S Appraisers: Vigas / Hausfeld / Merker 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	

NOT ON PCB document log

Environmental Appraisal Checklist

Building Name: GIS

Appraisers: Vyas Hausfeld Merker

Date: 2-7-96

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	

9.9-23

9.9-24

Environmental Appraisal Checklist

Building Name: GIS

Appraisers: Vogs Hausfeld Merkel

Date: 2-7-96

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: G15 Appraisers: Hanofield/Merker/Mgo Date: 2-7-96 am

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	

9.9-25

9.9-26

Environmental Appraisal Checklist

Building Name: 615 Appraisers: Vyas Merker Hausfeld Date: 2-7-96

not completed

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: G1S

Appraisers: Vyas Hansfeld Mercer

Date: 2-7-96

no completed

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	

9.9-27

9.9-28

Environmental Appraisal Checklist

Building Name: G/S Appraisers: Vyas Merker Haccofeed Date: 2-7-96

not completed

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: G15 Appraisers: Vigo Merker Hauenfeld Date: 2-7-96

not completed

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:

9-9-29

9.9-30

Environmental Appraisal Checklist

Building Name: G1S Appraisers: Vigo Hausfeld Merker 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: GIS Appraisers: Hausfeld Vyas Merker Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

not completed

Regulatory Guideline	Question	Response	Comments
HALOGENATED ORGANIC (NONSOLVENT) WASTES		NA	
	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		NA	
	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		NA	
	Are acidic or basic cleaning solutions used as treatment for pH adjustment chemicals?	Y / N	

9.9-31

9.9-32

Environmental Appraisal Checklist

Building Name: GIS Appraisers: Vyg. Hausfeld Merker 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	

Environmental Appraisal Checklist

Building Name: GTS Appraisers: Hausfeld Vigo Merker 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	

9.9-33

9.9-34

Environmental Appraisal Checklist

Building Name: B15 Appraisers: Hausfeld/Merker/Vyas Date: 2-7-96

Waste Minimization/Pollution Prevention Activities Checklist

NOT completed

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: GIS Appraisers: Hauenfeld/Merker/Vogo Date: 2-7-96

not completed

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?	_____ _____	

9.9-35

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M o u n d Electronic Message/AOS

From :John Hausfeld

HAUSJR

Dept. :ES&H

Tel. No :4216

Date :14-Feb-1996 07:23am EST

Subject :Env. Appraisal

TO :Katherine Koehler (KOEHKG)

CC :Eunice Warmoth(NANCY VYAS) (WARMEM)

CC :Michael Merker (MERKMJ)

CC :Susan Cloud (CLOUSA)

CC :Alton Brown (BROWAW)

Kathy,

Mike Merker, Nancy Vyas and I visited several buildings last Wednesday, February 7, completing the areas that you serve as building manager. They were: GH, GP-1, GIS, GP-8, Modular 4, and Building 100. Our recommendations are as follows:

GH building

Bob Race answered whatever questions we had. The building was very orderly and extremely clean. Heat and lights are turned off every night. Asbestos insulation on pipes was well labeled. The only action item discovered during

the tour is that the transformers on the roof needed to be labeled that they do not contain PCB's.

GP-1

Alton Brown accompanied us during the tour of GP-1. Overall, the building was in great condition. The items in the flammable cabinet were neatly stored and labeled. All areas were well labeled with their appropriate signs, including all trash receptacles. The janitors closet was very orderly, but did not contain any MSDS sheets for their supplies. Alton's MSDS's were readily available and he appears to be very conscious on Waste Minimization.

A couple of questions did arise. 1) In the utility room, room 119, is there a back-flow preventer on the system? 2) Is the sump in the firing range, rooms 23 & 24, active; and if so, when and where is it pumped? 3) Also, the lead dust that is vacuumed from the firing range is combined with the solvent rags. Our recommendation is that the two be separated so that the rags could possibly be sent out for recycling.

GIS

No problems.

GP-8

Could use some general housekeeping. Fire extinguisher needs up-dated tag -

9.9.6.2 Building Manager's Questionnaire

THE FOLLOWING QUESTIONAIRE HAS BEEN ANSWERED TO THE BEST OF MY KNOWLEDGE. PLEASE VERIFY ANY & ALL STATEMENTS WHICH ARE PERTINENT.

K.G. Koehler

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

N.A.

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

N.A.

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

4. Provide a physical description of the building.

Building is a 166-ft^2 concrete block building with a brick face. It has a BUM roof (asphalt). It has electric heat and window 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?

Currently unoccupied. SCHEDULED FOR DEMOLITION

Source: Mound Buildings, 5-9-95

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

Previously used as a checkpoint island for security when entering the main hill portion of the plant.

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Process(es) Housed: None

How Wastes Are Generated:

No wastes generated in this building.

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

10. Does the building have air emission sources? No

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

Source: Mound Air Emissions Database 11/30/95

9.9-43

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? No

Source: PCB ANNUAL DOCUMENT LOG

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

Source: PCB ANNUAL DOCUMENT LOG

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

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

9.9-45

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?

N.A.

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

N.A.

23. Where do excess janitorial supplies go?

N.A.

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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: _____

9.9-47

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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: _____

9.9-48

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

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

N.A.

9.9-50

Building Manager's Questionnaire

Building Name: GIS Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

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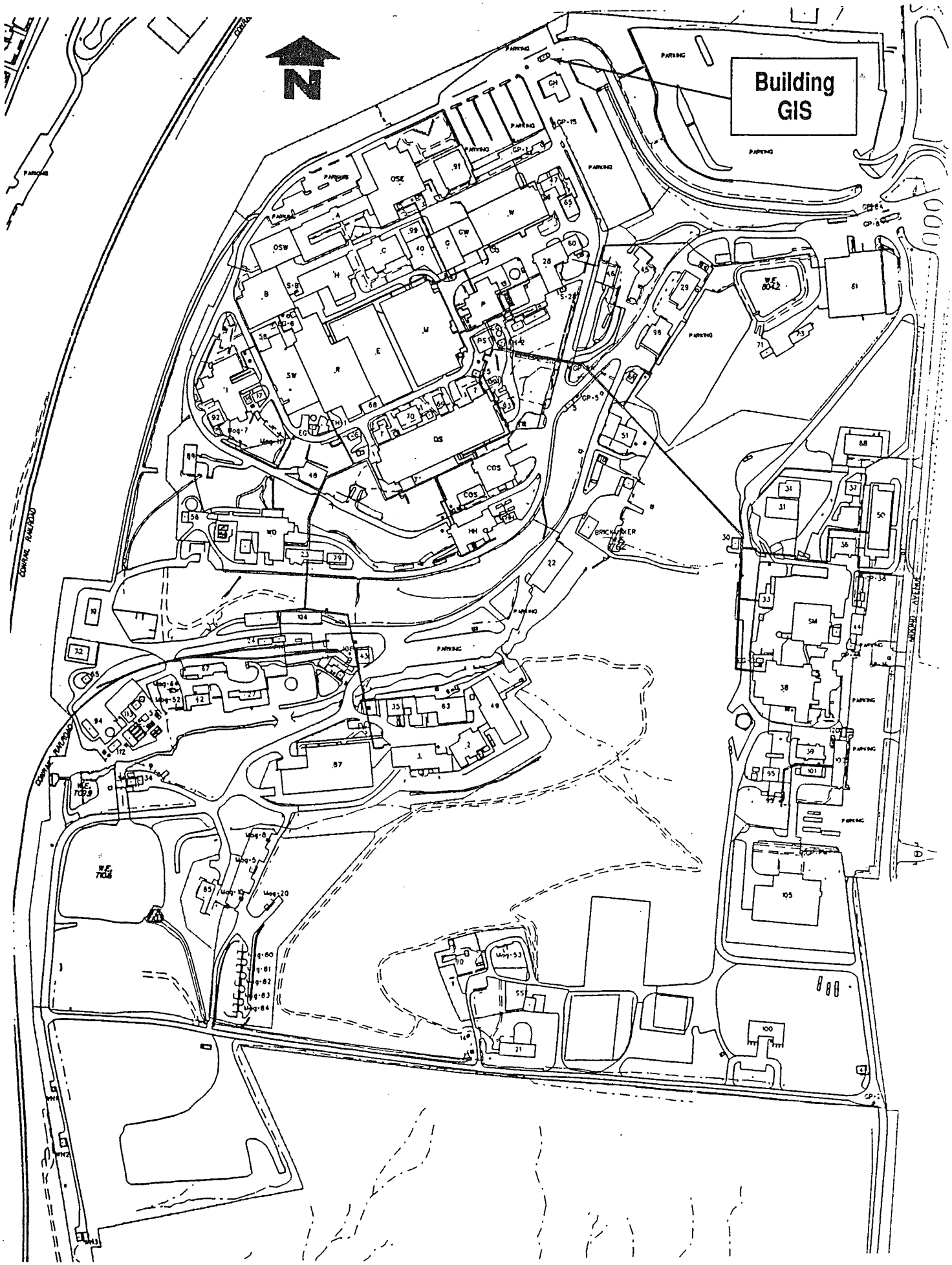
9.9.6.3 Location of Building GIS



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

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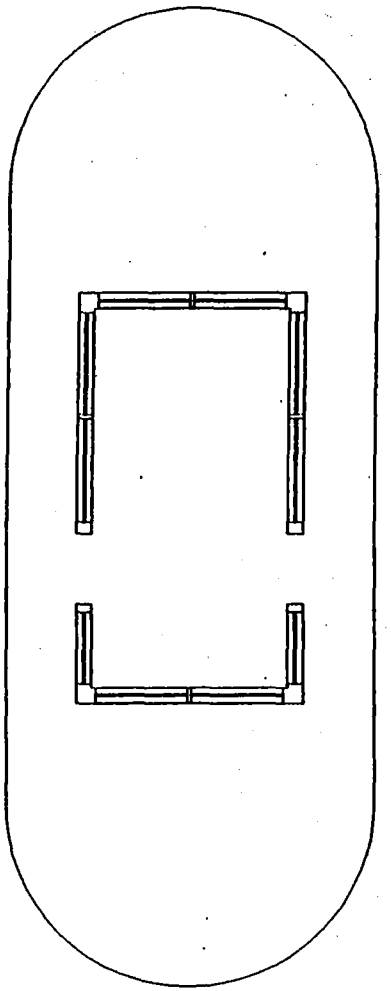
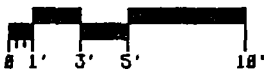
9.9.6.4 Floor Plans for Building GIS

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





GIS BLDG
FIRST FLOOR
BLDG CODE:3532

SHEET	1	2	3	4	5	6	TITLE (U) TITLE CLASSIFICATION
ISSUE	Ø						GIS (GUARD ISLAND SHELTER) FLOOR PLANS
PART CLASSIFICATION							
DRAWING CLASSIFICATION	UNCLASSIFIED		SIZE	C	DRAWING NUMBER	FSC911308	JOB NUMBER 12335
DWG TYPE	SFP	PROJ	GIS BLDG	CHKR	14065	SCALE AS NOTED	SHEET 1 OF 1
STATUS	MD-REL-12/12/91			ORIGIN	MD-BR3-V3.Ø		

DESIGN ENG	PROJ MGR
GRSHB	ENG SUPV
LP & CC	FCCM REV
ENG MGR	
APVD	DATE

APPROVALS: DATE:
SAFETY COMMITTEE REQUIRED:
___NONE ___TRUEBOC ___TEBOC ___EHBOC
TECH. REMP. _____ _____
BR. MGR. _____ _____
TRUEBOC _____ _____
TEBOC _____ _____
EHBOC _____ _____

9.9-59

9.9.6.5 Underground Utility Lines

8" CMP
INV. 866.78
12" SLOTTED DRAIN
6"CMP
INV. 866.78
12" SLOTTED DRAIN
N
FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL
UNCLASSIFIED
E.G. & G. - MOUND
UNDERGROUND WATER & WASTE LINES
GIS BLDG.
DATE: 3-4-96

9.9.6.6 Photographs

LOT 1
DOE RESERVED
BLUE STICKER
PARKING ONLY
LOT 2
VISITOR
RESERVED
EG&G & OPEN
PARKING
LOT 3
OPEN
PARKING
LOT 5
OPEN
PARKING
XHV-397

9.10 BUILDING GP-1

9.10.1 Scope of Building GP-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 GP-1 on the morning of February 7, 1996. The Environmental Appraisal Checklist (EAC) (Attachment 1—Section 9.10.6.1) was used to record findings. The appraisers were accompanied by the process manager. The building manager was not present. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.10.6.2).

9.10.2 Description of Building GP-1

Building GP-1 is used for training of security personnel and for office space. It is located on the main hill, with Building 91 to the west and Building GH to the north. Its location is shown in Attachment 3 (Section 9.10.6.3).

The building is a one-story, 8,000-square-foot structure of reinforced concrete with brick facing. It has a built-up membrane roof of coal tar, asphalt, and carboline. It was constructed in 1950. There is electrical service of 240V. Other systems include central steam, chilled water, and package heating/air conditioning units.

The building has been used for the same general purpose since it was constructed. In addition to training facilites, a firing range, and offices, the communications center was also housed in Building GP-1. The communications center was moved to another building in 1995.

9.10.3 Summary of Findings

Building GP-1 was a very well-maintained building. There were several potential issues of environmental concern, based on activities in the building. Each one had been considered and properly addressed by the process manager. While there were some suggestions for improvements, environmental controls in the building and its process manager serve as models at Mound.

9.10.4 Observations

9.10.4.1 Air Emissions

There are no fuel-burning aciivities in the building. A permit application was submitted to the Ohio Environmental Protection Agency (OEPA) in 1992 for emissions from the firing range. No permit was issued. EG&G MAT Environmental Monitoring Group professionals consider the source emissions negligible, but no documentation exists to confirm the determination. The building is included in the Mound Air Emissions Database (11-30-95) showing two sources, the firing range, and a gas dispensing facility. The appraisal team toured the firing range, but no gas dispensing facility was in evidence. There is no fugitive dust.

9.10.4.2 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.

9.10.4.2.1 Sanitary Wastewater

According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.10.6.5), the building is serviced by a sanitary wastewater collection line. Sanitary effluent is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based on operations data, supplied by the process owner, effluent from Building GP-1 does not deviate from that expected by the sanitary treatment plant manager.

9.10.4.2.2 Storm Wastewater

The building is serviced by storm drains according to drawings presented in Attachment 5 (Section 9.10.6.5). There are several floor drains. Due to the age of the building and practices at the time of construction, it is assumed that floor drains enter the storm system. It was outside the scope of this appraisal to perform tests to confirm drainage patterns.

Downspouts from the roof lead through hard pipes into the ground; it is assumed drainage flows into the storm collection system. No exterior grates and drains were observed in the area immediately around the building.

There is a sump located beneath the firing range, according to the process manager. It is important to note that the firing range, which has lead contamination, is not washed down; drainage is not allowed to enter the sump. Instead, the firing range is routinely swept using a vacuum with a high-efficiency particulate absorber filter. The dust is contained and disposed of as hazardous waste. The process manager is aware of the potential for lead contamination of mop water and other water sources, and has developed procedures to assure that lead does not enter wastewater systems.

9.10.4.2.3 Chemicals

Other than the potential for lead contamination, discussed in the previous section, there were no liquid or solid chemicals containing Clean Water Act (CWA) pollutants in evidence in Building GP-1. There was no visual evidence that chemicals had entered the drainage system.

9.10.4.3 Potable and Service Water

Potable water is supplied to the building, according to information presented in the underground utility lines drawing (Attachment 5—Section 9.10.6.5). Service water is also supplied. Sources are posted. Backflow preventers were in evidence, except for one connection in Room 19. The valve may have included a backflow preventer, but the appraisal team requested that it be confirmed. The process manager volunteered to contact Maintenance for an inspection.

There are two water fountains. It is not known if they are of the type which may cause lead contamination. A program is underway at Mound to check all fountains.

9.10.4.4 Chemical Storage and Hazardous Materials

Janitorial supplies were stored in the building. The MSDS's for the supplies were maintained by the janitorial supervisor in a central location. It was recommended that they be moved to Building GP-1 as well.

Other chemicals were stored in the building as well. MSDS sheets were available and in a well-marked folder. A brightly colored sign was posted above them. Flammables were stored in a cabinet in conformance with 20 CFR 1910.106.

Ordnance was stored in locked vaults. The vaults did not conform to 29 CFR 1910.106(d)(4). The process manager should request that an ordnance safety specialist inspect the storage vault to determine if such storage is necessary and appropriate. Current storage may be adequate.

The building is equipped with emergency response equipment such as a portable eyewash and a fire extinguisher in, conformance with 29 CFR 1910. There is no evidence of information about

an Emergency Evacuation Plan, and no signs were posted in work areas as required in 29 CFR 1910. The process manager noted that since the building is a site emergency control center, all personnel should be aware of precedures. However, he agreed to post signs.

There are no sumps, separators, or catch basins in the building, other than a sump located under the firing range. It is discussed in Section 9.10.4.2.2 of this report. There are no underground storage tanks associated with Building GP-1.

According to information provided in the BMQ, there is a transformer in the building. It does not contain polychlorinated biphenyls (PCB's). Inspection records were not reviewed. It should be confirmed that if the transformed contains oils, that it bears an appropriate sticker as described in 40 CFR 761. According to the 1995 PCB Annual Document Log, the building does not contain PCB's.

The building contains asbestos, based on screening recorded in MD-10391, *Asbestos Program Manual* (9-14-95). There was no visual evidence of friable asbestos. Insulation and pipe lagging was well-maintained. Piping was well-marked.

9.10.4.5 Solid, Hazardous, and Radioactive Wastes

According to information provided in the BMQ, hazardous wastes are generated in Building GP-1. A Satellite Accumulation Area (SAA) is designated in the building. It conforms to requirements set forth in OAC 3745-52-11. The process manager is in charge of the SAA, and notes that Waste Management professionals have been very responsive to requests for assistance and information. Waste is picked up within three days.

The process manager is well aware of potential lead contamination issues. A contractor recently cleaned the firing range by sweeping. The dust bag was deposited in the SAA.

Waste characterization records conform to requirements of OAC 3745-52-11. Characterization is by process kowledge, and is documented. Records have been maintained for over three years. The generator/process manager has completed waste generator's training, and recognizes his responsibility for "cradle to grave" handling of hazardous wastes.

Solvent-contaminated rags are deposited in a well-labelled red can. Contents of the can are collected by Waste Management. For other buildings at Mound, solvent-contaminated rags are collected and sent to an offsite contractor for cleaning. The process manager was advised that if the rags from Building GP-1 were handled as such, it was important to notify the vendor of potential lead contamination. The team also advised the process manager to meet with the contracting officer to assure that the contractor's procedures were reviewed and appropriate relative to cleaning solvent rags and handling lead by-products.

Spent shell casings from the firing range are sold for recycling. At Mound, solid waste is 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 are sent offsite to be recycled by the same contractor. White paper is collected and sent offsite to be recycled by a service contractor.

9.10.4.6 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. An example is the recycling of spent shells from the firing range.

9.10.4.5 Findings and Recommendations

Findings related to the environmental appraisal of Building GP-1 indicates that the following action items, in priority order, should be planned and scheduled.

GP-1-1 Ordnance was stored in locked vaults. The vaults did not conform to 29 CFR 1910.106(d)(4). The process manager should request an ordnance safety specialist to inspect the storage vault to determine if such storage is necessary and appropriate. Current storage may be adequate.

GP-1-2 The sign posted in Building GP-1 above the folder holding MSDS's was not observed by the appraisal team elsewhere at Mound. It would be an excellent standard sign.

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9.10.6.1 Environmental Appraisal Checklist

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name GP-1 (point used to be GS1)

Appraisers:

Name	Discipline
Nancy Riggs	
John Hausfeld	
Mike Merker	

Building Manager: Kathy

Process Manager: Alton Brown

Ron Parr

Date: 2-7-96 am

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: GP1 Appraisers: Vyas Hansfield Merker Date: 2/7/96 am

Clean Water Act (CWA) Screening Checklist

Question	Response	Comments
Does the outside drain spouting of the building discharge directly to a storm sewer/sanitary system?	Y / N	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	see note below

CWA Checklist. floordrains drainage not marked on drawings

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	sanitary supplies — not included in list
	Is the building in operation? What are the processes and where do they discharge to?	Y / N _____ _____	firing range
	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	Sump under range? NOT KNOWN -- ok.
	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	sump (mentioned above)

9.10-11

Check prints for sump under range under room 24 outside.

firing range has lead contamination. Not washed down. Sweep using HEPA filter vacuum. Dust contained & disposed as hazwaste.

9.10-12

Environmental Appraisal Checklist

Building Name: GP1 Appraisers: Vogel Hallofeld Meiber Date: 2/7/96am

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	firing range
OAC 3745-35	Using the air emissions inventory reference for this building, are there any sources in the building that are not documented?	(Y) / N	
	Is there evidence of fugitive dust emissions inside or outside of the building	Y / (N)	

CAA Checklist

Regulatory Guideline	Question	Response	Comments
	Are there existing air permits or applications applicable to the building?	(Y) N	
OAC 3745-31,35	If yes, are the terms and conditions of the permit or the information included on the application (see air emissions database) being followed? Note any differences and update the air emissions database.	Y / N N/A	No permit Rm 23/24
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)	

App made 92 for permit — lead emis
agency rep: considered negl? NO

Environmental Appraisal Checklist

Building Name: GP1 Appraisers: Voss / Hatsfeld / Merker Date: 2/7/96

CAA Checklist

NOT completed

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

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

Source:_____

9.10-13

9.10-14

Environmental Appraisal Checklist

Building Name: GP1 Appraisers: Vigo / Hausfeld / Merker Date: 2/7/96 am

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	Add janitor supplies to MSDS book
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	Extremely ordered.
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 NA	

Environmental Appraisal Checklist

Building Name: GP1 Appraisers: Ivan Hallsfeld Meier Date: 2/7/96 am

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 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	
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	This is emergency control
	Is there an emergency response plan available?	Y / N	

Comments

9.10-15

9.10-16

Environmental Appraisal Checklist

Building Name: GKI

Appraisers: Vyas Haushed Nader

Date: 2/7/96 am

HM Checklist

Regulatory Guideline	Question	Response	Comments
	Is there a process area?	Y / N	firing range
	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
	None			Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				Y / N	Y / N	Y / N	Y / N
				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: GP1 Appraisers: Meuker Hauspeck Vigo Date: 2/7/96 am

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 95-02 (A)	Do actual or potential cross-connections exist between potable (light green) and service water (dark green)?	Y / N	
OAC 3745 95-04 (B)(C)	Are backflow prevention devices installed where cross connections (hoses connected to faucets, hot water tank vented directly to a drain) exist?	Y / N Not known	check to confirm that valve in Rm 19 has backflow
	Are sources of service water (janitorial and laboratory faucets, or outdoor spigots) posted as non-potable water sources?	Y / N	preventer at boiler
	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
GP1	15	no label	illegible 8-941592 —
		OASIS?	
GP1	16	OASIS	9308051263

Source: Service Water — ck backflow prev.

9.10-17

9.10-18

Environmental Appraisal Checklist

Building Name: GPC

Appraisers: Dansfeld Vyas Merkar Date: 2/7/96am

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	

red can - rags with solvent & lead cont deposited in can.

All batteries collected & go to WM.

King picks up 30 gal rag bin.

Firing range material ~~the~~ clean — MC Moore Waste many handles disp

training checked - OK

Environmental Appraisal Checklist

Building Name: GPI Appraisers: Hausfeld Merker Uyo Date: 2/7/96 am

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	

Waste mang. is very responsive picking up waste

takes ~~up~~ several months to fill can in Sat Acc Area.

SAA equipment properly labeled / locked.

records maintained 3 yrs.

9.10-19

9.10-20

Environmental Appraisal Checklist

Building Name: 6P1 Appraisers: [illegible] Date: 2/7/96 am

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

Environmental Appraisal Checklist

Building Name: GPI Appraisers: Hauefeld Vogs Meier Date: 2/7/96 am

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	

9.10-21

9.10-22

Environmental Appraisal Checklist

Building Name: GPI

Appraisers: Vyas Hansfeld Maker

Date: 2-7-96am

Not completed

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: GP 1 Appraisers: [illegible] Date: 2/7/96 am

9.10-23

Asbestos Screening Checklist

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

Asbestos Checklist Per asbestos management plan

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	

Building Name: 6P1 Appraisers: Vyas Hausfeld Merker Date: 2/7/96am

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	

9.10-24

Environmental Appraisal Checklist

Building Name: GP 1 Appraisers: Hausfeld/Hyes/Merker Date: 2/7/96 am

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	

9.10-25

Environmental Appraisal Checklist

Building Name: GP 1 Appraisers: Vigo/Hausfeld/Merker Date: 2/7/96 am

TSCA Checklist

not completed

Regulatory Guideline	Question	Response	Comments
40 CFR 761.65 (c) (2)	Only non-leaking and undamaged large high voltage PCB's 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: GP1 Appraisers: Virgo Bansfield Merker 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	

9.10-27

9.10-28

Environmental Appraisal Checklist

Building Name: GPI Appraisers: Vyas Hansfeld Meier Date: 2/7/96

not completed

Low-Level Waste and Transuranic Waste Checklist

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

Environmental Appraisal Checklist

Building Name: GP1 Appraisers: Vyas Hausfeld Merker Date: 2/7/96

Low-Level Waste and Transuranic Waste Checklist

not completed

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	

9.10-29

9.10-30

Environmental Appraisal Checklist

Building Name: BP 1 Appraisers: Vigo Haesfeld Merker Date: 2/7/96am

not completed

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: GP1 Appraisers: Vigo Hausfeld Maker Date: 2/7/96

Low-Level Waste and Transuranic Waste Checklist

not completed

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:

9.10-31

9.10-32

Environmental Appraisal Checklist

Building Name: GPI Appraisers: Vigo Stanfield Merker Date: 2/7/96am

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	

Re[illegible]n 3.0 (1-5-96)

Empty [illegible] recycled.
Sign to clear up cleaning rags [illegible] see smelle

Environmental Appraisal Checklist

Building Name: GP1 Appraisers: Vyas Hausfeld Meyer 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	recover metals —
	Evaporation of waste rinsewater?	Y / N	sell spent shells
	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	

9.10-33

9.10-34

Environmental Appraisal Checklist

Building Name: GPI Appraisers: Vyas/Hirsfeld Oerker Date: 2/7/96am

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		NA	
	Has non-cyanide or low concentration of cyanide process replaced zinc cyanide bath ?	Y / N	
	Are any of these processes used to recycle cyanide wastes?	Y / N	
	Refrigeration/crystallization?	Y / N	
	Evaporation?	Y / N	
	Ion exchange?	Y / N	
	Membrane separation which includes reverse osmosis or electrodialysis?	Y / N	
VEHICLE MAINTENANCE		NA	
	How are auto parts cleaned?	Y / N	
	Solvent sink?	Y / N	
	Solvent dunk bucket?	Y / N	
	Solvent dip tank?	Y / N	
	Are parts cleaning solvents used for anything else besides cleaning parts?	Y / N	
	Are spills reduced by locating sinks or dunk buckets near auto service bays?	Y / N	

Environmental Appraisal Checklist

Building Name: GP 1 Appraisers: Vyas Hausfeld Neher 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	N/A
	Are drip tanks used to capture losses?	Y / N	
	Is a solvent sink used for mineral solvents rather than a dunk bucket or dip tank?	Y / N	
	Does a waste hauler collect solvent waste for recycling or treatment?	Y / N	
OILS			N/A
	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	

9.10-35

9.10-36

Environmental Appraisal Checklist

Building Name: GP1 Appraisers: Vyas Hausfeld Meyer 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 NA	
	Is a method used to minimize the use of new materials such as a countercurrent process?	Y / N NA	

Environmental Appraisal Checklist

Building Name: GP 1 Appraisers: Hugo Hausfeld Marker 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	To be investigated by process manager
	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?	NA	
	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?	_____	red can - rags

solvent rags to labeled red can

9.10-37

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9.10.6.2 Building Manager's Questionnaire

DRAFT - RON PARR OR JEFF LENTZ TO REVIEW

3958 ~~[illegible]~~ **Building Manager's Questionnaire**

THE FOLLOWING QUESTIONNAIRE HAS BEEN ANSWERED TO THE BEST OF MY KNOWLEDGE. PLEASE VERIFY PERTINENT STATEMENTS. KBK

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

NONE - GENERAL OFFICE AREA
FIRING RANGE AREA - SAFETY GLASSES & CONTACT ALTON BROWN 5207

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

FIRING RANGE / HALL / AMMUNITIONS VAULT - REQUIRES SAFETY GLASSES - DO NOT ENTER IF FIRING RANGE IS IN USE - CONTACT ALTON BROWN FOR TIME WHEN RANGE IS NOT IN USE & TO SCHEDULE ACCESS TO THIS AREAS.

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

FIRING RANGE

4. Provide a physical description of the building.

This one-story structure is of reinforced concrete with brick facing. Total area is 8,000 ft². It has a BUM roof (coal tar, asphalt, and carboline); HVAC systems include central steam, chilled water and package HVAC units. Building has an indoor firing range, PT rooms, ~~alternate communications center,~~ and locker rooms. Building is not contaminated with any radioactive or energetic materials. Lead from firing range is routinely cleaned quarterly.

DELETE

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 security training. and office space.

Source: Mound Buildings, 5-9-95

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

COMMUNICATIONS CENTER WAS RELOCATED TO BUILDING 99 IN NOV 1995.

Source: Mound Buildings, 5-9-95

9.10-41

Building Manager's Questionnaire

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Process(es) Housed: Guard post, firing range, storage of weapons and ammunition

How Wastes Are Generated:

Some types of tear gas grenades have a limited shelf life. If they are not used before the end of that shelf life, they begin to deteriorate and need to be disposed of. Security has some of these grenades and is working with Waste Management to find a way to discard them. To date, the problem has not been solved. Later designs of tear gas containers (which are now being purchased) do not present the same disposal problem.

In the firing range, both lead dust and pieces of lead (spent bullets) need to be cleaned up. The lead dust is collected with a vacuum cleaner, and trays near the targets catch the bullets that fall to the ground. ~~Industrial Hygiene~~ vacuums the area. ~~empties the trays of bullets, and handles disposal of the waste.~~

Two gun-cleaning solvents are used in GP-1: Hoppe's No. 9 and Breakfree. Solvents are generally poured on rags which are used to clean the guns. The rags are put in a container where they are kept until they are washed. No liquid solvent is generated.

Contact:
Phone #:

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

9.10-42

Building Manager's Questionnaire

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

10. Does the building have air emission sources? Yes

Process Source	Room Number	Hood Number	Active	Chemicals Used	Quantity Used	Quantity to Waste Management	Lbs./Yr. Operation	Air Emissions
Firing Range (Projections)		EHR-2	Y	lead	0.0006		0.9048	
Gas dispensing Facility			Y	VOC	20		683.8	
Firing Range (Projections)		EHR-2	Y	nitrogen oxides carbon monoxide	0.07 0.028		7.791 31.164	
			Y / N					
			Y / N					

Source: Mound Air Emissions Database 11/30/95

Building Manager's Questionnaire

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

PLEASE VERIFY UTILITY DRAWINGS BUT REALIZE THEY ARE NOT IN AS-BUILT CONDITION

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

9.10-44

Building Manager's Questionnaire

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? ~~No~~ YES, BUT NOT PCB CONTAINING,

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)
CLP BREAKFREE	L	7843/G
560 CS TEAR GAS GRENADE	L	588/G
M518 RIOT CS TEAR GAS GRENADE	L	328/G
M519 CS TEAR GAS HAN-BALL GRENADE	L	414/G
MODEL SGA-300 1.50" TEAR GAS	L	68.4/G
~~ORTHOCHLOROBENZAL MALONONITRILE~~	L	138/OZ

NOT USED

Source: Chemical Inventory 1994

JANITORIAL CLEANING SUPPLIES

9.10-45

Building Manager's Questionnaire

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Chemical	Amount	Clean-up Measures

Source: NONE THAT I AM AWARE OF

21. Where do waste chemicals go?

WASTE MANAGEMEN

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

NURMAL JANITORIAL SUPPLIES

23. Where do excess janitorial supplies go?

ASK JEANIE BLEVINS

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

9.10-46

Building Manager's Questionnaire

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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
Attached	

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

FIRING RANGE	FIRING RANGE RAGS, DEBRIS	D008 F002	72.2
FIRING RANGE	FIRING RANGE SOLVENT RAGS, DEBRIS	D008 F002	82.0
FIRI [illegible]ANGE	LEAD CLEANUP DEBRIS	D008	8.0
FIRING RANGE	LEAD CLEANUP, DEBRIS	D008	58.4
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	383.3
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	387.5
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	357.7
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	399.8
[illegible]NG RANGE	LEAD CONTAMINATED DEBRIS	D008	392.0
[illegible]ING RANGE	LEAD CONTAMINATED DEBRIS	D008	411.4
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	312.4
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	386.6
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	372.1
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	350.8
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	330.7
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	405.8
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	400.9
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	406.4
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	284.3
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	250.1
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	270.8
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	406.4
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	303.2
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	281.6
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	298.7
FIRING RANGE	LEAD CONTAMINATED DEBRIS	D008	167.5
FIR' [illegible]RANGE	LEAD CONTAMINATED DEBRIS	D008	316.5
FIRING RANGE	LEAD CONTAMINATED STEEL, DEBRIS	D008	3453.0
FIRING RANGE	LEAD CONTAMINATED STEEL, DEBRIS	D008	1194.0
FIRING RANGE	LEAD CONTAMINATED STEEL, DEBRIS	D008	2067.0
FIRING RANGE	LEAD CONTAMINATED STEEL, DEBRIS	D008	3141.0
FIRING RANGE	LEAD DEBRIS	D008	84.4
FIRING RANGE	LEAD DEBRIS	D008	165.0
FIRING RANGE	LEAD DEBRIS	D008	23.2
[illegible]NG RANGE	LEAD DEBRIS	D008	92.9

FIRING RANGE	LEAD DEBRIS	D008	76.4
FIRING RANGE	LEAD DEBRIS	D008	74.8
FIRING RANGE	LEAD DEBRIS	D008	247.4
[illegible]NG RANGE	LEAD DEBRIS	D008	73.5
FIRING RANGE	LEAD DEBRIS	D008	72.2
FIRING RANGE	LEAD DEBRIS	D008	228.0
FIRING RANGE	LEAD DEBRIS	D008	102.0
FIRING RANGE	LEAD DEBRIS	D008	107.2
FIRING RANGE	LEAD DEBRIS	D008	133.2
FIRING RANGE	LEAD DEBRIS	D008	196.4
FIRING RANGE	LEAD DEBRIS	D008	313.4
FIRING RANGE	LEAD DEBRIS	D008	301.0
FIRING RANGE	LEAD DEBRIS	D008	116.9
FIRING RANGE	LEAD DEBRIS, CLEANUP MATERIALS	D008	350.0
FIRING RANGE	LEAD FILTERS	D008	5.1
FIRING RANGE	LEAD SHOT	D008	709.0
FIRING RANGE	LEAD SHOT	D008	538.0
FIRING RANGE	LEAD SHOT	D008	378.0
FIRING RANGE	LEAD SHOT	D008	601.0
FIRING RANGE	LEAD SHOT	D008	452.0
FIRING RANGE	LEAD SHOT	D008	339.0
FIRING RANGE	LEAD SHOT	D008	459.0
[illegible] RANGE	LEAD SHOT	D008	524.0
FIR[illegible] RANGE	LEAD WATER	D008	281.8
FIRING RANGE	LEAD WATER	D008	270.0
FIRING RANGE	LEAD WATER	D008	272.2
FIRING RANGE	LEAD WATER	D008	256.0
FIRING RANGE	LEAD WATER	D008	282.2
[illegible]NG RANGE	RAGS, SOLVENT DEBRIS	D008 F005	92.7
[illegible]ING RANGE	TEAR GAS CANISTERS (CS AGENT)	NONE	22.0
FIRING RANGE	TEAR GAS CANISTERS (CS AGENT)	NONE	22.0

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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 MAYBE: CHECK RCRA PART L PERMIT APPLICATION

31. Has any area in the building been identified as a satellite accumulation area?
Yes No MAYBE: CHECK RCRA PART B PERMIT APPLICATI

32. Is mixed waste generated, stored, or disposed of from the building? Yes No
Where are logs found? WASTE MGMT (MIKE ISPER) / SECURITY (ALTON BROWN/JEFF LENTZ/RON PARK

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 Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

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

Source: _____

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

NONE

Building Manager's Questionnaire

Building Name: GP-1 Building Manager: K.G. Koehler Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

UNKNOWN

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

UNKNOWN - CONTACT WASTE MGMT (JIM ZAHORA & CO.)

NOTE: Expenditure of labor & materials on a waste minimization OR POLLUTION PREVENTION program would not be an effective use of funds. The firing range will be shut down upon C.

9.10-53

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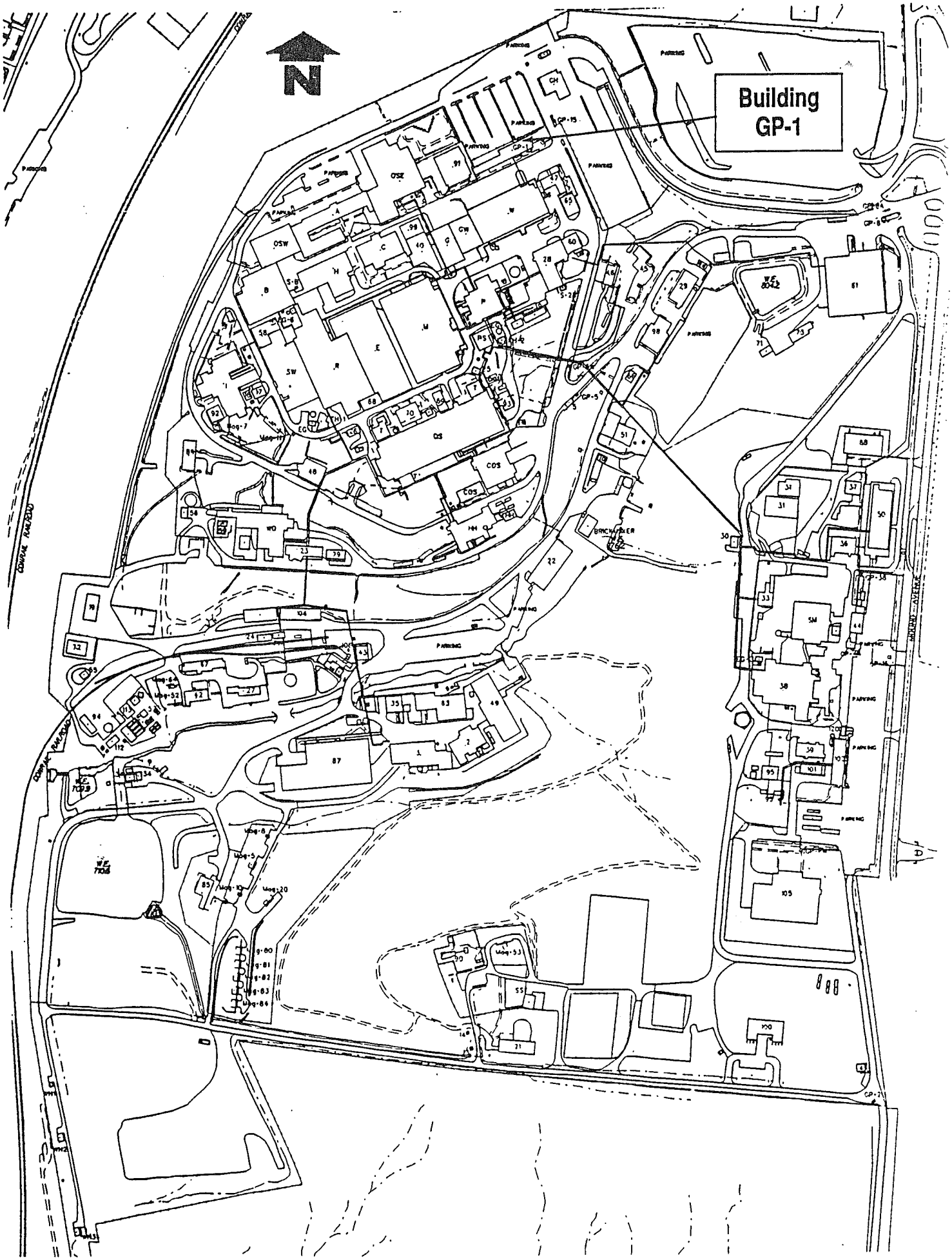
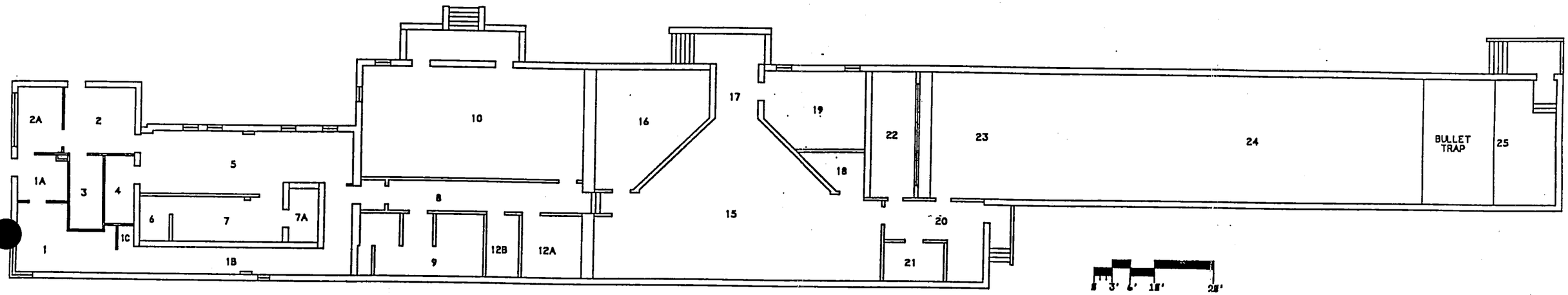
9.10.6.3 Location of Building GP-1



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

9.10.6.4 Floor Plans for Building GP-1

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



UNCLASSIFIED

DERIVATIVE CLASSIFIER

R.D. Myers
am
D. Clem. Anal. 2/29/96
(Title) (Date)

GP-1 BLDG
FIRST FLOOR
BLDG CODE:3508

DATE:	
MMITTEE REQUIRED:	
TRUEBOC TEBOC EMBOC	
TECH. REMP.	
BR. MGR.	
TRUEBOC	
TEBOC	
EMBOC	

NOT FOR PUBLIC DISSEMINATION

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

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

SHEET	1	2	3	4	5	6
ISSUE	Ø					

PART CLASSIFICATION

DRAWING CLASSIFICATION: UCNI

TITLE: GP-1 BLDG FLOOR PLANS

(U) TITLE CLASSIFICATION

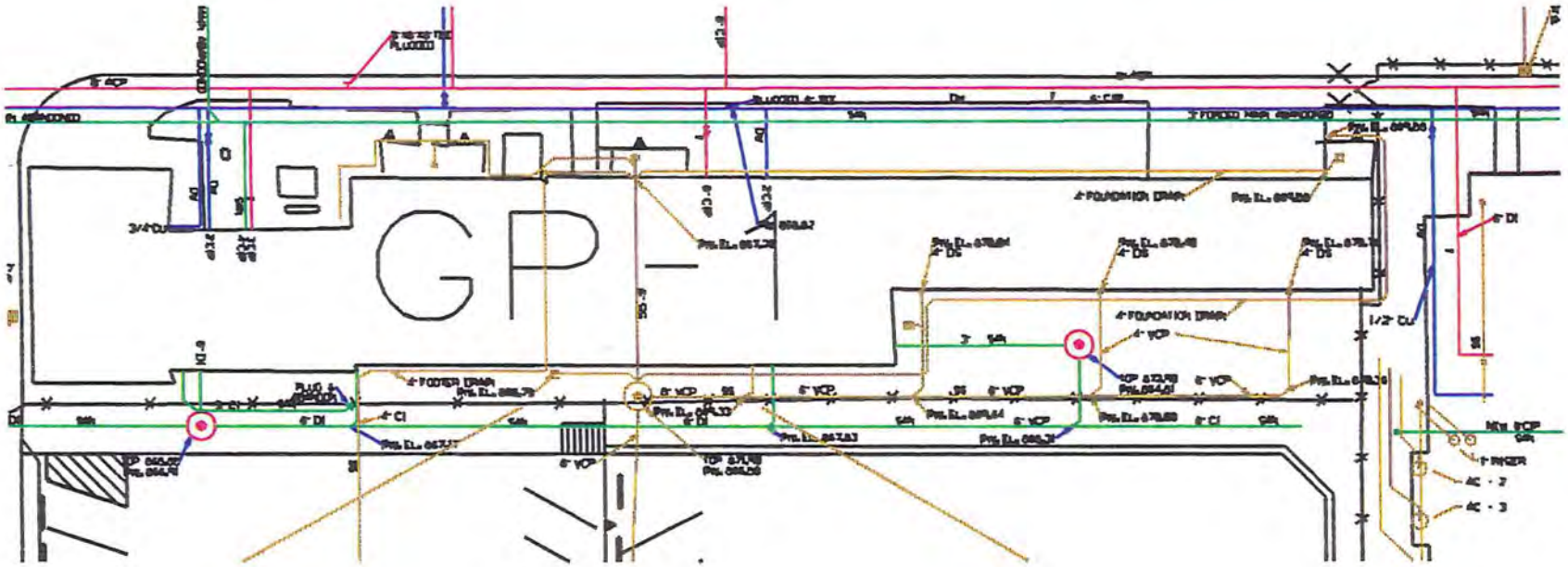
SIZE	DRAWING NUMBER	JOB NUMBER
D	FSD911309	12335

DWG TYPE SFP | PROM GP-1 BLDG | CAGEC 14065 | SCALE AS NOTED | SHEET 1 OF 1

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

9-10-61

9.10.6.5 Underground Utility Lines



FIRE
POTABLE
RAW
SANITARY
STORM
RADIOLOGICAL

N

UNCLASSIFIED

E.G. & G. - MOUND

UNDERGROUND WATER & WASTE LINES
GP-01

DATE: 3-4-96

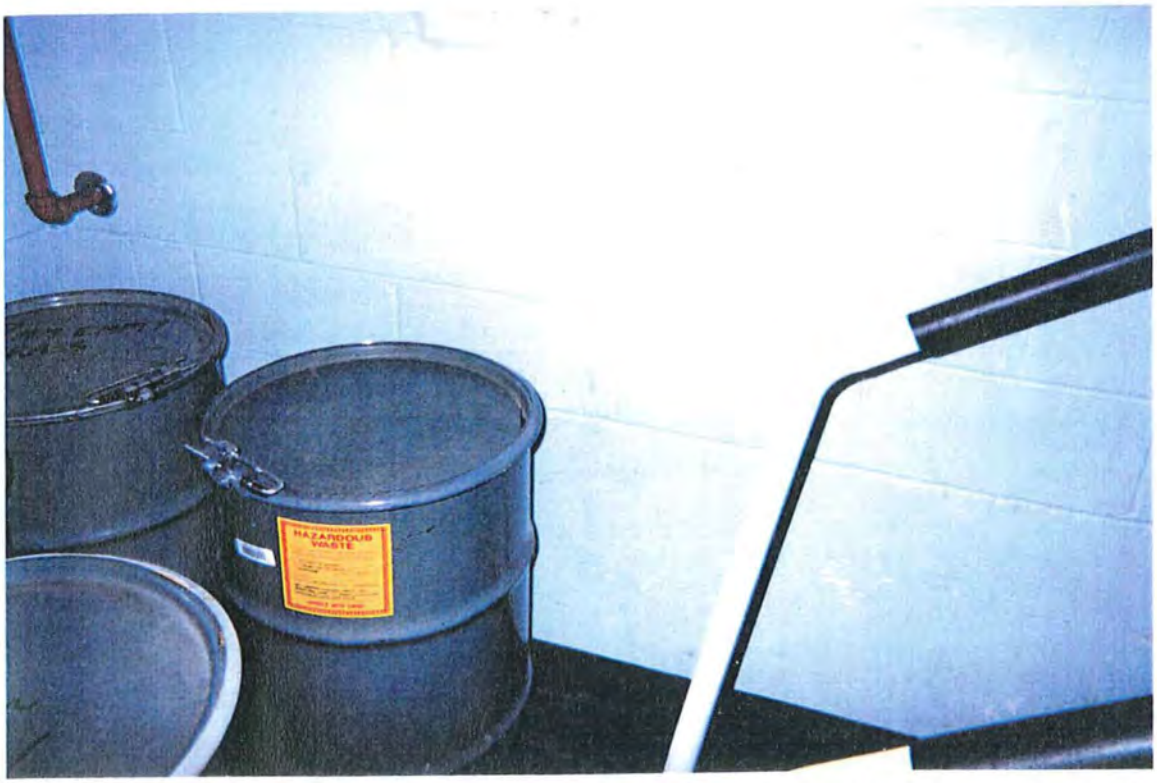
9.10.6.6 Photographs

Mound Plant Building GP-1

The sign above the Material Safety Data Sheets (MSDS's) serves as an excellent model for Mound.

Safety protection signs are well-displayed, and emergency response equipment is available.

Contaminated cleaning rags are deposited in a red can, then transferred daily to the Satellite Accumulation Area (SAA).



The Satellite Accumulation Area (SAA) was well-protected, labeled, and locked in accordance with Mound procedures and state and federal requirements.