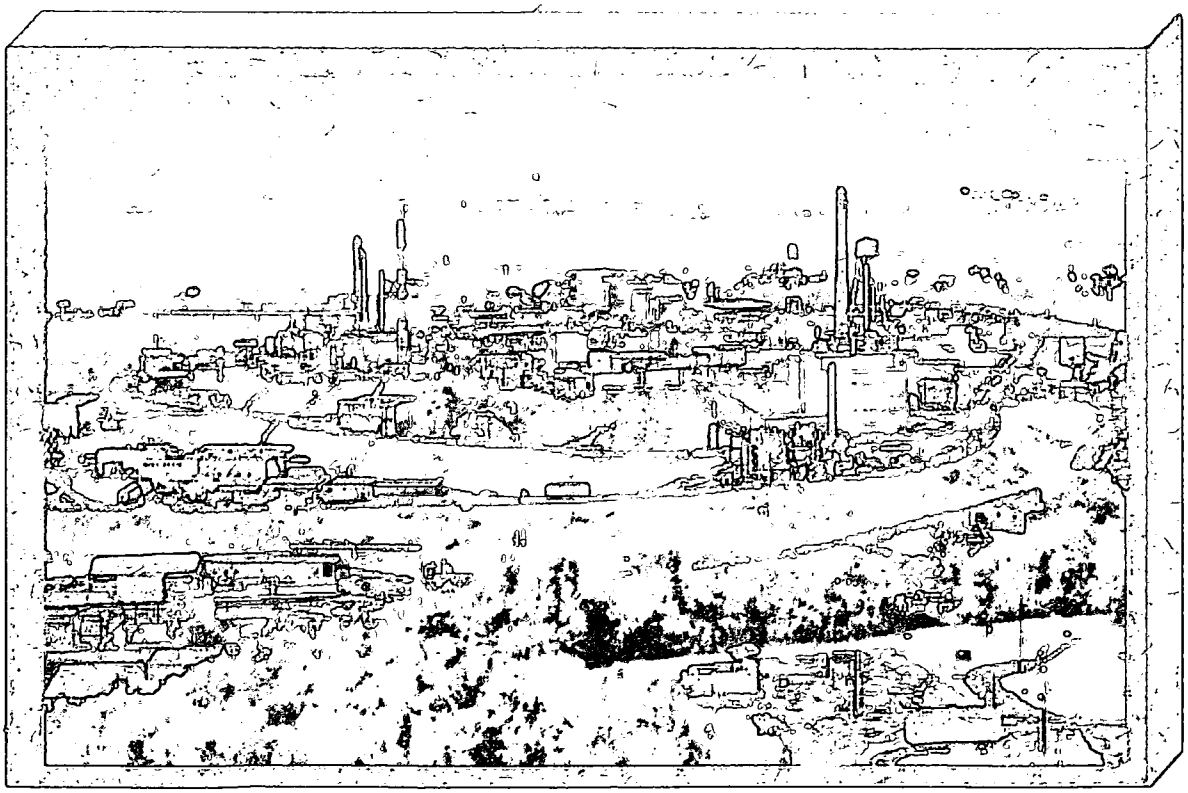
3005-020326000

MOUND
Environmental Restoration Program

OhioEPA

MOUND PLANT
Building Data Package
Building SST

Public Review Draft
March 2002



BDP Building SST

REV	DESCRIPTION	DATE
WORKING DRAFT (to DOE)		**January 2002**
DRAFT (to Core Team)	Non-editorial OEPA comment to address Pu-238 result of 93 pCi/g under bldg. A note was added to the Appendix L table indicating Vol 3 RSS ± 25' accuracy and no samples collected under bldgs.	**January 2002**
DRAFT PROPOSED FINAL (Core Team comments incorporated)	NA	**NA**
PUBLIC REVIEW DRAFT	Includes signed recommendation page	**March 2002**
FINAL (Public Review comments incorporated)		

MOUND PLANT RECOMMENDATION

Building SST

Background:

Building SST was built to store road salt for the site. Building SST continues to function as the site storage facility for road salt. No waste is currently or was previously stored in the SST.

Recommendation:

After thorough review of the environmental data and the Building Data Package, the Core Team agrees that all existing environmental issues associated with Building SST have been resolved. Future use of Building SST will be restricted to commercial/industrial use. The Core Team hereby recommends that the U.S. Department of Energy submit a letter to the Administrator of the U.S. EPA for final approval of the lease or sale of this property, as required by Section 120(h) of CERCLA.

DOE/MEMP: _____
Robert S. Rothman, Remedial Project Manager

USEPA: _____
Timothy J. Fischer, Remedial Project Manager

OEPA: _____
Brian K. Nickel, Project Manager

BUILDING DATA PACKAGE (BDP)

Building SST

(Transition)

DOE MOUND PLANT

MIAMISBURG, OHIO 45343

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1.0 General Overview

1.1 Introduction

The purpose of this Building Data Package (BDP) is to prepare for the transfer of the salt storage structure (Building SST) to the Miamisburg Mound Community Improvement Corporation (MMCIC) and to identify, if possible, any recognized environmental conditions (defined below) that may affect the subject property and structure.

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 SST located at the Department of Energy (DOE) Mound Plant in Miamisburg, Ohio. This investigation was performed to support procedures as found in American Society for Standards and Testing (ASTM) Standard Practice for Environmental Site Assessments; Phase I Environmental Site Assessment Process (Designation E 1527-97).

The scope of the investigation included the structure, the soil beneath, and a 15-foot wide perimeter border around the structure. This perimeter includes roadways, and pavement. The investigation of Building SST included the following:

1) A building and perimeter inspection.
2) An examination of historical aerial photographs and maps.
3) A review of federal and state regulatory agency records.
4) Personnel interviews.
5) A review of Mound Plant records for:
   A) History of spills, releases, and chemical inventories
   B) Past sampling data
      - Radiological survey
      - Soil sampling
      - Lead paint
      - Asbestos
      - Radon

Building investigations were conducted by BWXT of Ohio (BWXTO) personnel.

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
- Mound Manual MD-22153, Mound Site Radionuclides By Location, July 1995 Contaminant Surveys
- Mound Document MLM-3791, Mound Facility Physical Characterization, December 1993

2.0 Building Specific Overview

Mound Plant is located in the southern portion of the corporation limits of Miamisburg, Ohio. The subject property consists of Mound Plant Building SST, the soil beneath, and a 15-foot wide perimeter around the Building. Building SST contains 590 square feet of floor space (floor plans are in Appendix D). It was constructed in 1974 and the roof and walls were rebuilt in 2000.

2.1 Current Uses of Building SST

Building SST continues to function as the site storage facility for road salt. No waste is currently stored in the SST.

2.2 Past Uses of Building SST

Building SST was built to store road salt for the site.

2.3 Summary of Environmental Concerns and Findings - Building SST

DESCRIPTION	COMMENT	RESOLUTION
Lead Paint	N/A	
Chemicals	N/A	
Fluorescent Lamps and PCBs	N/A	
Asbestos	N/A	
Drainage Sumps	N/A	
Lead	N/A	
HVAC	N/A	
Mercury	N/A	
Radiological	N/A	
Septic System	N/A	
Waste Water	N/A	
Stains & Corrosion	N/A	
Space	N/A	
Storage Tanks	N/A	
Solid Waste Disposal	N/A	
Migratory Hazards	N/A	
Radon	N/A	
Energetic Material	N/A	

N/A: Not a contaminant of concern.
PCB: polychlorinated biphenyls

2.4 Radiological Characterization Summary for Building SST

An assessment of building SST was performed reviewing operational history and radiological survey information. The structure was constructed as a road salt storage shed and continues to be used for that purpose. Radiological surveys of the building and associated concrete slab indicated no elevated radioactivity levels. Also, there is no history of radioactive materials having ever been handled or stored there and prior site assessments have concluded the building was non-impacted from site radiological operations.

In accordance with "Generic Process for the Disposition of Buildings That Have Potential or Actual Radiological Contamination", the review team concluded that the structure is radiologically non-impacted. No further radiological surveys are required. Associated radiological survey documentation for the information summarized in the following table is contained in Appendix G.

TYPE	RSDS	LOCATION	SURVEY RESULTS (dpm/100 cm²)	SURFACE CONTAMINATION GUIDELINES (dpm/100 cm²) (Note 1)
Highest Alpha Smearable Activity	01-OSA-058 00-38-533	Building Surfaces, Debris	< 20	20
Highest Alpha Fixed Activity	01-OSA-058 00-38-533	Building Surfaces, Debris	< 100	100
Highest Beta Smearable Activity	01-OSA-058 00-38-533	Building Surfaces, Debris	< 1000	1,000
Highest Beta Fixed Activity	01-OSA-058 00-38-533	Building Surfaces, Debris	< 5000	5,000
Highest Tritium Smearable Activity	Note 2	Note 2	Note 2	10,000

Note 1: Core Team determined values
Note 2: All radiological surveys indicated < 100 dpm/100cm^2 alpha and < 5000 dpm/100cm^2 beta

2.5 Associated PRS Table for Building SST

There are no PRSs directly associated with the SST; however, PRSs in closest proximity to the SST are presented in the table below and identified on Figure 2 in Appendix C. Additional information is included in Subsection 4.2.3 and Appendix N. Also note Mound Plant graphical depiction located in introduction to this Building Data Package.

PRS #	CERCLA or BLDG. RELATED	BINNING STATUS	COMMENTS
407	CERCLA	No Further Assessment (NFA)	Removal action completed 1998 (Building 21 & Associated Soils On-Scene Coordinator Report, January 2000).
281	Building SST related	NFA	
284	Building SST related	NFA	
276	CERCLA	Removal Action	Orphan soils previously staged. Removal action has been performed pending verification sampling.

3.0 Site Description

3.1 Site/Vicinity Location and Characteristics

Building SST is located at the DOE facility 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 facility was at one time situated on 306 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 is 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. Building SST is located at the south of the SM/PP hill on the plant site. See figures in Appendix C.

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 Related to Building SST

The subject property consists of the Mound Plant Building SST footprint, the soil beneath, and a 15-foot wide perimeter around the building. Building SST is a one story, 590 square foot structure. It is a slab-on grade structure, with wood framing for walls and roof. It was constructed in 1974 and almost completely rebuilt in 2000.

To the east is the Waste Management storage pad for the storage of waste containers.

Building SST has no utilities except for electricity.

3.3 Current and Past Uses of Buildings In Proximity To Building SST

All buildings in proximity to Building SST have been demolished, but are summarized in the table below. The location of these buildings relevant to SST are shown on Figure 3 in Appendix C.

Building	Building Area (square feet)	Past Use	Current Use
Building 13	47	Firing Shed for disposal of energetic materials	Demolished
Magazine 14	53	Magazine for storage of energetic materials prior to disposal	Demolished
Building 21	4,069	Raw Material Storage (Thorium Sludge)	Remediated and Demolished
Magazine 53	239	Magazine for storage of energetic materials prior to disposal	Demolished
Building 90	656	Energetic Material Retort for disposition of ignitors	Demolished

4.0 Records Review

4.1 General/Historical CERCLA Information

In compliance with permit requirements under the 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 009857. Permits for the open burning of wastes involving explosives and other fuels have been issued by the Regional Air Pollution Control Agency (RAPCA). Other operations that produce particulate or vaporous emissions are registered with RAPCA and the Ohio Environmental Protection Agency (OEPA). Mound Plant also submits annual Emergency and Hazardous Chemical Inventory forms to OEPA, pursuant to Superfund Amendments and Reauthorization Act (SARA), Title III, the Emergency Planning and Community Right-to-Know Act. The 2000 version of this report indicated that no chemicals, other than salt, are stored in Building SST in quantities above the regulatory thresholds.

The Mound Plant was identified as a contaminated site on the National Priority List under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Superfund) in 1989. The Mound Plant site was originally listed as a consequence of 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 Mound. 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 Mound into geographical parcels containing over 400 PRSs with approximately 200 concerned with potentially contaminated soils, and the balance 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

A search of the occurrence reporting system revealed one report, which involved a safety issue work stoppage during the remodeling of the Salt Storage Shed.

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 FFA/DOE ER Program, DOE and BWXTO have tabulated all the Potential Release Sites (PRSs) identified under the various regulatory programs in effect at the site. Of these 440 PRSs, PRS 281, 284, 407, and PRS 276 are related to SST due to proximity. Core Team recommendations are in Appendix N.

4.2.4 Sampling Data

4.2.4.1 Radiological Surveys

No elevated radiological readings were detected on the structure, its associated slab, or on building materials removed prior to installation of a new superstructure in 2000. Survey data, summarized in Section 2.4 of this document, is contained in Appendix G.

4.2.4.2 Soil Sampling Data

Appendix L contains a graphic and table identifying all of the soil sample results within 30 feet of the perimeter of the SST structure. Sample results exceeding screening levels, that remain after remediation, are presented in the table below.

Location Name	Analyte	Result	Units	10-6 RBGV	Bkgd.	Screen Level	Project Code
S0989	Plutonium-238	**93.30**	PCI/G	6.10	0.13	55.00	RSS
D12261	Thorium-232	**2.13**	PCI/G	0.07	1.40	1.47	PRS407VERF

RBGV: risk-based guideline value

The following sample results were remediated as part of the PRS 407 and Building 21 cleanup effort.

SAMPLE RESULTS REMOVED IN THE BUILDING 21 REMEDIATION

Location Name	Analyte	Result	Units	10-6 RBGV	Bkgd.	Screen Level	Project Code
124CC	Americium-241	**38.40**	PCI/G	6.30	ND	6.30	BLDG21
124CC	Beryllium	**1.20**	MG/KG	0.70	1.30	-	BLDG21
C0179	Plutonium-238	**1103.00**	PCI/G	6.10	0.13	55.00	RSS
C0179	Plutonium-238	**39.00**	PCI/G	6.10	0.13	55.00	RSS
124CC	Radium-226	**1.41**	PCI/G	0.09	2.00	2.1	BLDG21
148SW	Radium-226	**1.07**	PCI/G	0.09	2.00	2.1	BLDG21
148SW	Radium-226	**0.41**	PCI/G	0.09	2.00	2.1	BLDG21
124CC	Thorium-232	**1.31**	PCI/G	0.07	1.40	1.47	BLDG21
148SW	Thorium-232	**1.06**	PCI/G	0.07	1.40	1.47	BLDG21
148SW	Thorium-232	**0.38**	PCI/G	0.07	1.40	1.47	BLDG21

4.2.4.3 Chemical History/Removal

The only chemical present is road salt, which continues to be stored in the facility.

4.2.4.4 Lead Paint

A walk-through revealed no lead concerns. See the documentation of the walk-through in Appendix J.

4.2.4.5 Asbestos

A walk-through revealed no asbestos concerns. See the documentation of the walk-through in Appendix I.

4.2.4.6 Radon

The 1989-90 Mound Indoor Radon contains no radon sample results for Building SST. Building SST is three sided with one side open to the air; therefore, Radon should not be a concern.

4.3 Review of Building Prints

Building prints were reviewed and are included in Appendix D.

4.4 Aerial Photographs

Aerial photographs from 1973, 1983, and 1996 were reviewed and copies are found in Appendix E.

4.5 Interviews

Past Building Manager, Bob Ward, was interviewed using a building manager questionnaire. See Appendix F. The current Building Manager is Gary Weidenbach.

Appendix A

General Listing of Acronyms

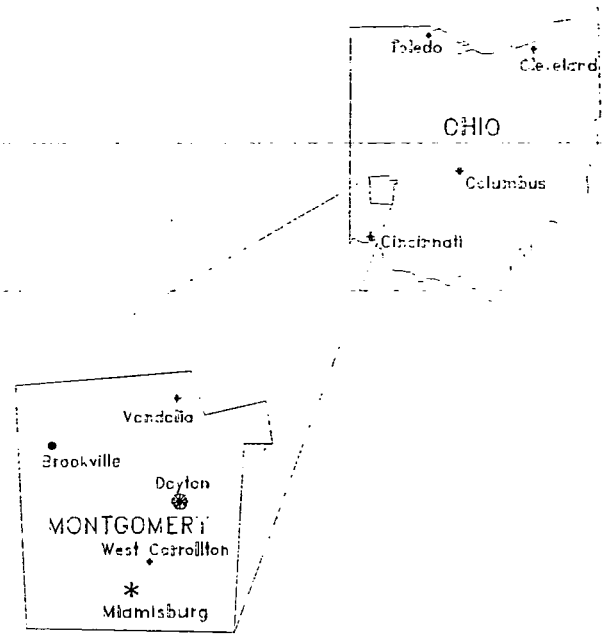
AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos Containing Materials
AL	Action Level
ASTM	American Society for Testing and Materials
BDP	Building Data Package
BUSTR	Bureau of Underground Storage Tank Regulations
BWXTO	BWXT of Ohio
CAA	Clean Air Act
CEG	Conditionally Exempt Generator
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
DPM	Disintegrations Per Minute
EMF	Electromagnetic Field
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration (Program)
ERDA	Energy Research and Development Administration
ERNS	Emergency Response Notification System
FFA	Federal Facility Agreement
FINDS	Facility Index System

FS	Feasibility Study
GSA	General Services Administration
HEPA	High Efficiency Particulate Air
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
M&O	Maintenance and Operations
MARSSIM	Multi-Agency Radiological Survey and Site Investigation Manual
MAT	Mound Applied Technologies
MCC	Monsanto Chemical Company
MEMP	Miamisburg Environmental Management Project
MMCIC	Miamisburg Mound Community Improvement Corporation
MRC	Monsanto Research Corporation
NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
ORPS	Occurrence Reporting and Processing System
OU	Operable Unit
PADS	PCB Activity Database
PCB	Polychlorinated Biphenyls
PRS	Potential Release Site
RAPCA	Regional Air Pollution Control Agency
RCRA	Resource Conservation and Recovery Act

REC	Recognized Environmental Condition
RI	Remedial Investigation
RSDS	Radiological Survey Data Sheet
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SQG	Small Quantity Generator
SWMU	Solid Waste Management Unit
TRIS	Toxic Chemical Release Inventory System
TSD	Treatment, Storage, & Disposal Facility
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

Appendix B

Map of Montgomery County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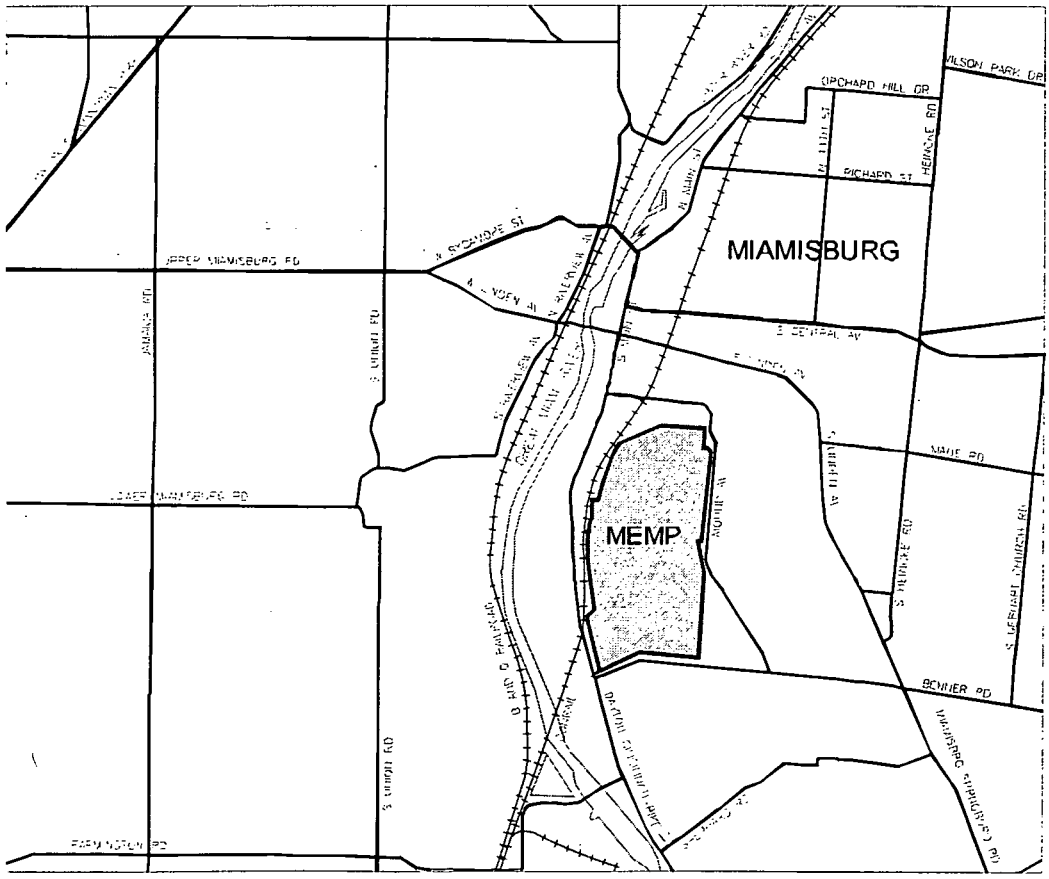
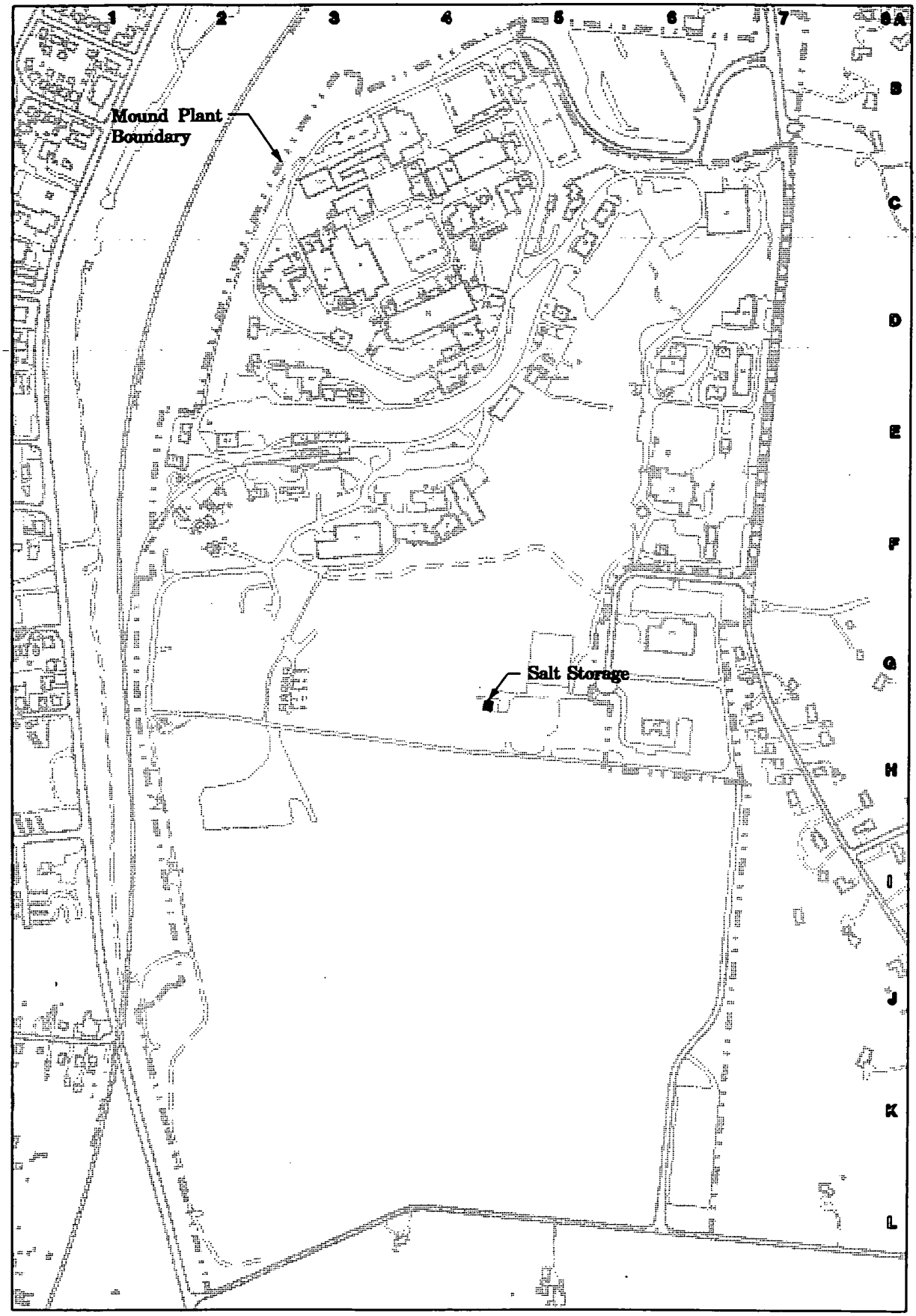
OHIO
Columbus
Cincinnati
Vandalia
Brookville
Dayton
MONTGOMERY
West Carrollton
Miamisburg


MIAMISBURG
MEMP
UPPER MIAMISBURG RD
LOWER MIAMISBURG RD
PARK NORTH RD
S CURRY RD
S DIXIE DR
S MAIN ST
N MAIN ST
E CENTRAL AV
MAPLE RD
BENNER RD
S PERRY ST
S DIXIE DR
S CURRY RD
N SYCAMORE ST
N MAIN ST
RICHARD ST
HEINCKE RD
WILSON PARK DR
CHAPPO HILL DR
GREAT MIAMI RIVER
DAYTON CINCINNATI
MIAMISBURG CENTERVILLE 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

	12/10/01	ISSUE FOR GENERAL USE	SSP			
ES	DATE	REVISION	BY	CHKR	ENG	M

MOUND
Environmental Restoration Geographic Information System

SHEET	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
ISSUE	
SHEET	1 2 3 4 5 6
ISSUE	A
PART CLASSIFICATION	
MOUND CLASSIFICATION	UNCLASSIFIED
SIZE	D
MOUND NUMBER	gen_site_plan.dgn
JOB NUMBER	
DWG TYPE	SITE
PROJ	
CHECK	
SCALE Graphic	SHEET 1 OF
STATUS	MO-REL-09/14/99
DRAWN	
STATION / #	

( ) TITLE CLASSIFICATION

Figure 1
Location of Salt Storage

gen_site_plan.dgn

PRS Point

PRS Area

MOUND

Environmental Restoration Geographic Information System

SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
ISSUE																				

SHEET	1	2	3	4	5	6
ISSUE	*					

PART CLASSIFICATION

Figure 2
Salt Storage Shed and Vicinity

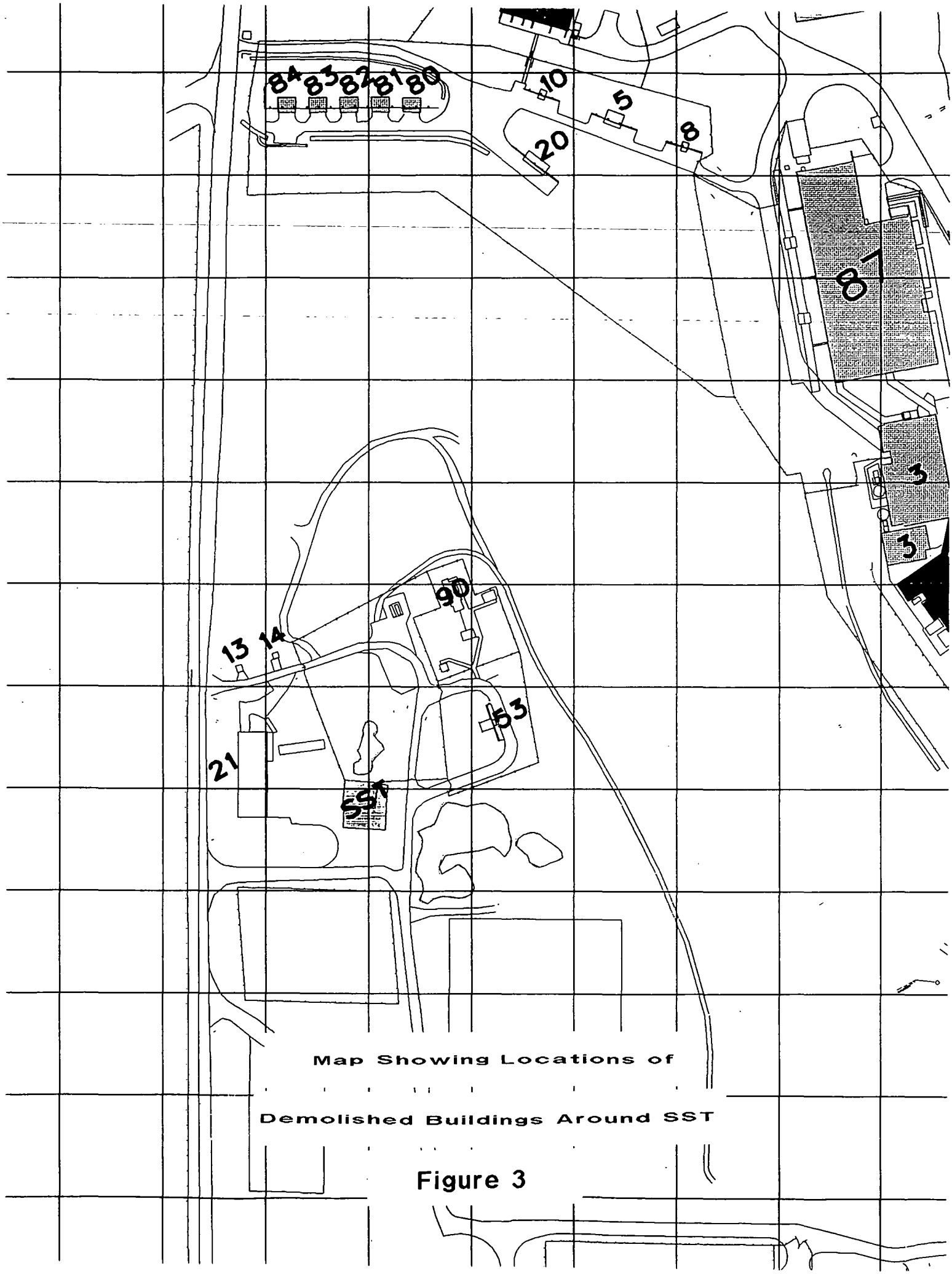
GRAPHIC CLASSIFICATION: UNCLASSIFIED

SIZE | DRAWING NUMBER: vicinity.dgn | JOB NUMBER

DGN TYPE: STE | PROJ: ER-GIS | CAGEC | SCALE | SHEET 1 OF

STATUS: MD-REL-**/**/** | ORIGIN: MSTATION / J

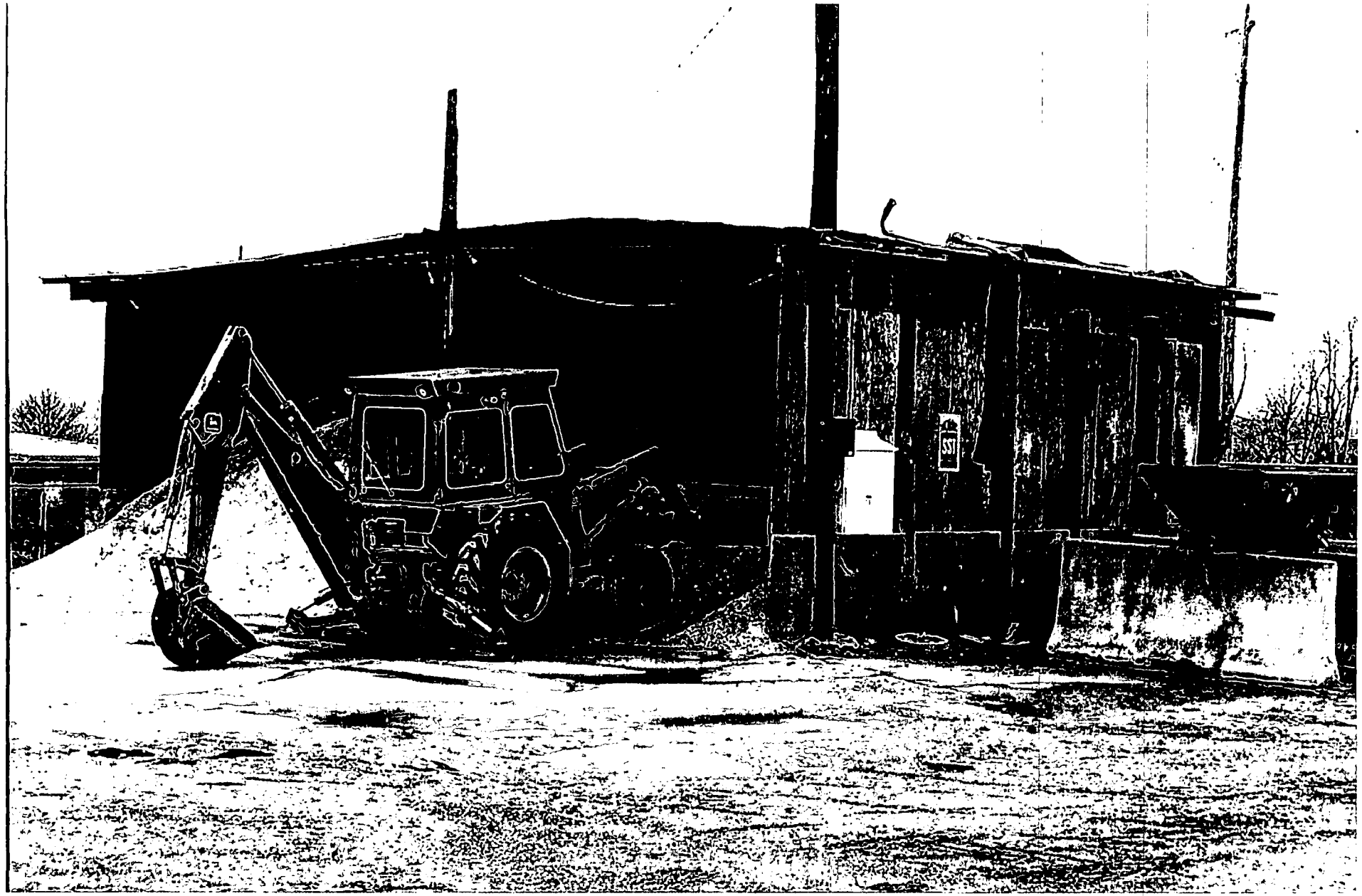
ISS	DATE	REVISION	BY	CHKR	ENG	LPREC	APVD	M
	12/06/01		SSR					



Map Showing Locations of

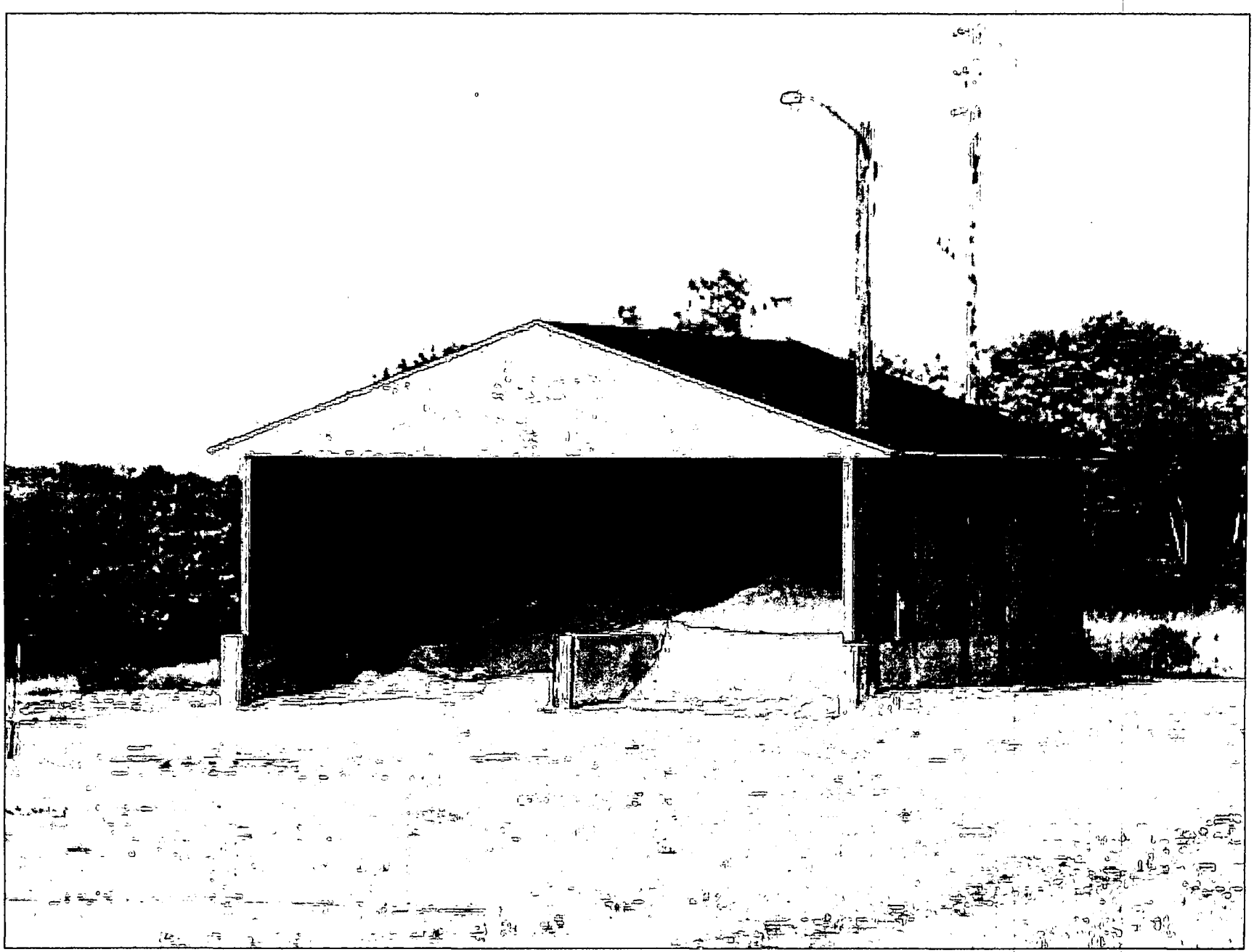
Demolished Buildings Around SST

Figure 3



ORIGINAL STRUCTURE

Figure 4



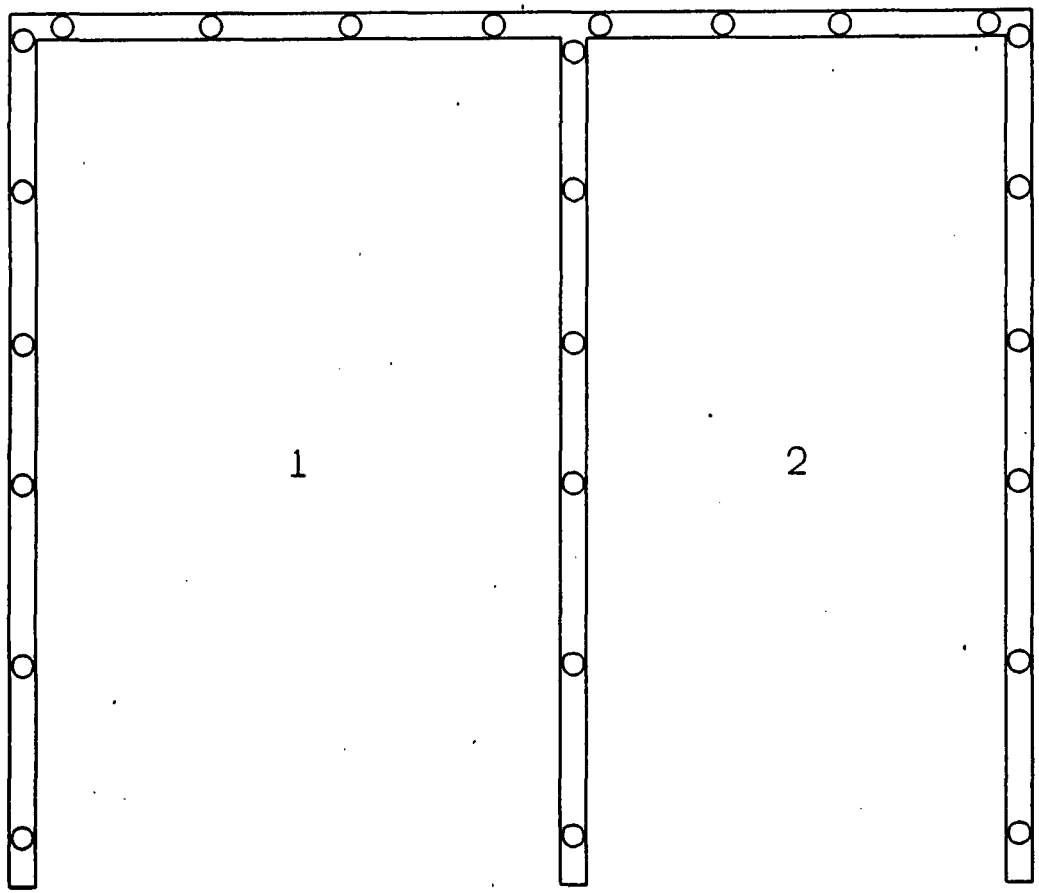
REMODELED STRUCTURE with
FOUNDATION and SUPPORT POLES from ORIGINAL

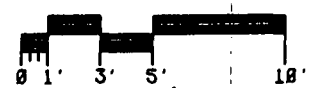
Figure 5

Appendix D

Building Drawings

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





SST BLDG
FIRST FLOOR
BLDG CODE:3523

SHEET	1	2	3	4	5	6
ISSUE	0					

TITLE (U) TITLE CLASSIFICATION
SST BLDG
FLOOR PLANS

PART CLASSIFICATION

DRAWING CLASSIFICATION: UNCLASSIFIED

SIZE: C | DRAWING NUMBER: FSC911323 | JOB NUMBER: 12335

DWG TYPE: SFP | PROJ: SST BLDG | CODE: 14865 | SCALE: AS NOTED | SHEET 1 OF 1

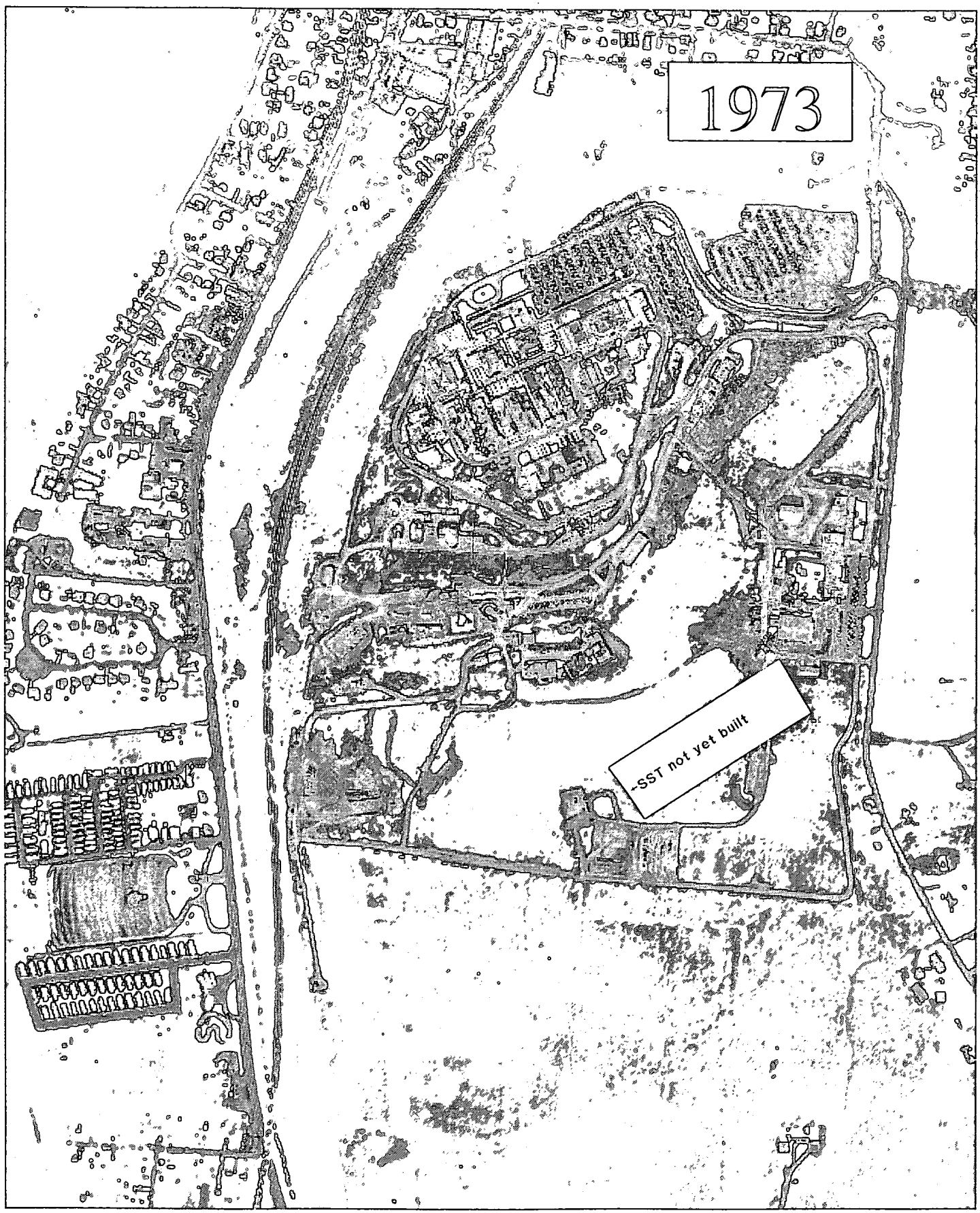
STATUS: MD-REL-12/12/91 | ORIGIN: MD-BR3-V3.0

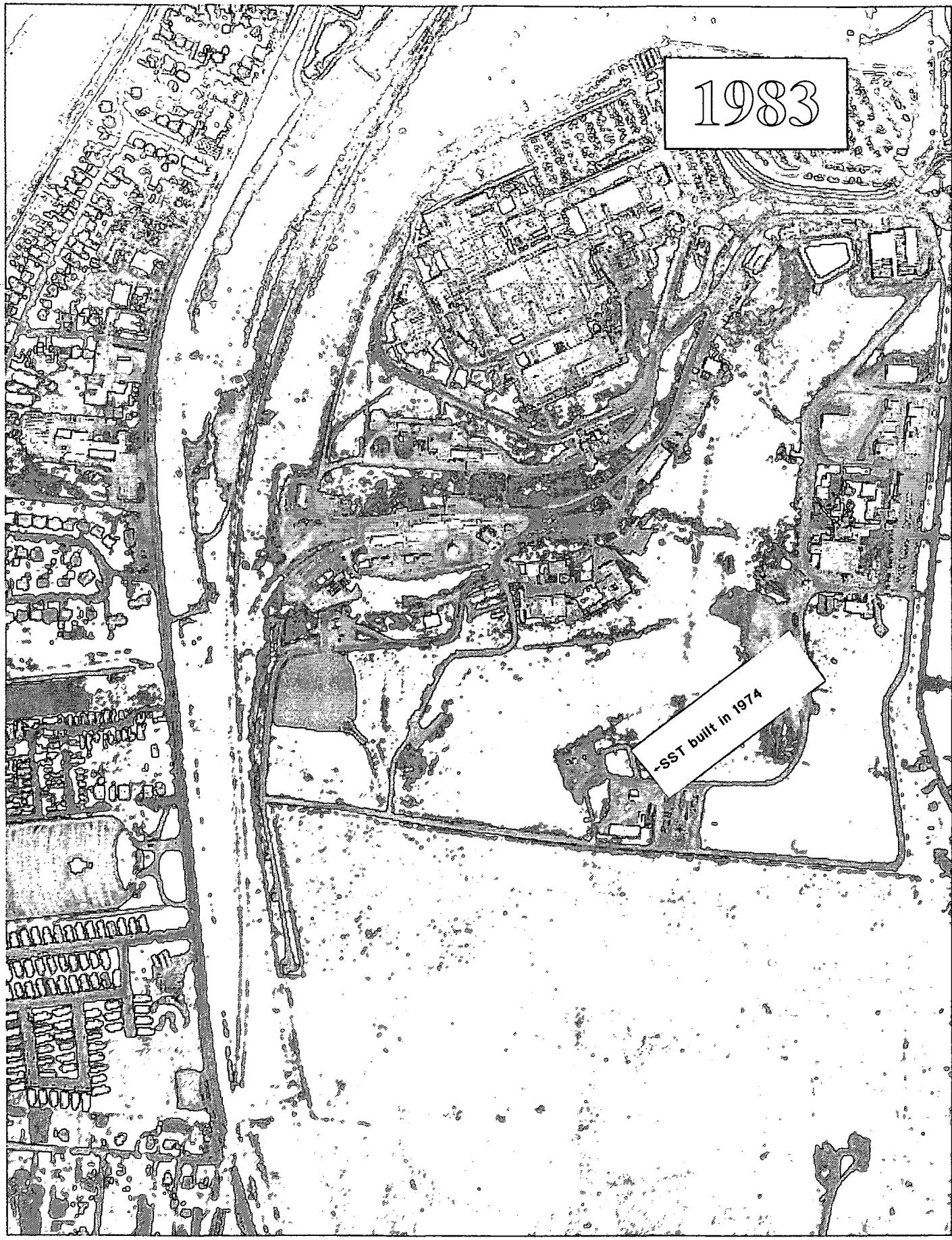
APPROVALS: DATE:
SAFETY COMMITTEE ADVISED:
___NONE ___TRUEDOC ___TEDOC ___EVDOC
TECH. REVIP. ___
SR. MGR. ___
TRUEDOC ___
TEDOC ___
EVDOC ___

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

Appendix E

Aerial Photographs


1973
SST not yet built


1983
-SST built in 1974

1996
SST

Appendix F

Environmental Appraisal Report of the Mound Plant (excerpt)

9.28 BUILDING SST

9.28.1 Scope of Building SST 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 SST on the morning of January 29, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is included as Attachment 1 (Section 9.28.6.1). 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 9.28.6.2).

9.28.2 Description of Building SST

Building SST, used for storing road salt, is a one-story, 590-square-foot, slab-on grade structure with wood framing for the walls and roof. The front is open from wall to wall and from the ground to the roof. A 3-foot high concrete wall separates the wood structure from the slab and divides the area into two sections. Wood siding and the roof are covered with "Tar Paper." The location is shown in Attachment 3 (Section 9.28.6.3). The building is bordered by a gravel hardstand on all sides. The nearest buildings are Building 21 on the east and Building 53 on the west. There are no utility services to the building. Floor plans are presented as Attachment 4 (Section 9.28.6.4).

Building SST was constructed in 1974 (MD-10391, *Asbestos Program Manual*, 9-14-95). The building has been used for the same purpose since construction. Both sections of Building SST are used to store bulk salt for Mound roads and sidewalks. During winter months, two pieces of material handling construction equipment are located in the building.

9.28.3 Summary of Findings

The building is not well-maintained and the wood beams and siding show signs of potential failure. There was one issue of environmental concern identified during the walk-through or during review of reference materials.

9.28.4 Observations

9.28.4.1 Air Emissions

There are no fuel-burning units or fumehoods in the building. There is no evidence of fugitive dust, a there are no processes which could generate it. No air emissions permit applications have been submitted to the Ohio Environmental Protection Agency (OEPA) for activities in the building.

9.28.4.2 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.

9.28.4.2.1 Sanitary

The building has no sanitary services and no sanitary lines, according to drawings of underground lines presented as Attachment 5 (Section 9.28.6.5).

9.28.4.2.2 Storm Wastewater

The building is not serviced by storm drains. There are no visible interior floor drains. Storm water runoff either is absorbed into the ground or flows downhill to the nearest storm water collection ditch. Inspection showed no sign of odors, color discharges, or scarring which would indicate that any materials other than dissolved salt has entered the storm drainage system.

9.28.4.2.3 Chemicals

Calcium chloride bulk commercial-grade salt is the only chemical stored in the building. The material handling equipment is not maintained in the building. Fuel and lubricants are added to the equipment during routine servicing. There have been no reported spills from Building SST.

9.28.4.3 Potable and Service Water

Potable and service water are not supplied to the building.

9.28.4.4 Chemical Storage and Hazardous Materials

Since no other chemicals besides the calcium chloride are stored in the building, there is no requirement for a flammable storage cabinet, nor for posting of any Material Safety Data Sheets (MSDS's).

There are no aboveground storage tanks in or around the building, there are no sumps, separators, or catch basins, in or around the building nor are any underground storage tanks associated with this building.

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

There are no capacitors or transformers containing polychlorinated biphenyls (PCB's) located in, or adjacent, to the building. There is no record of past presence.

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

9.28.4.5 Solid, Hazardous, and Radioactive Wastes

Solid, hazardous or explosive wastes are not generated in Building SST. Since construction equipment is kept in with the salt during the winter and serviced onsite, hazardous waste could be generated if lubricating oil or diesel fuel from the construction equipment were to be released during servicing or while operating. According to the building manager, routine maintenance and inspection of the equipment has precluded such an event from occurring. Any waste oil or rags containing waste oil are removed by the service attendance, returned to the transportation maintenance shop, and placed in a waste drum/container. Waste oil is picked up by Waste Management for disposition. Rags are sent offsite for cleaning by a contractor. No records were available for review. Review of procurement and contract records was not within the scope of this appraisal.

9.28.4.6 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.

Efforts are made to quantify salt requirements in advance of the winter season and order only what is required. Incremental purchases are made to avoid a need for prolonged storage or disposal of unused salt.

9.28.5 Findings and Recommendations

Photographs were taken to document environmental appraisal activities. They are included as Attachment 6 (Section 9.28.6.6).

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

> SST-1 Considering the present harsh winter weather conditions and the current visibly poor condition of this wood structure, the building should be inspected to determine its integrity. In addition, alternative methods of storing the salt should be investigated in order to provide better protection from the elements.

Appendix G

Radiological Summary/Information

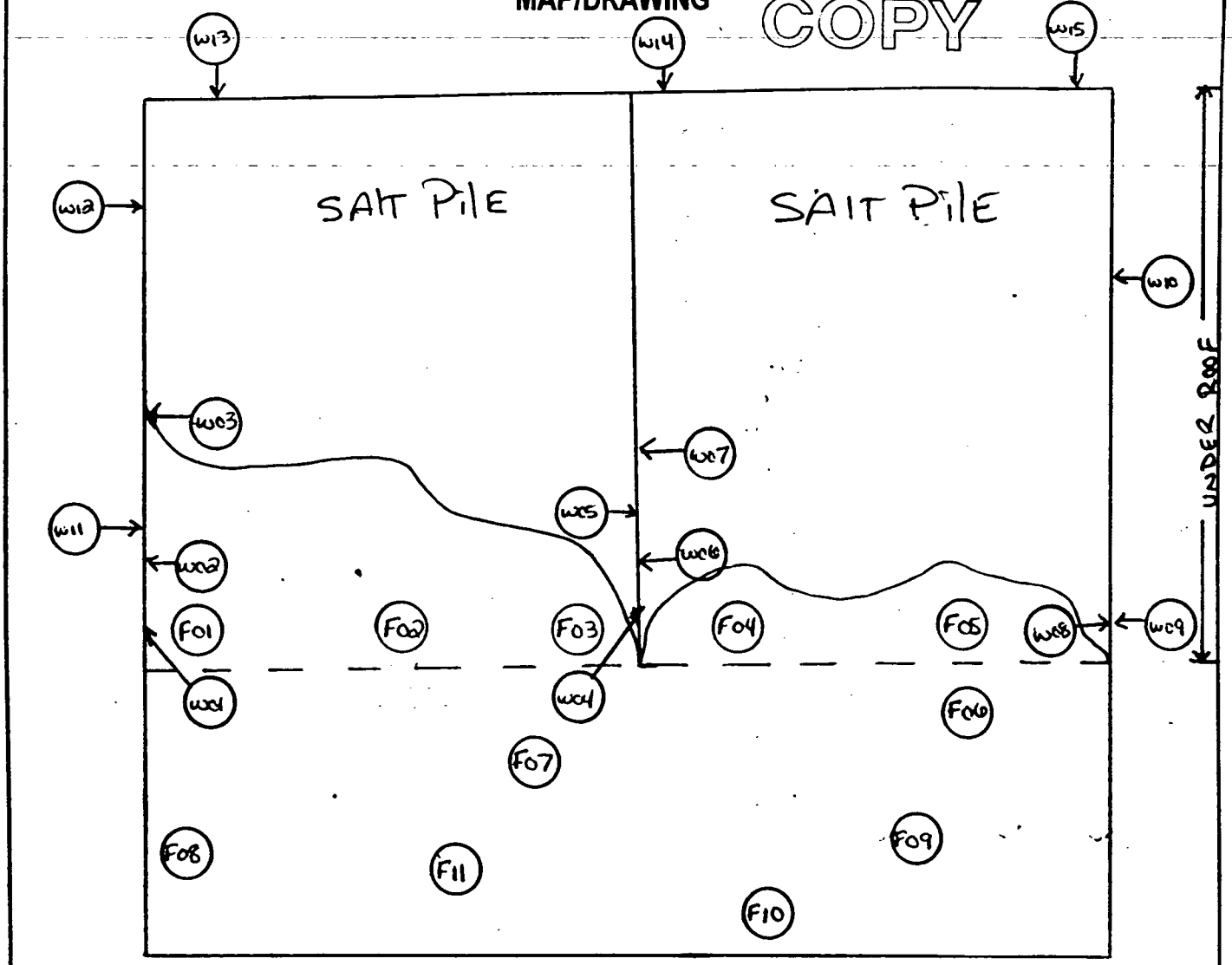
RADIOLOGICAL SURVEY DATA SHEET

1 of 6

LOCATION: (BLDG./AREA/ROOM) SALT SHED	SURVEY NO. 01-OSA-058
PURPOSE: CONFIRMATORY SURVEY	RWP NO. N/A
	DATE: 10-9-01
	TIME: 1330

MAP/DRAWING

COPY



(F#) → DENOTES DIRECT MEASUREMENT ON FLOOR (W#) → DENOTE DIRECT MEASUREMENT ON WALL

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

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Ludlum 2350	5673/5676	11-10-01
ELECTRA	5393/5407	7-17-02
	N	
	A	

[redacted]	HP # 6178 6196	Date: 10-15-01
Completed by: (Print Name) [redacted]		
Counted by: (Signature) N	HP #	Date:
Counted by: (Print Name) A [redacted]	HP # 8405	Date: 10/18/01

ML-9620 (2-98)

APP. G

Survey No. 01-OSA-058

Page ___ of ___

RADIOLOGICAL SURVEY DATA SHEET (cont.)

DJH 10-15-01

DIRECT ~~Removable~~ Contamination					Removable Contamination				
Swipes (dpm/100cm²)					Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments	Sample #	β/γ	Alpha	Tritium	Comments
F01	SEE	ATTACHED	N/A	INSIDE FLOOR					
F02	N/A			INSIDE FLOOR					
F03				INSIDE FLOOR					
F04				INSIDE FLOOR					
F05				INSIDE FLOOR					
F06				OUTSIDE PAD					
F07				OUTSIDE PAD					
F08				OUTSIDE PAD					
F09				OUTSIDE PAD					
F10				OUTSIDE PAD					
F11				OUTSIDE PAD					
W01				WALL					
W02				WALL					
W03				WALL					
W04				WALL					
W05				WALL					
W06				WALL					
W07				WALL			N	A	
W08				WALL					
W09				WALL					
W10				WALL					
W11				WALL					
W12				WALL					
W13				WALL					
W14				WALL					
W15	↓	↓	↓	WALL					
		N	A						

COMMENTS: LARGE AREA WIPES TAKEN ON ALL INTERIOR AND EXTERIOR CONCRETE WALL SURFACES; α < ~~500~~ 100 dpm, β < ~~1000~~ 5000 dpm

DJH 10-18-01 DJH 10-18-01

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)

CONTAMINATION PROBE INTEGRATED COUNT MDA

<SELECT> Probe Type		181	Model 43-20 cm2	Active Probe Area
<ENTER> Isotopic Efficiency Listed on Probe	Ei	[illegible]	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	[illegible]	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.)		[illegible]	sec.
Sample Count Time (minutes) (Tsb)		0.63	min.
*	MDA	50	dpm/100 cm2

Minimum Activity Detected Per Probe Area (dpm/Probe)

91

Performed by: [redacted]

HP#: 7707

Date: 10/09/01

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

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CONTAMINATION PROBE INTEGRATED COUNT MDA

<SELECT> Probe Type		584	Model 43-37 cm2	Active Probe Area
<ENTER> Isotopic Efficiency Listed on Probe	Ei	[redacted]	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	[redacted]	CPM	Background Count Rate
<ENTER> Background Count Time (minutes)	Tb	[redacted]	min.	

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

Sample Integrated Count Time (sec.)		[redacted]	sec.
Sample Count Time (minutes) (Tsb)		0.27	min.
*	MDA	49	dpm/100 cm2

Minimum Activity Detected Per Probe Area (dpm/Probe)

285

Performed by: [redacted]

HP#: 7707

Date: 10/09/01

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

29 H

01-OSA-058 4 of 6

SALT SHED M-2350 SURVEY

RSDS# 01-OSA-058 RCT: 29 A RCT: mor

LOCATION	2350#	RCT ID	PROBE	DET #	ITEM #	DATE	TIME	CNTS	CT TIME	dpm/100cm2
SCRBKG	5673	7707	5143	2	0	10/9/01	1/0	2	300	3
SCRCHECK	5673	7707	5143	2	1	10/9/01	1/0	2066	60	13752
SCRCHECK	5673	7707	5143	2	2	10/9/01	1/0	1925	60	12814
SCRCHECK	5673	7707	5143	2	3	10/9/01	1/0	2107	60	14025
SCRCHECK	5673	7707	5143	2	4	10/9/01	1/0	2038	60	13566
SCRBKG	5673	7707	5676	3	5	10/9/01	1/0	18	300	7
SRCCHECK	5673	7707	5676	3	6	10/9/01	1/0	2376	60	4571
SRCCHECK	5673	7707	5676	3	7	10/9/01	1/0	2197	60	4227
SRCCHECK	5673	7707	5676	3	8	10/9/01	1/0	2258	60	4344
SRCCHECK	5673	7707	5676	3	9	10/9/01	1/0	2196	60	4225
SRCCHECK	5673	7707	5676	3	10	10/9/01	1/0	2170	60	4175
SRCCHECK	5673	7707	5676	3	11	10/9/01	1/0	2202	60	4237
SRCCHECK	5673	7707	5676	3	12	10/9/01	1/0	2243	60	4315
SRCCHECK	5673	7707	5676	3	13	10/9/01	1/0	2216	60	4264
SRCCHECK	5673	7707	5676	3	14	10/9/01	1/0	2264	60	4356
SRCCHECK	5673	7707	5676	3	15	10/9/01	1/0	2194	60	4221
SRCCHECK	5673	7707	5676	3	16	10/9/01	1/0	2213	60	4258
SRCCHECK	5673	7707	5676	3	17	10/9/01	1/0	2209	60	4250
SSTF01	5673	7707	5676	3	18	10/9/01	1/0	3	16	22
SSTF02	5673	7707	5676	3	19	10/9/01	1/0	1	16	7
SSTF03	5673	7707	5676	3	20	10/9/01	1/0	2	16	14
SSTF04	5673	7707	5676	3	21	10/9/01	1/0	3	16	22
SSTF05	5673	7707	5676	3	22	10/9/01	1/0	3	16	22
SSTF06	5673	7707	5676	3	23	10/9/01	1/0	8	16	58
SSTF07	5673	7707	5676	3	24	10/9/01	1/0	4	16	29
SSTF08	5673	7707	5676	3	25	10/9/01	1/0	9	16	65
SSTF09	5673	7707	5676	3	26	10/9/01	1/0	2	16	14
SSTF10	5673	7707	5676	3	27	10/9/01	1/0	4	16	29
SSTF11	5673	7707	5676	3	28	10/9/01	1/0	1	16	7
SSTW01	5673	7707	5143	2	29	10/9/01	1/0	1	38	11
SSTW02	5673	7707	5143	2	30	10/9/01	1/0	0	38	0
SSTW03	5673	7707	5143	2	31	10/9/01	1/0	0	38	0
SSTW04	5673	7707	5143	2	32	10/9/01	1/0	4	38	42
SSTW05	5673	7707	5143	2	33	10/9/01	1/0	2	38	21
SSTW06	5673	7707	5143	2	34	10/9/01	1/0	2	38	21
SSTW07	5673	7707	5143	2	35	10/9/01	1/0	1	38	11
SSTW08	5673	7707	5143	2	36	10/9/01	1/0	2	38	21
SSTW09	5673	7707	5143	2	37	10/9/01	1/0	4	38	42
SSTW10	5673	7707	5143	2	38	10/9/01	1/0	8	38	84

SALT SHED M-2350 SURVEY

RSDS# 01-OSA-058 RCT: DJH RCT: MOL

LOCATION	2350#	RCT ID	PROBE	DET #	ITEM #	DATE	TIME	CNTS	CT TIME	dpm/100cm2
SSTW11	5673	7707	5143	2	39	10/9/01	1/0	3	38	32
SSTW12	5673	7707	5143	2	40	10/9/01	1/0	8	38	84
SSTW13	5673	7707	5143	2	41	10/9/01	1/0	4	38	42
SSTW14	5673	7707	5143	2	42	10/9/01	1/0	7	38	74
SSTW15	5673	7707	5143	2	43	10/9/01	1/0	4	38	42

DJH

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RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Area 21	SURVEY NO. 00-38-533
PURPOSE: Roll-Off Survey Debris	RWP NO. N/A
	DATE: 060600
	TIME: 1350

MAP/DRAWING

See Back

COPY

direct readings

<100dpm/100cm² α

<5000dpm/100cm² β

PWR/E 051800-38-01

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

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
NE Electra	5273/5289	101400
	N/A	

Completed by: (Signature)	HP#	Date:
[redacted]	4695	060600
	HP# 5681	Date: 06-06-00
	HP# 5436	Date: 6/7/00

ML-9620 (2-98)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See attached		N/A	Crushed Drum
2				
3				
4				transformer
5				
6				
7				electrical Cable
8				
9				
10				
11				
12				
13				metal tubing
14				
15				
16				
17				
18				
19				
20				
21				
22				misc fencing & Posts
23				
24				
25				
26				
27				
28				
29				
30				
31				light fixtures
32				
33				
34				
35				unistrut

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
36			N/A	unistrut
37				Misc wood/concrete
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
			N/A	

COMMENTS:

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-9620 (4-98)

CS

Alpha/Beta Analysis

Batch ID: 00-38-533 SOUERS AREA 21 (52) CYR

Batch File: Smear Unit 3 - 200006061514

Group: A

Device: Unit 3

Geometry: Swipe/Smear

Serial Number: 59123

Acquisition Date: 6/6/2000

Count Time (min): 1.5

Recalibration Date: 5/17/2001

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
1	144	0.00	0.11	6.36	5.69
2	50	2.33	4.69	5.08	5.09
3	59	0.00	0.02	1.27	2.54
4	6	0.00	0.07	3.82	4.41
5	3	0.00	0.09	5.09	5.09
6	142	0.00	0.09	5.09	5.09
7	91	2.33	4.69	5.08	5.09
8	60	4.68	6.63	3.80	4.41
9	52	0.00	0.09	5.09	5.09
10	1	0.00	0.09	5.09	5.09
11	32	0.00	0.07	3.82	4.41
12	141	2.33	4.69	6.35	5.69
13	108	0.00	0.11	6.36	5.69
14	33	0.00	0.07	3.82	4.41
15	64	4.68	6.63	1.25	2.55
16	136	2.34	4.69	2.54	3.60
17	103	0.00	0.13	7.63	6.23
18	50	0.00	0.02	1.27	2.54
19	72	2.33	4.69	5.08	5.09
20	145	2.33	4.69	5.08	5.09
21	42	2.34	4.69	1.26	2.55
22	139	0.00	0.09	5.09	5.09
23	37	0.00	0.09	5.09	5.09
		CS		CS	

Copy

Alpha/Beta Analysis

Sample ID	Carrier	Alpha (dpm)	2σ	Beta (dpm)	2σ
24	35	2.34	4.69	2.54	3.60
25	85	4.68	6.63	1.25	2.55
26	73	2.32	4.69	10.17	7.20
27	35	4.67	6.63	6.34	5.69
28	124	0.00	0.02	1.27	2.54
29	125	0.00	0.04	2.54	3.60
30	24	0.00	0.07	3.82	4.41
31	138	0.00	0.04	2.54	3.60
32	39	0.00	0.07	3.82	4.41
33	113	0.00	0.09	5.09	5.09
34	83	0.00	0.02	1.27	2.54
35	16	0.00	0.09	5.09	5.09
36	40	2.33	4.69	6.35	5.69
37	109	0.00	0.09	5.09	5.09
38	69	0.00	0.02	1.27	2.54
39	17	2.33	4.69	5.08	5.09
40	29	0.00	0.11	6.36	5.69
41	99	0.00	0.04	2.54	3.60
42	4	2.34	4.69	2.54	3.60
43	84	0.00	0.13	7.63	6.23
44	99	2.34	4.69	2.54	3.60
45	7	0.00	0.04	2.54	3.60
46	139	0.00	0.07	3.82	4.41
47	18	0.00	0.09	5.09	5.09
48	14	2.33	4.69	6.35	5.69
49	140	4.67	6.63	6.34	5.69
50	83	2.33	4.69	5.08	5.09
51	71	0.00	0.07	3.82	4.41
52	37	2.34	4.69	3.81	4.41
		CS		CS	

COPY

CS

PROPERTY / WASTE RELEASE EVALUATION

Pg 585

PRE Number: 051800-38-01

PART I Sender / Custodian

'ork Order No. N/A

Description of Property/Waste to be Released/Transferred:

Area 21 Rolloff contents as follows:

1) Electrical transformer (dry form/used for trailer 21 exclusively until hit by lightning)
2) Fluorescent light fixtures (no ballasts / from 33 pad/ originally from Bd. 50)
3) Fencing (metal chain link fencing and metal posts/from burn area)
4) Electrical cable (service to 21, steel cable and sheathed wire)
5) Miscellaneous metal tubing (conduit and tubing/ used at 21)
6) Metal Fence Posts (from burn area)
7) Uni-strut (used for various brackets, shelves, etc/ used at 21)
8) Crushed drum (Old Terran decon water container/original liquid tested negative for contamination and was disposed prior to drum being crushed)
9) Plastic bags of sand (purchased bags of sand used for backfilling various wells)
10) Various pieces of wood / solidified concrete / 5 gallon bucket of seal grease

Property's Current Location: Area 21 – contents of rolloff

Property's Destination: Sanitary Landfill

Property's New Recipient/Custodian: Sanitary Landfill

Property's History/Process Knowledge: See descriptions above.

Is Property/Waste located in a Radioactive Materials Management Area, Radioactive Materials Area, or been exposed to a source of activation (i.e. neutrons) or has it come in contact with unencapsulated radioactive material?

☐ Yes ☐ No ☒ Unknown

COPY

ACKNOWLEDGEMENT: By signing below, the sender/custodian verifies the above information to be true and correct.

Sender/Custodian: (Print Name) [redacted]

(Signature) [redacted] H.P. No.: 4902

Date: 05/18/00 Pager: N/A Ext.: 3738

PART II Radiological Point of Contact

Check any of the following that applies:

Type of evaluation: ☒ Specific ☐ Extended (Expires:_____)

☐ No radiological survey is required due to the property's location, history, and/or characteristics.

☒ Radiological survey for both removable and fixed contamination ☒ Alpha ☒ Beta/gamma ☐ Tritium

☐ Radiological survey via spectral analysis

Specific requirements and/or comments:

Item	Requirements
1) Electrical transformer	Representative wipe and direct survey on exterior surfaces. Wipes on any cooling inlets/outlets
2) Fluorescent light fixtures 3) Fencing	Representative wipe and direct survey
4) Electrical cable	Representative wipe and direct survey Separate cable at 10 foot intervals along length and take wipes between steel support cable and sheathed electrical cable
5) Miscellaneous metal tubing	Representative wipe and direct survey Take random wipes inside ends of tubing
6) Metal Fence Posts 7) Uni-strut 8) Crushed drum	Representative wipe and direct survey Take wipes inside channel of unistrut and inside crevices of crushed drum
9) Plastic bags of sand	Representative wipe and direct survey on intact bags of sand. If sand is not intact, send to soil staging area.
10) Various pieces of wood / solidified concrete / 5 gallon bucket of seal grease	Dispose as LSA Waste Only / consult Waste Management regarding grease.

_VALUATED BY:

RPOC (Printed/Signature) [redacted] **HP No.** 5706 **Date** 05/18/00

ML-9594 (4-98)

Appendix H

Radon Summary/Information

(No information exists for the SST Building)

Appendix I

Asbestos Summary/Information

From: Christopher Ahlquist
To: Ransbottom, Robert
Date: 10/24/01 10:29AM
Subject: Salt Shed Assessment

Bob -

On October 23, 2001 I surveyed the Mound site Salt Storage Shed for asbestos and lead concerns. No asbestos-containing or lead-containing materials were found within or on the structure. I am certified by the Ohio Department of Health as an Asbestos Hazard Evaluation Specialist as required by State regulation and the survey fulfills the requirements under the EPA's NESHAP. In addition, I am Licensed by the Ohio Department of Health as a Lead Risk Assessor.

If I can be of further assistance, let me know.

Chris Ahlquist
SMPP/TFV Project Team

APP. I

Appendix J

Lead Summary/Information

From: Christopher Ahlquist
To: Ransbottom, Robert
Date: 10/24/01 10:29AM
Subject: Salt Shed Assessment

Bob -

On October 23, 2001 I surveyed the Mound site Salt Storage Shed for asbestos and lead concerns. No asbestos-containing or lead-containing materials were found within or on the structure. I am certified by the Ohio Department of Health as an Asbestos Hazard Evaluation Specialist as required by State regulation and the survey fulfills the requirements under the EPA's NESHAP. In addition, I am Licensed by the Ohio Department of Health as a Lead Risk Assessor.

If I can be of further assistance, let me know.

Chris Ahlquist
SMPP/TFV Project Team

APP. J

Appendix K

Chemical Summary/Information

Chemical Assessment for Bld's 2, 102, SST (Salt Shed)

On Oct 1, 2001 I completed a random assessment of Bld. 2, 102, SST (Salt Shed). The purpose of these assessments is:

1) To document inappropriate accumulation of unwanted materials
2) To identify materials for disposition/disposal
3) Answer questions SMPP/TFV Engineers/Generators have.

All Buildings listed are undergoing safe shutdown activities and presented no storage problems. Below is a list of what remain in WIDS (Waste Inventory Data System) Chemical Data Records last updated 02/01/01.

Bld. 102	Alcohol, Ethyl, Plastic Bottle, 1 Gallon
Bld. 102-109	Lubricant Tube, Plastic, 12 - 1.50 Liq. Ounce
Bld. 102-111	Graphite, Can Metal, Pound
Bld. 102-111	Lubricant, Can Metal, Ounce (Dry)
Bld. 102-207	Sealant, Plastic Bottle, .50 Liq. Ounce
Bld. 102-207	Disodium Salt, Glass Bottle, 2- 500 Grams

Bld. 2 No chemical found.
Closed for Approx 5 yrs

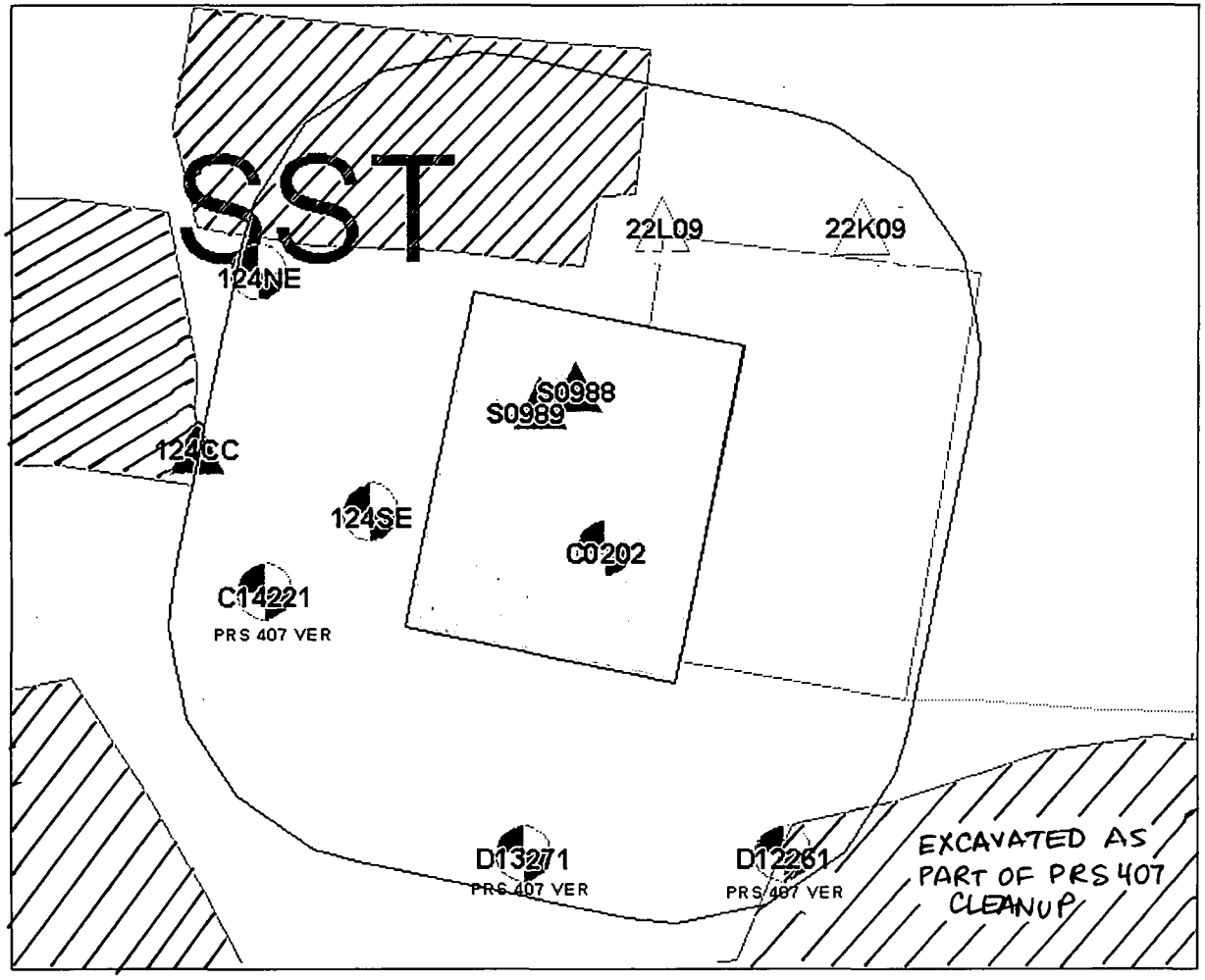
Bld. SST 3 Sided Bld. No chemicals other than road salt were found.

Willis L. Daniel
Project Operation, SMPP/TFV

Appendix L

Soil Sampling, Vicinity

SST Soil Samples within 30 feet



Sample Detect
Sample Detect Outline
Sample NonDetect
Building Label
Text Bldg ID
Building Outline
Building Outline
Building
Color Fill
Excavated Boundaries
Surveyed
Digitized
Roads
Paved Drives/Parking
Unpaved Drives/Parking

N
W E
S

10 0 10 20 30 40 50 Feet

02/28/02

SST Detects

LOCATION_N	SAMPLE_ID	LOCATION_T	COLLECTI	VALUE_NAME	MEASURED_V	VALUE_	DETECTION	CHEM_C	STAR	END	CAS_NUMB	LAB	DATA	PROJEC	MEDIA	COLLECTIO	Comments
S0988*	4531	Surface locatio	19840101	Plutonium-238	0.4000	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicabl	2-Exceeds background value.
S0988*	4531	Surface locatio	19840101	Tritium	1.6700	PCI/ML		RAD	0.0	0.0	10028-17-8			RSS	Soil	Not Applicable	
S0989*	4528	Surface locatio	19840101	Plutonium-238	93.3000	PCI/G	0.0100	RAD	0.0	0.0	13981-16-3			RSS	Soil	Not Applicabl	1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds screening level.
S0989*	4528	Surface locatio	19840101	Tritium	1.1800	PCI/ML		RAD	0.0	0.0	10028-17-8			RSS	Soil	Not Applicable	
124CC	CC0/1124	Surface locatio	19941208	Organic Carbon	60600.0000	MG/KG		GENERA	0.0	1.0	TOC			BLDG21	Soil	Auger, hand	
124CC	CC0/1124	Surface locatio	19941208	pH	8.4200	STD UN		PH	0.0	1.0	1006			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Organic Carbon	8790.0000	MG/KG		GENERA	1.0	2.0	TOC			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Aluminum	21600.0000	MG/KG	200.0000	INORG	1.0	2.0	7429-90-5			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Iron	43000.0000	MG/KG	100.0000	INORG	1.0	2.0	7439-89-6			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Lead	26.3000	MG/KG	3.0000	INORG	1.0	2.0	7439-92-1			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Magnesium	5030.0000	MG/KG	5000.0000	INORG	1.0	2.0	7439-95-4			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Manganese	1090.0000	MG/KG	15.0000	INORG	1.0	2.0	7439-96-5			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Mercury	0.0820	MG/KG	0.2000	INORG	1.0	2.0	7439-97-6			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Nickel	35.1000	MG/KG	40.0000	INORG	1.0	2.0	7440-02-0			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Potassium	1580.0000	MG/KG	5000.0000	INORG	1.0	2.0	7440-09-7			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Silver	4.4000	MG/KG	10.0000	INORG	1.0	2.0	7440-22-4			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Sodium	2400.0000	MG/KG	5000.0000	INORG	1.0	2.0	7440-23-5			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Arsenic	19.5000	MG/KG	10.0000	INORG	1.0	2.0	7440-38-2			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Barium	199.0000	MG/KG	200.0000	INORG	1.0	2.0	7440-39-3			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Beryllium	1.2000	MG/KG	5.0000	INORG	1.0	2.0	7440-41-7			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124CC	CC0/2124	Surface locatio	19941208	Chromium	28.2000	MG/KG	10.0000	INORG	1.0	2.0	7440-47-3			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Cobalt	20.0000	MG/KG	50.0000	INORG	1.0	2.0	7440-48-4			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Copper	35.9000	MG/KG	25.0000	INORG	1.0	2.0	7440-50-8			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Vanadium	49.8000	MG/KG	50.0000	INORG	1.0	2.0	7440-62-2			BLDG21	Soil	Auger, hand	2-Exceeds background value.
124CC	CC0/2124	Surface locatio	19941208	Zinc	89.3000	MG/KG	20.0000	INORG	1.0	2.0	7440-66-6			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Calcium	5190.0000	MG/KG	5000.0000	INORG	1.0	2.0	7440-70-2			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Di-n-butyl Phthalat	320.0000	UG/KG		ORSVO	1.0	2.0	84-74-2	BJ		BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	pH	7.6700	STD UN		PH	1.0	2.0	1006			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Cesium-137	0.0466	PCI/G	0.0431	RAD	1.0	2.0	10045-97-3			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Radium-224	1.3400	PCI/G	0.0000	RAD	1.0	2.0	13233-32-4			BLDG21	Soil	Auger, hand	
124CC	CC0/2124	Surface locatio	19941208	Radium-226	1.4100	PCI/G	0.0000	RAD	1.0	2.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124CC	CC0/2124	Surface locatio	19941208	Americium-241	38.4000	PCI/G	0.0000	RAD	1.0	2.0	14596-10-2			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV. 3-Exceeds screening level.
124CC	CC0/2124	Surface locatio	19941208	Thorium-232	1.3100	PCI/G	0.0000	RAD	1.0	2.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
D13271	D13271	Borehole	19990527	Thorium-232	0.8000	PCI/G	0.0200	RAD	0.0	0.3	7440-29-1			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
D13271	D13271	Borehole	19990527	Thorium-230	0.8300	PCI/G	0.0200	RAD	0.0	0.3	14269-63-7			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
D13271	D13271	Borehole	19990527	Thorium-228	0.9100	PCI/G	0.0360	RAD	0.0	0.3	14274-82-9			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
D13271	D13271	Borehole	19990527	Plutonium-239	0.0440	PCI/G	0.0530	RAD	0.0	0.3	15117-48-3			PRS407V	Soil	Scoop	
D13271	D13271	Borehole	19990527	Plutonium-238	0.3100	PCI/G	0.0660	RAD	0.0	0.3	13981-16-3			PRS407V	Soil	Scoop	2-Exceeds background value.
D12261	D12261	Borehole	19990527	Thorium-232	2.1300	PCI/G	0.0080	RAD	0.0	0.3	7440-29-1			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV. 2-Exceeds background value. 3-Exceeds screening level.
D12261	D12261	Borehole	19990527	Thorium-230	1.3900	PCI/G	0.0270	RAD	0.0	0.3	14269-63-7			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
D12261	D12261	Borehole	19990527	Thorium-228	2.2400	PCI/G	0.0350	RAD	0.0	0.3	14274-82-9			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV. 2-Exceeds background value.
D12261	D12261	Borehole	19990527	Plutonium-239	0.1200	PCI/G	0.0200	RAD	0.0	0.3	15117-48-3			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Plutonium-238	15.4000	PCI/G	0.0380	RAD	0.0	0.3	13981-16-3			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV. 2-Exceeds background value.
D12261	D12261	Borehole	19990527	Fluoride	2.1200	MG/KG	1.1200	ANION	0.0	0.3	16984-48-8			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Chloride	427.0000	MG/KG	22.4000	ANION	0.0	0.3	16887-00-6			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Nitrate/Nitrite	1.1300	MG/KG	0.2200	ANION	0.0	0.3	1497-55-8			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Sulfate	35.3000	MG/KG	5.6100	ANION	0.0	0.3	14808-79-8			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Cyanide	0.2200	MG/KG	0.5700	INORG	0.0	0.3	57-12-5	B		PRS407V	Soil	Scoop	2-Exceeds background value.
D12261	D12261	Borehole	19990527	Mercury	0.0700	MG/KG	0.1100	INORG	0.0	0.3	7439-97-6	B		PRS407V	Soil	Scoop	2-Exceeds background value.
D12261	D12261	Borehole	19990527	Aluminum	7450.0000	MG/KG	45.2000	INORG	0.0	0.3	7429-90-5			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Arsenic	7.2000	MG/KG	2.3000	INORG	0.0	0.3	7440-38-2			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Barium	38.5000	MG/KG	22.6000	INORG	0.0	0.3	7440-39-3	B		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Beryllium	0.3800	MG/KG	1.1000	INORG	0.0	0.3	7440-41-7	B		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Calcium	125000.0000	MG/KG	1130.0000	INORG	0.0	0.3	7440-70-2			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Chromium	10.6000	MG/KG	2.3000	INORG	0.0	0.3	7440-47-3			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Cobalt	5.0000	MG/KG	11.3000	INORG	0.0	0.3	7440-48-4	B		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Copper	16.0000	MG/KG	5.7000	INORG	0.0	0.3	7440-50-8			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Iron	12100.0000	MG/KG	22.6000	INORG	0.0	0.3	7439-89-6			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Lead	7.7000	MG/KG	0.6800	INORG	0.0	0.3	7439-92-1			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Magnesium	60000.0000	MG/KG	1130.0000	INORG	0.0	0.3	7439-95-4			PRS407V	Soil	Scoop	2-Exceeds background value.
D12261	D12261	Borehole	19990527	Manganese	333.0000	MG/KG	3.4000	INORG	0.0	0.3	7439-96-5			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Nickel	14.1000	MG/KG	9.0000	INORG	0.0	0.3	7440-02-0			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Potassium	1120.0000	MG/KG	1130.0000	INORG	0.0	0.3	7440-09-7	B		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Sodium	1600.0000	MG/KG	1130.0000	INORG	0.0	0.3	7440-23-5			PRS407V	Soil	Scoop	2-Exceeds background value.
D12261	D12261	Borehole	19990527	Vanadium	16.6000	MG/KG	11.3000	INORG	0.0	0.3	7440-62-2			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Zinc	41.0000	MG/KG	4.5000	INORG	0.0	0.3	7440-66-6			PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Bismuth	67.7000	MG/KG	45.2000	INORG	0.0	0.3	7440-69-9			PRS407V	Soil	Scoop	2-Exceeds background value.
D12261	D12261	Borehole	19990527	Lithium	9.6000	MG/KG	11.3000	INORG	0.0	0.3	7439-93-2	B		PRS407V	Soil	Scoop	

LOCATION_N	SAMPLE_ID	LOCATION_T	COLLECTI	VALUE_NAME	MEASURED_V	VALUE_	DETECTION	CHEM_C	STAR	END	CAS_NUMB	LAB	DATA	PROJEC	MEDIA	COLLECTIO	Comments
D12261	D12261	Borehole	19990527	Molybdenum	1.3000	MG/KG	9.0000	INORG	0.0	0.3	7439-98-7	B		PRS407V	Soil *	Scoop	
D12261	D12261	Borehole	19990527	Tin	2.2000	MG/KG	45.2000	INORG	0.0	0.3	7440-31-5	B		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Diethyl Phthalate	46.0000	UG/KG	380.0000	ORSVO	0.0	0.3	84-66-2	BJ		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Di-n-butyl Phthalat	88.0000	UG/KG	380.0000	ORSVO	0.0	0.3	84-74-2	BJ		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Fluoranthene	41.0000	UG/KG	380.0000	ORSVO	0.0	0.3	206-44-0	J		PRS407V	Soil	Scoop	
C14221	C14221	Borehole	19990527	Thorium-232	**0.6300**	PCI/G	0.0210	RAD	0.0	0.3	7440-29-1			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
C14221	C14221	Borehole	19990527	Thorium-230	**1.4700**	PCI/G	0.0150	RAD	0.0	0.3	14269-63-7			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
C14221	C14221	Borehole	19990527	Thorium-228	**0.7900**	PCI/G	0.0280	RAD	0.0	0.3	14274-82-9			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
C14221	C14221	Borehole	19990527	Plutonium-239	0.0320	PCI/G	0.0260	RAD	0.0	0.3	15117-48-3			PRS407V	Soil	Scoop	
C14221	C14221	Borehole	19990527	Plutonium-238	**0.3400**	PCI/G	0.0530	RAD	0.0	0.3	13981-16-3			PRS407V	Soil	Scoop	2-Exceeds background value.
C0202	1287	Borehole	19821201	Plutonium-238	**13.0400**	PCI/G	0.0100	RAD	1.5	1.5	13981-16-3			RSS	Soil	Not Applicabl	1-Exceeds soil 10-6 GV. 2-Exceeds background value.
C0202	1288	Borehole	19821201	Plutonium-238	**1.6600**	PCI/G	0.0100	RAD	3.0	3.0	13981-16-3			RSS	Soil	Not Applicabl	2-Exceeds background value.
124NE	NE0/2124	Borehole		Radium-224	1.0800	PCI/G	0.0000	RAD	1.0	2.0	13233-32-4			BLDG21	Soil	Auger, hand	
124NE	NE0/2124	Borehole		Radium-226	**1.1600**	PCI/G	0.0000	RAD	1.0	2.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124NE	NE0/2124	Borehole		Thorium-232	**1.1100**	PCI/G	0.0000	RAD	1.0	2.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124NE	NE0/1124	Borehole		Radium-224	0.4350	PCI/G	0.0000	RAD	0.0	1.0	13233-32-4			BLDG21	Soil	Auger, hand	
124NE	NE0/1124	Borehole		Radium-226	**0.5370**	PCI/G	0.0000	RAD	0.0	1.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124NE	NE0/1124	Borehole		Thorium-232	**0.4840**	PCI/G	0.0000	RAD	0.0	1.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124SE	SE0/2124	Borehole		Radium-224	0.8970	PCI/G	0.0000	RAD	1.0	2.0	13233-32-4			BLDG21	Soil	Auger, hand	
124SE	SE0/2124	Borehole		Radium-226	**0.9890**	PCI/G	0.0000	RAD	1.0	2.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124SE	SE0/2124	Borehole		Thorium-232	**0.8810**	PCI/G	0.0000	RAD	1.0	2.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124SE	SE0/1124	Borehole		Radium-224	0.2080	PCI/G	0.0000	RAD	0.0	1.0	13233-32-4			BLDG21	Soil	Auger, hand	
124SE	SE0/1124	Borehole		Radium-226	**0.4560**	PCI/G	0.0000	RAD	0.0	1.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124SE	SE0/1124	Borehole		Thorium-232	**0.1470**	PCI/G	0.0000	RAD	0.0	1.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.

* According to the Volume 3 Radiologial Site Survey, accuracy of sample locations is ± 25 feet and no samples were collected under buildings or structures; therefore, the sample location is not under the structure.

Lab Qualifier Codes

Organics

B	Used when the analyte is found in the associated blank as well as in the sample. This flag must be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.
J	Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for TICs assuming a 1:1 response, and 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.
U	Indicates the compound was analyzed for but not detected. The associated sample quantitation limit will be the CRQL, corrected for dilution and for percent moisture.

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.

Data Qualifier Codes

Organics and Inorganics

U	The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

SST Non-Detects

Location_	Sample_id	Location_t	Collection	Value_na	Measured_val	Value_unit	Detection_limi	Chem_cla	Start_dept	End_dept	CAS_num	Lab_qualif	Data_qual	Project_co	Media	Collection_method
S0988	4531	Surface lo	19840101	Thorium-2	2.0000	PCI/G	2.0000	RAD	0.0	0.0	7440-29-1	U		RSS	Soil	Not Applicable
S0989	4528	Surface lo	19840101	Thorium-2	2.0000	PCI/G	2.0000	RAD	0.0	0.0	7440-29-1	U		RSS	Soil	Not Applicable
124CC	CC0/1124	Surface lo	19941208	Sulfide	18.5000	MG/KG		ANION	0.0	1.0	18496-25-	U		BLDG21	Soil	Auger, hand
124CC	CC0/1124	Surface lo	19941208	Total Orga	5.7800	MG/KG		GENERA	0.0	1.0	TOX	U		BLDG21	Soil	Auger, hand
124CC	CC0/1124	Surface lo	19941208	Cyanide	0.5400	MG/KG		INORG	0.0	1.0	57-12-5	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Sulfide	25.7000	MG/KG		ANION	1.0	2.0	18496-25-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Total Orga	790.0000	MG/KG		GENERA	1.0	2.0	TOX	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Thallium	0.5100	MG/KG	10.0000	INORG	1.0	2.0	7440-28-0	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Antimony	3.4000	MG/KG	60.0000	INORG	1.0	2.0	7440-36-0	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Cadmium	0.4200	MG/KG	5.0000	INORG	1.0	2.0	7440-43-9	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Selenium	0.7600	MG/KG	5.0000	INORG	1.0	2.0	7782-49-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Cyanide	0.7900	MG/KG		INORG	1.0	2.0	57-12-5	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Phenolics	7.9800	MG/KG		ORPHNL	1.0	2.0	64743-03-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Aroclor-12	39.0000	UG/KG		ORPPB	1.0	2.0	11096-82-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Aroclor-12	39.0000	UG/KG		ORPPB	1.0	2.0	11097-69-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Aroclor-12	78.0000	UG/KG		ORPPB	1.0	2.0	11104-28-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Aroclor-12	39.0000	UG/KG		ORPPB	1.0	2.0	11141-16-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Aroclor-12	39.0000	UG/KG		ORPPB	1.0	2.0	12672-29-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Aroclor-10	39.0000	UG/KG		ORPPB	1.0	2.0	12674-11-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Aroclor-12	39.0000	UG/KG		ORPPB	1.0	2.0	53469-21-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	4-Nitroanil	1800.0000	UG/KG		ORSVO	1.0	2.0	100-01-6	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	4-Nitrophe	1800.0000	UG/KG		ORSVO	1.0	2.0	100-02-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Benzyl Alc	370.0000	UG/KG		ORSVO	1.0	2.0	100-51-6	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	4-Bromop	370.0000	UG/KG		ORSVO	1.0	2.0	101-55-3	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2,4-Dimet	370.0000	UG/KG		ORSVO	1.0	2.0	105-67-9	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	4-Methylp	370.0000	UG/KG		ORSVO	1.0	2.0	106-44-5	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	1,4-Dichlo	370.0000	UG/KG		ORSVO	1.0	2.0	106-46-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	4-Chloroa	370.0000	UG/KG		ORSVO	1.0	2.0	106-47-8	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2,2'-oxybi	370.0000	UG/KG		ORSVO	1.0	2.0	108-60-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Phenol	370.0000	UG/KG		ORSVO	1.0	2.0	108-95-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Bis(2-chlo	370.0000	UG/KG		ORSVO	1.0	2.0	111-44-4	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Bis(2-chlo	370.0000	UG/KG		ORSVO	1.0	2.0	111-91-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Bis(2-ethyl	370.0000	UG/KG		ORSVO	1.0	2.0	117-81-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Di-n-octyl	370.0000	UG/KG		ORSVO	1.0	2.0	117-84-0	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Hexachlor	370.0000	UG/KG		ORSVO	1.0	2.0	118-74-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Anthracen	370.0000	UG/KG		ORSVO	1.0	2.0	120-12-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	1,2,4-Tric	370.0000	UG/KG		ORSVO	1.0	2.0	120-82-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2,4-Dichlo	370.0000	UG/KG		ORSVO	1.0	2.0	120-83-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2,4-Dinitro	370.0000	UG/KG		ORSVO	1.0	2.0	121-14-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Pyrene	370.0000	UG/KG		ORSVO	1.0	2.0	129-00-0	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Dimethyl	370.0000	UG/KG		ORSVO	1.0	2.0	131-11-3	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Dibenzofu	370.0000	UG/KG		ORSVO	1.0	2.0	132-64-9	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Benzo(g,h	370.0000	UG/KG		ORSVO	1.0	2.0	191-24-2	U		BLDG21	Soil	Auger, hand

Location_	Sample_id	Location_t	Collection	Value_na	Measured_val	Value_unit	Detection_limi	Chem_cla	Start_dept	End_dept	CAS_num	Lab_qualif	Data_qual	Project_co	Media	Collection_method
124CC	CC0/2124	Surface lo	19941208	Indeno(1,	370.0000	UG/KG		ORSVO	1.0	2.0	193-39-5	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Benzo(b)fl	370.0000	UG/KG		ORSVO	1.0	2.0	205-99-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Fluoranth	370.0000	UG/KG		ORSVO	1.0	2.0	206-44-0	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Benzo(k)fl	370.0000	UG/KG		ORSVO	1.0	2.0	207-08-9	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Acenapht	370.0000	UG/KG		ORSVO	1.0	2.0	208-96-8	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Chrysene	370.0000	UG/KG		ORSVO	1.0	2.0	218-01-9	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Benzo(a)p	370.0000	UG/KG		ORSVO	1.0	2.0	50-32-8	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2,4-Dinitro	1800.0000	UG/KG		ORSVO	1.0	2.0	51-28-5	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Dibenz(a,	370.0000	UG/KG		ORSVO	1.0	2.0	53-70-3	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	4,6-Dinitro	1800.0000	UG/KG		ORSVO	1.0	2.0	534-52-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	1,3-Dichlo	370.0000	UG/KG		ORSVO	1.0	2.0	541-73-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Benzo(a)a	370.0000	UG/KG		ORSVO	1.0	2.0	56-55-3	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	4-Chloro-3	370.0000	UG/KG		ORSVO	1.0	2.0	59-50-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2,6-Dinitro	370.0000	UG/KG		ORSVO	1.0	2.0	606-20-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	N-Nitroso-	370.0000	UG/KG		ORSVO	1.0	2.0	621-64-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Benzoic A	1800.0000	UG/KG		ORSVO	1.0	2.0	65-85-0	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Hexachlor	370.0000	UG/KG		ORSVO	1.0	2.0	67-72-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	4-Chlorop	370.0000	UG/KG		ORSVO	1.0	2.0	7005-72-3	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Hexachlor	370.0000	UG/KG		ORSVO	1.0	2.0	77-47-4	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Isophoron	370.0000	UG/KG		ORSVO	1.0	2.0	78-59-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Acenapht	370.0000	UG/KG		ORSVO	1.0	2.0	83-32-9	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Diethyl Ph	370.0000	UG/KG		ORSVO	1.0	2.0	84-66-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Phenanthr	370.0000	UG/KG		ORSVO	1.0	2.0	85-01-8	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Butyl Ben	370.0000	UG/KG		ORSVO	1.0	2.0	85-68-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	N-Nitroso	370.0000	UG/KG		ORSVO	1.0	2.0	86-30-6	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Fluorene	370.0000	UG/KG		ORSVO	1.0	2.0	86-73-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Carbazole	370.0000	UG/KG		ORSVO	1.0	2.0	86-74-8	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Hexachlor	370.0000	UG/KG		ORSVO	1.0	2.0	87-68-3	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Pentachlo	1800.0000	UG/KG		ORSVO	1.0	2.0	87-86-5	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2,4,6-Tric	370.0000	UG/KG		ORSVO	1.0	2.0	88-06-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2-Nitroanil	1800.0000	UG/KG		ORSVO	1.0	2.0	88-74-4	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2-Nitrophe	370.0000	UG/KG		ORSVO	1.0	2.0	88-75-5	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Naphthale	370.0000	UG/KG		ORSVO	1.0	2.0	91-20-3	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2-Methyln	370.0000	UG/KG		ORSVO	1.0	2.0	91-57-6	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2-Chloron	370.0000	UG/KG		ORSVO	1.0	2.0	91-58-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	3,3'-Dichlo	730.0000	UG/KG		ORSVO	1.0	2.0	91-94-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Benzidine	1800.0000	UG/KG		ORSVO	1.0	2.0	92-87-5	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2-Methylp	370.0000	UG/KG		ORSVO	1.0	2.0	95-48-7	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	1,2-Dichlo	370.0000	UG/KG		ORSVO	1.0	2.0	95-50-1	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2-Chlorop	370.0000	UG/KG		ORSVO	1.0	2.0	95-57-8	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	2,4,5-Tric	1800.0000	UG/KG		ORSVO	1.0	2.0	95-95-4	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Nitrobenz	370.0000	UG/KG		ORSVO	1.0	2.0	98-95-3	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	3-Nitroanil	1800.0000	UG/KG		ORSVO	1.0	2.0	99-09-2	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Cobalt-60	0.0468	PCI/G	0.0468	RAD	1.0	2.0	10198-40-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Europium-	0.0966	PCI/G	0.0966	RAD	1.0	2.0	14683-23-	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Europium-	0.1430	PCI/G	0.1430	RAD	1.0	2.0	15585-10-	U		BLDG21	Soil	Auger, hand

Location_	Sample_id	Location_t	Collection	Value_na	Measured_val	Value_unit	Detection_limi	Chem_cla	Start_dept	End_dept	CAS_num	Lab_qualif	Data_qual	Project_co	Media	Collection_method
124CC	CC0/2124	Surface lo	19941208	Actinium	0.2450	PCI/G	0.2450	RAD	1.0	2.0	7440-34-8	U		BLDG21	Soil	Auger, hand
124CC	CC0/2124	Surface lo	19941208	Bismuth-2	0.0496	PCI/G	0.0496	RAD	1.0	2.0	14331-79-	U		BLDG21	Soil	Auger, hand
D12261	D12261	Borehole	19990527	Antimony	0.6800	MG/KG	13.6000	INORG	0.0	0.3	7440-36-0	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Cadmium	0.0500	MG/KG	1.1000	INORG	0.0	0.3	7440-43-9	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Selenium	0.5400	MG/KG	1.1000	INORG	0.0	0.3	7782-49-2	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Silver	0.2000	MG/KG	2.3000	INORG	0.0	0.3	7440-22-4	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Thallium	0.6300	MG/KG	2.3000	INORG	0.0	0.3	7440-28-0	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Phenol	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	108-95-2	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Bis(2-chlo	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	111-44-4	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2-Chlorop	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	95-57-8	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	1,3-Dichlo	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	541-73-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	1,4-Dichlo	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	106-46-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Benzyl Alc	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	100-51-6	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	1,2-Dichlo	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	95-50-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2-Methylp	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	95-48-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2,2'-oxybi	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	108-60-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	N-Nitroso-	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	621-64-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	4-Methylp	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	106-44-5	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Hexachlor	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	67-72-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Nitrobenz	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	98-95-3	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Isophoron	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	78-59-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2-Nitrophe	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	88-75-5	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2,4-Dimet	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	105-67-9	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Bis(2-chlo	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	111-91-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Benzoic A	1900.0000	UG/KG	1900.0000	ORSVO	0.0	0.3	65-85-0	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2,4-Dichlo	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	120-83-2	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	1,2,4-Tric	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	120-82-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Naphthale	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	91-20-3	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	4-Chloroa	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	106-47-8	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Hexachlor	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	87-68-3	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	4-Chloro-3	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	59-50-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2-Methyln	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	91-57-6	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Hexachlor	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	77-47-4	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2,4,6-Tric	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	88-06-2	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2,4,5-Tric	940.0000	UG/KG	940.0000	ORSVO	0.0	0.3	95-95-4	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2-Chloron	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	91-58-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2-Nitroanil	940.0000	UG/KG	940.0000	ORSVO	0.0	0.3	88-74-4	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Acenapht	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	208-96-8	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2,6-Dinitro	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	606-20-2	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	3-Nitroanil	940.0000	UG/KG	940.0000	ORSVO	0.0	0.3	99-09-2	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Acenapht	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	83-32-9	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2,4-Dinitro	940.0000	UG/KG	940.0000	ORSVO	0.0	0.3	51-28-5	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Dibenzofu	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	132-64-9	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	4-Nitrophe	940.0000	UG/KG	940.0000	ORSVO	0.0	0.3	100-02-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	2,4-Dinitro	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	121-14-2	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Fluorene	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	86-73-7	U		PRS407V	Soil	Scoop

Location_	Sample_id	Location_t	Collection	Value_na	Measured_val	Value_unit	Detection_limi	Chem_cla	Start_dept	End_dept	CAS_num	Lab_qualif	Data_qual	Project_co	Media	Collection_method
D12261	D12261	Borehole	19990527	Dimethyl	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	131-11-3	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	4-Chlorop	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	7005-72-3	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	4-Nitroanil	940.0000	UG/KG	940.0000	ORSVO	0.0	0.3	100-01-6	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	4,6-Dinitro	940.0000	UG/KG	940.0000	ORSVO	0.0	0.3	534-52-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	N-Nitroso	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	86-30-6	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	4-Bromop	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	101-55-3	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Hexachlor	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	118-74-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Pentachlo	940.0000	UG/KG	940.0000	ORSVO	0.0	0.3	87-86-5	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Phenanthr	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	85-01-8	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Anthracen	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	120-12-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Pyrene	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	129-00-0	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Butyl Ben	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	85-68-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Benzo(a)a	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	56-55-3	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	3,3'-Dichlo	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	91-94-1	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Chrysene	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	218-01-9	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Bis(2-ethyl	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	117-81-7	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Di-n-octyl	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	117-84-0	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Benzo(b)fl	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	205-99-2	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Benzo(k)fl	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	207-08-9	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Benzo(a)p	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	50-32-8	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Indeno(1,	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	193-39-5	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Dibenz(a,	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	53-70-3	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Carbazole	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	86-74-8	U		PRS407V	Soil	Scoop
D12261	D12261	Borehole	19990527	Benzo(g,h	380.0000	UG/KG	380.0000	ORSVO	0.0	0.3	191-24-2	U		PRS407V	Soil	Scoop
C0202	1287	Borehole	19821201	Thorium-2	2.0000	PCI/G	2.0000	RAD	1.5	1.5	7440-29-1	U		RSS	Soil	Not Applicable
C0202	1288	Borehole	19821201	Thorium-2	2.0000	PCI/G	2.0000	RAD	3.0	3.0	7440-29-1	U		RSS	Soil	Not Applicable
124NE	NE0/2124	Borehole		Cesium-1	0.0411	PCI/G	0.0411	RAD	1.0	2.0	10045-97-	U		BLDG21	Soil	Auger, hand
124NE	NE0/2124	Borehole		Cobalt-60	0.0423	PCI/G	0.0423	RAD	1.0	2.0	10198-40-	U		BLDG21	Soil	Auger, hand
124NE	NE0/2124	Borehole		Americium	0.2320	PCI/G	0.2320	RAD	1.0	2.0	14596-10-	U		BLDG21	Soil	Auger, hand
124NE	NE0/2124	Borehole		Europium-	0.0902	PCI/G	0.0902	RAD	1.0	2.0	14683-23-	U		BLDG21	Soil	Auger, hand
124NE	NE0/2124	Borehole		Europium-	0.1350	PCI/G	0.1350	RAD	1.0	2.0	15585-10-	U		BLDG21	Soil	Auger, hand
124NE	NE0/2124	Borehole		Actinium	0.2300	PCI/G	0.2300	RAD	1.0	2.0	7440-34-8	U		BLDG21	Soil	Auger, hand
124NE	NE0/2124	Borehole		Bismuth-2	0.0417	PCI/G	0.0417	RAD	1.0	2.0	14331-79-	U		BLDG21	Soil	Auger, hand
124NE	NE0/1124	Borehole		Cesium-1	0.0327	PCI/G	0.0327	RAD	0.0	1.0	10045-97-	U		BLDG21	Soil	Auger, hand
124NE	NE0/1124	Borehole		Cobalt-60	0.0352	PCI/G	0.0352	RAD	0.0	1.0	10198-40-	U		BLDG21	Soil	Auger, hand
124NE	NE0/1124	Borehole		Americium	0.1910	PCI/G	0.1910	RAD	0.0	1.0	14596-10-	U		BLDG21	Soil	Auger, hand
124NE	NE0/1124	Borehole		Europium-	0.0681	PCI/G	0.0681	RAD	0.0	1.0	14683-23-	U		BLDG21	Soil	Auger, hand
124NE	NE0/1124	Borehole		Europium-	0.0970	PCI/G	0.0970	RAD	0.0	1.0	15585-10-	U		BLDG21	Soil	Auger, hand
124NE	NE0/1124	Borehole		Actinium	0.1530	PCI/G	0.1530	RAD	0.0	1.0	7440-34-8	U		BLDG21	Soil	Auger, hand
124NE	NE0/1124	Borehole		Bismuth-2	0.0326	PCI/G	0.0326	RAD	0.0	1.0	14331-79-	U		BLDG21	Soil	Auger, hand
124SE	SE0/2124	Borehole		Cesium-1	0.0327	PCI/G	0.0327	RAD	1.0	2.0	10045-97-	U		BLDG21	Soil	Auger, hand
124SE	SE0/2124	Borehole		Cobalt-60	0.0331	PCI/G	0.0331	RAD	1.0	2.0	10198-40-	U		BLDG21	Soil	Auger, hand
124SE	SE0/2124	Borehole		Americium	0.1680	PCI/G	0.1680	RAD	1.0	2.0	14596-10-	U		BLDG21	Soil	Auger, hand
124SE	SE0/2124	Borehole		Europium-	0.0675	PCI/G	0.0675	RAD	1.0	2.0	14683-23-	U		BLDG21	Soil	Auger, hand
124SE	SE0/2124	Borehole		Europium-	0.1040	PCI/G	0.1040	RAD	1.0	2.0	15585-10-	U		BLDG21	Soil	Auger, hand
124SE	SE0/2124	Borehole		Actinium	0.1670	PCI/G	0.1670	RAD	1.0	2.0	7440-34-8	U		BLDG21	Soil	Auger, hand

Location_	Sample_id	Location_t	Collection	Value_na	Measured_val	Value_unit	Detection_limi	Chem_cla	Start_dept	End_dept	CAS_num	Lab_qualif	Data_qual	Project_co	Media	Collection_method
124SE	SE0/2124	Borehole		Bismuth-2	0.0341	PCI/G	0.0341	RAD	1.0	2.0	14331-79-	U		BLDG21	Soil	Auger, hand
124SE	SE0/1124	Borehole		Cesium-1	0.0227	PCI/G	0.0227	RAD	0.0	1.0	10045-97-	U		BLDG21	Soil	Auger, hand
124SE	SE0/1124	Borehole		Cobalt-60	0.0241	PCI/G	0.0241	RAD	0.0	1.0	10198-40-	U		BLDG21	Soil	Auger, hand
124SE	SE0/1124	Borehole		Americium	0.1400	PCI/G	0.1400	RAD	0.0	1.0	14596-10-	U		BLDG21	Soil	Auger, hand
124SE	SE0/1124	Borehole		Europium-	0.0486	PCI/G	0.0486	RAD	0.0	1.0	14683-23-	U		BLDG21	Soil	Auger, hand
124SE	SE0/1124	Borehole		Europium-	0.0690	PCI/G	0.0690	RAD	0.0	1.0	15585-10-	U		BLDG21	Soil	Auger, hand
124SE	SE0/1124	Borehole		Actinium	0.1130	PCI/G	0.1130	RAD	0.0	1.0	7440-34-8	U		BLDG21	Soil	Auger, hand
124SE	SE0/1124	Borehole		Bismuth-2	0.0239	PCI/G	0.0239	RAD	0.0	1.0	14331-79-	U		BLDG21	Soil	Auger, hand
22L09	22L09	Surface lo	19940711	Plutonium	10.0000	PCI/G	10.0000	RAD	0.0	1.5	13981-16-3		U	2680	Soil	Auger, hand
22L09	22L09	Surface lo	19940711	Thorium-2	0.2000	PCI/G	0.2000	RAD	0.0	1.5	7440-29-1		U	2680	Soil	Auger, hand
22L09	22L09	Surface lo	19940711	Total Aro	637137.0000	IC	637137.0000	GENERA	0.0	1.5	AHYD		U	2680	Soil	Auger, hand
22L09	22L09	Surface lo	19940711	Total Sem	7101.0000	IC	7101.0000	GENERA	0.0	1.5	TSVHYC		U	2680	Soil	Auger, hand
22K09	22K09	Surface lo	19940711	Plutonium	1.0000	PCI/G	1.0000	RAD	0.0	1.5	13981-16-3		U	2680	Soil	Auger, hand
22K09	22K09	Surface lo	19940711	Thorium-2	0.5000	PCI/G	0.5000	RAD	0.0	1.5	7440-29-1		U	2680	Soil	Auger, hand
22K09	22K09	Surface lo	19940711	Total Aro	158894.0000	IC	158894.0000	GENERA	0.0	1.5	AHYD		U	2680	Soil	Auger, hand
22K09	22K09	Surface lo	19940711	Total Sem	70139.0000	IC	70139.0000	GENERA	0.0	1.5	TSVHYC		U	2680	Soil	Auger, hand

Lab Qualifier Codes

Organics

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Inorganics

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Data Qualifier Codes

Organics and Inorganics

U	The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

LOCATION_N	SAMPLE_ID	LOCATION_T	COLLECTI	VALUE_NAME	MEASURED_V	VALUE_	DETECTION	CHEM_C	STAR	END	CAS_NUMB	LAB	DATA	PROJEC	MEDIA	COLLECTIO	Comments
D12261	D12261	Borehole	19990527	Molybdenum	1.3000	MG/KG	9.0000	INORG	0.0	0.3	7439-98-7	B		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Tin	2.2000	MG/KG	45.2000	INORG	0.0	0.3	7440-31-5	B		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Diethyl Phthalate	46.0000	UG/KG	380.0000	ORSVO	0.0	0.3	84-66-2	BJ		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Di-n-butyl Phthalat	88.0000	UG/KG	380.0000	ORSVO	0.0	0.3	84-74-2	BJ		PRS407V	Soil	Scoop	
D12261	D12261	Borehole	19990527	Fluoranthene	41.0000	UG/KG	380.0000	ORSVO	0.0	0.3	206-44-0	J		PRS407V	Soil	Scoop	
C14221	C14221	Borehole	19990527	Thorium-232	**0.6300**	PCI/G	0.0210	RAD	0.0	0.3	7440-29-1			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
C14221	C14221	Borehole	19990527	Thorium-230	**1.4700**	PCI/G	0.0150	RAD	0.0	0.3	14269-63-7			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
C14221	C14221	Borehole	19990527	Thorium-228	**0.7900**	PCI/G	0.0280	RAD	0.0	0.3	14274-82-9			PRS407V	Soil	Scoop	1-Exceeds soil 10-6 GV.
C14221	C14221	Borehole	19990527	Plutonium-239	0.0320	PCI/G	0.0260	RAD	0.0	0.3	15117-48-3			PRS407V	Soil	Scoop	
C14221	C14221	Borehole	19990527	Plutonium-238	**0.3400**	PCI/G	0.0530	RAD	0.0	0.3	13981-16-3			PRS407V	Soil	Scoop	2-Exceeds background value.
C0202	1287	Borehole	19821201	Plutonium-238	**13.0400**	PCI/G	0.0100	RAD	1.5	1.5	13981-16-3			RSS	Soil	Not Applicabl	1-Exceeds soil 10-6 GV. 2-Exceeds background value.
C0202	1288	Borehole	19821201	Plutonium-238	**1.6600**	PCI/G	0.0100	RAD	3.0	3.0	13981-16-3			RSS	Soil	Not Applicabl	2-Exceeds background value.
124NE	NE0/2124	Borehole		Radium-224	1.0800	PCI/G	0.0000	RAD	1.0	2.0	13233-32-4			BLDG21	Soil	Auger, hand	
124NE	NE0/2124	Borehole		Radium-226	**1.1600**	PCI/G	0.0000	RAD	1.0	2.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124NE	NE0/2124	Borehole		Thorium-232	**1.1100**	PCI/G	0.0000	RAD	1.0	2.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124NE	NE0/1124	Borehole		Radium-224	0.4350	PCI/G	0.0000	RAD	0.0	1.0	13233-32-4			BLDG21	Soil	Auger, hand	
124NE	NE0/1124	Borehole		Radium-226	**0.5370**	PCI/G	0.0000	RAD	0.0	1.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124NE	NE0/1124	Borehole		Thorium-232	**0.4840**	PCI/G	0.0000	RAD	0.0	1.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124SE	SE0/2124	Borehole		Radium-224	0.8970	PCI/G	0.0000	RAD	1.0	2.0	13233-32-4			BLDG21	Soil	Auger, hand	
124SE	SE0/2124	Borehole		Radium-226	**0.9890**	PCI/G	0.0000	RAD	1.0	2.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124SE	SE0/2124	Borehole		Thorium-232	**0.8810**	PCI/G	0.0000	RAD	1.0	2.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124SE	SE0/1124	Borehole		Radium-224	0.2080	PCI/G	0.0000	RAD	0.0	1.0	13233-32-4			BLDG21	Soil	Auger, hand	
124SE	SE0/1124	Borehole		Radium-226	**0.4560**	PCI/G	0.0000	RAD	0.0	1.0	13982-63-3			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.
124SE	SE0/1124	Borehole		Thorium-232	**0.1470**	PCI/G	0.0000	RAD	0.0	1.0	7440-29-1			BLDG21	Soil	Auger, hand	1-Exceeds soil 10-6 GV.

* According to the Volume 3 Radiologial Site Survey, accuracy of sample locations is ± 25 feet and no samples were collected under buildings or structures; therefore, the sample location is not under the structure.

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Organics and Inorganics

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Mound Guideline and Screening Values (pCi/g) for Soil/Sediment

RADIONUCLIDE	BKGD.	Guideline [1] Value 10^{-6}	Screening Level [6]
Actinium^{227+D}	0.11 [2]	0.45	0.56
Americium^{241}	ND	6.3	6.3
Cesium^{137+D}	0.42	0.34	0.76
Cobalt^{60}	NC	.07	.07
Lead $^{210+D}$	1.2 [2]	0.62	1.8
Plutonium^{238}	0.13	6.1	55 [3]
Protactinium^{231+D}	.11 [2]	0.39	4 [4]
Radium^{226+D}	2.0	0.09	2.1
Thorium^{230+D}	1.9	0.09	[5]
Thorium^{232+D}	1.4	0.07	1.47
Uranium^{234}	1.1	10.5	[6]
Uranium^{235}	0.11	1.6	1.7
Uranium^{238}	1.2	11.6	12.8
Uranium^{238+D}	1.2	0.1	1.3

NOTES:

[1] These guideline values are based on the more restrictive of the Construction Worker and Site Employee Values. These values were calculated using the methodology contained in Risk Based Guideline Values, March 1997, Final but were performed using April 2001 HEAST slope factors.

[2] These radionuclides have comparatively short half-lives and are deduced to be in secular equilibrium with the parent nuclide. Thus the background value measured for the parent is considered to be the appropriate value for these as well. The validity of using this method for background determination for other radionuclides will be assessed on a case by case basis.

[3] The 55pCi/g value was retained because of its familiarity to the public.

[4] These values represent 1E-5 risk value

[5] In areas where Th-230 is not a contaminant of potential concern, Mound will use our normal sample analysis process through gamma spectroscopy and will assure that the result and MDA are less than 10 pCi/g.
If the detected value for Th-230 is greater than MDA, Mound will reanalyze the sample.
If Th-230 is a Contaminant of Potential Concern the detection limits of the analysis will be at or below the listed guideline value of 0.09 pCi/g above background.

[6] The Screening Level is reflective of onsite Gamma Spec Laboratory capabilities and will be used to determine if additional characterization or removal may be necessary. Soil Screening is not an appropriate technique for U-234. However, detection of U-235 or U-238 is anticipated in conjunction with U-234 contamination. Positive detection of either U-235 or U-238 (above guideline values) will trigger alpha spectroscopic analysis of the sample.

Radionuclides labeled with a D indicate that pertinent daughters are included within the the risk calculation.

U-238 may be assessed for secular equilibrium and appropriate GV used.

NC = Not Calculated ND = Not detected

This table is an update of the March 2001 Draft version. On September 25 2001, Guideline Values were recalculated using HEAST slope factors dated April 2001.

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

OH-MB-BWO-BWO04-2000-0009 Final Report

Occurrence Report

Sites and Grounds
(Name of Facility)

Balance-of-Plant
(Facility Function)

Mound Plant Babcock and Wilcox of Ohio, Inc.
(Laboratory, Site, or Organization)

Name: WEIDENBACH, GARY L
Title: **Telephone No.:** (937) 865-3241
(Facility Manager/Designee)

Name: WEIDENBACH, GARY L
Title: **Telephone No.:** (937) 865-3241
(Originator/Transmitter)

Name: Don Dixon **Date:** 11/21/2000
(Authorized Classifier (AC))

1. Occurrence Report Number: OH-MB-BWO-BWO04-2000-0009

Work Stoppage at the Salt Storage Shed

2. Report Type and Date: Final

	Date	Time
Notification:	11/21/2000	06:50 (MTZ)
Initial Update:	11/27/2000	09:04 (MTZ)
Latest Update:	02/06/2001	07:53 (MTZ)
Final:	02/08/2001	11:13 (MTZ)

3. Occurrence Category: Off-Normal

4. Number of Occurrences: 1 **Original OR:**

5. Division or Project: BWXT of Ohio, Inc.

6. Secretarial Office: EM - Environmental Management

7. System, Bldg., or Equipment: Salt Storage Shed

8. UCNI?: No

9. Plant Area: Balance of Plant

10. Date and Time Discovered: 11/20/2000 15:00 (ETZ)

APP. M

11. Date and Time Categorized: 11/20/2000 16:00 (ETZ)

12. DOE Notification:

13. Other Notifications:

Date	Time	Person Notified	Organization
11/20/2000	15:00 (ETZ)	Chris White	DOE-MEMP

14. Subject or Title of Occurrence:

Work Stoppage at the Salt Storage Shed

15. Nature of Occurrence:

03) Personnel Safety
C. Safety Concerns

16. Description of Occurrence:

On Monday November 20, 2000 at approximately 1500 hours work was stopped at the Salt Storage Shed construction site when a worker was observed improperly using personnel lift equipment.
It was observed that the individual was not properly utilizing fall protection equipment such as a safety harness and lanyard on the lift equipment platform and also standing on the mid-rail while working on the Salt Storage Shed wall.
The equipment was a JLG snorkel lift and the individual was approximately twelve feet off the ground.

17. Operating Conditions of Facility at Time of Occurrence:

Out side work, temperature approximately 30F and blowing wind created very cold working conditions.

18. Activity Category:

01 - Construction

19. Immediate Actions Taken and Results:

1. Work was stopped.
2. A critique will be held 11/21/2000 concerning this event.

20. Direct Cause:

3) Personnel Error
A. Inattention to Detail

21. Contributing Cause(s):

3) Personnel Error
B. Procedure Not Used or Used Incorrectly

22. Root Cause:

3) Personnel Error
D. Other Human Error

23. Description of Cause:

Root Cause; Human Error
Direct Cause; Inattention to Detail
Contributing Cause; Personnel Error, Procedure not used.

During the construction process a new worker, with substantial outside construction experience, attempted to tie the wall structure together while in the snorkel lift. He was unable to reach a brace, climbed up on the mid-rail, and over the top of the wall without being tied off.

The worker had external snorkel lift and Mound fall protection training.

Analysis; Kepner Tregoe

Corrective Action 1 emphasized the DOE and Mound safety culture to the employee and co-workers.

Corrective Action 2 provided a Lessons Learned to bring this matter to the attention of both old and new employees and their management.

24. Evaluation (by Facility Manager/Designee):

This event had the short term effect of work stoppage on the related project. There was no significant effect to the plant.

25. Is Further Evaluation Required?: No

26. Corrective Actions
(* = Date added/revised since final report was approved.)

1.	Assemble work team and explain issues of this event. Emphasis to be placed on fall protection.	
	Target Completion Date: 11/21/2000	**Completion Date:** 11/21/2000
2.	Generate a Lessons Learned to emphasize the safety culture to new employees.	
	Target Completion Date: 12/05/2000	**Completion Date:** 12/07/2000

27. Impact on Environment, Safety and Health:

None

28. Programmatic Impact:

None

29. Impact on Codes and Standards:

None

30. Lessons Learned:

(Lessons Learned L01-030)

Lessons Learned Statement:

New employees, despite their experience and background, must be indoctrinated in the DOE safety culture.

Background:

Because Mound is in the northern US, it maintains an inventory of salt for winter road maintenance. The old salt storage shed had been stripped down to its skeleton and was being rebuilt with a new skin and roof. The shed is a three sided structure with a concrete floor and a roof. One side is open to permit access by trucks. The walls are approximately 12 to 14 feet high. The trusses are around 35 feet in length.

A scissor lift and a JLG snorkel lift were being used to support the process of replacing the roof. During the construction process a new worker, with substantial outside construction experience, attempted to tie the wall structure together while in the snorkel lift. He was unable to reach a brace, climbed up on the mid-rail, and over the top of the wall without being tied off.

The lack of tie-off was observed and the work was immediately stopped.

Analysis:

The worker had external snorkel lift and Mound fall protection training.

This type of action is not uncommon in non-governmental construction activities, which is where this new employee came from prior to working at Mound. However, the Mound safety culture does not accept this type of activity.

Recommended Actions:

The worker has been barred from snorkel lift work until he has received the Mound training specific to this piece of equipment.

31. Similar Occurrence Report Numbers:

1. OH-MB-BWO-BWO01-2000-0003

32. User-defined Field #1:

33. User-defined Field #2:

34. DOE Facility Representative Input:

35. DOE Program Manager Input:

36. Approvals:

Approved by: WEIDENBACH, GARY L, Facility Manager/Designee
Date: 02/06/2001
Telephone No.: (937) 865-3241

Approved by: WHITE, CHRISTOPHER A, Facility Representative/Designee
Date: 02/08/2001
Telephone No.: (937) 865-4396

Approved by: Approval delegated to FR
Date: 02/08/2001
Telephone No.:

Appendix N

PRS Information

(There are no PRSs directly associated with Building SST)