3005-030224 0005

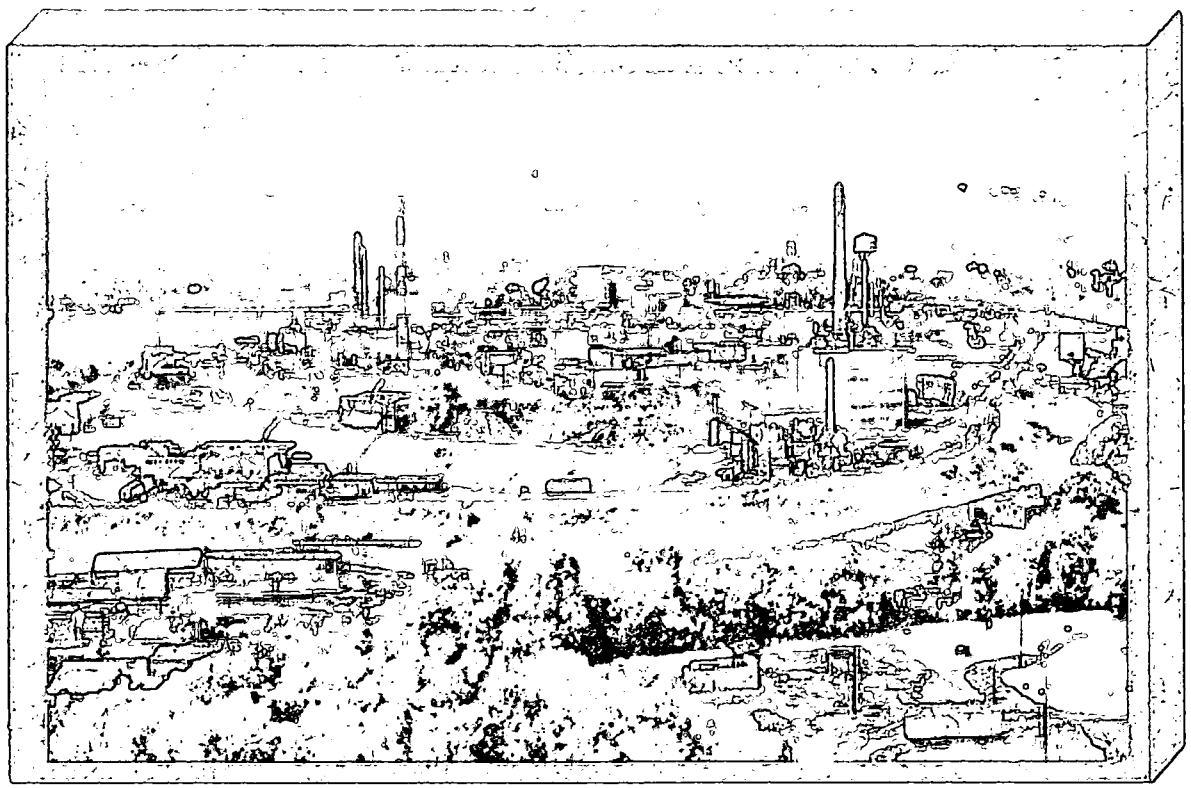
MOUND

Environmental Restoration Program

OhioEPA

MOUND PLANT
Building Data Package
Building 55

Public Review Draft
April 2002



BDP Building 55

REV	DESCRIPTION	DATE
WORKING DRAFT (to DOE)		**April 2002**
DRAFT (to Core Team)		**April 2002**
DRAFT PROPOSED FINAL (incorporates Core Team comments)		**N/A**
PUBLIC REVIEW DRAFT	The review period is concurrent for the Core Team and public for Building Data Packages of a construction demolition.	**April 2002**
FINAL		

BUILDING DATA PACKAGE (BDP)

Building 55

(Demolition)

DOE MOUND PLANT

MIAMISBURG, OHIO 45343

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Appendices

1.0 GENERAL OVERVIEW

1.1 Introduction

The purpose of this Building Data Package (BDP) is to prepare for the demolition of Building 55 (Effluent Water Continuous Monitoring Station) and to identify, if possible, any recognized environmental conditions (defined below) that may affect the subject property and building.

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

1.2 Scope

This document has been prepared in accordance with the agreements and requirements as specified in the *Work Plan for Environmental Restoration of the DOE Mound Site, The Mound 2000 Approach*. This document is a BDP for Building 55 located at the Department of Energy (DOE) Mound Plant in Miamisburg, Ohio. The investigation performed to support this BDP models procedures found in *ASTM Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process* (Designation E 1527-97).

The scope of the investigation included Building 55, the soil beneath, and a 15-foot wide perimeter border around the building. The investigation of Building 55 included the following:

A) A building and perimeter inspection.
B) An examination of historical aerial photographs and maps.
C) A review of federal and state regulatory agency records.
D) Personnel interviews.
E) A review of Mound Plant records for:

    1) History of spills, releases, and chemical inventories
    2) Past sampling data

        - Radiological survey
        - Soil sampling
        - Lead-based paint
        - Asbestos
        - Radon

In addition to the building investigation conducted by BWXT of Ohio, Inc. (BWXTO) personnel, documents were reviewed. Information used to compile BDPs includes the following:

- Characterization of Mound's Hazardous, Radioactive, and Mixed Wastes, August 1990
- OU-9 Site Scoping Report, Volumes 1-12
- Mound Facility Physical Characterization, December 1992
- Active Underground Storage Tank Plan, November 1994
- OU-9 Hydrological Investigation, Bedrock Report, January 1994
- OU-9 Hydrological Investigation, Buried Valley Aquifer Report, March 1994
- Environmental Appraisal Report of the Mound Plant, March 1996
- Title Search
- Lease Information
- EDR Report - Radius Map
- Building Prints
- Potential Release Site (PRS) information
- MD-222153, Mound Site Radionuclides By Location, July 1995 Contaminant Surveys
- MLM-3791, Mound Facility Physical Characterization, December 1993

2.0 BUILDING SPECIFIC OVERVIEW

Building 55 was constructed in 1973 in an area known as the lower valley (Figures 1 and 3). It is a one-story, 330 square-foot, concrete block structure with a built-up membrane coal tar roof. The two-room building consists of a former water testing laboratory (with a sink and electric water heater), and a storage/equipment room. Floor plans are included as Appendix D.

The building is serviced with central steam for heating provided by an electric heater. Ventilation is provided via a self-contained electric dehumidifier/cooler. Potable water is provided by the Mound Plant facility. The sink and floor drain discharge to a sanitary sewer line. Electric service is 240 volts.

2.1 Current Uses of Building 55

Building 55 is currently inactive, and Safe Shutdown activities are underway. All required equipment has been removed from the building. The remaining equipment will be left in place and demolished/disposed of with the building.

2.2 Past Uses of Building 55

Building 55 was constructed and used to monitor effluent water from various outfall sewer locations. Building 55 was most recently used for storage of various types of environmental monitoring (EM) equipment. All support operations in the facility have ceased and the facility is currently undergoing preparations for demolition.

2.3 Summary of Environmental Concerns and Findings - Building 55

Table 1: Summary of Environmental Concerns and Findings

Description	Comment	Resolution
Lead-Based Paint	Due to the age of the building, it is assumed that the paint contains lead.	Lead-based paint will not impact the demolition or disposal of the facility. Close worker disturbance of paint coatings (sanding, grinding, scraping, torching) will be avoided during demolition. If close disturbance is necessary, point of contact will be tested for lead and appropriate controls and personal protective equipment (PPE) used for disturbance as required.
Chemicals	N/A	N/A
Fluorescent Lamps and PCBs	Fluorescent lamps were used in the building. Ballasts may contain polychlorinated biphenyls (PCBs).	Will be removed prior to demolition.
Air Emissions	N/A	N/A
Asbestos	The only asbestos-containing material in Building 55 was a laboratory countertop (approximately 15 square feet).	The asbestos-containing countertop will be removed prior to demolition.
Drainage Sumps	N/A	N/A
Lead	N/A	N/A
Mercury	N/A	N/A
Radiological	N/A	N/A
Septic System	N/A	N/A
Wastewater	Handled by Mound wastewater facility.	N/A
Stains & Corrosion/HVAC	N/A	N/A
Storage Tanks	N/A	N/A
Solid Waste Disposal	N/A	N/A
Migratory Hazards	N/A	N/A
Radon	N/A	N/A

Table 1: Summary of Environmental Concerns and Findings

Description	Comment	Resolution
Energetic Material/HVAC	N/A	N/A

N/A: Not applicable

2.4 Radiological Characterization Summary for Building 55

An assessment of Building 55 was performed to review operational history and radiological survey information. The building was constructed and originally used as an "Effluent Water Continuous Monitoring Station." In recent years, it had been used for storage of miscellaneous environmental monitoring equipment. Neither the past nor current uses involve radioactive material. The 1996 Mound site assessment (*Environmental Appraisal of the Mound Plant*) states that Building 55 was not contaminated with radioactive materials. Annual non-Radiological Materials Management Area (RMMA) surveys have shown no elevated levels of radioactivity.

In January of 2002, confirmatory surveys were performed using large-area gas proportional detectors and following guidance in "Generic Process for the Disposition of Buildings That Have Potential or Actual Radiological Contamination." All radiological readings were below surface release criteria. Therefore, the review team concluded that no further radiological surveys are warranted. Associated documentation for the information summarized in the following table is contained in Appendix G.

Table 2: Radiological Summary

TYPE	RSDS	LOCATION	MAXIMUM SURVEY RESULTS (dpm/100 cm^2)	SURFACE CONTAMINATION GUIDELINES (dpm/100 cm^2) (Note 1)
Highest Alpha Smearable Activity	02-TF-0152	Building Surfaces & Equipment	0.00	20
Highest Alpha Fixed Activity	Note 2	Building Surfaces & Equipment	< 100	100
Highest Beta Smearable Activity	02-TF-0152	Horizontal Surfaces & Equipment	1.54	1,000
Highest Beta Fixed Activity	Note 2	Misc.	< 5,000	5,000
Highest Tritium Smearable Activity	02-TF-0152	Horizontal Surfaces & Equipment	0.00	10,000

RSDS: Radiological Survey Data Sheet
Note 1: Guideline values per DOE Order 5400.5, Radiation Protection of the Public and the Environment
Note 2: All radiological surveys indicated < 100 dpm/100cm^2 alpha and < 5,000 dpm/100cm^2 beta

3.0 SITE DESCRIPTION

3.1 Site/Vicinity Location and Characteristics

Building 55 is located at the DOE Miamisburg Environmental Management Project (MEMP), formerly known as Mound Plant. Mound Plant is situated in the City of Miamisburg, Miami Township, Montgomery County, State of Ohio as shown in Appendix B.

The Mound Plant at one time was situated on approximately 300 acres of land and contained approximately 130 buildings with a total of approximately 1.4 million square feet of floor space (the number of buildings is constantly diminishing as buildings are decommissioned and either sold or demolished). The original 182-acre site, purchased by the Manhattan Engineer District in 1946, consisted of two hills and an intervening valley that runs approximately east and west. The 124-acre tract acquired in 1981 was an undeveloped mixture of fields and woods that undulates and slopes downward to the west, away from the main site. This area was acquired to serve as a buffer and has been used as a staging area and parking area for contractors working on-site.

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

3.2 Description of Structures, Roads, Other Improvements in Proximity to Building 55

As shown on Figures 2 and 4, Building 55 is bordered on the west, north, and east by scrub grass, and on the south (front) by a dirt and gravel access road that circles the building. In the vicinity of Building 55 are a small sampling hut, Building 72, and railroad tracks.

3.3 Current and Past Uses of Buildings in Proximity to Building 55

The closest buildings to Building 55 are Building 72 and a small sampling hut. Building 72 (located to the north of Building 55) is a 2,400 square-foot building used for storage of hazardous waste. The sampling hut lies to the northwest of Building 55, and is used to sample Outfall 602. The sampling hut and Building 72 are believed to have had no environmental impact on Building 55.

4.0 RECORDS REVIEW

4.1 General/Historical CERCLA Information

In compliance with permit requirements under Resource Conservation and Recovery Act (RCRA), the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), and the Clean Air Act (CAA), Mound Plant has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. Mound Plant is currently operating a hazardous waste storage facility under a RCRA Part B permit dated October 18, 1996. Mound Plant also maintains a National Pollutant Discharge Elimination System (NPDES) surface water discharge permit with Facility I.D. number OH 0009857. Operations that produce particulate or vaporous emissions are either permitted or registered with Regional Air Pollution Control Agency (RAPCA) and the Ohio Environmental Protection Agency (OEPA). Mound Plant also submits annual Emergency and Hazardous Chemical Inventory forms to the OEPA, pursuant to the Superfund Amendment and Reauthorization Act (SARA), Title III, the Emergency Planning and Community Right-to-Know Act. The 2001 version of this report indicated that no chemicals are stored in Building 55.

The Mound Plant was identified as a contaminated site on the National Priorities List under CERCLA (Superfund) in 1989. The Mound Plant site was originally listed due to volatile organic compound (VOC) contamination in the western end of the lower valley area. The cleanup of the Mound site was originally to be accomplished under the CERCLA mandated procedures for regulating Superfund Sites using the operable unit (OU) system to define and characterize cleanup areas. As the cleanup effort went forward, it became apparent that the Mound site did not fit the profile for a cleanup strategy based on the operable units. The DOE, the United States Environmental Protection Agency (USEPA), and the OEPA designed a new decision making process for the cleanup of the Mound site. The new process is known formally as a "removal site evaluation process" and informally as the "Mound 2000 Process." The Mound 2000 Process system divided the Mound site into geographical parcels containing over 400 PRSs with approximately equal numbers of parcels concerned with potentially contaminated soil and with potential contamination in or associated primarily with building operations. For a more detailed description, refer to the *Work Plan for Environmental Restoration of the DOE Mound Site, the Mound 2000 Approach*.

4.2 Specific Record Sources

4.2.1 Occurrence Reports

- None

4.2.2 Spills and Releases

- None

4.2.3 Associated PRS Overview

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the Federal Facilities Agreement (FFA)/DOE Environmental Restoration (ER) Program, DOE and BWXTO have tabulated all the PRSs identified under the various regulatory programs in effect at the site. Of these 440 PRSs, seven are at or near Building 55. PRSs in the vicinity of Building 55 are identified in Table 3. Additional information is included in Appendix N.

Table 3: PRSs in Proximity to Building 55

PRS	CERCLA or Bldg. Related	Binning Status	Comments
7	CERCLA	Further Assessment (FA)	Plant Sanitary Outfall Pipeline.
41	CERCLA	FA	Area 3 Thorium Drum Storage and Redrumming Area. Building 55 is entirely within PRS 41.
58	CERCLA	No Further Action (NFA)	Dredge Spoil Drying Beds.
60	Building	Unbinned	Outdoor Hazardous Waste Storage Area, Building 72.
61	Building	Unbinned	Hazardous Waste Storage Area, Building 72.
62	Building	Unbinned	Empty Drum Storage Area, Building 72.
356	CERCLA	NFA	Elevated Soil Gas Location.

4.2.4 Sampling Data

4.2.4.1 Radiological Surveys

Radiological survey data of Building 55 indicates all readings meet surface release criteria. Supporting documentation is provided in Appendix G and summarized in Section 2.4.

4.2.4.2 Soil Sampling Data

Appendix L contains a graphic and table presenting results of all soil sampling data within a 15-foot perimeter of Building 55. Maximum exceedances to screening levels or guideline values (where no screening level exists) are listed in Table 4. All other results are below applicable levels.

Table 4: Maximum Results Exceeding Screening Levels

Analyte	Maximum Result	Background	Comparison
Potassium-40 (pCi/g)	10.5	37	1.42 (10^{-6} RBGV)

RBGV: most stringent of construction and office worker scenarios per Risk-Based Guideline Values, March 1997, Final

4.2.4.3 Chemical History

Building 55 was used to monitor wastewater and later to store environmental sampling equipment. All chemicals have been removed from the building.

4.2.4.4 Lead-Based Paint

No objective data could be found or was generated during the walk-through assessment of Building 55 to indicate the presence of lead in paint coatings. Therefore, all such coatings are assumed to potentially contain lead.

4.2.4.5 Asbestos

The only asbestos-containing material in Building 55 is a laboratory countertop. The countertop will be removed prior to demolition (Appendix I).

4.2.4.6 Radon

The results of a 1989-90 Mound Indoor Radon study indicated an average radon concentration of 2.1 picoCuries/liter (pCi/L) in Building 55 (Appendix H). The USEPA recommended standard for radon is 4.0 pCi/L.

4.3 Review of Building Prints

Building prints were reviewed and floor plans are included in Appendix D.

4.4 Aerial Photographs

Aerial photographs from 1965 (prior to construction), 1973 (following construction), and 1996 (most recent aerial photo) were reviewed and are presented in Appendix E.

4.5 Interviews

Past Building Manager, R. A. Ward, was interviewed via a building manager questionnaire (included in Appendix F). The subsequent Building Manager, Ken Hacker, and the current Building Manager, Gary Weidenbach, were also interviewed regarding past facility operations and current conditions. No significant items in the building were identified based on the questionnaire or interviews.

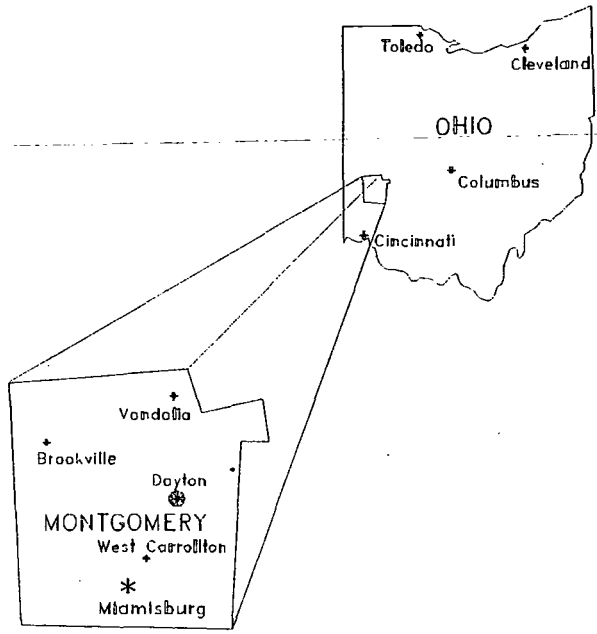
Appendix A

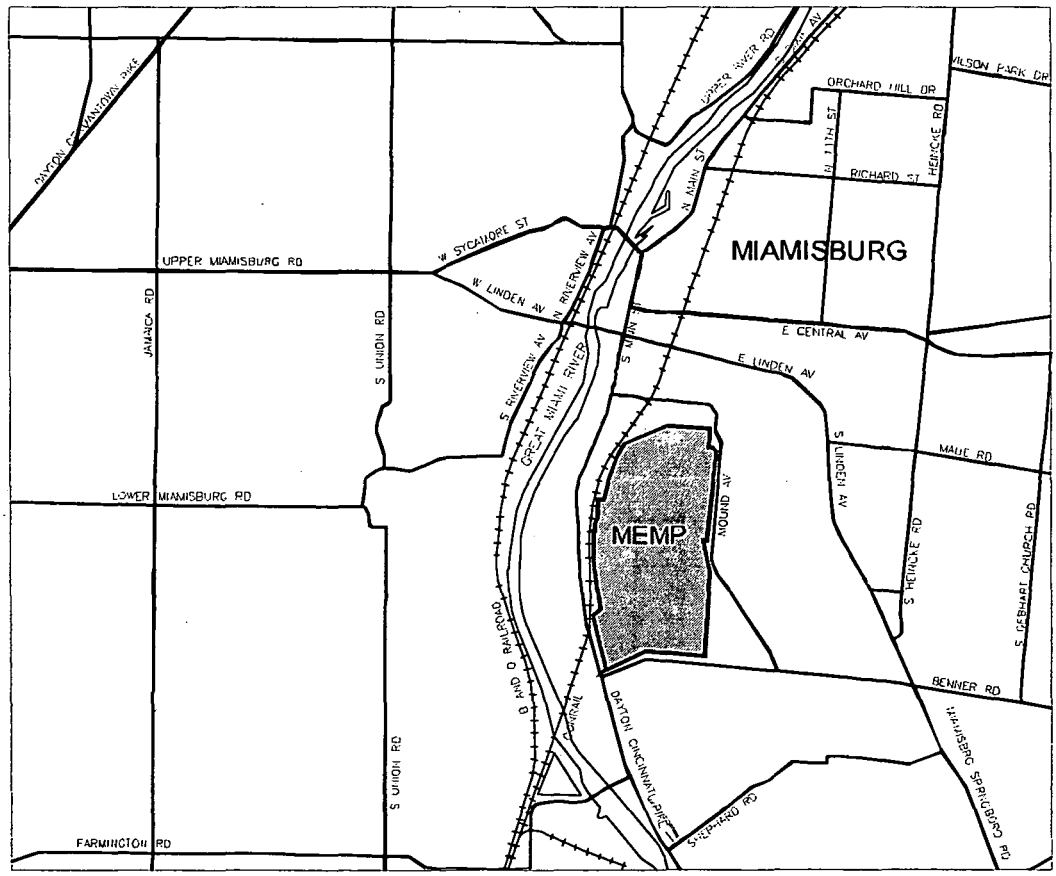
General Listing of Acronyms

ASTM	American Society for Testing and Materials
BDP	Building Data Package
BWXTO	BWXT of Ohio, Inc.
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
cm^2	centimeters squared
CWA	Clean Water Act
DOE	United States Department of Energy
DPM	disintegrations per minute
EPA	United States Environmental Protection Agency
ER	Environmental Restoration (Program)
FFA	Federal Facility Agreement
HAZMAT	hazardous materials
MARSSIM	Multi-Agency Radiological Survey and Site Investigation Manual
MEMP	Miamisburg Environmental Management Project
N/A	not applicable
NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
OU	Operable Unit
PCB	polychlorinated biphenyl
pCi/L	picoCuries per liter
PRS	Potential Release Site
RI/FS	Remedial Investigation/Feasibility Study
RAPCA	Regional Air Pollution Control Agency
RCRA	Resource Conservation and Recovery Act
RSDS	Radiological Survey Data Sheet
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

Appendix B

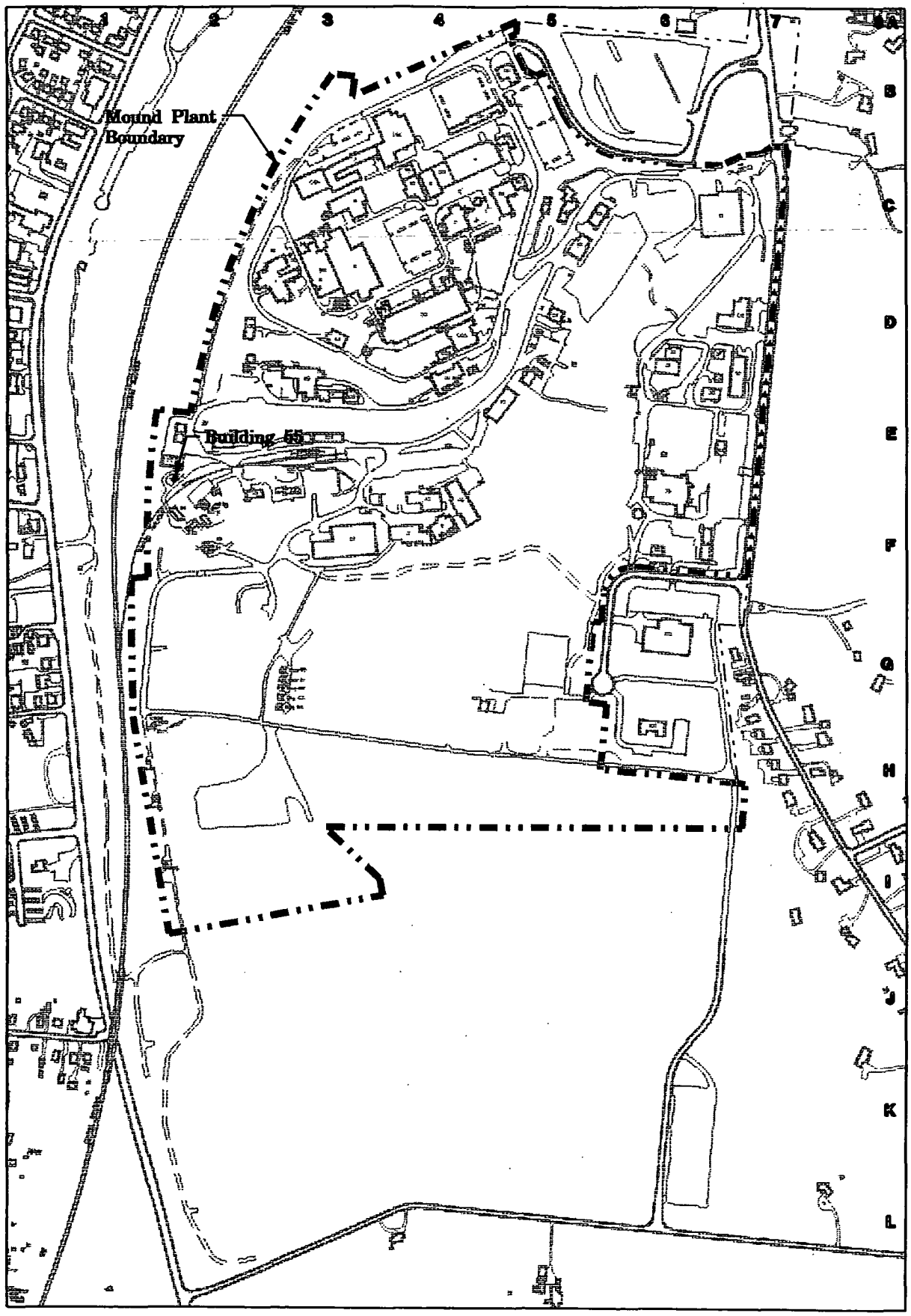
Map of Montgomery County


Toledo
Cleveland
OHIO
Columbus
Cincinnati
Vandalia
Brookville
Dayton
MONTGOMERY
West Carrollton
Miamisburg


MIAMISBURG
MEMP
UPPER MIAMISBURG RD
LOWER MIAMISBURG RD
FARMINGTON RD
JAMICA RD
S UNION RD
W SYCAMORE ST
W LINDEN AV
N RIVERVIEW AV
S RIVERVIEW AV
GREAT MIAMI RIVER
N MAIN ST
S MAIN ST
E CENTRAL AV
E LINDEN AV
S LINDEN AV
MAUE RD
MOUND AV
S HEINCKE RD
S DEBHART CHURCH RD
BENNER RD
B AND O RAILROAD
CONRAIL
DAYTON CINCINNATI PIKE
SHEPHARD RD
HAMBURG SPRINGBORO RD
ORCHARD HILL DR
WILSON PARK DR
RICHARD ST
HEINCKE RD
N 11TH ST
UPPER RIVER RD

Appendix C

Figures



Legend

Structures
Paved roadway
Unpaved roadway
Railroad
Water course
Fence
Mound Plant boundary
Contour line

0 100 200 400 600 800 1000
Scale In Feet

03/12/02	ISSUE FOR GENERAL USE	SSP				
DS DATE	REVISION	BY	CHKR	ENG	M	

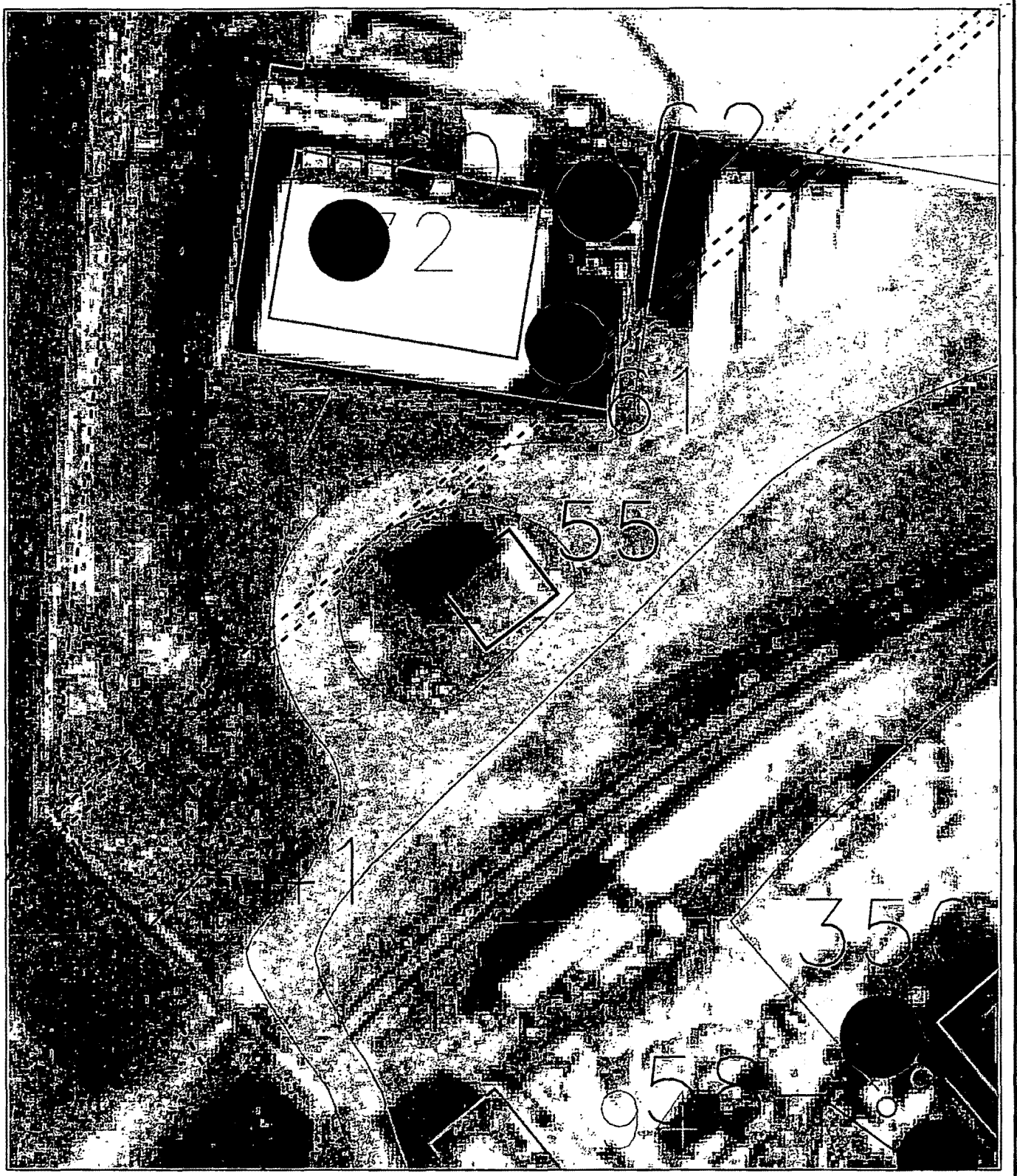
MOUND
Environmental Restoration Geographic Information System

UNCLASSIFIED

D gen_site_plan.dgn

Figure 1
Location of Building 55

gen_site_plan.dgn



PRS Point
PRS Area
PRS Line

MOUND
Environmental Restoration Geographic Information System

ISS	DATE	REVISION	BY	CHKR	ENG	UPDTD	APVD	M
	03/12/02		SSF					

SHEET 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
SCALE
SHEET 1 2 3 4 5 6
SCALE *
PART CLASSIFICATION
SECURITY CLASSIFICATION: UNCLASSIFIED
SIZE | DRAWING NUMBER: vicinity.dgn | JOB NUMBER
DGN TYPE: STE | MSG: ER-GIS | SIZE | SCALE | SHEET 1 OF
STATUS: MD-REL - / / | ORIGIN: MSTATION / J

Figure 2
Building 55
and Vicinity

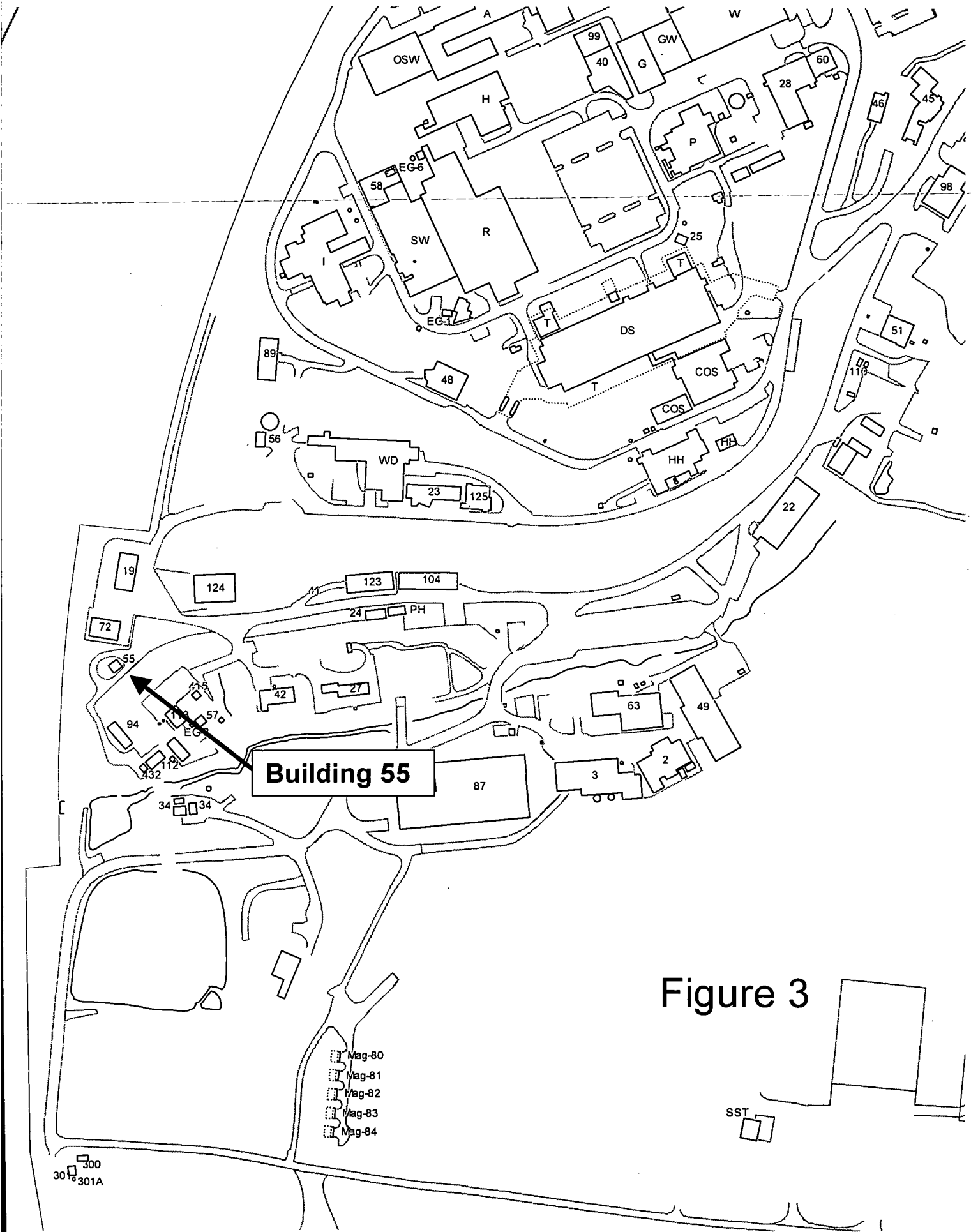
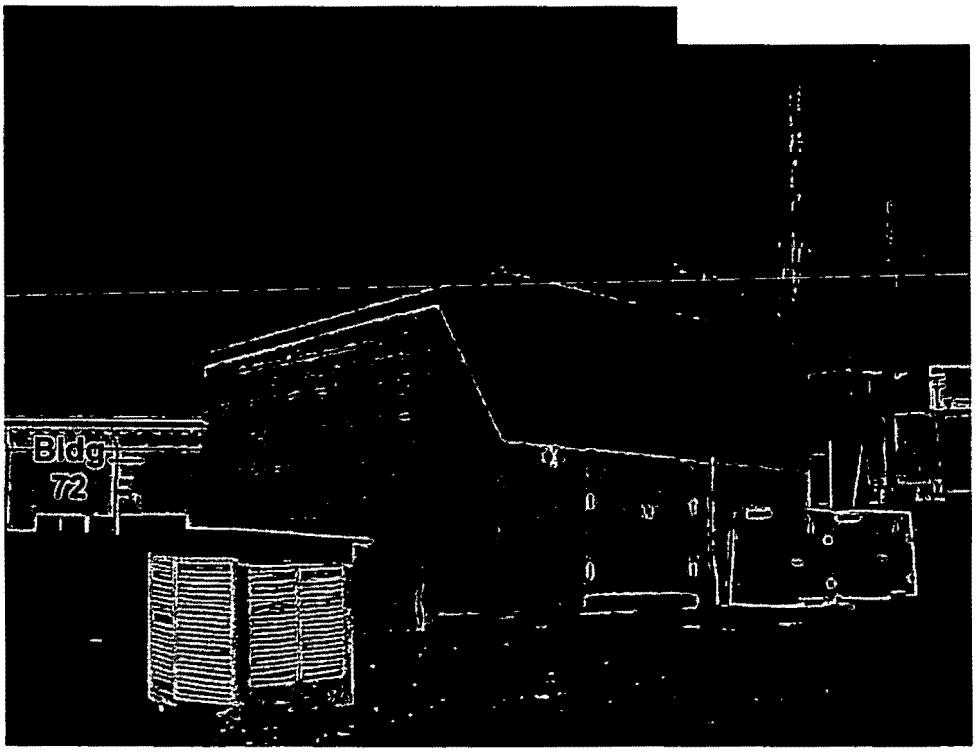

Building 55
OSW
H
99
40
G
GW
W
60
28
46
45
98
P
EG-6
58
SW
R
I
25
T
EG-1
DS
89
48
COS
51
56
WD
HH
23
125
22
19
124
123
104
24
PH
72
55
42
27
63
49
94
57
EG-5
87
3
2
34
34
Mag-80
Mag-81
Mag-82
Mag-83
Mag-84
SST
300
301A

Figure 3

Figure 4: Building 55
Recent Exterior Photos

taken 8 March 2002



Appendix D

Floor Plans

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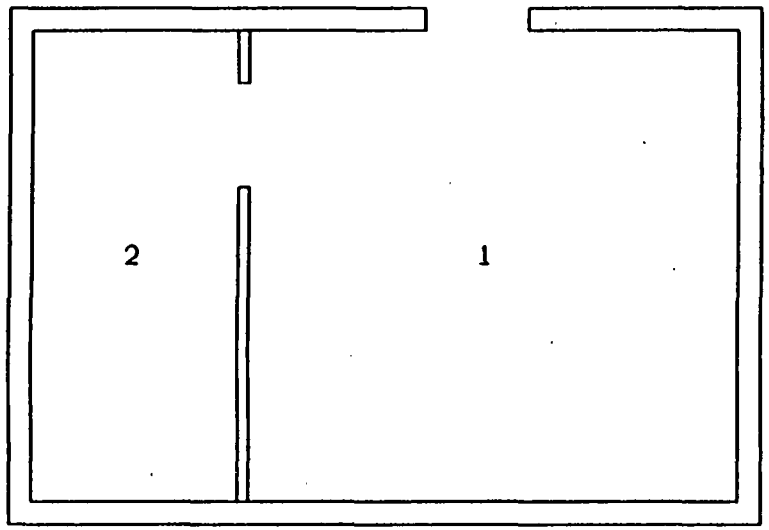

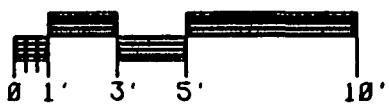

BLDG #55
FIRST FLOOR
BLDG CODE:3055

9.74-57

APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED: ___NONE ___ENGRG ___TECHC ___CHEMC	
TECH. REP.	
GR. MGR.	
ENGRG	
TECHC	
CHEMC	

DESIGN ENG	PROJ MGR
DRAWN	ENG REPV
LD & EC	PECH REV
ENG MGR	
APVD	DATE

SHEET	1	2	3	4	5	6
TABLE	Ø					

PART CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED

TITLE: (U) TITLE CLASSIFICATION
BLDG #55
FLOOR PLANS

SIZE	DRAWING NUMBER	JOB NUMBER
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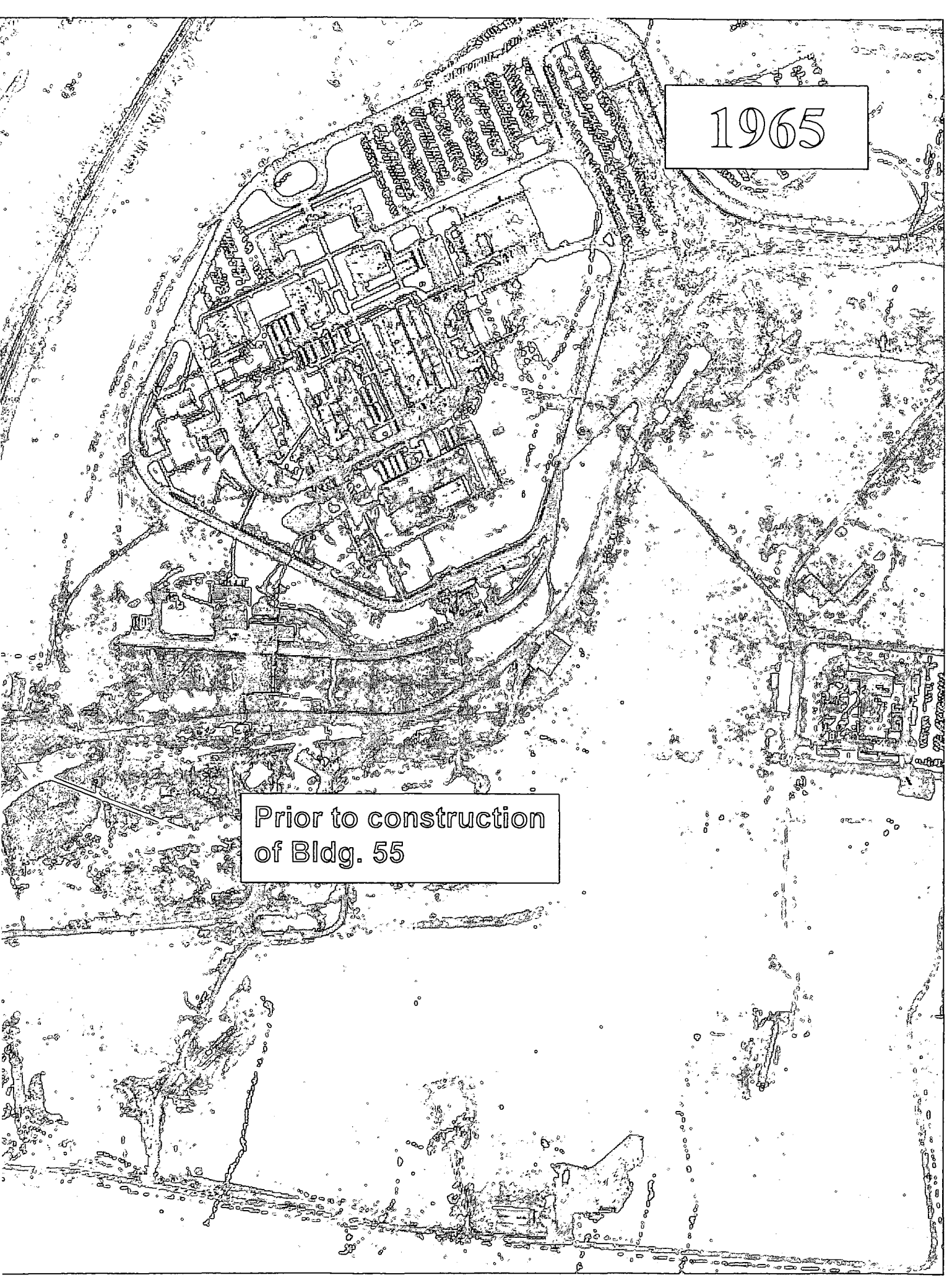
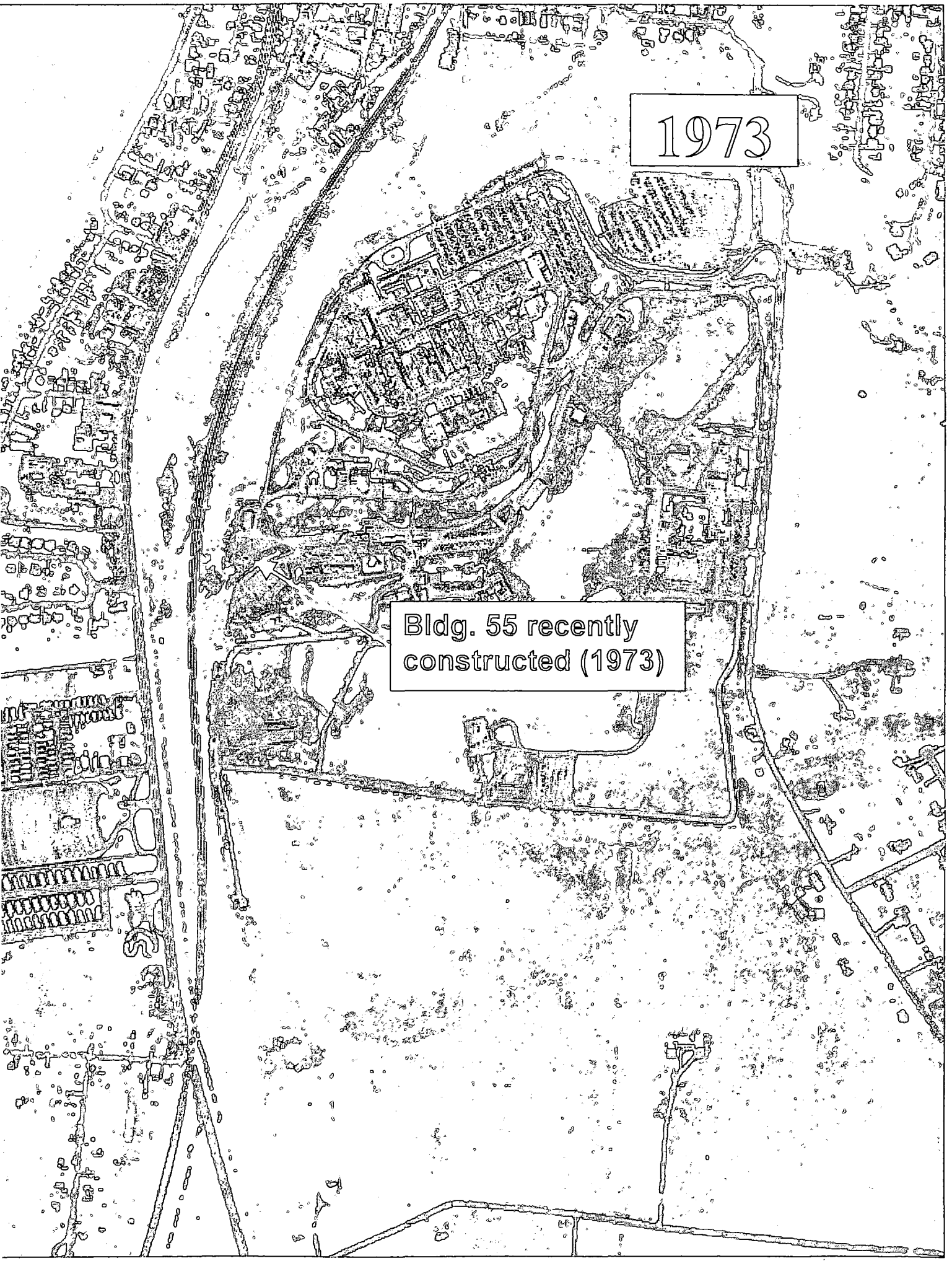
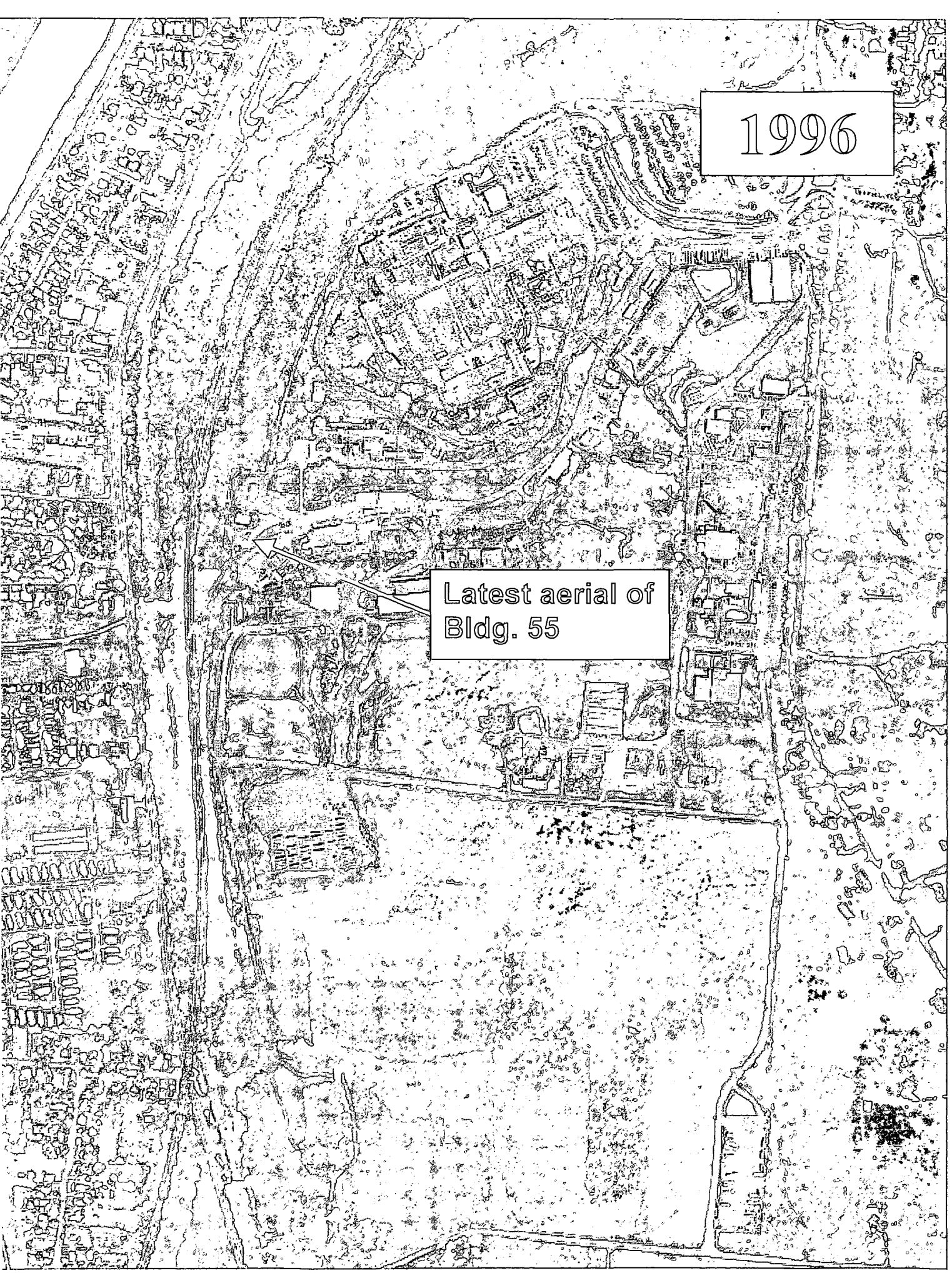
STATUS: MD-REL-12/12/91		ORIGIN: MD-BR3-V3.8		

Appendix E

Aerial Photographs


1965
Prior to construction
of Bldg. 55


1973
Bldg. 55 recently constructed (1973)


1996
Latest aerial of
Bldg. 55

Appendix F

Environmental Appraisal Report of the Mound Plant (excerpt)

9.74 BUILDING 55

9.74.1 Scope of Building 55 Report

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

The appraisal team performed a walk-through of Building 55 on the afternoon of February 8, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.74.6.1). The appraisers were accompanied by the building manager. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.74.6.2).

9.74.2 Description of Building 55

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

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

Building 55 was constructed in ~~1955~~ 1973 (VKD) per building drawing and aerial photographs (*Capital Assets Management Process Camp Report, FY 1996*). The building is now used only for storing water sampling equipment, supplies, and containers.

9.74.3 Summary of Findings

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

9.74.4 Observations

9.74.4.1 Air Emissions

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

9.74.4.2 Wastewater Emissions

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

9.74.4.2.1 Sanitary Wastewater

The building has sanitary services. According to a diagram of underground utility lines, presented as Attachment 5 (Section 9.74.6.5), the building is serviced by a sanitary line. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort; therefore, neither dye tests nor smoke tests were conducted.

Sanitary effluent from the laboratory sink and one floor drain in the original storage/equipment room is conveyed to the onsite tertiary wastewater treatment facility, and subsequently discharged to the Great Miami River. There is no monitoring of building effluent. Based operations information, supplied by the building manager, effluent from Building 55 does not deviate from that expected by the sanitary treatment plant manager.

9.74.4.2.2 Storm Wastewater

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

9.74.4.2.4 Chemicals

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

9.74.4.3 Potable and Service Water

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

9.74.4.4 Chemical Storage and Hazardous Materials

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

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

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

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

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

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

9.74.4.5 Solid, Hazardous, and Radioactive Wastes

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

9.74.4.6 Waste Minimization and Pollution Prevention

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

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

9.74.5 Findings and Recommendations

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

The environmental appraisal of Building 55 indicates that the following action items, in recommended priority, should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

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

55-2 General housekeeping procedures should be reviewed.

ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 55 Environmental Equipment Storage

Appraisers:

Team #4

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

Building Manager: Bob Ward (x-3821)

Process Manager: _____

Date: 8 February 1996

ENVIRONMENTAL APPRAISAL CHECKLIST

Table of Contents

Environmental Appraisal Checklist

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

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list? Are they properly contained?	Y /(N) Y / N	NONE
	Is the building in operation? What are the processes and where do they discharge to?	(Y)/ N _____ _____	NO PROCESSES
	Do the floor drains, ~~sinks & toilets~~ SIET appear to be draining properly?	(Y)/ N	
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	(Sanitary) Storm	
	Is there a sump/pit in the building? If so, what does it contain? How often is it pumped out? Does water collect in sump? Does sump have secondary containment?	Y /(N) _____ _____ Y /(N) Y / N	
	Are there any manholes, catch basins, drains, or fill pipes in or around the building? If so, are there any unusual appearances, colors, and/or odors? Describe in comment section. Can chemicals flow into the drain?	Y /(N) Y / N Y / N	

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Environmental Appraisal Checklist

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

Clean Air Act (CAA) Screening Checklist

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

CAA Checklist

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

Environmental Appraisal Checklist

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

CAA Checklist

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

TABLE A

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

Source: _____

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Environmental Appraisal Checklist

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

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

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

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

HM Checklist

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

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Environmental Appraisal Checklist

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

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory

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

Blank

Source: _____

Environmental Appraisal Checklist

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

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

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

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead

Source: _____

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Environmental Appraisal Checklist

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

RCRA Screening Checklist

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

RCRA Checklist

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

Environmental Appraisal Checklist

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

RCRA Checklist

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

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Environmental Appraisal Checklist

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

RCRA Checklist

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

Environmental Appraisal Checklist

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

RCRA Checklist

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

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Environmental Appraisal Checklist

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

RCRA Checklist

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

General Comments:

Environmental Appraisal Checklist

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

Asbestos Screening Checklist

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

Asbestos Checklist

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

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

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Environmental Appraisal Checklist

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

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

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

TSCA Checklist

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

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

TSCA Checklist

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

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Environmental Appraisal Checklist

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

TSCA Checklist

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

GENERAL COMMENTS:

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

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

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

Low-Level Waste and Transuranic Waste Checklist

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

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Environmental Appraisal Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

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

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

9.74-29

9.74-30

Environmental Appraisal Checklist

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

Waste Minimization/Pollution Prevention Activities Screening Checklist

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

Waste Minimiaztion/Pollution Prevention Activities Checklist

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

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

Waste Minimization/Pollution Prevention Activities Checklist

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

9.74-31

Environmental Appraisal Checklist

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

Waste Minimization/Pollution Prevention Activities Checklist

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

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

Waste Minimization/Pollution Prevention Activities Checklist

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

9.74-33

Environmental Appraisal Checklist

Building Name: 55 Appraisers: Team Ty Date: 2-8-96

Waste Minimization/Pollution Prevention Activities Checklist

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

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

Waste Minimization/Pollution Prevention Activities Checklist

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

9.74-35

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Building Manager's Questionnaire

Building Name: 55 Building Manager: R.A. Ward Phone: 3821 Date: 12-07-95
Alternate: R. BOEHLER Phone: 4886

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

NONE

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

NONE

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

4. Provide a physical description of the building.

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

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

5. Provide a drawing of the building.

Attached

6. What is the current building use?

Environmental sampling equipment is stored in the building.

Source: Mound Buildings, 5-9-95

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

Source: Mound Buildings, 5-9-95

9.74-39

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

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

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

How Wastes Are Generated:

No hazardous wastes are generated in this building.

Contact:
Phone #:

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

Building Manager's Questionnaire

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

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

10. Does the building have air emission sources? No

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

Source: Mound Air Emissions Database 11/30/95

9.74-41

Building Manager's Questionnaire

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

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

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

Source: Air Permits 2/4/95

12. For existing permits are emissions monitored? At what frequency? Where are the records maintained?

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

Source: Air Permits 2/4/95

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

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

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

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

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

Building Manager's Questionnaire

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

17. Does the building contain transformers or capacitors? NO

Source: PCB ANNUAL DOCUMENT LOG

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

Source: PCB ANNUAL DOCUMENT LOG

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

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

9.74-43

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

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?

N/A

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

N/A

23. Where do excess janitorial supplies go?

N/A

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

Building Manager's Questionnaire

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

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

NONE

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

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

Source: _____

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

Materials	Amount

Source: _____

9.74-45

Building Manager's Questionnaire

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

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

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

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

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

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

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

Source: _____

Building Manager's Questionnaire

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

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

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

Source: _____

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

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

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

Source: _____

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

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

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

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

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Appendix G

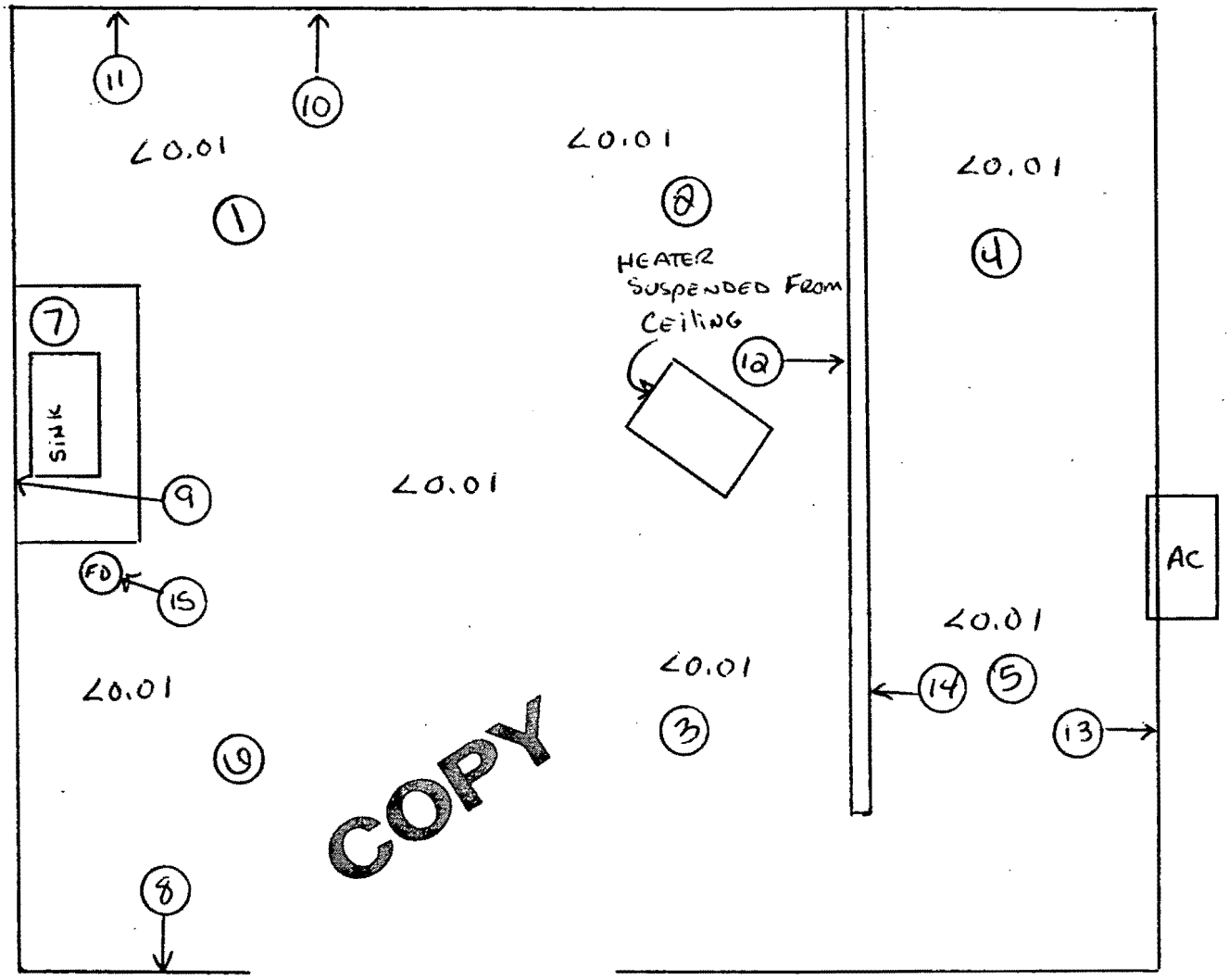
Radiological Information

RADIOLOGICAL SURVEY DATA SHEET

PAGE 1 of 8

LOCATION: (BLDG./AREA/ROOM) 55	SURVEY NO. 02-TF-0152
PURPOSE: GENERIC DISPOSITION SURVEY	RWP NO. N/A
	DATE: 1-24-02
	TIME: 1030

MAP/DRAWING



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

FD - FLOOR DRAIN AC - AIR CONDITIONER

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
BICRON μREM	3930	8-6-02
ELECTRA	5439/5298	12-10-02
2350	5671/5675/5148	9-21-02

[redacted]

HP # 6196 / 608	Date: 2-12-02
HP # [redacted]	Date:
ATTACHED	
HP # 7707	Date: 02/13/02

ML-9620 (2-98)

Survey No.
02-TF-0152

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination					Removable Contamination				
Swipes (dpm/100cm²)				LOCATION	Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments	Sample #	β/γ	Alpha	Tritium	Comments
1	SEE	ATTACHED		FLOOR / F01					
2	↓	↓	↓	F02					
3				F03					
4				F04					
5				F05					
6				F06					
7				SINK / S01					
8				WALL / W01					
9				W02					
10				W03					
11				VENT / V01					
12				WALL / W04					
13				W05					
14	↓	↓	↓	W06					
15	SEE	ATTACHED		FLOOR DRAIN / D01					

COMMENTS: LARGE AREA WIPES TAKEN ON FLOOR, AIR CONDITIONER & HEATER: α < 100dpm / wipe
β < 5000dpm / wipe

NOTES:

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

ML-9620A (4-98)

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) 55	SURVEY NO. 02-TF-0152
PURPOSE: GENERIC DISPOSITION SURVEY	RWP NO. N/A
	DATE: 1-24-02
	TIME: 1030

MAP / DRAWING

DIRECT MEASUREMENTS TAKEN AT ALL SMEAR LOCATIONS

BETA MEASUREMENTS TAKEN WITH NE ELECTRA: $\beta < 5000$ dpm/100cm^2

ALPHA MEASUREMENTS TAKEN WITH LUDLUM 2350: $\alpha < 100$ dpm/100cm^2

*EXCEPT FOR SMEAR LOCATION 11: α: 143 dpm/100cm^2

AFTER ALLOWING FOR RADON DECAY, THIS AREA WAS RESURVEYED: $\alpha < 100$ dpm/100cm^2

LEGEND:
- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- —·—·— = radiological boundary
- (#) = mrem/hr neutron
- (#) = swipe number
- # = air sample number
- or /β = direct contamination measurement in dpm/100 cm^2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
BICRON μREM	3930	8-6-02
ELECTRA	5439/5298	12-10-02
2350	5671/5675/5148	9-21-02
—	N/A	—

[redacted]

HP#	Date:
0196	2-12-02
6178	
HP#	Date:
HP#	Date:

55-BLDG M-2350 SURVEY

RSDS# 02-TF-0152 RCT: MJL RCT: DJA

43-20 BKG:	0	EFF:	0.193	PROBE AREA:	181	cm	Surface Eff:		0.5	
43-37 BKG:	0	EFF:	0.183	PROBE AREA:	584	cm	Surface Eff:		0.5	

LOCATION	2350#	RCT ID	PROBE	DET #	ITEM #	DATE	TIME	CNTS	CT TIME	dpm/100cm2	
SRCBKG	5671	6178	5675	4		1/24/02	7:27	46	300	17	
SRCCHECK	5671	6178	5675	4		1/24/02	7:29	2273	60	4254	
SRCCHECK	5671	6178	5675	4		1/24/02	7:31	2261	60	4231	
SRCCHECK	5671	6178	5675	4		1/24/02	7:32	2148	60	4020	
SRCCHECK	5671	6178	5675	4		1/24/02	7:35	2183	60	4085	
SRCCHECK	5671	6178	5675	4		1/24/02	7:37	2196	60	4110	
SRCCHECK	5671	6178	5675	4		1/24/02	7:38	2205	60	4126	
SRCBKG	5671	6178	5148	3		1/24/02	7:45	0	300	0	
SRCCHECK	5671	6178	5148	3		1/24/02	7:49	2046	60	11714	
SRCCHECK	5671	6178	5148	3		1/24/02	7:51	2083	60	11926	
SRCCHECK	5671	6178	5148	3		1/24/02	7:56	2024	60	11588	
SRCCHECK	5671	6178	5148	3		1/24/02	7:57	2019	60	11559	
BLD55 F01	5671	6178	5675	4	1	1/24/02	10:34	7	24	33	
BLD55 F02	5671	6178	5675	4	2	1/24/02	10:35	8	24	37	
BLD55 F03	5671	6178	5675	4	3	1/24/02	10:37	12	24	56	
BLD55 F04	5671	6178	5675	4	4	1/24/02	10:38	6	24	28	
BLD55 F05	5671	6178	5675	4	5	1/24/02	10:38	9	24	42	
BLD55 F06	5671	6178	5675	4	6	1/24/02	10:40	6	24	28	
BLD55 S01	5671	6178	5148	3	7	1/24/02	10:57	2	24	29	
BLD55 W01	5671	6178	5148	3	8	1/24/02	10:58	2	24	29	
BLD55 W02	5671	6178	5148	3	9	1/24/02	10:59	1	24	14	
BLD55 W03	5671	6178	5148	3	10	1/24/02	11:00	1	24	14	
BLD55 V01	5671	6178	5148	3	11	1/24/02	11:01	10	24	143	*
BLD55 W04	5671	6178	5148	3	12	1/24/02	11:02	6	24	86	
BLD55 W05	5671	6178	5148	3	13	1/24/02	11:03	6	24	86	
BLD55 W06	5671	6178	5148	3	14	1/24/02	11:04	2	24	29	
BLD55 D01	5671	6178	5148	3	15	1/24/02	11:05	1	24	14	

* SEE EXPLANATION ON PAGE 3.

COPY

CONTAMINATION PROBE INTEGRATED COUNT MDA

<SELECT> Probe Type		181	Model 43-20 cm2	Active Probe Area
<ENTER> Isotopic Efficiency Listed on Probe	Ei	0.166	c/d	Instrument Efficiency (c/d-on Probe)
<SELECT> Contamination Type (Alpha Or Beta)	Es	Alpha	0.5	Surface Efficiency (1 for beta/0.5 for alpha)
	E	0.083		Total Efficiency (CALCULATED =Ei * Es)
<ENTER> Background Count Rate	Rb	0	CPM	Background Count Rate
<ENTER> Background Count Time (minutes)	Tb	5	min.	

Enter the above information in the 'gray areas'. Then adjust sample intergrated count time to obtain desired MDA.

Sample Integrated Count Time (sec.)		24	sec.
Sample Count Time (minutes) (Tsb)		0.40	min.
*	MDA	50	dpm/100 cm2

Minimum Activity Detected Per Probe Area (dpm/Probe): 90

Performed by: [redacted] HP#: 6178 Date: 1-24-2002

* MDA Equation Source: NUREG 1507, Eq. 3-11 (Strom & Stansbury 1992), where K = E*A/100

COPY

CONTAMINATION PROBE INTEGRATED COUNT MDA

<SELECT> Probe Type		584	Model 43-37 cm2	Active Probe Area
<ENTER> Isotopic Efficiency Listed on Probe	Ei	0.166	c/d	Instrument Efficiency (c/d-on Probe)
<SELECT> Contamination Type (Alpha Or Beta)	Es		0.5	Surface Efficiency (1 for beta/0.5 for alpha)
	E	0.083		Total Efficiency (CALCULATED =Ei * Es)
<ENTER> Background Count Rate	Rb	9.2	CPM	Background Count Rate
<ENTER> Background Count Time (minutes)	Tb	5	min.	

Enter the above information in the 'gray areas'. Then adjust sample intergrated count time to obtain desired MDA.

Sample Integrated Count Time (sec.)		24	sec.
Sample Count Time (minutes) (Tsb)		0.40	min.
*	MDA	49	dpm/100 cm2

Minimum Activity Detected Per Probe Area (dpm/Probe): 288

Performed by: [redacted] HP#: 6178 Date: 1-24-2002

* MDA Equation Source: NUREG 1507, Eq. 5-11 (Strom & Stansbury 1992), where K = E*A/100

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Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR008
Batch Ended: 1/30/02 9:01

Crosstalk correction performed.

Recalibration Date: 4/3/02
Serial Number: 26966-1

Batch ID: RUBADUE 02-TF-9152 (15) CYR

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	0.00	2.19		0.00	1.63	
A2	2	0.00	2.24		0.00	1.49	
A3	3	0.00	2.04		0.00	1.41	
A4	4	0.00	2.01		0.00	2.37	
B1	5	0.00	2.05		1.54	2.06	
B2	6	0.00	2.06		0.00	1.22	
B3	7	0.00	1.92		0.99	2.05	
B4	8	0.00	1.88		0.00	1.12	
C1	9	0.00	2.25		0.41	4.53	
C2	10	0.00	2.14		0.88	3.32	
C3	11	0.00	2.00		1.19	2.72	
C4	12	0.00	1.94		1.37	2.32	
D1	13	0.00	2.21		1.13	2.02	
D2	14	0.00	2.15		0.00	1.42	
D3	15	0.00	2.06		0.00	1.44	

MDL

DJH

MDL

Yolanda Stringer 1-30-02

1/30/02 12:18:51 PM QuantaSmart (TM) - 1.31 - Serial# 423022 Page # 1

Protocol# 3 - Smears.lsa User: 5737

RUBADUE SUR #02-TF-0152 (J1-J15)/BKS

T-413

Cycle 1 Results

S#	Count Time	CPMA	CPMB	CPMC	LUM	tSIE	DPM1	A:2S%	MESSAGES
-1	10.00	23	21	5	0	558.90	0	13.3	B
0	2.00	218	197	1	0	527.11	414	10.2	
1	2.00	0	0	2	0	574.79	0	0.0	
2	2.00	0	0	1	0	578.95	0	0.0	
3	2.00	0	0	0	0	596.51	0	0.0	
4	2.00	0	0	4	0	624.13	0	0.0	
5	2.00	0	0	0	0	554.07	0	0.0	
6	2.00	0	0	0	0	559.45	0	0.0	
7	2.00	0	0	0	0	395.05	0	0.0	
8	2.00	0	0	0	0	583.54	0	0.0	
9	2.00	0	0	0	0	614.29	0	0.0	
10	2.00	0	0	2	0	578.84	0	0.0	
11	2.00	0	0	2	0	536.28	0	0.0	
12	2.00	0	0	1	0	530.42	0	0.0	
13	2.00	0	0	0	0	542.93	0	0.0	
14	2.00	0	0	0	0	648.39	0	0.0	
15	2.00	0	0	0	0	561.42	0	0.0	

Brenda Stringer 1-30-02

Appendix H

Radon Information

UNC Geotech

UNC Geotech
2597 B 3/4 Road
P.O. Box 14000
Grand Junction, Colorado 81502-5504
303/242-8621

April 12, 1990

Dennis Murphy
EG&G Mound Applied Technonogies
P.O. Box 3000
Mound Road
Miamisburg, OH 45343-3000

Dear Mr. Murphy:

I have enclosed the results ~~of the radon~~ measurements made at your site as part of the DOE Indoor Radon Study. A copy of these results can be provided in electronic ~~format if desired~~. The results will be forwarded to the study sponsor, the DOE Office of Projects and Facilities Management, by the end of April.

Please contact me at FTS 326-6293 or commercial (303) 248-6293 if you have any questions.

Sincerely yours,

Mark D. Pearson

Mark D. Pearson
Project Manager
UNC Geotech

cc: DOE Points of Contact

Bldg	Bldg Description	Room	pCi/l	pCi/l	Manid	Supid	Collect Date	Archive Date	Comments
21		ABOVE AIR SAMPLER	161.1	125.0	1678055	1666782	12/14/88	2/16/90	MET - OLD THORIUM STORAGE
21		ABOVE AIR SAMPLERS	115.7		1660508		12/14/88	2/16/90	MET - OLD THORIUM STORAGE
	SM	19 MID EAST WALL	4.0		1661547		12/13/89	2/19/90	HISTORY OF ELEVATED READINGS
48		114 B CLOSET ON SPRINKLER PIPE	3.2		1671282		12/12/88	2/19/90	
19		ROOM 1	2.6		1678051		12/13/89	2/19/90	
	OLD SO BLDG	BASEMENT RIGHT CABINET	2.4		1661595		12/14/88	2/19/90	
55		1 BELOW THERMOSTAT ON E WALL	2.1		1661515		12/19/89	2/19/90	
57		ROOM 1	1.9		1661565		12/12/88	2/19/90	
67		143	1.5		1661563		12/13/89	2/19/90	
998	FIRE STATION	ROOM 002 EQUIPMENT ROOM WITH SUMP	1.4		1654460		12/12/88	2/19/90	
24		ROOM 1 PLANT NORTH WALL	1.3		1672087		12/12/88	2/19/90	
	PAINT SHOP	PS 4	1.2		1661516		12/12/89	2/16/90	*
30		ROOM 3 EAST	1.1		1671262		12/12/88	2/16/90	
100		103 MIDDLE OF NORTH WALL	1.0		1678060		12/12/88	2/19/90	
37		6 NORTH WALL	1.0		1678046		12/12/88	2/19/90	
34		34 A WEST WALL	.9	.6	1672062	1672042	12/12/89	2/19/90	MET
102		123	.9		1661577		12/14/88	2/19/90	
61		RM 221 MIDDLE OF NORTH WALL	.9		1661585		12/13/89	2/19/90	
67		101 M	.9		1678028		12/12/89	2/19/90	
G-13	LOG	G-514 WEST WALL	.8		1661544		12/12/89	2/16/90	
	T	CORRIDOR 28	.8		1678039		1/15/90	2/19/90	
	T	153	.8		1678067		1/15/90	2/19/90	
	T	78	.8		1678077		1/15/90	2/19/90	
	T	38	.8		1661586		1/15/90	2/19/90	
105	PARTS MACHINING BUILDING	STAIRWELL NEXT TO ROOM 127	.8		1661564		12/12/89	2/19/90	
25	ARAC	3 ON BOOK CASE MIDDLE	.8		1671314		12/15/88	2/19/90	
60		1 ON DOOR TO ROOM 3	.8		1678049		12/12/89	2/19/90	
	A	153C CENTER CUBICLE WEST WALL	.8		1672056		12/14/89	2/16/90	
	C BUILDING OLD CAFETERIA	NORTHEAST SECTION INTERNAL WALL RM2	.8		1672052		12/12/89	2/16/90	
	R BUILDING	68 NORTH WALL	.8		1678068		12/12/89	2/16/90	
	SM	8 WEST WALL AT OLD RECOVERY	.8		1672057		12/11/89	2/16/90	
	WO BLDG	WO 8	.8		1678045		12/19/89	2/16/90	
87		124	.8		1678032		12/12/89	2/19/90	
88		ROOM 116 ON NORHT WALL RIGHT OF CEN	.7	.5	1661524	1661635	12/12/88	2/19/90	
89		101 NEAR BACK CORNER BY ROOF DRAIN	.7	.5	1666703	1660532	12/15/89	2/19/90	
22		RM 1 EAST CORRIDOR ON STORAGE RACK	.7		1678070		12/13/89	2/19/90	
56	FIRE PUMP HOUSE	ROOM 1 THERE IS ONLY 1 ROOM	.7		1678066		12/12/89	2/19/90	
	E ANNEX	E 225 EAST WALL	.7		1661552		12/19/88	2/16/90	
	POWER HOUSE PH-1	REPAIR SHOP NORTH EAST CORNER	.7		1678040		12/12/89	2/19/90	
	W BLDG	W-135	.7		1661553		12/12/89	2/16/90	
26		ROOM 84 SOUTH WEST WALL	.6	.8	1672048	1667158	12/13/89	2/16/90	
69		RM 7 ON NORTH WALL	.6	.4	1672044	1672077	12/12/89	2/19/90	
26		ROOM 84 SOUTH WEST WALL	.6		1671279		12/13/89	2/16/90	
35		RM 7	.6		1654459		12/14/89	2/19/90	
38	PP BLDG	PP CORR 136	.6		1678016		12/14/89	2/19/90	
72		ON OVERHEAD DOOR BEAM	.6		1672069		1/02/90	2/19/90	
93		HALLWAY 107 (MIDWAY)	.6		1661628		12/13/89	2/20/90	
98	FIRE STATION	ROOM 116 DORM	.6		1661507		12/12/89	2/19/90	
	COS	RM STAIRWELL AT BASEMENT LEVEL	.6		1672086		12/14/89	2/19/90	
	OSM	120 C	.6		1661573		12/12/89	2/16/90	
	SM	150 WEST END GAS BOX	.6		1678043		12/11/89	2/16/90	
	A	34 EAST WALL	.5	.7	1672075	1672051	12/14/88	2/16/90	
47		102 MIDDLE OF EAST WALL	.5	.5	1650110	1666819	12/12/89	2/16/90	

Area	Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
	45		WORK STATION AREA	.4		1681568		12/14/89	2/19/90	
	46		81 EAST HALL	.4		1672070		12/12/89	2/19/90	
	49		HALL OUTSIDE RM 125	.4		1678020		12/14/89	2/19/90	
	51		107 TOP OF FUME HOOD	.4		1681575		12/12/89	2/19/90	
	63		ROOM 134	.4		1672059		12/13/89	2/20/90	
	63W		RM 4	.4		1678078		12/14/89	2/19/90	
	65		ROOM 18 CONFERANCE ROOM	.4		1671284		12/14/89	2/19/90	
	66		OFFICE AREA	.4		1681554		12/12/89	2/19/90	
	68		EAST HALL CENTER BEAM	.4		1681555		12/14/89	2/19/90	
	69		RM 18A	.4		1681576		12/12/89	2/19/90	
	70		170 MEETING ROOM CENTER HALL	.4		1678041		12/12/89	2/19/90	
	88		ROOM 116	.4		1671295		12/12/89	2/19/90	
	95	SR/PP	95- BLD-ROOM41	.4		1661531		12/12/89	2/20/90	
		BS BUILDING	CORRIDOR 2 - 6 FT. ABOVE FLOOR	.4		1678071		12/13/89	2/19/90	
		I	I HALLWAY	.4		1667184		12/12/89	2/19/90	
		H BUILDING	H 21 WEST HALL	.4		1678057		12/15/89	2/20/90	
		POWER HOUSE PH-1	OFFICE SUPERVISOR	.4		1678035		12/12/89	2/19/90	
		R BUILDING	12 SOUTH HALL	.4		1681566		12/13/89	2/19/90	
	34		BURN ROOM			1654481		12/12/89		BURNT (NOT AVAILABLE)
	61		RM 151			1681567		12/13/89		MISSING

Bldg	Bldg Description	Room	Avg Radon pCi/l	Duplicate Radon pCi/l	Monid	Dupid	Monitor Install Date	Monitor Retrieve Date	Comments
	R BUILDING	143 NEXT TO NORTH WALL	.5	.5	1666533	1666816	12/13/89	2/16/90	
101		ROOM 5 ON SOUTH WEST WALL IN OFFSET	.5		1671268		12/12/89	2/19/90	
	"B" 175	175 WEST WALL	.5		1678048		12/12/89	2/16/90	
26		ELECTRICAL PANEL BH IN ELEC/RONICS	.5		1678062		12/12/89	2/19/90	
40		100	.5		1654488		12/13/89	2/16/90	
43		1 EAST WALL OVER WATER DISPENSER	.5		1678076		12/12/89	2/20/90	
44		ON BULLETIN BOARD	.5		1678047		12/12/89	2/16/90	
47		102 MIDDLE OF EAST WALL	.5		1678059		12/12/89	2/16/90	
50		CELL 113	.5		1681582		12/13/89	2/19/90	
78		CENTRAL HALLWAY WEST OF DOOR TO RM7	.5		1681605		12/18/89	2/16/90	
89		101 NEAR BACK CORNER BY ROOF DRAIN	.5		1678078		12/15/89	2/19/90	
91		1ST FLOOR	.5		1661525		12/15/89	2/16/90	
91		2ND FLOOR OUTSIDE RM215	.5		1681593		12/15/89	2/16/90	
92		HALLWAY RIGHT OFF ROOM 8	.5		1661509		12/12/89	2/19/90	
94		BAY 2 NORTH WALL	.5		1654477		12/12/89	2/19/90	
	A	215 WEST WALL	.5		1681572		12/14/89	2/16/90	
	A	1680 WEST WALL	.5		1681580		12/14/89	2/16/90	
	COS	118 N WALL NEAR PUNCH PRESS	.5		1654456		12/12/89	2/19/90	
	COS	318 WALL CABINET TO RIGHT OF SINK	.5		1681580		12/12/89	2/19/90	
	E BUILDING	158 WEST WALL	.5		1678033		12/14/89	2/16/90	
	E BUILDING	103 WEST WALL	.6		1678072		12/14/89	2/16/90	
	E ANNEX	E 212 NORTH WALL	.5		1681587		12/13/89	2/16/90	
	GH BUILDING	ROOM 2	.5		1678065		12/12/89	2/16/90	
	GP 81	1A MIDDLE OF WEST WALL	.5		1678054		12/12/89	2/19/90	
	H BLDG	ROOM 127	.5		1681571		12/12/89	2/16/90	
	HH	HH-8	.5		1671269		12/18/89	2/19/90	
	I BUILDING	BASEMENT LEFT CRAWL SPACE DOOR	.5		1671260		12/12/89	2/19/90	
	N BUILDING	N 108	.5		1678056		12/15/89	2/19/90	
	OSE	CORRIDOR 437	.5		1661536		12/15/89	2/16/90	
	OSE	CORRIDOR 301 ACROSS FROM WATER FOUN	.5		1672084		12/15/89	2/16/90	
	OSH	4HT FLOOR	.5		1678028		12/12/89	2/16/90	
	OSE	CORR 212 SOUTH WALL NEAR 210 DOOR	.5		1678036		12/15/89	2/16/90	
	OSH	319	.5		1678069		12/13/89	2/16/90	
	OSH	2ND FLOOR	.5		1681611		12/12/89	2/16/90	
	POWER HOUSE PH-1	STATIONARY BOARD CORNER	.5		1678073		12/12/89	2/19/90	
	R BUILDING	145 WEST WALL ABOVE BALANCE	.5		1654538		12/14/89	2/16/90	
	SH/R TRITIUM COMPLEX	128 OVER LARGE METAL FLOOR DISC	.5		1678019		12/12/89	2/16/90	
	W BLDG	W13S WEST CENTRAL WALL	.5		1671283		12/12/89	2/16/90	
	WO BLDG	WOA 110	.5		1671301		12/18/89	2/16/90	
	"B" 124	EAST WALL	.5		1667189		12/12/89	2/16/90	
	OSE	113 BULLETIN BOARD OPPOSITE ELEVATO	.5		1678027		12/15/89	2/16/90	
TF-2		114 EAST WALL CENTER OF ROOM	.4		1678064		12/12/89	2/19/90	
	HH	HH-24	.4		1667187		12/14/89	2/19/90	
	OS BUILDING	CORRIDOR 7 NEXT TO ROOM 216	.4		1661614		12/13/89	2/19/90	
	GP 81	1A MIDDLE OF WEST WALL	.4	.5	1672135	1661542	12/12/89	2/19/90	
105	PARTS MACHINING BUILDING	136 QC OFFICE	.4		1678017		12/12/89	2/19/90	
27		CELL 8 - WALL	.4		1681583		12/12/89	2/19/90	
28	CERAMIC PRODUCTION	101	.4		1672061		12/12/89	2/19/90	
29		HALLWAY	.4		1672105		12/14/89	2/19/90	
	TEST FIRE BUILDING 3	3-315	.4		1672036		12/12/89	2/19/90	
38	PP BLDG	PP CORR 16/BAY 2 WALL	.4		1681570		12/14/89	2/19/90	
39		BREAK RM	.4		1678050		12/14/89	2/19/90	
42		101 B EAST WALL	.4		1678031		12/13/89	2/19/90	

Appendix I

Asbestos Information

MOUND

INTEROFFICE CORRESPONDENCE

Date: April 4, 2002

From: Christopher Ahlquist
Industrial Hygienist, SMPP/TFV

To: Lee Koehmstedt
Project Engineer, SMPP/TFV

Re: Building 55: Asbestos-Containing Materials

On March 8, 2002, Mr. Christopher A. Ahlquist, an Industrial Hygienist with BWXT of Ohio, Inc. (BWXTO), conducted a survey of Building 55 at the Mound site in Miamisburg, Ohio for purpose of identifying asbestos-containing materials prior to demolition. Mr. Ahlquist is an Ohio Department of Health Certified Asbestos Hazard Evaluation Specialist as required by Ohio Department of Health regulations. During the course of the survey, Mr. Ahlquist reviewed previous survey reports and sampling data and collected additional bulk samples of materials found within Building 55 as necessary in order to determine the asbestos content of said materials. A room-by-room inspection of all accessible spaces was then conducted in order to prepare an inventory of the location and approximate quantities of identified asbestos-containing materials. One (1) of the suspect materials within Building 55 was found to contain greater than one percent (>1%) asbestos content which defines a material as asbestos-containing by EPA and OSHA regulations. This material was the black laboratory counter top located in Room 1 of the structure.

Sample Method

During BWXTO's survey, bulk samples were collected utilizing sampling methods and protocol specified in the EPA's Asbestos Hazard Emergency Response Act (AHERA). Each sample was collected and placed in a clean, sealable hard-shell container and labeled with a unique sample identification number. Pertinent information was recorded on a Bulk Sample Data Sheet including sample identification number, date of inspection, name of inspector, building name, a brief description and location of the sample, and the type of material sampled (e.g., preformed-block pipe insulation, aircell-paper pipe insulation, etc.).

Analysis of Samples

The samples were submitted to DataChem Laboratories of Cincinnati, Ohio and analyzed for asbestos content by PLM and dispersion staining (Method Reference: 40 CFR Part 763, Volume 47, No. 103, May 27, 1982 pg. 23376). This analytical method, which the EPA currently recommends for the determination of asbestos in bulk samples of suspect

materials, can be used for qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite asbestos. The method specifies that the asbestos content in a bulk sample shall be estimated and reported as a finite percentage (rounded to the nearest percentage) within the range of 0 to 100. The result of the bulk sample analysis is reported in a standard written laboratory report. This report includes the client name, the project number, the laboratory identification number, the sample number assigned to the bulk sample upon receipt at the laboratory, and the field number assigned to the bulk sample upon collection at the site. If the bulk sample contains more than one distinct layer of material, each layer is analyzed separately. The composition of the bulk sample is reported in percentages of asbestos (i.e., cellulose, fiberglass, or other) components. The results of the sample analyses can be found on the enclosed laboratory report.

DataChem Laboratories is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code #101917-0). NVLAP is the agency sponsored by the National Institute of Standards and Technology providing EPA accreditation of laboratories analyzing bulk samples for asbestos content.

Conclusions

Asbestos-containing black laboratory counter top was identified during the course of this survey. Fifteen (15) square feet of this material was located along the west wall of Room 1. This material will have to be removed from the building prior to demolishing the structure.

In addition, the building contains three-hundred (300) square feet of asphalt roofing which is nonfriable (Category I) and assumed to contain asbestos. This nonfriable material does not have to be removed prior to demolition so long as it remains nonfriable prior to that point. Since the building is scheduled for demolition, the EPA will have to be notified in writing on the proper forms before demolition can occur, and this quantity of nonfriable material must be specified.

Respectfully,

Christopher Ahlquist
Industrial Hygienist

ASBESTOS BULK SAMPLE DATA SHEET

PROJECT TITLE: Building 55 Pre-Demolition	Page No. 1 of 1
BUILDING/LOCATION: Bldg 55	SURVEY DATE: 3-8-02
SAMPLED BY: [redacted]	H NUMBER: 6110

HOMO AREA #	SAMPLE NUMBER	AMT.	SAMPLE LOCATION	MATERIAL DESCRIPTION	FRIABLE/ NONFRI.	COND.	SAMPLE RESULTS	COMMENTS
1	02030801		Lab counter top	Black counter top	NF		Chrysotile 10-20%	15 sf
2	02030802		wall	Drywall with tape and mud	NF		ND	

ADDITIONAL COMMENTS:

ML-9706

DATA CHEM LABORATORIES
A SORENSEN COMPANY

SUBMITTED TO:

Chris Ahlquist
BWXT of Ohio. Inc.
P.O. Box 3030, Building OSW-4
Miamisburg, OH 45343-3030

REFERENCE DATA:

Client Sample No.:	02030801 through 02030802
P.O. No.:	1999-00738
Sample Location:	Not Available
Sample Type:	Bulk
Method Reference:	EPA-600/R-93/116
DCL Set ID No.:	02-A-1112
DCL Sample ID No.:	02-07008 through 02-07009
Sample Receipt Date:	3/12/02
Analysis Date:	3/12/02

We certify that the following samples were prepared and analyzed by Polarized Light Microscopy for asbestos and other fibrous constituents using EPA-600/R-93/116. The samples were examined under a stereomicroscope in a laboratory fume hood for general composition and phase separation. If needed, portions of the sample were removed and ground with a mortar and pestle before being mounted on a glass microscope slide. Mountings of representative portions of the material are prepared in one or more appropriate refractive index liquids (1.550, 1.605, 1.680) and examined by Polarized Light Microscopy*. Estimates of concentration are made on an area basis. The results of the analysis apply only to the materials analyzed and are summarized on the attached Bulk Asbestos Analysis Data Sheets. DataChem Laboratories will dispose of all bulk samples after 60 days unless other arrangements are made.

Leandro A. Llambi
Analyst

Anna Marie Ristich
Reviewer

*Floor tiles, decorative paints, joint compounds, and cement materials require additional treatment in order to evaluate the concentration of small asbestos fibers bound in the material. Some samples may contain fibers which are not visible by PLM and can only be discovered by electron microscopy techniques. Floor tiles are analyzed as homogeneous materials if insufficient mastic is present or if phases have been cross-contaminated.

Laboratory accreditation by the National Institute of Standards and Technology does not in any way constitute approval or endorsement by NIST.

Samples will be disposed of after 60 days unless instructed otherwise. Report applies only to portion of sample analyzed.

DataChem Laboratories
Polarized Light Microscopy
Asbestos Analytical Summary

Client: BWXT of Ohio, Inc.
Location: Not Available
Set ID: 02-A-1112

Client Sample ID:	02030801	02030802
DCL Sample ID:	02-07008	02-07009
Macroscopic Examination		
Accepted/Rejected:	Accepted	Accepted
Homogeneity:	Layered/ Inseparable	Homog.
Color:	Blk/Brn/Wht	Gry/Tan/Grn
Texture:	Crmby/Fbrs	Crmby/Fbrs/Flky
Description:	Material	Dry Wall
Analysis:	PLM	PLM
Asbestiform Minerals		
% Chrysotile:	>10≤20	
% Amosite:	Trace	
% Crocidolite:		
% Tremolite - Actinolite:		
% Anthophyllite:		
% Total Asbestos:	**>10≤20**	**ND**
Other Materials		
% Cellulose:		>10≤20
% Fiberglass:		
% Other Fibers:		
% Resin/Binder:	>10≤20	>5≤10
% Non Fibrous:	>50≤60	>60≤70

ND = None Detected Trace = <1%

Special Prep Procedures: None.

*Notes: P. O. #: 1999-00738.

Leandro A. Llambi
Microscopist

All values are in area percent by visual estimate. The Federal Register Vol. 55 No. 224 Tuesday Nov. 20 1990 Rules and Regulations states "... the asbestos content is estimated to be less than 10% by a method other than point counting,... (the analysis) be repeated using the point counting techniqu by PLM." Any of the above samples can be reanalyzed by point counting at the client's request.
Wherever possible, separate phases are analyzed and reported individually.

BWXT of Ohio, Inc.

REQUEST FOR LABORATORY ANALYTICAL SERVICES AND CHAIN-OF-CUSTODY

02-A-1112

REPORT RESULTS TO	
	Name: CHRIS AHLQUIST Title: IH
	BWXT of Ohio, Inc.
	P.O. Box 3030 ~~Bldg. A-118~~ OSW-4
	Miamisburg, Ohio 45343-3030
	Telephone No. (937) 865-~~3822~~ 3737 FAX No. (937) 865-~~4444~~ 4158
Date Results Required:	RUSH 3-13-02 Noon Phone Results: [X] Fax
Special Instructions: (method, limit of detection, etc.)	EPA-600/R-93/116

SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request. Enter a 'P' if preservative added.) Asbestos-PLM	FOR LAB USE ONLY (task #, QC #, etc.)
02030801	3-8-02	Bulk	N/A	X	07008
02030802	3-8-02	Bulk	N/A	X	07009

CHAIN OF CUSTODY				
	Relinquished by:	Date/Time 3-11-02 / 19:48	Preservation Method:	
	Received by:	Date/Time		
	Relinquished by:	Date/Time	Analyzed by:	Date:
	Received by:	Date/Time	Received at Lab by:	Date/Time: 3/12/02 1040
	Method of Shipment: Personal Delivery		Name of Lab: Data Chem	

ML-9222 (10-01)

Appendix J

Lead Information

Paint is assumed to contain lead. No other lead was identified in the building.

Appendix K

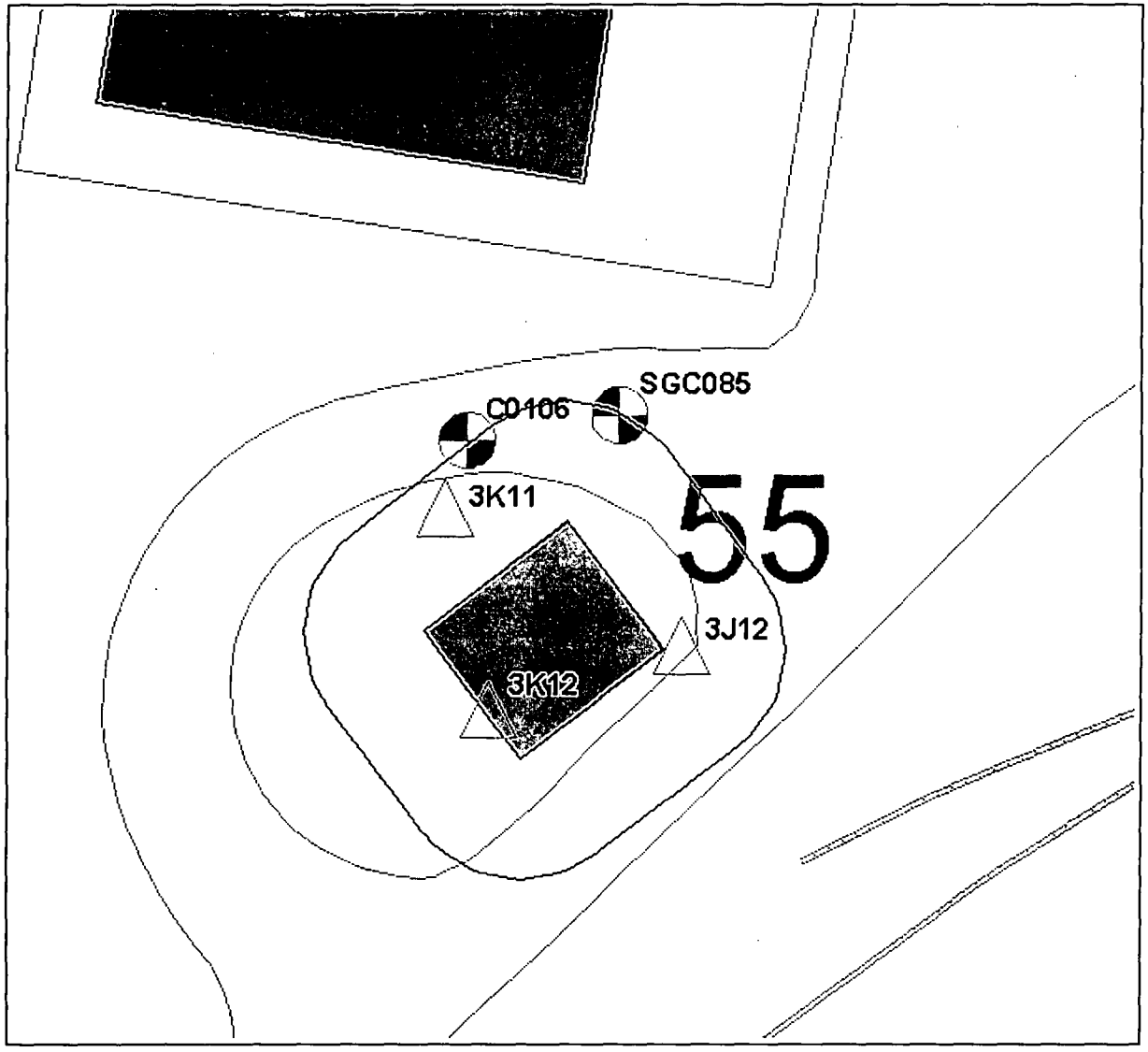
Chemical Information

All chemicals have been removed from the building. No further action required.

Appendix L

Soil Sampling, Vicinity

Sample Locations within 15 feet of Building 55



10 0 10 20 30 40 60 Feet

Sample Detect
Sample Detect Outline
Sample Nondetect Outline
Railroad
Line
Building Label
Text Bldg ID
Building Outline
Hidden Building Outline
Building Outline
Building
Color Fill
Roads
Paved Drives/Parking
Unpaved Drives/Parking
Survey
Site Boundary - current

N
W E
S

03/18/02

Building 55 Detects

Location_n	Sample_id	Collection	Value_name	Measured_val	Value_u	Detectio	Chem_	Start_	End_	Lab	Dat	Project_	Medi	Comments
SGC085	AO3141	19960213	Aluminum	7790.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Aluminum	5830.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Arsenic	3.6000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Arsenic	3.0000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3085	19960213	Barium	39.7000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3141	19960213	Barium	28.3000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3085	19960213	Benzo(a)anthracene	55.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Benzo(a)anthracene	39.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3085	19960213	Benzo(a)pyrene	54.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Benzo(a)pyrene	37.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3085	19960213	Benzo(b)fluoranthene	53.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Benzo(b)fluoranthene	35.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3085	19960213	Benzo(g,h,i)perylene	29.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Benzo(g,h,i)perylene	22.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3085	19960213	Benzo(k)fluoranthene	56.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Benzo(k)fluoranthene	39.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Beryllium	0.4800	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Beryllium	0.3200	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Bis(2-ethylhexyl)phthalate	44.0000	UG/KG		ORSV	0.0	3.0	JB		SGCSP	Soil	
SGC085	AO3141	19960213	Bis(2-ethylhexyl)phthalate	42.0000	UG/KG		ORSV	0.0	3.0	JB		SGCSP	Soil	
SGC085	AO3085	19960213	Calcium	169000.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Calcium	110000.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Chromium	11.3000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Chromium	10.8000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Chrysene	65.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Chrysene	47.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Cobalt	7.7000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3085	19960213	Cobalt	6.5000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3141	19960213	Copper	12.3000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Copper	11.9000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Cyanide	0.9600	MG/KG		INORG	0.0	3.0			SGCSP	Soil	2-Exceeds background value.
SGC085	AO3141	19960213	Dichloromethane (Methyle	11.0000	UG/KG		ORVO	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3085	19960213	Dichloromethane (Methyle	11.0000	UG/KG		ORVO	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3141	19960213	Di-n-butyl Phthalate	20.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3085	19960213	Fluoranthene	100.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Fluoranthene	84.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3085	19960213	Indeno(1,2,3-cd)pyrene	33.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Indeno(1,2,3-cd)pyrene	24.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Iron	20100.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Iron	15500.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	

Location_n	Sample_id	Collection	Value_name	Measured_val	Value_u	Detectio	Chem_	Start_	End_	Lab	Dat	Project_	Medi	Comments
SGC085	AO3085	19960213	Lead	12.4000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Lead	6.4000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Lithium	23.9000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Lithium	19.0000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3085	19960213	Magnesium	39900.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Magnesium	31800.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Manganese	456.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Manganese	430.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Molybdenum	1.4000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3085	19960213	Molybdenum	1.3000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	
SGC085	AO3141	19960213	Nickel	17.4000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Nickel	14.6000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Nitrate/Nitrite	7.4000	MG/KG	0.2200	ANION	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Nitrate/Nitrite	6.8000	MG/KG	0.2200	ANION	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Percent Solids	91.3000	%	0.1000	GENE	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Percent Solids	88.8000	%	0.1000	GENE	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Phenanthrene	38.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3085	19960213	Phenanthrene	28.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
C0106	1626	19830401	Plutonium-238	0.4100	PCI/G	0.0100	RAD	1.5	1.5			RSS	Soil	2-Exceeds background value.
C0106	1626	19830401	Plutonium-238	0.1300	PCI/G	0.0100	RAD	3.0	3.0			RSS	Soil	
SGC085	AO3141	19960213	Plutonium-238	0.1190	PCI/G	0.0018	RAD	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Plutonium-238	0.1180	PCI/G	0.0071	RAD	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Plutonium-239/240	0.0027	PCI/G	0.0018	RAD	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Potassium	1390.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Potassium	1150.0000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Potassium-40	10.5000	PCI/G	0.0000	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3085	19960213	Potassium-40	8.2100	PCI/G	0.0000	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3085	19960213	Pyrene	98.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Pyrene	72.0000	UG/KG		ORSV	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Radium-226	0.7040	PCI/G	0.4500	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3085	19960213	Radium-226	0.5520	PCI/G	0.3640	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3085	19960213	Sodium	355.0000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	2-Exceeds background value.
SGC085	AO3141	19960213	Sodium	328.0000	MG/KG		INORG	0.0	3.0	B		SGCSP	Soil	2-Exceeds background value.
SGC085	AO3141	19960213	Thorium-228	1.3500	PCI/G	0.0291	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3085	19960213	Thorium-228	1.1800	PCI/G	0.0213	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3141	19960213	Thorium-230	0.7580	PCI/G	0.0183	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3085	19960213	Thorium-230	0.5750	PCI/G	0.0205	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3141	19960213	Thorium-232	1.2500	PCI/G	0.0183	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3085	19960213	Thorium-232	0.8900	PCI/G	0.0181	RAD	0.0	3.0			SGCSP	Soil	1-Exceeds soil 10-6 GV.
SGC085	AO3141	19960213	Toluene	1.0000	UG/KG		ORVO	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3085	19960213	Toluene	1.0000	UG/KG		ORVO	0.0	3.0	J		SGCSP	Soil	
SGC085	AO3141	19960213	Uranium-234	0.7380	PCI/G	0.0292	RAD	0.0	3.0			SGCSP	Soil	

Location_n	Sample_id	Collection	Value_name	Measured_val	Value_u	Detectio	Chem_	Start_	End_	Lab	Dat	Project_	Medi	Comments
SGC085	AO3085	19960213	Uranium-234	0.5360	PCI/G	0.0248	RAD	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Uranium-235	0.0460	PCI/G	0.0268	RAD	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Uranium-235	0.0371	PCI/G	0.0248	RAD	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Uranium-238	0.7780	PCI/G	0.0313	RAD	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Uranium-238	0.6660	PCI/G	0.0248	RAD	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Vanadium	11.9000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Vanadium	9.8000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3141	19960213	Zinc	45.2000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	
SGC085	AO3085	19960213	Zinc	37.8000	MG/KG		INORG	0.0	3.0			SGCSP	Soil	

Building 55 Non-Detects

Location	Sample_id	Collection	Value_name	Measured_value	Value_un	Detection_limit	Chem_	Start	End	Lab	Dat	Project_	Medi
SGC085	AO3141	19960213	1,1,1-Trichloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,1,1-Trichloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,1,2,2-Tetrachloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,1,2,2-Tetrachloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,1,2-Trichloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,1,2-Trichloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,1-Dichloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,1-Dichloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,1-Dichloroethene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,1-Dichloroethene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,2,4-Trichlorobenzene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,2,4-Trichlorobenzene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,2-Dichlorobenzene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,2-Dichlorobenzene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,2-Dichloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,2-Dichloroethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,2-Dichloroethene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,2-Dichloroethene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,2-Dichloropropane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,2-Dichloropropane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,3,5-Trinitrobenzene	252.0000	UG/KG	252.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,3,5-Trinitrobenzene	238.0000	UG/KG	238.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,3-cis-Dichloropropene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,3-cis-Dichloropropene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,3-Dichlorobenzene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,3-Dichlorobenzene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,3-Dinitrobenzene	250.0000	UG/KG	250.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,3-Dinitrobenzene	236.0000	UG/KG	236.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,3-trans-Dichloropropene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,3-trans-Dichloropropene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	1,4-Dichlorobenzene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	1,4-Dichlorobenzene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,2'-oxybis(1-chloropropane)	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,2'-oxybis(1-chloropropane)	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,4,5-Trichlorophenol	940.0000	UG/KG	940.0000	ORSVO	0.0	3.0	U		SGCSP	Soil

Location	Sample_id	Collection	Value_name	Measured_value	Value_un	Detection_limit	Chem_	Start	End	Lab	Dat	Project_	Medi
SGC085	AO3141	19960213	2,4,5-Trichlorophenol	920.0000	UG/KG	920.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,4,6-Trichlorophenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,4,6-Trichlorophenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,4,6-Trinitrotoluene	252.0000	UG/KG	252.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,4,6-Trinitrotoluene	238.0000	UG/KG	238.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,4-Dichlorophenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,4-Dichlorophenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,4-Dimethylphenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,4-Dimethylphenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,4-Dinitrophenol	940.0000	UG/KG	940.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,4-Dinitrophenol	920.0000	UG/KG	920.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,4-Dinitrotoluene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,4-Dinitrotoluene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,4-Dinitrotoluene	250.0000	UG/KG	250.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,4-Dinitrotoluene	236.0000	UG/KG	236.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,6-Dinitrotoluene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,6-Dinitrotoluene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2,6-Dinitrotoluene	260.0000	UG/KG	260.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2,6-Dinitrotoluene	245.0000	UG/KG	245.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2-Butanone	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2-Butanone	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2-Chloronaphthalene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2-Chloronaphthalene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2-Chlorophenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2-Chlorophenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2-Hexanone	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2-Hexanone	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2-Methylnaphthalene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2-Methylnaphthalene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2-Methylphenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2-Methylphenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2-Nitroaniline	940.0000	UG/KG	940.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2-Nitroaniline	920.0000	UG/KG	920.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	2-Nitrophenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	2-Nitrophenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	3,3'-Dichlorobenzidine	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	3,3'-Dichlorobenzidine	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil

Location	Sample_id	Collection	Value_name	Measured_value	Value_un	Detection_limit	Chem_	Start	End	Lab	Dat	Project_	Medi
SGC085	AO3085	19960213	3-Nitroaniline	940.0000	UG/KG	940.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	3-Nitroaniline	920.0000	UG/KG	920.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4,4'-DDD	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4,4'-DDD	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4,4'-DDE	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4,4'-DDE	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4,4'-DDT	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4,4'-DDT	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4,6-Dinitro-o-Cresol	940.0000	UG/KG	940.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4,6-Dinitro-o-Cresol	920.0000	UG/KG	920.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Amino-2,6-Dinitrotoluene	500.0000	UG/KG	500.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Amino-2,6-Dinitrotoluene	472.0000	UG/KG	472.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Bromophenyl-phenyl Ether	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Bromophenyl-phenyl Ether	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Chloro-3-Methylphenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Chloro-3-Methylphenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Chloroaniline	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Chloroaniline	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Chlorophenyl-Phenylether	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Chlorophenyl-Phenylether	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Methyl-2-pentanone	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Methyl-2-pentanone	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Methylphenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Methylphenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Nitroaniline	940.0000	UG/KG	940.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Nitroaniline	920.0000	UG/KG	920.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	4-Nitrophenol	940.0000	UG/KG	940.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	4-Nitrophenol	920.0000	UG/KG	920.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Acenaphthene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Acenaphthene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Acenaphthylene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Acenaphthylene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Acetone	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Acetone	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Aldrin	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Aldrin	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Alpha Chlordane	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil

Location	Sample_id	Collection	Value_name	Measured_value	Value_un	Detection_limit	Chem_	Start	End	Lab	Dat	Project_	Medi
SGC085	AO3141	19960213	Alpha Chlordane	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Alpha-BHC	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Alpha-BHC	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Americium-241	0.5572	PCI/G	0.5570	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Americium-241	0.3770	PCI/G	0.3770	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Anthracene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Anthracene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Antimony	0.2000	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Antimony	0.2000	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Aroclor-1016	38.0000	UG/KG	38.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Aroclor-1016	37.0000	UG/KG	37.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Aroclor-1221	75.0000	UG/KG	75.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Aroclor-1221	73.0000	UG/KG	73.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Aroclor-1232	38.0000	UG/KG	38.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Aroclor-1232	37.0000	UG/KG	37.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Aroclor-1242	38.0000	UG/KG	38.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Aroclor-1242	37.0000	UG/KG	37.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Aroclor-1248	38.0000	UG/KG	38.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Aroclor-1248	37.0000	UG/KG	37.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Aroclor-1254	38.0000	UG/KG	38.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Aroclor-1254	37.0000	UG/KG	37.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Aroclor-1260	38.0000	UG/KG	38.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Aroclor-1260	37.0000	UG/KG	37.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Benzene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Benzene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Beta-BHC	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Beta-BHC	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Bis(2-chloroethoxy)methane	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Bis(2-chloroethoxy)methane	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Bis(2-chloroethyl)ether	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Bis(2-chloroethyl)ether	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Bismuth	1.1000	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Bismuth	1.0000	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Bismuth-207	0.0984	PCI/G	0.0984	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Bismuth-207	0.0843	PCI/G	0.0843	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Bismuth-210	0.1120	PCI/G	0.1120	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Bismuth-210	0.1074	PCI/G	0.1070	RAD	0.0	3.0	U		SGCSP	Soil

Location	Sample_id	Collection	Value_name	Measured_value	Value_un	Detection_limit	Chem_	Start	End	Lab	Dat	Project_	Medi
SGC085	AO3141	19960213	Bromodichloromethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Bromodichloromethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Bromoform	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Bromoform	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Bromomethane	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Bromomethane	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Butyl Benzyl Phthalate	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Butyl Benzyl Phthalate	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Cadmium	0.0900	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Cadmium	0.0900	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Carbazole	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Carbazole	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Carbon Disulfide	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Carbon Disulfide	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Carbon Tetrachloride	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Carbon Tetrachloride	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Cesium-137	0.1060	PCI/G	0.1060	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Cesium-137	0.0941	PCI/G	0.0941	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Chlorobenzene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Chlorobenzene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Chloroethane	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Chloroethane	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Chloroform	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Chloroform	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Chloromethane	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Chloromethane	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Cobalt-60	0.1575	PCI/G	0.1570	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Cobalt-60	0.1238	PCI/G	0.1240	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Cyanide	0.5600	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Delta-BHC	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Delta-BHC	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Dibenz(a,h)anthracene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Dibenz(a,h)anthracene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Dibenzofuran	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Dibenzofuran	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Dibromochloromethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Dibromochloromethane	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil

Location	Sample_id	Collection	Value_name	Measured_value	Value_un	Detection_limit	Chem_	Start	End	Lab	Dat	Project_	Medi
SGC085	AO3085	19960213	Dieldrin	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Dieldrin	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Diethyl Phthalate	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Diethyl Phthalate	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Dimethyl Phthalate	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Dimethyl Phthalate	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Di-n-butyl Phthalate	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Di-n-octyl Phthalate	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Di-n-octyl Phthalate	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Endosulfan I	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Endosulfan I	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Endosulfan II	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Endosulfan II	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Endosulfan Sulfate	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Endosulfan Sulfate	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Endrin	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Endrin	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Endrin Aldehyde	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Endrin Aldehyde	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Endrin Ketone	3.8000	UG/KG	3.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Endrin Ketone	3.7000	UG/KG	3.7000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Ethylbenzene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Ethylbenzene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Fluorene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Fluorene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Gamma Chlordane	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Gamma Chlordane	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Gamma-BHC (Lindane)	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Gamma-BHC (Lindane)	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Heptachlor	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Heptachlor	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Heptachlor Epoxide	1.9000	UG/KG	1.9000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Heptachlor Epoxide	1.8000	UG/KG	1.8000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Hexachlorobenzene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Hexachlorobenzene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Hexachlorobutadiene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Hexachlorobutadiene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil

Location	Sample_id	Collection	Value_name	Measured_value	Value_un	Detection_limit	Chem_	Start	End	Lab	Dat	Project_	Medi
SGC085	AO3085	19960213	Hexachlorocyclopentadiene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Hexachlorocyclopentadiene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Hexachloroethane	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Hexachloroethane	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	HMX	2200.0000	UG/KG	2200.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	HMX	2080.0000	UG/KG	2080.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Isophorone	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Isophorone	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Mercury	0.0600	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Mercury	0.0500	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Methoxychlor	19.0000	UG/KG	19.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Methoxychlor	18.0000	UG/KG	18.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Naphthalene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Naphthalene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Nitrobenzene	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Nitrobenzene	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Nitrobenzene	260.0000	UG/KG	260.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Nitrobenzene	245.0000	UG/KG	245.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	N-Nitroso-di-n-propylamine	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	N-Nitroso-di-n-propylamine	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	N-Nitrosodiphenylamine	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	N-Nitrosodiphenylamine	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Pentachlorophenol	940.0000	UG/KG	940.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Pentachlorophenol	920.0000	UG/KG	920.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	PETN	1000.0000	UG/KG	1000.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	PETN	943.0000	UG/KG	943.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Phenol	380.0000	UG/KG	380.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Phenol	370.0000	UG/KG	370.0000	ORSVO	0.0	3.0	U		SGCSP	Soil
3K11	3K11	19940817	Plutonium-238	6.0000	PCI/G	6.0000	RAD	0.0	1.5		U	2680	Soil
3K12	3K12	19940815	Plutonium-238	0.0000	PCI/G	0.0000	RAD	0.0	1.5		U	2680	Soil
3J12	3J12	19940815	Plutonium-238	0.0000	PCI/G	0.0000	RAD	0.0	1.5		U	2680	Soil
SGC085	AO3085	19960213	Plutonium-239/240	0.0064	PCI/G	0.0064	RAD	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	RDX	1000.0000	UG/KG	1000.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	RDX	943.0000	UG/KG	943.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Selenium	0.4300	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Selenium	0.4200	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Silver	0.1800	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil

Location	Sample_id	Collection	Value_name	Measured_value	Value_un	Detection_limit	Chem_	Start	End	Lab	Dat	Project_	Medi
SGC085	AO3085	19960213	Silver	0.1800	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Styrene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Styrene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Tetrachloroethene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Tetrachloroethene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Tetryl	750.0000	UG/KG	750.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Tetryl	708.0000	UG/KG	708.0000	OREXP	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Thallium	0.2000	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Thallium	0.2000	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
C0106	1626	19830401	Thorium-232	2.0000	PCI/G	2.0000	RAD	3.0	3.0	U		RSS	Soil
C0106	1626	19830401	Thorium-232	2.0000	PCI/G	2.0000	RAD	1.5	1.5	U		RSS	Soil
3K11	3K11	19940817	Thorium-232	1.2000	PCI/G	1.2000	RAD	0.0	1.5		U	2680	Soil
3J12	3J12	19940815	Thorium-232	0.6000	PCI/G	0.6000	RAD	0.0	1.5		U	2680	Soil
3K12	3K12	19940815	Thorium-232	0.4000	PCI/G	0.4000	RAD	0.0	1.5		U	2680	Soil
SGC085	AO3085	19960213	Tin	0.8300	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Tin	0.8100	MG/KG		INORG	0.0	3.0	U		SGCSP	Soil
3K12	3K12	19940815	Total Aromatic Hydrocarbons	4719578.0000	IC	4719578.0000	GENER	0.0	1.5		U	2680	Soil
3J12	3J12	19940815	Total Aromatic Hydrocarbons	1232352.0000	IC	1232352.0000	GENER	0.0	1.5		U	2680	Soil
3K11	3K11	19940817	Total Aromatic Hydrocarbons	117772.0000	IC	117772.0000	GENER	0.0	1.5		U	2680	Soil
3K12	3K12	19940815	Total C5 TO C11 Petroleum Hydro	58511629.0000	IC	58511629.0000	GENER	0.0	1.5		U	2680	Soil
3J12	3J12	19940815	Total C5 TO C11 Petroleum Hydro	2387412.0000	IC	2387412.0000	GENER	0.0	1.5		U	2680	Soil
3K11	3K11	19940817	Total C5 TO C11 Petroleum Hydro	342350.0000	IC	342350.0000	GENER	0.0	1.5		U	2680	Soil
3K11	3K11	19940817	Total Halogenated Hydrocarbons	8006.0000	IC	8006.0000	GENER	0.0	1.5		U	2680	Soil
3J12	3J12	19940815	Total Halogenated Hydrocarbons	3965.0000	IC	3965.0000	GENER	0.0	1.5		U	2680	Soil
3K12	3K12	19940815	Total Semivolatile Hydrocarbons	3010111.0000	IC	3010111.0000	GENER	0.0	1.5		U	2680	Soil
3J12	3J12	19940815	Total Semivolatile Hydrocarbons	10344.0000	IC	10344.0000	GENER	0.0	1.5		U	2680	Soil
3K11	3K11	19940817	Total Semivolatile Hydrocarbons	2434.0000	IC	2434.0000	GENER	0.0	1.5		U	2680	Soil
SGC085	AO3085	19960213	Toxaphene	190.0000	UG/KG	190.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Toxaphene	180.0000	UG/KG	180.0000	ORPPB	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Trichloroethene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Trichloroethene	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Vinyl Acetate	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Vinyl Acetate	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Vinyl Chloride	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Vinyl Chloride	11.0000	UG/KG	11.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3141	19960213	Xylenes, Total	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil
SGC085	AO3085	19960213	Xylenes, Total	6.0000	UG/KG	6.0000	ORVOA	0.0	3.0	U		SGCSP	Soil

LABORATORY DATA QUALIFIERS (LABQUAL)

The following qualifiers will be applied to the organic analysis results by the laboratory in accordance with CLP SOW direction:

ORGANICS

U	Indicates compound was analyzed for but not detected. The associated sample quantitation limit will be the CRQL, corrected for dilution and for percent moisture.
J	Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) assuming a 1:1 response, 2) when the qualitative data indicated the presence of a compound that meets the volatile, semivolatile, and pesticide/Aroclor identification criteria, and the result is less than the CRQL but greater than zero.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where identification is based on a mass spectral library search.
P	Used for pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns.
C	Applies to pesticide results where the identification has been confirmed by GC/MS.
B	Used when the analyte is found in the associated blank as well as in the sample. This flag must be used for a TIC as well as for a positively identified target compound.
E	Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
D	Identifies all compounds identified in an analysis at a secondary dilution factor.
A	Indicates that a TIC is a suspected aldol-condensation product.

INORGANICS

B	Indicates that the reported value was obtained from a reading that was less than the CRDL but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates that the analyte was analyzed for but not detected.
E	Indicates the reported value is estimated because of the presence of interferences.
M	Duplicate injection precision was not met.
N	Spiked sample recovery not within control limits.
S	Reported value was determined by the Method of Standard Additions (MSA).
W	Post-digestion spike for Furnace AA analysis is out of control limits, while sample absorbency is less than 50% of spike absorbency.
*	Duplicate analysis not within control limits.
+	Correlation coefficient for the MSA is less than 0.995.

DATA QUALIFIER CODES (DATAQUAL)

ORGANICS AND INORGANICS

U	The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
J	The associated numerical value is an estimated quantity.
R	The data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.
N	Presumptive evidence of the presence of the material.
NJ	Presumptive evidence of the presence of the material at an estimated quantity.
UJ	The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.

SUB-QUALIFIER CODES

ORGANICS

D	Duplicates
B	Qualified due to blank
C	Qualified due to calibration
H	Holding time exceeded
K	Qualified due to surrogate recovery
L	Qualified due to Laboratory Control Sample
S	Qualified due to matrix spike recovery
I	Qualified due to internal standard
N	Tentative identification (only for TICs)
P	Pesticide/PCB results have >25 percent difference on two different columns
+	Positive bias (added after subqualifier)
-	Negative bias (added after subqualifier)

INORGANICS

D	Duplicates
B	Qualified due to blank
C	Qualified due to calibration
H	Holding time exceeded
L	Qualified due to Laboratory Control Sample
S	Qualified due to matrix spike recovery
I	Qualified due to interference
+	Positive bias (added after subqualifier)
-	Negative bias (added after subqualifier)
Examples of final qualification might be J-C, UJ-S(+), UJ-BC(-), etc.	

The subqualifiers have been included to clarify any reports you may use. The subqualifiers have been captured when it was included in the electronic data submitted by the contractor. Most of the data in MEIMS does not include them.

The above data was extracted from the OU9 Site Wide Quality Assurance Project Plan, pages 9-16 and Appendix H page 3-1. It was updated from the Methods Compendium.

1	107-06-2	1,2-Dichloroethane	3.20E+00	MG/KG
1	118-96-7	2,4,6-Trinitrotoluene	1.91E+02	MG/KG
1	72-55-9	4,4'-DDE	9.00E+00	MG/KG
1	50-29-3	4,4'-DDT	9.00E+00	MG/KG
1	309-00-2	Aldrin	1.80E-01	MG/KG
1	5103-71-9	Alpha Chlordane	8.50E+00	MG/KG
1	12672-29-6	Aroclor-1248	3.85E-01	MG/KG
1	11096-82-5	Aroclor-1260	3.85E-01	MG/KG
1	7440-38-2	Arsenic	1.20E+03	MG/KG
1	71-43-2	Benzene	8.90E+00	MG/KG
1	56-55-3	Benzo(a)anthracene	4.10E+00	MG/KG
1	50-32-8	Benzo(a)pyrene	4.10E-01	MG/KG
1	205-99-2	Benzo(b)fluoranthene	4.10E+00	MG/KG
1	207-08-9	Benzo(k)fluoranthene	4.10E+01	MG/KG
1	7440-41-7	Beryllium	7.00E-01	MG/KG
1	319-85-7	Beta-BHC	1.65E+00	MG/KG
1	117-81-7	Bis(2-ethylhexyl)phthalate	2.15E+02	MG/KG
1	75-27-4	Bromodichloromethane	4.80E+01	MG/KG
1	75-25-2	Bromoform	3.75E+02	MG/KG
1	7440-43-9	Cadmium	1.00E+04	MG/KG
1	56-23-5	Carbon Tetrachloride	4.60E+00	MG/KG
1	67-66-3	Chloroform	3.10E+00	MG/KG
1	7440-47-3	Chromium	1.50E+03	MG/KG
1	218-01-9	Chrysene	4.10E+02	MG/KG
1	53-70-3	Dibenz(a,h)anthracene	4.10E-01	MG/KG
1	124-48-1	Dibromochloromethane	3.55E+01	MG/KG
1	75-09-2	Dichloromethane	3.95E+02	MG/KG
1	60-57-1	Dieldrin	1.85E-01	MG/KG
1	5103-74-2	Gamma Chlordane	8.50E+00	MG/KG
1	58-89-9	Gamma-BHC (Lindane)	2.30E+00	MG/KG
1	76-44-8	Heptachlor	0.66	MG/KG
1	1024-57-3	Heptachlor Epoxide	0.33	MG/KG
1	193-39-5	Indeno(1,2,3-cd)pyrene	4.10E+00	MG/KG
1	78-59-1	Isophorone	3.15E+03	MG/KG
1	86-30-6	N-Nitrosodiphenylamine	6.00E+02	MG/KG
1	87-86-5	Pentachlorophenol	2.50E+01	MG/KG
1	121-82-4	RDX	2.70E+01	MG/KG
1	79-01-6	Trichloroethene	4.10E+01	MG/KG
1	7440-41-7	1,1,1,2-Tetrachloroethane	1.10E-02	MG/L
1	7440-38-2	1,1,2,2-Tetrachloroethane	1.40E-03	MG/L
1	7440-34-8	Actinium-227	4.50E-01	PCI/G
1	14596-10-2	Americium-241	6.30E+00	PCI/G
1	13982-38-2	Bismuth-207	1.60E-01	PCI/G
1	10045-97-3	Cesium-137	3.40E-01	PCI/G
1	10198-40-0	Cobalt-60	7.00E-02	PCI/G
1	14255-04-0	Lead-210	6.20E-01	PCI/G
1	13981-16-3	Plutonium-238	6.10E+00	PCI/G
1	15117-48-3	Plutonium-239	5.50E+00	PCI/G

1	PU239/240	Plutonium-240		5.50E+00	PCI/G
1	13966-00-2	Potassium-40		1.42E+00	PCI/G
1	14331-85-2	Protactinium-231		3.90E-01	PCI/G
1	13982-63-3	Radium-226		9.00E-02	PCI/G
1	10098-97-2	Strontium-90		3.00E+00	PCI/G
1	14274-82-9	Thorium-228		1.40E-01	PCI/G
1	14269-63-7	Thorium-230		9.00E-02	PCI/G
1	7440-29-1	Thorium-232		7.00E-02	PCI/G
1	10028-17-8	Tritium		2.35E+04	PCI/G
1	13968-55-3	Uranium-233		9.68E-01	PCI/G
1	13966-29-5	Uranium-234		1.05E+01	PCI/G
1	15117-96-1	Uranium-235		1.60E+00	PCI/G
1	24678-82-8	Uranium-238		1.00E-01	PCI/G
1	14596-10-2	Americium-241		4.90E-01	PCI/L
1	14331-79-4	Bismuth-210		2.20E+01	PCI/L
1	15262-20-1	Radium-228		3.30E-01	PCI/L
1	13967-73-2	Strontium-85		1.10E+02	PCI/L
1	10098-97-2	Strontium-90		3.90E+00	PCI/L
1	15623-47-9	Thorium-227		4.00E+00	PCI/L
1	14274-82-9	Thorium-228		6.90E-01	PCI/L
1	14269-63-7	Thorium-230		1.20E-01	PCI/L
1	7440-29-1	Thorium-232		3.10E-01	PCI/L
1	24678-82-8	Uranium-238		1.10E-01	PCI/L
2	72-54-8	4,4'-DDD		4.2	MG/KG
2	72-55-9	4,4'-DDE		4.3	MG/KG
2	50-29-3	4,4'-DDT		13	MG/KG
2	309-00-2	Aldrin	ND		MG/KG
2	5103-71-9	Alpha Chlordane	ND		MG/KG
2	319-84-6	Alpha-BHC	ND		MG/KG
2	7429-90-5	Aluminum		19000	MG/KG
2	14596-10-2	Americium-241	ND		MG/KG
2	12672-29-6	Aroclor-1248	ND		MG/KG
2	11097-69-1	Aroclor-1254		58	MG/KG
2	11096-82-5	Aroclor-1260	ND		MG/KG
2	7440-38-2	Arsenic		8.6	MG/KG
2	7440-39-3	Barium		180	MG/KG
2	7440-41-7	Beryllium		1.3	MG/KG
2	319-85-7	Beta-BHC	ND		MG/KG
2	7440-69-9	Bismuth	ND		MG/KG
2	13982-38-2	Bismuth-207	ND		MG/KG
2	13982-38-2	Bismuth-207	ND		MG/KG
2	14331-79-4	Bismuth-210m	ND		MG/KG
2	7440-43-9	Cadmium		2.1	MG/KG
2	7440-70-2	Calcium		310000	MG/KG
2	7440-47-3	Chromium		20	MG/KG
2	7440-48-4	Cobalt		19	MG/KG
2	7440-50-8	Copper		26	MG/KG
2	57-12-5	Cyanide	ND		MG/KG

2	60-57-1	Dieldrin	ND	MG/KG
2	959-98-8	Endosulfan I	ND	MG/KG
2	1031-07-8	Endosulfan Sulfate	ND	MG/KG
2	72-20-8	Endrin	ND	MG/KG
2	7421-93-4	Endrin Aldehyde	ND	MG/KG
2	53494-70-5	Endrin Ketone	ND	MG/KG
2	5103-74-2	Gamma Chlordane	ND	MG/KG
2	58-89-9	Gamma-BHC (Lindane)	ND	MG/KG
2	76-44-8	Heptachlor	ND	MG/KG
2	1024-57-3	Heptachlor Epoxide	ND	MG/KG
2	77-47-4	Hexachlorocyclopentadiene	ND	MG/KG
2	7439-89-6	Iron	35000	MG/KG
2	7439-92-1	Lead	48	MG/KG
2	7439-93-2	Lithium	26	MG/KG
2	7439-95-4	Magnesium	40000	MG/KG
2	7439-96-5	Manganese	1400	MG/KG
2	7439-97-6	Mercury	ND	MG/KG
2	72-43-5	Methoxychlor	30	MG/KG
2	7439-98-7	Molybdenum	27	MG/KG
2	7440-02-0	Nickel	32	MG/KG
2	7440-09-7	Potassium	1900	MG/KG
2	7782-49-2	Selenium	ND	MG/KG
2	7440-22-4	Silver	1.7	MG/KG
2	7440-23-5	Sodium	240	MG/KG
2	7440-28-0	Thallium	0.46	MG/KG
2	7440-31-5	Tin	20	MG/KG
2	7440-62-2	Vanadium	25	MG/KG
2	7440-66-6	Zinc	140	MG/KG
2	7440-34-8	Actinium-227	1.10E-01	PCI/G
2	10045-97-3	Cesium-137	0.42	PCI/G
2	14255-04-0	Lead-210	1.20E+00	PCI/G
2	13981-16-3	Plutonium-238	0.13	PCI/G
2	15117-48-3	Plutonium-239	1.80E-01	PCI/G
2	PU239/240	Plutonium-240	1.80E-01	PCI/G
2	13966-00-2	Potassium-40	37	PCI/G
2	14331-85-2	Protactinium-231	1.10E-01	PCI/G
2	13982-63-3	Radium-226	2	PCI/G
2	10098-97-2	Strontium-90	0.72	PCI/G
2	14274-82-9	Thorium-228	1.5	PCI/G
2	14269-63-7	Thorium-230	1.9	PCI/G
2	7440-29-1	Thorium-232	1.4	PCI/G
2	10028-17-8	Tritium	1.6	PCI/G
2	13966-29-5	Uranium-234	1.1	PCI/G
2	15117-96-1	Uranium-235	0.11	PCI/G
2	24678-82-8	Uranium-238	1.2	PCI/G
3	7439-92-1	Lead	400	MG/KG
3	7440-34-8	Actinium-227	5.60E-01	PCI/G
3	14596-10-2	Americium-241	6.3	PCI/G

3	10045-97-3	Cesium-137	0.76	PCI/G
3	10198-40-0	Cobalt-60	7.00E-02	PCI/G
3	14255-04-0	Lead-210	1.80E+00	PCI/G
3	13981-16-3	Plutonium-238	55	PCI/G
3	14331-85-2	Protactinium-231	4.00E+00	PCI/G
3	13982-63-3	Radium-226	2.1	PCI/G
3	14274-82-9	Thorium-228	3	PCI/G
3	14269-63-7	Thorium-230	3	PCI/G
3	7440-29-1	Thorium-232	1.47	PCI/G
3	15117-96-1	Uranium-235	1.7	PCI/G
3	24678-82-8	Uranium-238	1.3	PCI/G
5	71-55-6	1,1,1-Trichloroethane	0.2	MG/L
5	79-00-5	1,1,2-Trichloroethane	0.005	MG/L
5	75-35-4	1,1-Dichloroethene	0.007	MG/L
5	120-82-1	1,2,4-Trichlorobenzene	0.07	MG/L
5	156-59-2	1,2-cis-Dichloroethene	0.07	MG/L
5	106-93-4	1,2-Dibromoethane	0.00005	MG/L
5	95-50-1	1,2-Dichlorobenzene	0.6	MG/L
5	107-06-2	1,2-Dichloroethane	0.005	MG/L
5	78-87-5	1,2-Dichloropropane	0.005	MG/L
5	156-60-5	1,2-trans-Dichloroethene	0.01	MG/L
5	106-46-7	1,4-Dichlorobenzene	0.075	MG/L
5	95-95-4	2,4,5-Trichlorophenol	0.05	MG/L
5	94-75-7	2,4-D	0.07	MG/L
5	7440-36-0	Antimony	0.0006	MG/L
5	7440-38-2	Arsenic	0.05	MG/L
5	7440-39-3	Barium	2	MG/L
5	71-43-2	Benzene	0.005	MG/L
5	50-32-8	Benzo(a)pyrene	0.002	MG/L
5	7440-41-7	Beryllium	0.004	MG/L
5	117-81-7	bis(2-ethylhexyl)phthalate	0.006	MG/L
5	75-27-4	Bromodichloromethane	0.008	MG/L
5	75-25-2	Bromoform	0.008	MG/L
5	7440-43-9	Cadmium	0.005	MG/L
5	56-23-5	Carbon Tetrachloride	0.005	MG/L
5	57-74-9	Chlordane	0.002	MG/L
5	108-90-7	Chlorobenzene	0.1	MG/L
5	67-66-3	Chloroform	0.008	MG/L
5	7440-47-3	Chromium	0.1	MG/L
5	7440-50-8	Copper	1.3	MG/L
5	57-12-5	Cyanide	0.2	MG/L
5	96-12-8	Dibromochloropropane	0.0002	MG/L
5	75-09-2	Dichloromethane (Methylene Chloride)	0.005	MG/L
5	88-85-7	Dinoseb	0.007	MG/L
5	1746-01-6	Dioxin	0.00000003	MG/L
5	72-20-8	Endrin	0.002	MG/L
5	100-41-4	Ethylbenzene	0.07	MG/L
5	16984-48-8	Flouride	4	MG/L

5	58-89-9	Gamma-BHC (Lindane)	0.0002	MG/L
5	76-44-8	Heptachlor	0.0004	MG/L
5	1024-57-3	Heptachlor Epoxide	0.0002	MG/L
5	118-74-1	Hexachlorobenzene	0.001	MG/L
5	77-47-4	Hexachlorocyclopentadiene	0.05	MG/L
5	7439-92-1	Lead	0.015	MG/L
5	7439-97-6	Mercury	0.002	MG/L
5	72-43-5	Methoxychlor	0.04	MG/L
5	7440-02-0	Nickel	0.1	MG/L
5	NO3	Nitrate	10	MG/L
5	14797-65-0	Nitrite	1	MG/L
5	87-86-5	Pentachlorophenol	0.001	MG/L
5	7782-49-2	Selenium	0.05	MG/L
5	100-42-5	Styrene	0.1	MG/L
5	127-18-4	Tetrachloroethene	0.005	MG/L
5	7440-28-0	Thallium	0.002	MG/L
5	108-88-3	Toluene	1	MG/L
5	8001-35-2	Toxaphene	0.003	MG/L
5	79-01-6	Trichloroethene	0.005	MG/L
5	75-01-4	Vinyl Chloride	0.002	MG/L
5	1330-20-7	Xylenes, Total	10	MG/L
5	7440-34-8	Actinium-227	0.4	PCI/L
5	14596-10-2	Americium-241	1.2	PCI/L
5	13982-38-2	Bismuth-207	1200	PCI/L
5	10045-97-3	Cesium-137	120	PCI/L
5	10198-40-0	Cobalt-60	400	PCI/L
5	13981-16-3	Plutonium-238	1.6	PCI/L
5	13982-63-3	Radium-226	4	PCI/L
5	10098-97-2	Strontium-90	40	PCI/L
5	14274-82-9	Thorium-228	16	PCI/L
5	14269-63-7	Thorium-230	12	PCI/L
5	7440-29-1	Thorium-232	2	PCI/L
5	10028-17-8	Tritium	20000	PCI/L
5	13968-55-3	Uranium-233	20	PCI/L
5	13966-29-5	Uranium-234	20	PCI/L
5	15117-96-1	Uranium-235	24	PCI/L
5	24678-82-8	Uranium-238	24	PCI/L
6	76-13-1	1,1,2-Trichloro-1,2,2triflouroethane	7.00E+04	MG/KG
6	75-34-3	1,1-Dichloroethane	7.80E+00	MG/KG
6	120-82-1	1,2,4-Trichlorobenzene	2.04E+04	MG/KG
6	156-59-2	1,2-cis-Dichloroethene	2.13E+03	MG/KG
6	156-60-5	1,2-trans-Dichloroethene	4.30E+03	MG/KG
6	99-65-0	1,3-Dinitrobenzene	2.00E+02	MG/KG
6	118-96-7	2,4,6-Trinitrotoluene	1.00E+03	MG/KG
6	78-93-3	2-Butanone	9.30E+03	MG/KG
6	95-57-8	2-Chlorophenol	1.06E+03	MG/KG
6	108-10-1	2-Methyl-4-pentanone	7.00E+02	MG/KG
6	50-29-3	4,4'-DDT	1.10E+02	MG/KG

6	106-44-5	4-Methylphenol	1.10E+03	MG/KG
6	67-64-1	Acetone	2.10E+04	MG/KG
6	309-00-2	Aldrin	6.4	MG/KG
6	5103-71-9	Alpha Chlordane	110	MG/KG
6	7429-90-5	Aluminum	210000	MG/KG
6	120-12-7	Anthracene	6.40E+04	MG/KG
6	7440-36-0	Antimony	8.50E+01	MG/KG
6	11097-69-1	Aroclor-1254	4.30E+00	MG/KG
6	7440-38-2	Arsenic	6.40E+01	MG/KG
6	7440-39-3	Barium	1.50E+04	MG/KG
6	65-85-0	Benzoic Acid	8.50E+05	MG/KG
6	7440-41-7	Beryllium	1.10E+03	MG/KG
6	117-81-7	Bis(2-ethylhexyl)phthalate	4.30E+03	MG/KG
6	75-27-4	Bromodichloromethane	4.30E+03	MG/KG
6	75-25-2	Bromoform	4.30E+03	MG/KG
6	85-68-7	Butyl Benzyl Phthalate	4.30E+04	MG/KG
6	7440-43-9	Cadmium	2.10E+02	MG/KG
6	75-15-0	Carbon Disulfide	2.80E+02	MG/KG
6	56-23-5	Carbon Tetrachloride	1.50E+02	MG/KG
6	75-00-3	Chloroethane	1.60E+02	MG/KG
6	67-66-3	Chloroform	2.10E+03	MG/KG
6	7440-47-3	Chromium	1.10E+03	MG/KG
6	18540-29-9	Chromium-VI	6.39E+02	MG/KG
6	7440-50-8	Copper	7.90E+03	MG/KG
6	57-12-5	Cyanide	4.30E+03	MG/KG
6	53-70-3	Dibenz(a,h)anthracene	4.08E-02	MG/KG
6	124-48-1	Dibromochloromethane	4.30E+03	MG/KG
6	75-09-2	Dichloromethane	1.00E+03	MG/KG
6	60-57-1	Dieldrin	1.10E+01	MG/KG
6	84-74-2	Di-n-butyl Phthalate	2.10E+04	MG/KG
6	117-84-0	Di-n-octyl Phthalate	4.30E+03	MG/KG
6	959-98-8	Endosulfan I	1300	MG/KG
6	33213-65-9	Endosulfan II	1300	MG/KG
6	100-41-4	Ethylbenzene	4.80E-01	MG/KG
6	86-73-7	Flourene	8.50E+03	MG/KG
6	206-44-0	Fluoranthene	8.50E+03	MG/KG
6	5103-74-2	Gamma Chlordane	110	MG/KG
6	58-89-9	Gamma-BHC (Lindane)	64	MG/KG
6	76-44-8	Heptachlor	110	MG/KG
6	1024-57-3	Heptachlor Epoxide	2.8	MG/KG
6	110-54-3	Hexane	9.10E+01	MG/KG
6	193-39-5	Indeno(1,2,3-cd)pyrene	4.08E-01	MG/KG
6	78-59-1	Isophorone	4.30E+04	MG/KG
6	7439-96-5	Manganese	2.70E+04	MG/KG
6	7439-97-6	Mercury	6.40E+01	MG/KG
6	72-43-5	Methoxychlor	1100	MG/KG
6	7440-02-0	Nickel	4.30E+03	MG/KG
6	87-86-5	Pentachlorophenol	6.40E+03	MG/KG

6	108-95-2	Phenol	1.30E+05	MG/KG
6	129-00-0	Pyrene	6.40E+03	MG/KG
6	7782-49-2	Selenium	1100	MG/KG
6	7440-22-4	Silver	1.10E+03	MG/KG
6	127-18-4	Tetrachloroethene	2.10E+03	MG/KG
6	7440-28-0	Thallium	17	MG/KG
6	7440-31-5	Tin	130000	MG/KG
6	108-88-3	Toluene	2.50E+02	MG/KG
6	75-69-4	Trichlorofluoromethane	7.30E+02	MG/KG
6	7440-62-2	Vanadium	1.50E+03	MG/KG
6	1330-20-7	Xylenes, Total	4.30E+05	MG/KG
6	7440-66-6	Zinc	6.40E+04	MG/KG
6	7440-41-7	1,1,1,2-Tetrachloroethane	2.90E-01	MG/L
6	7440-38-2	1,1,2,2-Tetrachloroethane	2.50E-01	MG/L
6	71-55-6	1,1,1-Trichloroethane	1.80E+00	MG/L
6	76-13-1	1,1,2-Trichloro-1,2,2triflouroethane	2.50E+03	MG/L
6	7429-90-5	Aluminum	100	MG/L
6	7440-42-8	Boron	9.00E+00	MG/L
6	18540-29-9	Chromium-VI	3.00E-01	MG/L
6	7440-48-4	Cobalt	6	MG/L
6	7440-50-8	Copper	4.00E+00	MG/L
6	7439-98-7	Molybdenum	0.5	MG/L
6	7782-49-2	Selenium	0.5	MG/L
6	7440-28-0	Thallium	0.008	MG/L
6	7440-31-5	Tin	60	MG/L
6	2691-41-0	HMX	1.10E+04	UG/KG
6	121-82-4	RDX	6.40E+04	UG/KG

1	Value is 10-6 Risk-Based Guide Value
2	Value is OU9 Soil Background Value
3	Value is screening level
5	Value is MCL
6	Value is the Guide Value based on the hazard index

Note:
Edited on 10/08/01
01/29/02 Removed all color

Appendix M

Occurrence Reports

There are no occurrence reports related to Building 55.

Appendix N

PRS Information

Recommendation pages are not generated for PRSs that require Further Assessment (FA) or that have been unbinned. Accordingly, there are no recommendation pages included for PRS 7, 41, 60, 61, and 62.

MOUND PLANT
PRS 58
SEDIMENT DRYING BEDS

RECOMMENDATION:

Potential Release Site (PRS) 58 was identified by the RCRA Facility Assessment due to its use as a storage area for the dredged spoils drying beds. This storage area, near the Sanitary Treatment Facility (Building 57), was used to store the beds after the beds were removed from servicing the Asphalt-Lined Pond's dredged spoils. The pond's dredged spoils contained low levels of plutonium-238 which were packaged for off-site disposal.

In 1984 and 1994, sampling taken from the area were the beds were stored, indicated that no contamination from the sludge or drying beds had occurred.

Therefore, NO FURTHER ASSESSMENT is recommended.

CONCURRENCE:

DOE/MB: Arthur W. Kleinrath, Remedial Project Manager — 11/21/96 (date)

USEPA: Timothy J. Fischer, Remedial Project Manager — 11/19/96 (date)

OEPA: Brian K. Nickel, Project Manager — 11/21/96 (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 11/29/96 to 01/01/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

Page R

MOUND PLANT
PRS 356
SOIL CONTAMINATION

RECOMMENDATION:

This area was identified as a potential release site in June 1994 due to qualitative PETREX soil gas results obtained during the Operable Unit 5, Operational Area Phase I Investigation. A subsequent quantitative *Soil Gas Confirmation Investigation* within 50 feet of PRS 356 showed that all concentrations of volatile, semivolatile, PCBs, pesticides, metals, radionuclides, and explosives in the soils were below their respective ALARA, regulatory or 10^{-5} Risk Based Guideline Criteria. Therefore, NO FURTHER ASSESSMENT is recommended for PRS 356.

CONCURRENCE:

DOE/MEMP: Arthur W. Kleinrath 2/19/1997
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fisher 2/19/97
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 2/19/97
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 5/8/97 to 6/16/97

☐ No comments were received during the comment period.

☒ Comment responses can be found on page 1, 2 of this package.

Appendix O

Work Plan

WORK PACKAGE / PRELIMINARY HAZARD ANALYSIS

The Project Engineer is responsible for completing Sections 1 through 10. On subcontractor projects, the subcontractor shall complete sections 6, 9, and 10.

1. WORK PACKAGE TITLE: Building 55 Demolition

2. WORK PACKAGE NUMBER. SMPP/TFV- 29945 – 00

3. WORK PACKAGE SCOPE: Demolish Building 55. Building 55 is a one-story, 330-square-foot concrete block structure with masonry exterior overlay. It is built slab-on-grade and has a built-up membrane coal tar roof. The two-room structure consists of a former water-testing laboratory. It contains a sink, an electric water heater, and a storage/equipment room. The building has 240V electrical service (Mound Facility Physical Characterization, 12-1-93). Building 55 was constructed in 1973 (Capital Assets Management Process Camp Report, FY96). It was used for storing water sampling equipment, supplies, and containers.

4. WORK PACKAGE PHASES:

1. Establish Work Zone
2. Demolish of Building 55
3. Remove Concrete Slab and Foundation
4. Site Restoration

Insert the proper sequence of Work Package phases for the job. A phase is a separately definable portion of the project.

5. WORK LOCATION:

Building #:55
Room #: N/A

6. SPECIAL MATERIALS AND EQUIPMENT:

1. Concrete pulverizer
2. Excavator w/hoe ram
3. Front end loader
4. Heavy equipment as required.

7. DETAILED WORK STEPS:

Note – Safe shutdown MSR 29943

7.1 ESTABLISH WORK ZONE

1. Fence and post area surrounding Building 55.
2. Obtain excavation permit to identify underground utilities and obstacles (Excavation permit required).
3. Communicate such postings to site personnel.
4. Establish run-off/run-on erosion control. Plug all inlets to storm, sampling and sanitary systems.

7.2 DEMOLISH BUILDING 55

1. Verify power has been disconnected by checking electrical outlets with a volt meter and by cycling light switches.
2. Using the La Bounty Pulverizer and the track excavator with hoe ram attachment, demolish Building 55.
3. Perform dust control using fire hoses and water trucks to distribute water to wet soil and debris to minimize dust creation.
4. Using the front end loader, load debris for transport to landfill.
5. If necessary use torch or mechanical methods to remove rebar. (Hot work permit is required)
6. Coordinate with Waste Management (Willis Daniel x-3822) for Disposal.

Caution

Keep heavy duty equipment at least 10 feet away form overhead electrical line. LOTO overhead line.

7.3 REMOVE CONCRETE SLAB AND FOUNDATION

1. Using the La Bounty Pulverizer and the track excavator with hoe ram attachment, remove slab, size reduce. (Excavation permit required.)
2. Allow rad controls to perform radiological screening of the concrete and soil. Based on radiological screening results, transport to Mound's spoils area or rail spur as directed by Waste Management.

7.4 SITE RESTORATION

3. Restore ground elevation to surrounding grade. Use a excavator to compact via track walking the back filled soil and disturbed area with heavy equipment to seal against erosion.
4. Seed and mulch area.
5. Clean up area. Remove the construction postings.
6. Identify and mark any remaining tripping hazards with hazard yellow paint.
7. Perform topographical survey to capture current area topography and remaining utilities

Notify the building manager (Gary Weidenbach x-3241) when complete.

8. *Note: Comments, to identify activities/hazards that are common to multiple phases of the project. Identification of these items will facilitate the option of addressing the items once in the pre-job briefing, as opposed to redundantly listing them in the JSHAs for different phases.* **COMMENTS:**

NONE.

Enter any review comment or issues in this section and/or information generated as a result of completing detailed work steps.

9. REVIEW SIGNATURES:

Project Superintendent: _____ Date: ___/___/___ Phone:
Project Foreman: _____ Date: ___/___/___ Phone:
Industrial Safety & Hygiene: _____ Date: ___/___/___ Phone: _____
Rad. Controls: _____ Date: ___/___/___ Phone: _____
ES&C: _____ Date: ___/___/___ Phone:
Waste Mgmt: _____ Date: ___/___/___ Phone:
Bldg. Mgmt: _____ Date: ___/___/___ Phone:
Craft: _____ Date: ___/___/___ Phone: _____
Craft: _____ Date: ___/___/___ Phone:
Craft: _____ Date: ___/___/___ Phone:
Craft: _____ Date: ___/___/___ Phone:

10. USQ SCREEN / DETERMINATION REQUIRED? ☐**YES** ☐**NO**

Brief Explaination _____

USQ Trained Person: _____ Date: ___/___/___ Phone: _____

10. AUTHORIZATION SIGNATURE:

Project Manager: _____ Date: ___/___/___ Phone: _____

11. WORK PACKAGE CLOSURE:

Job Supervisor: _____ Date: ___/___/___ Phone:

Project Manager: _____ Date: ___/___/___ Phone:

RETURN PHA TO IS&H AT JOB COMPLETION.

WORK SCOPE
FOR DEMOLITION OF BUILDING 55

TABLE OF CONTENTS

Job Specific Work Plan

Job Specific Work Plan

1. WORK SCOPE

1.1 Introduction

This Job Specific Work Package (JSWP) follows the outline of MD-10502, General Work Plan for Building Decontamination or Decontamination and Transition at the Mound Site, Miamisburg, Ohio. Included are a General Work Planning Checklist and a Job Safety & Hazard Analysis (JSHA). A Pre-Job Briefing Form (ML-9657) and the Project Manager's Authorization to Commence Work signature will be completed to document that the workers were briefed on the activities covered in this JSWP before work begins.

1.2 Description

The purpose of this effort is to demolish Building 55, remove the debris, and restore the area. This will be accomplished by confirming that all utilities have been isolated, removing miscellaneous equipment, establishing a construction zone, and demolish the building using heavy duty equipment. After this, the concrete slabs, foundations, and footers will be demolished/removed down to 3-feet below grade. The last step will be to remove the debris and grade/reclaim the area. Concrete waste and miscellaneous construction debris will be disposed of at a landfill. Building floor slab and footers will be flipped, surveyed by RCT's and then taken to the crusher. (Note: Concrete debris meets radological survey release criteria may be sent to the onsite concrete crusher if it can be size reduced and rebar removed so as to be acceptable to the crusher.)

1.3 Site Information

1.3.1 Building 55 is a one-story, 330-square-foot concrete block structure with masonry exterior overlay. It is built slab-on-grade and has a built-up membrane coal tar roof. The two-room structure consists of a former water-testing laboratory. It contains a sink, an electric water heater, and a storage/equipment room. The building has 240V electrical service (Mound Facility Physical Characterization, 12-1-93). Building 55 was constructed in 1955 (Capital Assets Management Process Camp Report, FY96).

1.3.2 The building was used for storing water sampling equipment, supplies, and containers.

1.3.3 There are no D&D Potential Release Sites (PRSs) associated with this building. Building 55 will be demolished as a Non-CERCLA project.

2. DRAWINGS AND REFERENCES

MD-10502 Issue 5, General Work Plan for D&D
PP-1059A, Issue 4, "Integrated Work Control Program"
PP-1059B, Issue 5, "Analysis and Control of Hazards"
MD-50000, Issue 8, "Maintenance Work Order and Material Processing"

3. INITIAL CONDITIONS AND PREREQUISITES

3.1 Lessons Learned

A search of the Lessons Learned Database found the following relevant item:

- Catastrophic Failure of 15,000 Pound Demolition Shear

See Appendix F for the full report. The result of the Lessons Learned is that the shear should not be used as a hammer and the shear should be inspected periodically for cracks and signs of failure.

3.2 Industrial Safety and Health Requirements

3.2.1 A Job Specific Hazards Analysis (JSHA) is required. The construction zone, as defined in Appendix A, identifies construction boundaries, evacuation routes, the take shelter area, and the assembly area. Debris will be cleared from the immediate demolition zone as required to promote safe equipment activity.

3.2.2 An excavation/soil disturbance permit will be required prior to demolition activities of the slab and footers.

3.2.3 Monitoring for crystalline silica (concrete dust) will be performed periodically as determined by previous monitoring results and site Safety and Health. Site Safety and Health will be notified before the demolition of concrete begins.

3.2.4 Whole body vibration will be administratively controlled and by reviewing topic at Pre-job meeting.

3.2.5 A Hot Work Permit will be required if a torch is used for cutting and possibly for generator operation. Coordinate with site Safety and Health.

3.2.6 Monitoring of noise levels will be performed as determined by previous monitoring results and site Safety and Health (> 85 dBA therefore heavy-duty operators will use hearing protection).

4. RADIATION PROTECTION REQUIREMENTS

In January of 2002, confirmatory surveys were performed using large area gas proportional detector(s) and following guidance in "Generic Process for the Disposition of Buildings That Have Potential or Actual Radiological Contamination". All radiological readings were less than applicable limits. Therefore, the review team concludes that the building is radiologically clean and no further radiological surveys are warranted.

5. ENVIRONMENTAL COMPLIANCE REQUIREMENTS

5.1 CERCLA

Building 55 demolition will be accomplished as non-CERCLA project.

5.2 National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

Per Environmental Practice 2.2, if buildings to be demolished have a surface area less than 72 million square feet, direct readings below MDA, and wipe results below applicable action levels, additional dose calculations are not necessary. Building 55's surface area is 330 square feet and direct readings and wipes were below applicable thresholds. No further calculations are necessary.

5.3 PRSs associated with Building 55

5.3.1 There are no D&D Potential Release Sites (PRSs) associated with this building. This PRS was binned as No Further Action (NFA) by the DOE/EPA. Building 55 will be demolished as a Non-CERCLA project.

5.3.2 A Notification of Demolition and Renovation form must be filed with the Regional Air Pollution Control Agency (RAPCA) at least 10 business days before planned building demolition. There was no asbestos to be abated.

5.4 Restriction of emission of fugitive dust (OAC 3745-17-08)

Reasonably available control measures must be employed to prevent fugitive dust from becoming airborne. Visual particulate emissions from any fugitive dust source shall not exceed 20% opacity as a three-minute average. Appropriate activities would include:

5.4.1 Water misting or other suitable dust suppression will be used to minimize fugitive dust arising from demolition activities.

5.4.2 Periodic application of water or other suitable dust suppression to adjacent roadways and parking lots will be used to prevent dust from becoming airborne.

5.4.3 Trucks hauling debris to the onsite spoils area should be covered while in transit.

5.4.4 If present, segregate any lead pipe conduits from concrete debris going to the spoils area in order to avoid producing lead dust and particulate.

5.5 Clean Water Act

Water source permitting requirements do not apply, as there is no significant new or increased discharge related to this project. All inlets to the sanitary and storm systems will be plugged to prevent accidental discharges to the wastewater treatment plant or the environment.

5.6 Storm Water Pollution Prevention

The site's National Pollutant Discharge Elimination System (NPDES) Permit No. 1IO00005*HD requires the use of control measures to ensure the quality of stormwater leaving the site. These control measures and practices are outlined in the sites' Storm Water Pollution Prevention Plan OPA980099. Appropriate activities would include:

5.6.1 Redirect flow patterns around the project site to prevent storm water run-on.

5.6.2 Provide inlet protection to the storm sewer system by covering catch basins immediately adjacent to the project site and plugging roof drains at ground level until which time the underground pipes can be appropriately abandoned.

5.6.3 Exercise good housekeeping techniques by segregating materials in a timely manner, including the prompt disposal of wastes, and sweeping debris from the streets to prevent stormwater pollution.

5.6.4 Water that has collected in an open excavation or in sumps, must be monitored prior to discharging to the sanitary or storm sewer systems. Contact Environmental Monitoring at extension 4188 for monitoring and review of these non-routine discharges.

5.7 National Historic Preservation Act (NHPA)

Building 55 is not listed as a historic structure with the Ohio Historic Preservation Office (OHPO)

No mitigative documentation package is required. However, if any items or artifacts are discovered as this project progresses, the Cultural Resource Representative will be notified at extension 3691. Work will be suspended until which time the items or artifacts have been recovered.

5.8 Safe Drinking Water Act

The potable water supply to Building 55 was turned-off and capped to protect the integrity of the water supply to that portion of the plant site.

5.9 Emergency Spill Response

Building 55 has been disconnected from all utility services. There should be no regulated component that will be encountered. In the event of a major spill of any regulated substances, or the rupture of a non-isolated utility line (fire, domestic water, ethylene glycol) call 911 if using an onsite phone, or 937-865-4040 if using a cell or other outside phone to report it. All spills must be contained onsite and should be prevented from entering the storm drains if possible. If spills enter the storm drains, all effluent must be retained onsite at the overflow pond.

6. CHEMICAL AND WASTE MANAGEMENT REQUIREMENTS

All waste will be managed in accordance with the Waste Management Plan for the Mound Exit Project, MD-10499. The Waste Coordinator will ensure that this is accomplished and summarize in a Job Specific Waste Management Plan, which is included below.

7. EMERGENCY PREPAREDNESS

7.1 Site Notification Procedures

7.1.1 Use **911** for all emergency services onsite. This is the first response for any emergency, spill, or release. If using a cell phone, dial **865-4040**. This number will ring into the plant 911 system.

7.1.2 Any injury, no matter how minor, shall be reported immediately to the Medical Department for evaluation and treatment. The injured employee shall report any injury to the supervisor in charge or designee.

7.1.3 Employees working will be notified of emergency or abnormal conditions by the plant paging system or project two-way radios. Additionally, unique sheltering and evacuation signals are available should site-wide protective actions be necessary.

7.2 Evacuation Route/Assembly Areas

The assembly area is northeast of Building 55 on the road that accesses the site. See map per Appendix E.

7.3 Take Shelter Area

The take shelter area is in the center of Building 19. See map per Appendix E.

8. PRE-DEMOLITION SEQUENCE OF WORK

8.1. Site Characterization

8.1.1. Physical Characterization -A structural engineering survey was performed and documented for Building 55 to meet the requirements of OSHA 29 CFR 1926.850(a). A walkdown of the structure was used to identify potential hazards as listed in 29 CFR 1926.850(e) through (i). It has been determined the building does not meet the criteria that cause the structure to be historically significant.

8.1.2. Radiological Characterization -Based on the radiological characterization summaries that have been performed for Building 55, annual surveys, and process history, there are no radiological concerns and a Radiation Work Permit will not be required.

8.1.3. Chemical and Metals Characterization -To the best of the Project Team's knowledge, no chemicals were used in the building. All Freon has been previously removed and recycled.

8.1.4. Asbestos Characterization -No asbestos-containing material was identified in connection with Building 55.

8.2. Site Preparation

8.2.1. Site Access Control

8.2.2. The demolition area will be identified utilizing the existing fence around the building, or at the discretion of the project superintendent, marked off with barricade tape/fencing.

8.3. **Temporary Utilities**

8.3.1. The only temporary utility that may be required is electrical. A portable generator would be utilized. A Hot Work Permit may be required to operate the generator. Coordinate with site Safety and Health.

8.3.2. Temporary Facilities

8.3.3. This project may use the existing Test Fire Valley project trailer and the new shower/restroom trailer.

8.3.4. Temporary Communications

8.3.5. Temporary communications are required (cell phone, radios) due to the difficulty of hearing plant announcements and emergency notifications. At the job site, plant announcements and emergency notifications can be heard on the Plant radio channel.

8.3.6. Staging Areas

8.3.7. The project site is of sufficient size to also be used as a staging area.

8.4. **Preliminary Activities**

MSR 29943 for Safe shutdown activities - electrical and domestic water isolation.

9. BUILDING DEMOLITION SEQUENCE OF WORK

9.1. A work zone boundary will be established using the existing fence or with barricade tape or fencing as directed by the Project Superintendent. Proper signage will be placed at all access points to the site. This zone is not to be entered by anyone not directly involved with the demolition unless they have contacted the Project Superintendent first.

Do not begin any demolition activities until items 10.2–10.5 are completed.

9.2. **All new workers assigned to this project have received a pre-job briefing prior to performing work and a walkdown of the project area, including:**

9.3. The *Pre-Job Column of the General Work Plan Checklist* must be completed.

9.4. The *Pre-Job Briefing Record* is complete must be signed.

9.5. The *Job Specific Hazards Analysis (JSHA)* must be reviewed.

NOTE: All workers have Stop Work Authority. Situations where stop work authority is to be exercised are:

- To stop unsafe work.
- To stop unauthorized work, for example, work outside the scope of this work package.

9.6. Confirm electric/communication has been disconnected to Building 55.

9.7. Confirm all utilities have been isolated and blanked-off.

HAZARD	MITIGATION
Struck by flying debris Struck by moving equipment Noise Hazard	Establish construction boundary. Wear hard hat, safety glasses, safety shoes, reflective vest inside construction area. Maintain the following distances from operating equipment: Shear – 75 feet Hoe Ram – 50 feet Other heavy duty equipment – 30 feet Bobcat – 15 feet Wear hearing protection while running heavy duty equipment. Follow the requirements of MD-10286 D9.
Burns from torch cutting	Obtain and follow Hot Work permit per MD-10286 O2.
Heat/Cold Stress	Follow the requirements of MD-10286 D13/D16.

9.8. Begin concrete demolition of Building 55 by using a hoe ram along with shear and grapple as required. Working the top of the building and exterior walls, demolish and size for disposal. Rebar will require sizing with the shear. Torch cut the rebar as required to support demolition and downsizing. A Hot Work Permit is required.

9.9. Continue until the building is completely demolished. Note: The progressions of the building demolition will ultimately be determined in the field.

9.10. Begin process of waste/rubble removal and transfer to the appropriate waste stream per Waste Management

9.11. Remove all waste and prepare the area for demolition of the concrete slab.

9.12. Slab Removal

Break apart the building slab using a Hoe-Ram, and allow rad control personnel to perform radiological screening of the concrete. Based on radiological screening results, transport to Mound's spoils area or rail spur as directed by Waste Management.

HAZARD	MITIGATION
Strike underground utilities	Obtain Excavation permit and follow its requirements per MD-10286 O5
Potential radiological contamination on underside of slab or foundation	RCT survey underside of slab and foundation prior to further handling for disposition of waste.

Break apart the building footer and foundation down to a depth of 3 feet below grade and allow rad controls to perform radiological screening of the concrete. Based on radiological screening results, transport to Mound's spoils area or rail spur as directed by Waste Management.

9.13. Site Restoration

After the slab and foundation are removed, allow rad control to perform radiological screening then backfill and grade the area to match the surrounding area. After the

area has been graded with appropriate topsoil material, seed the area, mulch, and water periodically to promote the growth of new grasses. Refer to the *Storm Water Pollution Prevention Plan* OPA980099 for details.

PRELIMINARY HAZARD ANALYSIS (PHA)
FOR WORK PACKAGE ACTIVITIES

SECTION A, INDUSTRIAL SAFETY - TO BE COMPLETED BY THE INDUSTRIAL SAFETY AND HEALTH REPRESENTATIVE
Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.). Including any notations for future Hazard Analyses. Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards, that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section D if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Blockage of exits or means of egress	NO	N/A	
Blockages/obstructions (Identify)	YES	N/A	Overhead lines on east side of Building. LOTO electrical lines.
Burning, welding, hot-work (Fire Watch)	YES	1,2	Torch cutting rebar [BURN]
Chemical compatibility of corrosives/flammables	NO	N/A	
Chemical process safety	NO	N/A	
Compressed gas cylinders	NO	N/A	
Confined space entry	NO	N/A	[CONFINE]
Crane operations, overhead or mobile	NO	N/A	
Critical lifts (heavy or high value loads)	NO	N/A	[CLIFT]
Electrical hazards	NO	N/A	[LIVEL]
Elevated work/fall protection	NO	N/A	[ELEV]
Emergency eyewash/shower available	NO	N/A	[EWASH]
Emergency alarms or evacuation plans required	YES	1,2,3	Maintain communication with site for outside work.
Explosive/flammable atmosphere	NO	N/A	
Explosives	NO	N/A	
Fire protection system/equipment outage	NO	N/A	[FIRE/EFIRE]
Fire Hazards Analysis Required of Demolition	NO	N/A	[FHA/ADJA]
Flammable liquids/gases	NO	N/A	[FLAM]
Forklifts, aerial lifts or material handling equipment	NO	N/A	
Grounding of electrical equipment	YES	1,2,3	Use GFCI .
Hazards due to condition of facility or terrain (Identify)	NO	N/A	
Hoisting and rigging	NO	N/A	[HOIST]
Lighting/illumination/adequacy	NO	N/A	[MLITE]

SECTION A, INDUSTRIAL SAFETY - TO BE COMPLETED BY THE SAFETY AND HEALTH REPRESENTATIVE

Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Job Safety and Health Analysis(JSHA). Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section D if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Lockout/tagout of hazardous sources:	YES	1,2,3	[LOTO/ISO]
Electrical	YES	1,2,3	LOTO power feed to light circuit to RR crossing gates 55 and overhead lines.
Mechanical (steam, hydraulic, pneumatic)	NO	N/A	
Interlocks	NO	N/A	[ILOCK]
Chemical	NO	N/A	
Radiological	NO	N/A	
Machine guards	NO	N/A	
Modification to Fire Wall/Door	NO	N/A	[FIREWAL]
Obstruction of fire protection equipment (pull boxes, hydrants, fire department connections, control panels, fire extinguishers, etc.)	NO	N/A	
Off-shift work	NO	N/A	
Outages of the plant public announcement (PA) system or the emergency notification system	NO	N/A	[OUTAGE]
Overhead or underground utilities (Identify)	YES	1,2,3	Overhead lines over Building 55. [UITL]
Penetrations into walls, floors, etc.	NO	N/A	[PENETR]
Plastic sheeting or wood framing/enclosures	NO	N/A	
Powder-actuated tools	NO	N/A	
Public utilities (Identify)	NO	N/A	[WATER]
Repetitive work	NO	N/A	[ERGO]
Structural Modification	NO	N/A	[STRUCT]
Special Fire Protection Equipment Required	NO	N/A	[FIREQU]
Trenching/Shoring	NO	N/A	[DIG]
Temporary heating facilities	NO	N/A	
Temporary/portable buildings or structures	NO	N/A	[FACIL]
Temporary service hook-ups (Identify)	NO	N/A	
Traffic control/flagman	NO	N/A	[TRAFIC]
Work in attics, ceilings, chases, or crawlspaces	NO	N/A	
Work impacting adjacent normally occupied areas	NO	N/A	[ADJAC/BMAPP/SIGNS/NOTIF]
Work Requiring Scaffolding, construction and inspection	NO	N/A	[SCAFF]
Other (Specify)	N/A	N/A	

SECTION B, INDUSTRIAL HYGIENE - TO BE COMPLETED BY INDUSTRIAL HYGIENE REPRESENTATIVE

Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. lead compliance plans, confined space plans, hearing conservation programs, etc.), Including any notations for future Job Safety and Health Analysis (JSHA) . Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section D if additional space is needed.)

Item	Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Abrasive blast (☐ MSDS available)*	NO	N/A	
Asbestos	NO	N/A	[ASBEST]
Beryllium	NO	N/A	
Blood-borne pathogens*	NO	N/A	
Cadmium	NO	N/A	
Carcinogens (☐ MSDS available)*	NO	N/A	[CARC]
Chemicals/solvents (☐ MSDS available)*	NO	N/A	[CHEM/MSDS]
Chlorofluorcarbon (CFC)	NO	N/A	[CFC]
Coal, tar or asphalt products	NO	N/A	
Coating/painting (☐ MSDS available)*	NO	N/A	
Corrosives/acids/caustics (☐ MSDS available)*	NO	N/A	
Dusty operations	YES	1,2,3	Use water misting and traffic area wetting to minimize dust generation [POWDER]
Hazardous Waste Operations (HAZWOPER)*	NO	N/A	
High Pressure systems	NO	N/A	[HIPRES]
Insulation/man-made mineral fibers (☐ MSDS available)*	NO	N/A	
Lasers	NO	N/A	
Lead	NO	N/A	
Foam in Place Operations	NO	N/A	
Mercury	NO	N/A	
Noise in excess of 85 dBA	YES	1,2,3	Wear hearing protection. For HD operators. [NOISE]
Polychlorinated biphenyls (PCBs)	NO	N/A	
Removal of ceiling tiles*	NO	N/A	
Spraying/generation of mists*	NO	N/A	
Temperature extremes (heat or cold stress)	NO	N/A	[CRYRO/COLD/HEAT]
Ventilation or Air Monitoring requirements	NO	N/A	[VENTIL/IH]
Welding, brazing, or thermal cutting operations	YES	1,2	Cutting of rebar may require permit. [BURN]
Other (specify)	N/A	N/A	

*NOTE: Requires a description of the materials involved which present a hazard. Identify the physical location of the MSDS.

SECTION C, RADIOLOGICAL PROTECTION - TO BE COMPLETED BY RADIOLOGICAL CONTROLS REPRESENTATIVE

Identify engineering/administrative controls or PPE as required, keyed to the following checklist items. Insert any required and/or other special actions to be taken because of the particular hazard (i.e. RWP, ALARA Plan, etc.). Additionally, identify any activities which DOE prescribed Occupational Safety and Health standards that require protective measures be designed, inspected, or approved by a professional engineer or other competent person. (Use Section D if additional space is needed.)

Item		Exist	Work Package Phase	Comments, Controls, Methods of Compliance
Location:	Controlled Area	NO	N/A	
	Contamination Area	NO	N/A	[STP]
	High Contamination Area	NO	N/A	[STP]
	Radioactive Materials Storage Area	NO	N/A	
	Airborne Radioactivity Area (STP or OBT)	NO	N/A	
	Radiation Area	NO	N/A	
	High Radiation Area	NO	N/A	
	Very High Radiation Area	NO	N/A	
	Other (Specify)	N/A	N/A	
Activities:	Criticality Safety Concerns		N/A	
	Digging/Soil Removal	YES	1,2,3	[DIG]
	Surface destruction of radioactively contaminated materials or equipment?	NO	N/A	[SURFAC]
	Welding, burning, or grinding?	YES	Cutting of rebar with torch	[SURFAC]
	Hammering, chipping or scraping?	NO	N/A	[SURFAC]
	Abrasive blasting?	NO	N/A	[SURFAC]
	Dust-collecting equipment or systems?	NO	N/A	
	Decontamination and clean-up?	NO	N/A	
	Rad Waste Storage and Disposal Required	NO	N/A	[RWSTOR/WASTE/CHAR]
	Other (Specify)	N/A	N/A	
Sources:	X-Ray machine/generator	NO	N/A	[XRAY]
	Sealed radioactive sources	NO	N/A	
	Unsealed radioactive sources	NO	N/A	
Controls:	Radiological Work Permit	NO	N/A	[RWP/RWP=JS/RWP=N/R/RPGEN]
	ALARA Plan	NO	N/A	[ALARA]
	Air Flow Studies	NO	N/A	[AIRFLOW/CAM]
	Urinalysis program	NO	N/A	
	Preliminary or in-process characterization	NO	N/A	[SURVPS/SURVIP]
	Anti-contamination clothing	NO	N/A	
	Respiratory protection	NO	N/A	[RESP]
	Needs Analysis Evaluation	NO	N/A	
	Hazards Analysis	NO	N/A	
	Engineering Controls	YES	1,2,3	Use water misting, and restricted entry
	Administrative Controls	NO	N/A	
	Supplemental dosimetry	NO	N/A	

Shielding	NO	N/A	
Personnel monitoring (frisking)	NO	N/A	

SECTION D - OTHER CONDITIONS, CONCERNS, OR SUPPLEMENTAL INFORMATION FROM SECTIONS A THROUGH C
Identify Assembly Points:

Appendix A

JSHA/HASP

Project/Activity: Building 55 Demolition

Name: Lee Koehmstedt

JSHA CRITERIA CHECKLIST	YES	NO	N/A
1. Work performed with a 6 ft. or greater fall hazard, excluding portable ladders. See Item 14 for further requirements.		X	
2. Roof work requiring the use of fall protection (within 6 ft of an unprotected edge) or special fall protection procedures.		X	
3. Potential hazardous chemical exposure above action levels or permissible exposure limits (PELs), or ACGIH Threshold Limit Values (TLVs).	X		
4. Work activity in an immediately dangerous to life or health (IDLH) breathing hazard environment.		X	
5. Fire or explosion hazards. Are fire hazards beyond a Hot Work Permit? (Reference O2, MD-10286)		X	
6. Work within close proximity of live electrical than 50 volts, conductors, and/or work that requires multiple locks, multiple hazard sources, or complicated lockout/tagout circumstances. (Reference MD-10444, *Lockout/Tagout Procedure Manual*, for multiple energy lockout/tagout.)	X		
7. Any maintenance or repair of equipment under pressure where the pressure cannot be shut off and de-energized.		X	
8. Work with high or extreme exposure to ionizing or nonionizing radiation (reference MD-80036, Op 10002), noise, or heat or cold stress (reference D9, D13 & D16, MD-10286).	X		
9. Determined by an appropriate core team, building manager, member of general or executive management, or the IS&H manager to require a JSHA.	X		
10. Any onsite construction or service project directed to have JSHAs based on this procedure and/or instruction from project personnel or IS&H staff.	X		
11. Near-miss event with the potential for loss of life or limb or disabling injury/illness if repeated.		X	
12. Excessive trama/motion/vibration work situations or manual lifting involving heavy, large, and/or awkward-to-handle objects (reference MD-10407, *Ergonomics Program.*		X	
13. Unguarded, unmarked close clearance, pinch point, exposed moving machinery parts.		X	
14. Known potential falling object hazards (e.g., employees working above other employees, potential for dropping tools, falling equipment or material) or working in areas with the potential for flying objects (flying chips, sandblasting, etc.), exposure to sharp or protruding objects (e.g., working inside plenums, air mover ducts, etc.).	X		

MANDATORY JSHA REQUIRED TO ADDRESS ANY/ALL (YES) RESPONSES

JOB SAFETY & HEALTH ANALYSIS

JSHA MASTER DOCUMENT CONTROL NO:
SMPP/TFV- 29945 - 00

DATE: 3/15/02	X NEW / ___ REV	BUILDING: 55	JOB: Building 55 Demolition
DEPARTMENT/COMPANY: SMPP/TFV			SECTION: N/A
OCCUPATIONS: Construction Craft: Demo tech, Fab mechanic, pipe-fitter welder, electricians, etc.			

SIGNATURES

ORIGINATOR: Lee Koehmstedt
REVIEW/REV Jared Wills
REVIEW/REV: Bill Wahler
REVIEW/REV: Gary Weidenbach
APPROVED: C.D. Thompson

REQUIRED PERSONAL PROTECTIVE EQUIPMENT: General Construction Safety Equipment inclusive of Safety Glasses, Hard Hats, Safety Shoes, Gloves, and level D Clothing. Additional protective measures may be required under safe work practices.	MSDS(s)/CHEMICALS ASSOCIATED WITH THE JOB: N/A

BASIC JOB STEPS	POTENTIAL ACCIDENT/ILLNESSES OR KNOWN HAZARDS	SAFE JOB PROCEDURES
Break the job down into basic steps that tell what is done first, what is done next, and so on. Record the job steps in their normal order of occurrence. Describe what is done, not the details of how it is done. Usually, three or four words are sufficient to describe each job step. For example, the job of "replacing a light bulb" may break down into basic steps as follows: 1. Bring and set up ladder 2. Ascend ladder 3. Remove light globe & bulb 4. Replace light bulb 5. Replace light globe 6. Descend ladder 7. Remove and store ladder	Ask yourself for each job what accidents/illnesses could occur to the employee doing the job. Record potential accidents/illnesses by combining one of the abbreviations below with the agent of contact. For example, "struck by a crane hook" is recorded "SB-crane hook." Number each potential accident. SB - Struck by CB - Contacted by SA - Struck against CW - Contact with CI - Caught in CO - Caught on IB - Caught between F - Fall SO - Strain-overexertion* E - Exposure (occ. illness) *Show ergonomic stresses as SO (repetitive trauma, single event strain, or awkward position)	For each potential accident/illness, ask yourself exactly what the employee should do or not do to avoid the accident/illness. Describe specific precautions in detail. Give each precaution the same number given in the potential accident (center column) to which it applies. Avoid generalities such as "Be alert," "Be careful," and "Take caution." Use simple do or don't statements; e.g., "Lock out main power switch," "Stand clear of lift before signaling," or "Check wrench grip before exerting full force." If necessary, explain how, as well as what, to do. Amount of detail is a matter of judgment. Describe ergonomic solutions (job redesign, new tools, worker lift assistance, etc.)
General Safety Note	A wide variety of incidents occur on a regular basis that potentially could result in injury or illness.	1) Be cognizant of your own safe work practices as well as those of your co-workers. 2) Review any related safety procedures of which you are unsure. 3) Utilize STOP WORK Authority as necessary ,
Pre-job meeting with involved personnel to discuss the work plan and safety requirements.	N/A	This project engages in Enhanced Work Planning (EWP), an ISM process that evaluates and improves the approach by which work is identified, planned, approved, controlled, and executed.
Restrict access to work area.	Worker distraction	Limit area access to necessary personnel and maintain a clear route for egress.
Demolish Building 55 and foundations.	Injury from flying material.	Establish exclusion zones during operations: 75 feet while shear is operating; 50 feet while the hoe ram is operating, and 30 feet while all other heavy equipment while operating.
Demolition Building 55 and foundations.	Injury in construction area	Wear hard hat, safety glasses, and steel toe shoes at all times while inside construction area. Wear safety vest while mechanical machinery are in operation. (Exemption: equipment operators do not need to wear hard hats, safety glasses, or vests while inside the enclosed cab.

Demolition Building 55 and foundations.	Hearing loss	Identify hearing protection necessary zones. All operators or employees inside zone are to institute hearing protection measures..
Demolition Building 55 and foundations.	Hand injury	Workers to wear gloves when handling demolition debris.
Demolition Building 55 and Foundations.	Fire hazard	Obtain and follow hot work permit per MD-10286 O2 when performing hot work such as torch cutting rebar.

JOB SAFETY AND HEALTH ANALYSIS FORM
(CONTINUATION SHEET)

BASIC JOB STEPS	POTENTIAL ACCIDENT/ILLNESSES OR KNOWN HAZARDS	SAFE JOB PROCEDURES

Work Package Revision Form

Work Package Revision Form			
Work Package No.	**Revision No.**		
Revision Description: (attach page revisions to form)			
	Name	**Signature**	**Date**
PREPARED BY:			
Revision Preparer:			
REVIEWED BY:			
Job Supervisor:			
Project Superintendent/ Foreman:			
Industrial Safety & Hygiene P o C:			
Radiological Point of Contact:			
Environmental Safeguards & Compliance P o C:			
Waste Management PoC:			
Building Manager:			
Other:			
Other:			
USQ Trained Person			
USQ SCREEN / DETERMINATION REQUIRED? ☐**YES** ☐**NO** Brief Explaination_____			
APPROVED BY:			
Project Manager:			

Appendix C

PRE-JOB BRIEFING

PRE-JOB BRIEFING RECORD

MSR/PROCEDURE (if applicable):	JOB SUPERVISOR

A. Time, Date and Location of PJB: _____

B. Applicable Procedure Number: _____

C. Job Description: _____

D. Personnel Attending:

HP#	SIGNATURE	HP#	SIGNATURE

BRIEFING CHECK OFF LIST

JOB SUPERVISOR

Check When Completed*

1. Scope of work reviewed:
   a. The assignments and responsibilities of each individual were specifically identified. _____
   b. The current facility conditions, tagouts, valve lineups, and work permits relating to this job have been discussed _____
   c. The precautions, limitations, initial conditions, and prerequisites were adequately reviewed. _____
   d. Potential hazards associated with the job have been discussed (JSHA) _____
   e. Specific work covered by RWP (any limitations) _____
2. All necessary safety equipment and PPE is available. _____
3. All required personnel have satisfied initial and continuing training requirements to perform The job including training specified on the RWP. _____
4. All required personnel have reviewed the applicable documentation listed in B. above As it applied to their part of the job. _____
5. Reliable and adequate communications are available. _____
6. The required tools and equipment are available. _____
7. Appropriate log sheets, material transfer, and data recording forms are available. _____
8. All required documents available at the PJB are approved and current. _____

**For items not applicable, write in N/A.*

9. Related past problems, unusual events, and occurrences were discussed _____

10. All personnel understand egress procedures and egress areas. _____

11. RWP requirements:

    a. Radiological conditions of the workplace. This should include a review of the most recent Survey of the area. It is important to ensure that the survey is specific to the work area. In cases where a system of unquantified activity will be bereted, discuss the "anticipated activity" to be expected after the breech. _____
    b. Dosimetry requirements. _____
    c. Protective clothing and respiratory protection requirements (cite location of doffing instructions). _____
    d. Job coverage requirements (continuous vs. intermittent). Explain that continuous means "within line of sight and field of control of RCT at all times." _____
    e. Stop Work Levels (SWLs) and other applicable limitations. _____
    f. POCs/RCTs must discuss the type of radiological monitoring to be employed at the job site during and subsequent to the work. Personnel assigned to do the work MUST EXPRESS THEIR FULL UNDERSTANDING of the monitoring to be employed and of the alarm signals if applicable. Workers MUST CONCUR in the type and scope of monitoring planned at the job site before work can begin. _____
    g. Dose reduction/contamination control techniques (e.g., use of; shielding, capture velocity, containment devices).
    h. Personnel and equipment monitoring requirement (including control point locations). _____
    i. Bioassay requirements. Discuss: isotopes to be encountered, proper use of the bioassay information form, use of nosewipes as appropriate (and disposition of nosewipe results), and bioassay frequency if this will be a long term task. _____
    j. Effective date and expiration date of RWP reviewed. _____
    k. Briefly cover WORKER RESPONSIBILITIES (Article 123 of DOE RADCON MANUAL) _____

12. Necessary instrumentation is adequately tested and calibrated. _____

13. Key task steps in which radiological conditions may change and where the RCT will perform in-process surveys to assess radiological conditions. _____

14. If an ALARA Job Review was required, then this would be an appropriate time for a review. _____

15. Radiological hold points, if any. _____

16. Discuss any appropriate response actions to emergencies, such as CAM, alarms, criticality alarms, or increasing radiation levels. _____

17. When radiological health monitoring (e.g. asbestos) is to be employed at the job site during and subsequent to the work, the personnel assigned to do the work MUST EXPRESS THEIR FULL UNDERSTANDING of the monitoring to be employed and of the alarm signals if applicable. Workers MUST CONCUR in the type and scope of the monitoring planned at the job site before work can begin. _____

18. Communications and coordination with other groups. _____

19. Provisions for waste management and job cleanup. _____

20. Open floor to questions. _____

The above minimum requirements have been met; this PJB has been conducted in sufficient detail to ensure safe conduct of the job.

_____

Job Supervisor/Foreman Date

***NOTE:** Completed pre-job briefing sheet must be retained with the work package or maintained in your record file.*

PRE-JOB UPDATE

MSR/PROCEDURE (if applicable):	JOB SUPERVISOR

A.	Time, Date and Location of PJB:
B.	Applicable Procedure Number:
C.	Job Description:
D.	Personnel Attending:

HP#	SIGNATURE	HP#	SIGNATURE

JOB SUPERVISOR – This is a reminder checklist for the update. The supervisor need only discuss and note changes from the previous day's briefing or update. (Use NC for No Change).

1. Any changes/revisions to safety envelop for work: a. New/added assignments and responsibilities of any individual b. Changes in facility conditions, tagouts, valve lineups c. New or changed precautions/hazards d. Valid RWP or other required work permits still in effect
2. Adequate supply of PPE
3. New training, any training coming up on expiration
4. New changes to relevant Category "A" or Category "B" procedures.
5. Equipment and tools calibrations in effect
6. Relevant lessons learned, critique reports
7. RWP revisions: a. Changes to radiological conditions of the workplace, particularly with respect to postings. b. Change in scope, especially if it is a reduction in scope or Stop Work Levels.
8. Changes to radiological and/or health monitoring.
9. Open the floor to questions.

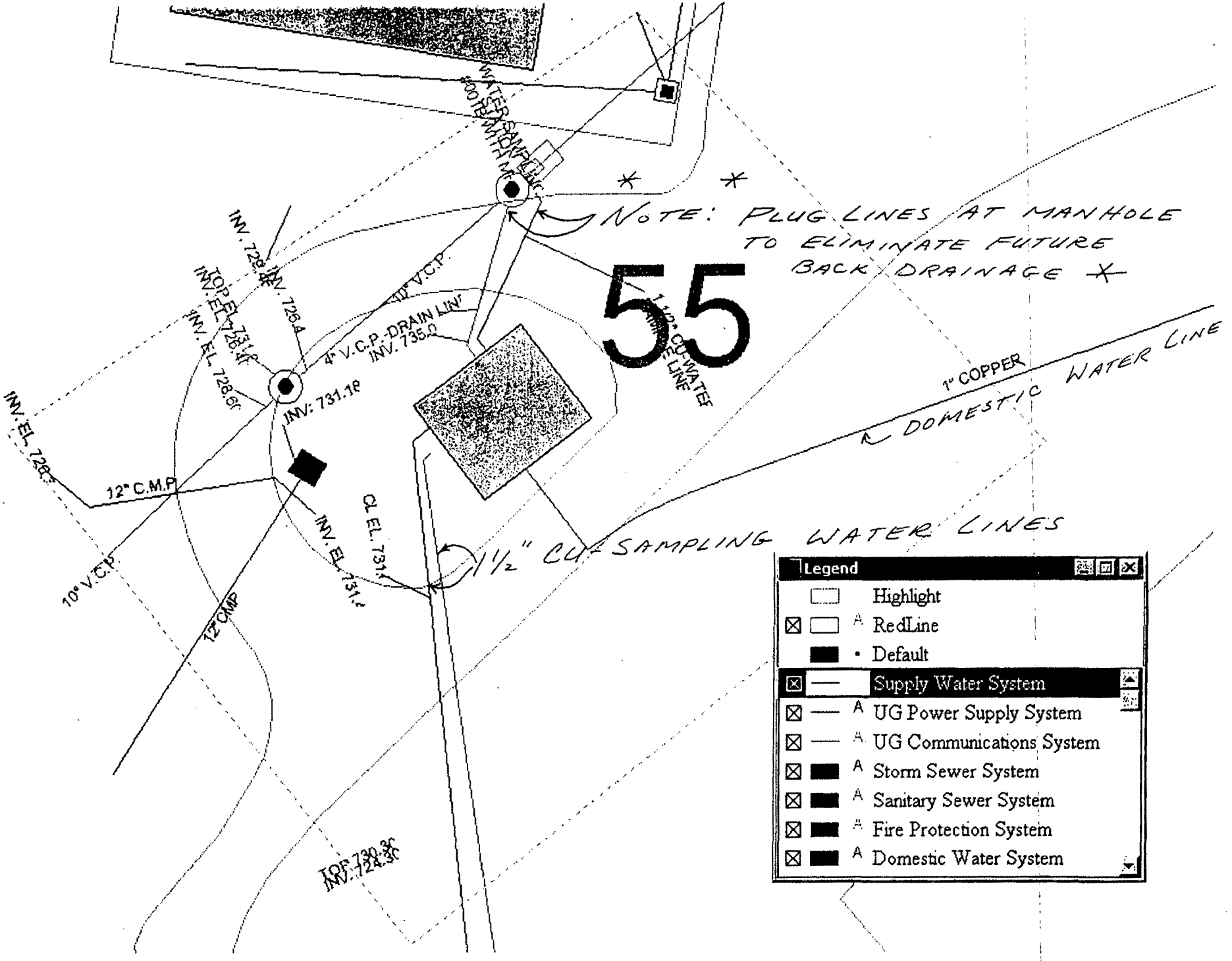
The above minimum requirements have been met; this PJB has been conducted in sufficient detail to maximize continued safe conduct of the job, and all personnel have been through a previous Pre-Job Brief.

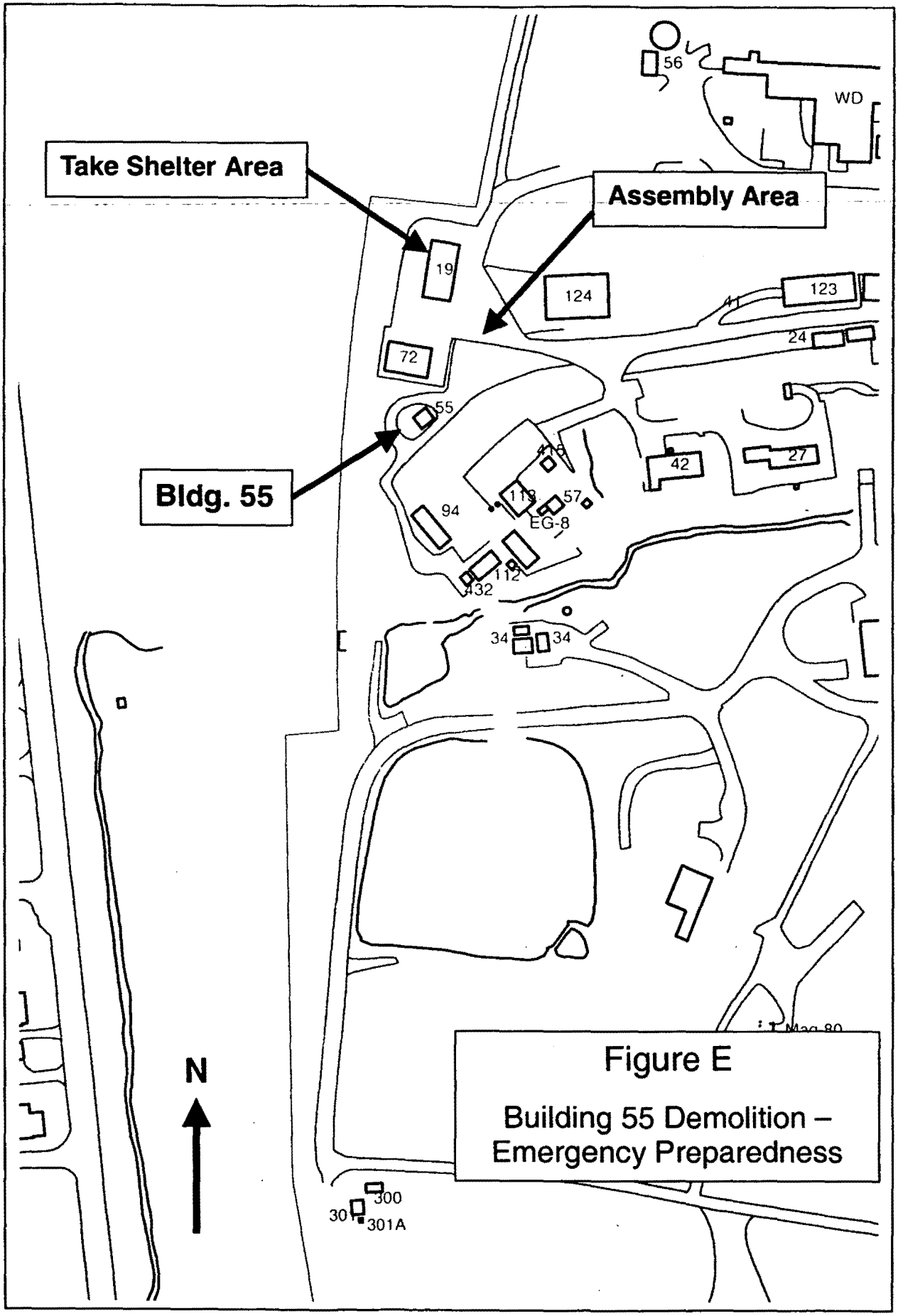
Job Supervisor/Foreman _____ Date _____

NOTE: Completed pre-job update sheet must be retained with the work package or maintained in your record file.

Appendix E

DRAWINGS/ SKETCHES


NOTE: PLUG LINES AT MANHOLE TO ELIMINATE FUTURE BACK DRAINAGE
55
1" COPPER
DOMESTIC WATER LINE
1½" CU SAMPLING WATER LINES
4" V.C.P. DRAIN LIN
INV. 735.0
INV. 731.1
INV. 728.4
INV. EL 728.6
12" C.M.P
10" V.C.P
12" CMP
INV. EL 731.
CL EL. 731.
INV. 724.3
Legend
Highlight
RedLine
Default
Supply Water System
UG Power Supply System
UG Communications System
Storm Sewer System
Sanitary Sewer System
Fire Protection System
Domestic Water System


Take Shelter Area
Assembly Area
Bldg. 55
N
56
WD
19
124
123
72
55
42
27
94
57
EG-8
112
34
34
300
301A
Figure E
Building 55 Demolition –
Emergency Preparedness