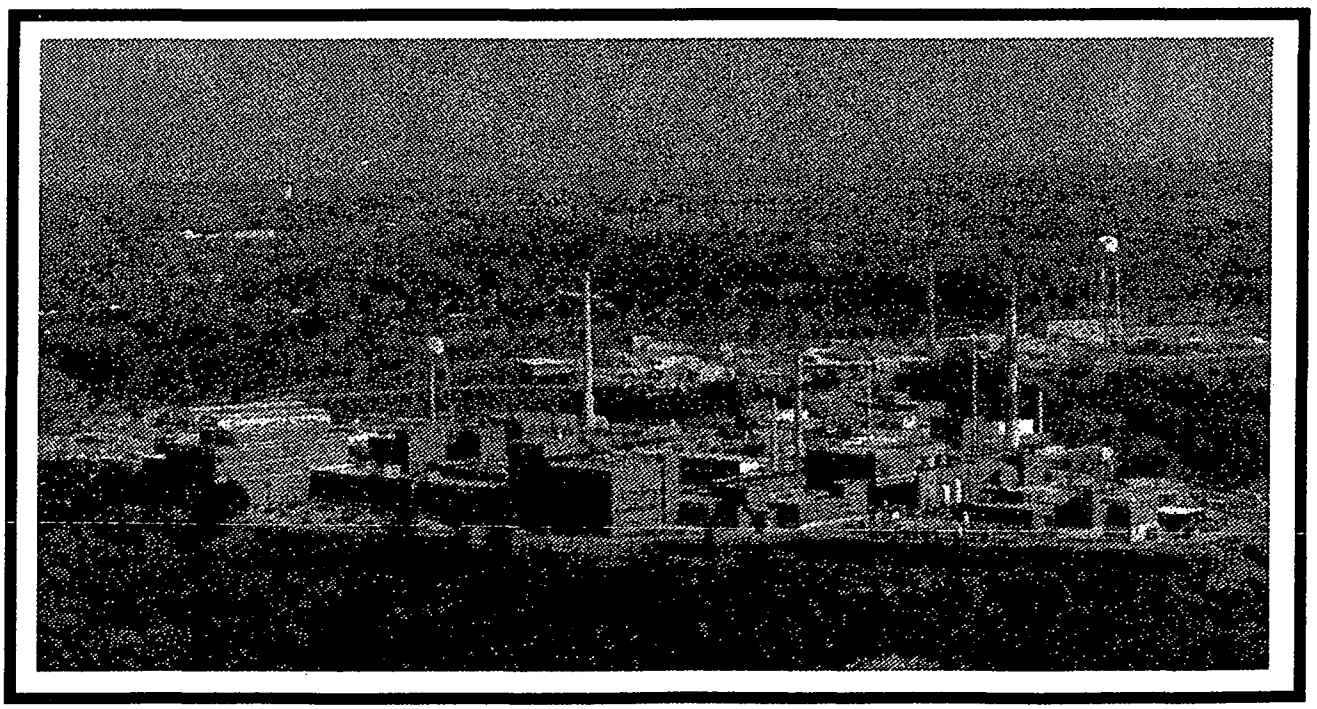
MOUND

Environmental
Restoration
Program

MOUND PLANT
Potential Release Site Package
PRS # 318



MOUND

Environmental Restoration Program

MOUND PLANT POTENTIAL RELEASE SITE PACKAGE

Notice of Public Review Period

The following potential release site (PRS) packages will be available for public review in the CERCLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio beginning June 17, 1997. Public comment will be accepted on these packages from June 17, 1997, through July 18, 1997.

PRS 30:	**Building 27 Propane Tank**
PRS 129/130:	**Former Solvent Storage Sites**
PRS 241:	**Soil Contamination - Main Hill Parking Lot Area**
PRS 307:	**Soil Contamination - Building 29**
PRS 318:	**PCB Transformer and Capacitor Locations**
PRS 320-325:	**Former Sites - Dayton Units 1-4/Dayton Warehouse/Scioto Facility**
PRS 383:	**Soil Contamination**
PRS 408:	**Soil Contamination - "Prism" Oil**

Questions can be referred to Mound's Community Relations at (937) 865-4140.

PRS 318

REV	DESCRIPTION	DATE
PUBLIC RELEASE **0**	Available for comments.	**Apr. 15, 1997**
FINAL **1**	Comment period expired. Comments. Recommendation page annotated.	**Sept. 29, 1997**

The Mound Core Team
P.O. Box 66
Miamisburg, Ohio 45343-0066

AUG 2 0 1997

Miamisburg Mound Community Improvement Corporation
720 Mound Road
COS Building 4221
Miamisburg, Ohio 45342-6714

Dear Mr. Bird:

The Core Team, consisting of the U.S. Department of Energy Miamisburg Environmental Management Project (DOE-MEMP), U.S. Environmental Protection Agency (USEPA), and the Ohio Environmental Protection Agency (OEPA), appreciates the input provided by the public stakeholders of the Mound facility. The public stakeholders have significantly contributed to the forward progress that has been made on the entire release block strategy for establishing the safety of the Mound property prior to its return to public use after remediation and residual risk evaluation.

Attached please find responses to your July 14, 1997 comments on PRS packages 129/130, 241, 307, 318, 408, and 320/321/322/323/324/325. Document revisions in accordance with the attached responses are expected to be completed in August 1997.

Should the responses require additional detail, please contact Art Kleinrath at (937) 865-3597 and we will gladly arrange a meeting or telephone conference.

Sincerely,

DOE/MEMP: _____
Arthur W. Kleinrath, Remedial Project Manager

USEPA: _____
Timothy J. Fischer, Remedial Project Manager

OHIO EPA: _____
Brian K. Nickel, Project Manager

Subject	PRS 318 - Transformers
Version	Public Release May 21, 1997

SUBSTANTIVE COMMENTS:

1) No comments.

ERRATA:

1) For clarity, the statement "These inspections did not identify any soil contamination involving a leak or spill of PCB fluid from these substations." (Appearing on Pages 3 and R) should read "These inspections did not identify any soil staining involving a leak or spill of PCB fluid..." Soil contamination is identified by sampling and analysis.

RESPONSE:

1) The text will be revised to read "These inspections did not identify any soil staining involving a leak or spill of PCB fluid. Soil contamination is identified by sampling and analysis."

PRS 318

PRS HISTORY:

Potential Release Site (PRS) 318 refers to the Mound electrical power substations that had polychorinated biphenyl (PCB) fluids in the transformer and capacitor equipment.[1,2] The table below identifies the substation locations and the date when the PCB equipment was removed.[4]

Substation ID	Location	Removal Date for the PCB Transformer/Capacitors
F Substation	outside - north of Building 29	April 1996
PP Substation	outside - northwest of Building 38	September 1996
B Substation	outside - west of B Building	July 1996
E Substation	outside - west of Building 26	May 1996
TF Substation	outside - north of Building 63	August 1996
A Substation	outside - north of M Building	February 1996
P1 Substation	inside - Powerhouse	January 1996
P2 Substation	inside - Powerhouse	November 1991
M Substation	inside - M Building	December 1991
DS Substation	outside - northeast of DS-Building	February 1992
SW1 Substation	outside - northeast of SW Building	1978
SW2 Substation	inside - under Building 58	January 1992
HH Substation	outside - north of HH Building	November 1989
R1 Substation	inside - R Building	1982
R2 Substation	roof - R Building	February 1992
AF Substation	outside - south of Building 50	December 1991
SM Substation	outside - east of SM Building	December 1992
T East Substation	inside - T Building	January 1996
T West Substation	inside - T Building	August 1995

The PCB transformers and capacitors were inspected monthly by Mound's engineering department.[2] These inspections did not identify any soil staining involving a leak or spill of PCB fluid from these substations.[4] Sampling and analysis of soils surrounding the outside substations (11 locations) has not been performed to confirm the absence of PCB contamination. There are no closure requirements (40CFR761) for testing of soil at sites when inspection records indicate that no spill or release to the soil has occurred.[5]

In 1990, PCB contaminated soils were discovered by the inspection of a spare transformer which was stored on the west side of the powerhouse. Both the spare PCB transformer and the PCB contaminated soils were removed from this area.[3]

CONTAMINATION:

The On-Scene Coordinator Report[3] documents the results of the removal action for the PCB contaminated soils from the transformer storage site on the west side of the powerhouse. The contaminated soil was excavated down to bedrock. Seven confirmational samples were collected along the side walls of the excavation. The maximum soil concentration of PCB was 2.9 ppm. The cleanup standard for PCB contaminated soils is 10 ppm (40 CFR 761.125).

READING ROOM REFERENCES:

1) OU9, Site Scoping Report: Volume 12 - Site Summary Report, December 1994. (pages 6-8)
2) OU9, Site Scoping Report: Volume 7 - Waste Management, February 1993. (pages 9-10)
3) OU2, On-Scene Coordinator Report for CERCLA Section 104 Removal Action, West Powerhouse PCB Site, October 1991. (pages 11-38)

OTHER REFERENCES:

4) Personal Communications - Interviews with David Weimer, Bruce Anderson, and Mike Isper.
5) Office Memo from Mike Isper, June 7, 1994. (page 39)

PREPARED BY:

Dave Gloekler, EG&G Technical Staff

MOUND PLANT
PRS 318
PCB Transformer and Capacitor Locations

RECOMMENDATION:

Potential Release Site (PRS) 318 refers to the Mound electrical power substations that had polychorinated biphenyl (PCB) fluids in the transformer and capacitor equipment. The PCB transformers and capacitors were inspected monthly by Mound's engineering department. These inspections did not identify any soil contamination involving a leak or spill of PCB fluid from these substations. There are no closure requirements for testing of soil in 40CFR761 (Toxic Substances Control Act regulations) at sites when inspection records indicate that no spill or release to the soil has occurred.

Therefore, NO FURTHER ASSESSMENT is recommended for PRS 318.

CONCURRENCE:

DOE/MEMP: Arthur W. Kleinrath 5/13/97
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 5/13/97
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 5/13/97
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 6/17/97 to 7/18/97

☐ No comments were received during the comment period.

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

REFERENCE MATERIAL
PRS 318

Document Control No. _____

Environmental Restoration Program

OPERABLE UNIT 9 SITE SCOPING REPORT: VOLUME 12 – SITE SUMMARY REPORT

MOUND PLANT
MIAMISBURG, OHIO

December 1994

Final

U.S. Department of Energy
Ohio Field Office

EG&G Mound Applied Technologies

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
311	Site Survey Project Potential Hot Spot Location S0706	I-6	Grounds	Plutonium-238	6	(Cont.)			13	Table B.9 (Appendix E in Ref. 6)	6
312	Site Survey Project Potential Hot Spot Location S0971	J-9	Grounds	Thorium	6				14	Table B.9 (Appendix E in Ref. 6)	6
313	Site Survey Project Potential Hot Spot Location S0982	I-8	Grounds	Thorium	6						
314	Farm Trash Area	M-5	Historical	Waste oil	5, 18	Suspected, not confirmed			3, 4, 5, 6 14	Tables B.6, B.7, and B.8 Table B.9 RSS[c] Location S0237 (Appendix E in Ref. 6)	7 6
315	Waste Transport Vehicles	SITE-WIDE	In service	Explosives Programs wastes Mixed wastes Laboratory chemicals Low activity wastewater from SM/PP Complex to WD Building	4, 5, 18	None Suspected			No Data		
316	Trash Dumpsters	SITE-WIDE	In service	Solid wastes	4, 5, 18	None Suspected			No Data		
317	Ventilation Hoods	SITE-WIDE	In service	Paint fumes, Acidic and caustic gases Asbestos, Acetone, Trichloroethylene, Benzene, Chloroform, Toluene	4, 5, 18	None Suspected			No Data		
318	Transformers	SITE-WIDE	In service	Polychlorinated biphenyls	4	All PCB oils replaced			No Data		
319	Epoxy Resin Disposal	G-7 H-7	In service	Epoxy resins	5, 18	None Suspected			No Data	Table B.9	6
320	Dayton Unit I	Dayton	Historical	Radioisotopes (including plutonium-239) Spent acids (including hydrochloric acid)	1, 4	None Suspected			No Data		

1 - Soil Gas Survey - Freon 11, Freon 113, Trans-1,2-Dichloroethylene, Cis-1,2-Dichloroethylene, 1,1,1-Trichloroethane, Perchloroethylene, Trichloroethylene, Toluene
2 - Gamma Spectroscopy - Thorium-228, -230, Cobalt-60, Cesium-137, Radium-224, -226, -228, Americium-241, Actinium-227, Bismuth-207, Bismuth-210m, Potassium-40
3 - Target Analyte List
4 - Target Compound List (VOC)
5 - Target Compound List (SVOC)
6 - Target Compound List (Pesticides/Polychlorinated Biphenyl)
7 - Dioxins/Furans
8 - Extractable Petroleum Hydrocarbons (EPH)/Total Petroleum Hydrocarbons (TPH)
9 - Lithium
10 - Nitrate/Nitrite
11 - Chloride
12 - Explosives
13 - Plutonium-238
14 - Plutonium-238, Thorium-232
15 - Cobalt-60, Cesium-137, Radium-226, Americium-241
16 - Tritium

Reference List

1. DOE 1986 "Phase I Installation Assessment Mound (DRAFT)."
2. DOE 1992a "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan (Final)."
3. DOE 1992c "Mound Plant Underground Storage Tank Program Plan & Regulatory Status Review (Final)."
4. DOE 1993a "Site Scoping Report: Volume 7 - Waste Management (Final)."
5. EPA 1988a "Preliminary Review/Visual Site Inspection for RCRA Facility Assessment of Mound Plant."
6. DOE 1993d "Operable Unit 9, Site Scoping Report: Volume 3 - Radiological Site Survey (Final)."
7. DOE 1993c "Operable Unit 3, Miscellaneous Sites Limited Field Investigation Report."
8. DOE 1992d "Reconnaissance Sampling Report Decontamination & Decommissioning Areas, OU6, (Final)."
9. Fentiman 1990 "Characterization of Mound's Hazardous, Radioactive and Mixed Wastes."
10. DOE 1992f "Operable Unit 9, Site Scoping Report: Volume 11 - Spills and Response Actions (Final)."
11. Styron and Meyer 1981 "Potable Water Standards Project: Final Report."
12. DOE 1993b "Reconnaissance Sampling Report - Soil Gas Survey & Geophysical Investigations, Mound Plant Main Hill and SM/PP Hill (Final)."
13. DOE 1993d "Operable Unit 9, Site Scoping Report: Volume 3 - Radiological Site Survey (Final)."
14. DOE 1991b "Main Hill Seeps, Operable Unit 2, On-Scene Coordinator Report for CERCLA Section 104 Remedial Action, West Powerhouse PCB Site."
15. Halford 1990 "Results of South Pond Sampling."
16. DOE 1993e "Operable Unit 4, Special Canal Sampling Report, Miami Erie Canal."
17. DOE 1990 "Preliminary Results of Reconnaissance Magnetic Survey of Mound Plant Areas 2, 6, 7, and C."
18. DOE 1992a "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan (Final)."
19. Rogers 1975 "Mound Laboratory Environmental Plutonium Study, 1974."
20. DOE 1992h "Ground Water and Seep Water Quality Data Report Through First Quarter, FY92."
21. Dames and Moore 1976 a, b "Potable Water Standards Project Mound Laboratory" and "Evaluation of the Buried Valley Aquifer Adjacent to Mound Laboratory."
22. DOE 1992i "Closure Report, Building 34 - Aviation Fuel Storage Tank."
23. DOE 1992j "Closure Report, Building 51 - Waste Storage Tank."
24. DOE 1994 "Operable Unit 1, Remedial Investigation Report."
25. EG&G 1994 "Active Underground Storage Tank Plan."

Document Control No. _____

Environmental Restoration Program

OPERABLE UNIT 9, SITE SCOPING REPORT: VOLUME 7 - WASTE MANAGEMENT

MOUND PLANT
MIAMISBURG, OHIO

February 1993

FINAL
(Revision 0)

Department of Energy
Albuquerque Field Office

Environmental Restoration Program
EG&G Mound Applied Technologies

6.3.6.3. Other Liquid Wastes

Annual estimated accumulations of waste cutting oils (automotive, etc.), discarded paints and thinners, and waste caustic solutions amounted to about 3,785, 3,785, and 946 L, respectively. These estimates did not change in 1983. The liquid wastes, along with solvents, were collected and disposed of by contract. Disposal services for spent plating-bath solutions of chromic acid, cadmium cyanide, nickel sulfate, nickel chloride, black oxide, and copper cyanide were handled by a commercial industrial waste firm. First rinse and cleanup wastes from the preparation of fresh plating baths were used in the makeup of new baths; therefore, these chemical solutions were never introduced to the facility effluent stream.

Waste PCBs might have been generated from any of 19 transformers located throughout the facility; other sources included capacitors, fluorescent light ballasts, storage cans, microwave ovens, and electronic equipment. PCBs used in transformers are controlled through monthly inspections (for leaks or spills) performed in accordance with procedures detailed in Maintenance Index No. 3021 and the Emergency Planning System Handbook. (The Toxic Substance Control Act lists 4.54 kg/24 hours as the hazardous quantity for PCBs) (MRC 1983.)

ENVIRONMENTAL RESTORATION PROGRAM

MAIN HILL SEEPS, OPERABLE UNIT 2
ON-SCENE COORDINATOR REPORT FOR
CERCLA SECTION 104 REMOVAL ACTION,
WEST POWERHOUSE PCB SITE

OCTOBER 1991

FINAL (REVISION 1)

1. SUMMARY OF EVENTS

As required by 40 CFR 300.165 (OSC Reports), this report of the On Scene Coordinator (OSC) has been submitted within one year after completion of removal activities associated with the release of a hazardous substance. The content of this report is that specified in 40 CFR 300.165 (c).

The removal action described by this report was completed by the U.S. Department of Energy (DOE) as a non-fund federal lead under the DOE authority by Sections 104 and 120 of the Comprehensive Environmental Compensation Response and Liability Act (CERCLA). Therefore, several OSC report elements specified in 40 CFR 300.165 are not applicable and are designated as such in this text.

1.1. HAZARDOUS SUBSTANCE RELEASE SUMMARY

1.1.1. Installation/Site Background

The Mound Plant in Miamisburg, Ohio, is operated for the DOE by EG&G Mound Applied Technologies. The plant started operating in 1946 and today is an integrated research, development, and production facility operated in support of the DOE weapons and energy programs. A polychlorinated biphenyl (PCB) release and subsequent removal action occurred in an area on the west side of the Mound Plant Powerhouse, which is located on the Mound Plant Main Hill, also designated as Operable Unit 2. Figures 1.1 and 1.2 show the location of the Mound Plant and the Powerhouse area. Additional details on the physical features of Mound Plant, and additional background information on the ongoing remedial investigation/feasibility study (RI/FS), is available in the RI/FS Work Plan (DOE 1991a).

1.1.2. Physical Setting

The Mound Plant Main Hill has a relatively complicated physical setting. Groundwater perches on top of the shale and limestone bedrock that is 5 to 15 ft below ground surface (BGS). The shale and limestone have relatively low permeability but are fractured and able to transmit water. The hydrogeology is complicated by the presence of numerous buried utility corridors and associated permeable sandy backfill. Other cultural modifications to the flow regimen include local incision of the bedrock surface, building foundations, and recharge from leaky water pipes and sewers.

The west side of the Powerhouse Building, where the release occurred, has a utility corridor where several utilities including water, sewer, and high voltage electric lines are located below ground surface. The electrical lines are located approximately 2 to 3 ft BGS; water and sewer lines are buried at approximately 5 to 6 ft BGS.

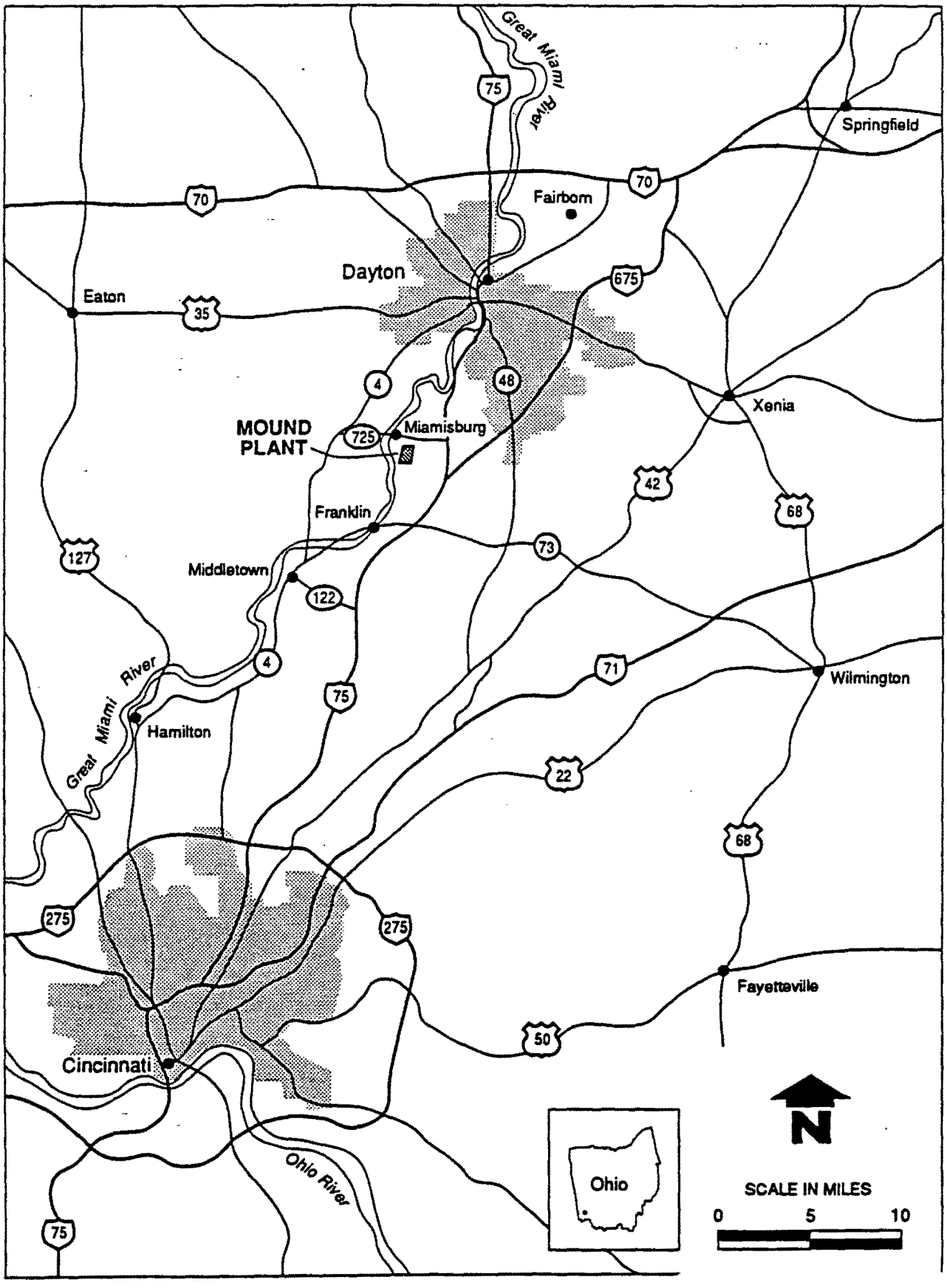


Figure 1.1. Location of Mound Plant.

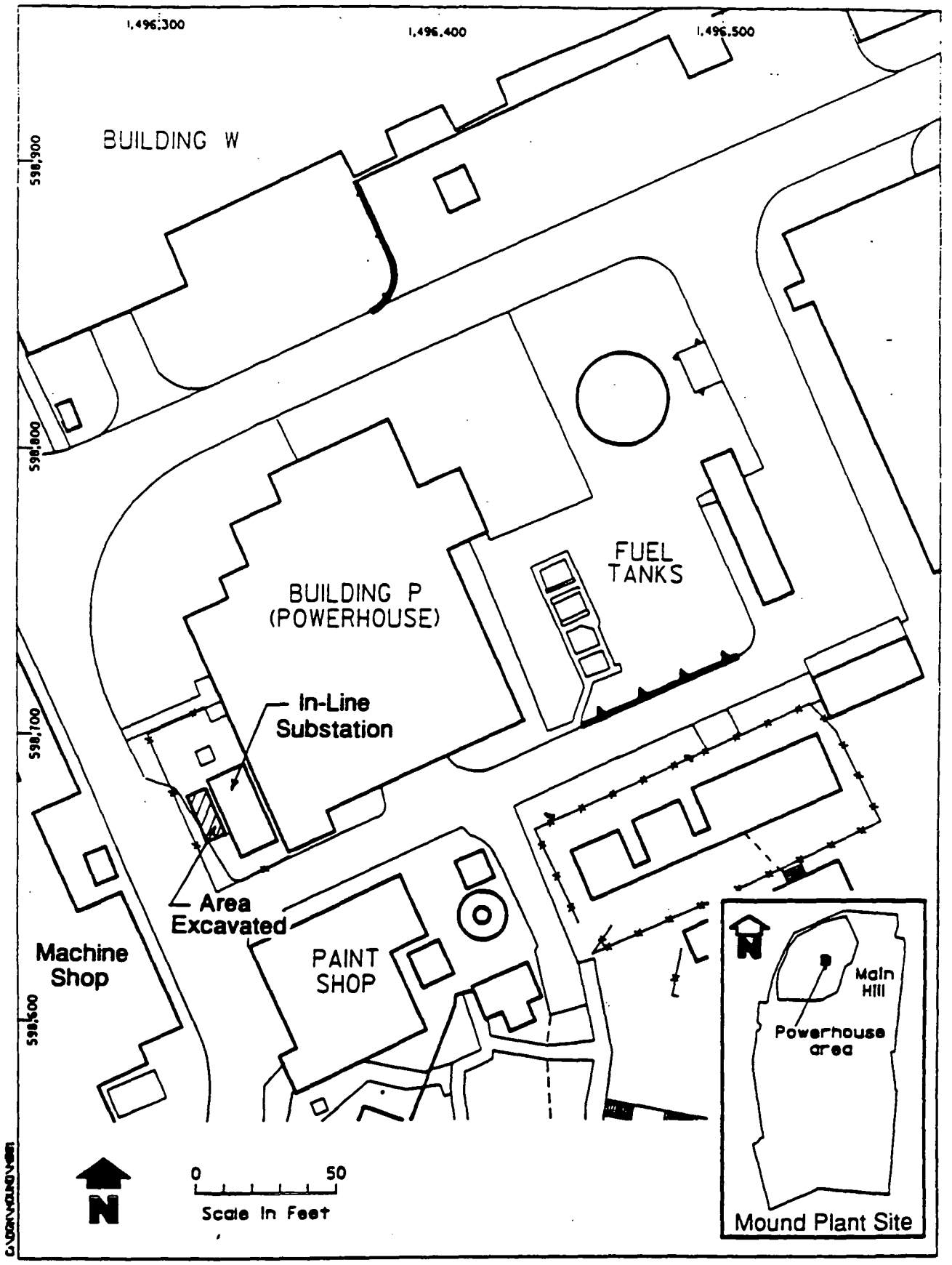


Figure 1.2. Location of Powerhouse area.

1.1.3. Toxic Substance Control Act (TSCA) Cleanup Activity - Program Description

On April 27, 1990, an oil leak was discovered at a spare transformer that had never been energized and was stored on a curbed concrete pad on the west side of the Mound Plant Powerhouse. The leak was discovered at approximately 1:00 pm, and initial cleanup was completed by 3:00 pm. Some of the leak impinged on a concrete surface outside of the dike. At 3:00 pm, a bag was placed on the leaking flange to catch any further leakage. The material absorbed was bagged and placed in the PCB storage area. At 5:00 pm, EG&G Mound, Industrial Hygiene, and Waste Management were at the scene and discussed regulatory compliance with the compliance specialist. Upon receipt of information that the transformer fluid had been removed and replaced with non-PCB fluid, it was estimated that 1,000 parts per million (ppm) PCB or less were leaked. The total liquid capacity of the transformer was 203 gallons. The release amount was set at a very conservative 20 gallons or less. These estimates were used to calculate whether or not a reportable quantity was spilled. The reportable quantity is 10 lbs of PCB material (generally 10 gallons of PCB dielectric fluid) (40 CFR 761, IV,c). The Ohio Emergency Response Center and the Nuclear Regulatory Committee (NRC) were contacted by the DOE representative on April 27, 1990, and notified of the spill. The chronology of the events related to this release was obtained from representatives of the Mound Waste Management Department. It consists of a brief summary of events prepared by the Waste Management Department and the events as recorded by an on-call local environmental response contractor, Enroserv, Inc., including analytical result summaries. This information is presented in Appendix A.

Cleanup was initiated, using Enroserv, as required by the Toxic Substance Control Act (TSCA) (40 CFR 761. They arrived on the scene at approximately 8:30 pm. They swept up some remaining absorbent, scrubbed the discolored concrete with a mild detergent, and took some swipe samples of the concrete. The liquid in the transformer was pumped into drums to lower the level below the leak point. The covering of the flange was then removed, and the area inside was cleaned up. A sample was taken of the removed fluid, and the area was covered with plastic. All wastes were stored in the PCB storage area.

The initial response cleanup included several stages of sampling to define the extent of the area affected by the release, removal of the transformer from the site, and removal of contaminated concrete and soil. Initial samples of the oil in the transformer contained 64,500 ppm of PCBs. The difference in the concentration between the estimate and the sample results received on May 5, 1990, warranted recalculating the possibility of a reportable quantity spill. A better estimate was determined for the leak rate based on discussion with personnel that had been working in the area. It was established that there had been no leak until approximately 1:00 pm. From the time the leak was bagged at 3:00 pm until 5:00 pm, 1 quart was collected. An assumed leak rate of 0.5 quart per hour was established. Since there

was no visible leak at 11:00 am, it was assumed to have started leaking around 12:00 noon. An estimate of 2.5 quarts was assumed lost. Both sets of calculations are listed below.

Leak Rate Calculations

4/27/90:	(20 gallons x 13.2 [lb/gallon] x 1000 ppm/1M) = 0.26 lb
5/04/90:	(2.5 qt/4[qt/gal] x 13.2 [lb/gal] x 64500.0 ppm/1M) = 0.53 lb

The transformer and contaminated oil were removed and sent offsite for disposal at ENSCO in El Dorado, Arkansas. Removal of contaminated soil and concrete continued through November 1990. All waste was disposed of by incineration at ENSCO. Excavation was continued because of observed staining/discoloration on the foundation wall of the in-line substation located directly west of the Powerhouse. On October 31, 1990, a pocket of oil and water was encountered at a depth of 5 to 6 ft BGS and directly adjacent to the substation foundation wall. Samples taken of this liquid contained a maximum of 230,000 ppm of PCBs (Aroclor 1260). Analytical results of the TSCA cleanup activity are presented in Appendix A.

Limited excavation was performed after the oil was encountered. Laboratory analyses of the transformer oil that was released in April 1990 and the oil/water encountered at 5 to 6 ft BGS, identified the same PCB, Aroclor 1260. It was believed, however, that the two areas of contamination resulted from separate incidents based on the small volume of the April 1990 release (2.5 quarts) and the depth (5 to 6 ft) at which the oil/water was encountered in October and November 1990. At that point in time, it was determined that this oil was not from the original spill. It was a problem that fell under CERCLA; therefore, Mound turned this project over to the Environmental Restoration (ER) Program, with Waste Management continuing to provide support. On November 8, 1990, state and federal authorities were informed of the discovery of the subsurface oil.

1.1.3.1. Waste Disposal

The wastes generated in both the TSCA cleanup activity and the CERCLA removal action were handled through the Mound Waste Management Department. A list of waste types and amounts is located in Appendix B, together with the Uniform Hazardous Waste Manifests. A total of 1,563 lbs of oil, 18,379 lbs of oil/water, 52,739 lbs of concrete/soil/debris, and one transformer were disposed of. All waste was disposed of by incineration at ENSCO.

1.1.4. CERCLA Removal Action - Program Description

A Sampling and Analysis Plan (SAP) dated January 1991 was developed by Roy F. Weston, Inc. (WESTON) for the DOE under CERCLA to address the West Powerhouse PCB contamination (DOE 1991b). Copies of the SAP were provided to the regulatory agency remedial project managers, Ms. Diana Mally of the United States Environmental Protection Agency (EPA) and Ms. Martha Hatcher of the State of Ohio Environmental Protection Agency (OEPA). The objective of the SAP was to determine the extent of subsurface PCB contamination in the vicinity of the 1990 West Powerhouse excavation, including the utility pipe chases and surrounding subsurface soils. One of the primary

investigation methods outlined in the SAP was the drilling of boreholes in a grid system with subsequent subsurface soil sampling and analyses. Due to the abundance of underground utilities in proximity to the release area, boreholes could not be drilled. The site conditions dictated the use of backhoe and hand excavation techniques with subsequent soil analyses to determine the extent of PCB contamination. The DOE made a determination that a removal aciton was appropriate because of the criteria in 40 CFR 300.415 (b)(2)(viii), "Other situations or factors that may pose threats to public health or welfare of the environment," on the basis that

- the contamination was in contact with subsurface water where it could possibly migrate rapidly and pose a threat to the environment; and
- once it was necessary to excavate soil in order to sample, the contaminated soil should be stored, treated, or disposed of to minimize further threat to public welfare and the environment.

The following subsections describe the March 13 through March 27, 1991, removal action procedures conducted under the criteria of Section 300.400 of the National Contingency Plan, the analytical results of the investigation, and the extent of PCB contamination.

1.1.4.1. Soil Excavation and Sampling Procedures

To determine the extent of PCB contamination, excavation of soils at the West Powerhouse site was performed in stages with an episode of excavation followed by soil sampling and onsite analyses for PCBs. Excavation was performed in two-foot vertical lifts followed by sampling and analyses. Excavation commenced at the area of the original TSCA excavation and expanded to the north, south, and west based on analytical results. Soil excavation was discontinued at each particular stage when total PCB levels were below 10 ppm, the required cleanup level for soils as outlined in 40 CFR 761.125 (c)(4)(v).

Confirmation samples were collected at each stage of excavation to delineate the extent of contamination at a particular depth below ground surface. All soils were removed as encountered and containerized onsite in 55-gallon drums.

1.1.4.2. Water Sampling Procedures

Groundwater and surface water was pumped from the bottom of the excavation when necessary and containerized in 55-gallon drums. Water collected in the drums was sampled and analyzed to determine appropriate disposal methods.

1.1.4.3. Soil and Water Analytical Procedures

The number of samples and analyses completed for each media is summarized in Table I.1.

Table I.1. Summary of Sampling and Analyses

Media	Number of Drums	Number of Analyses	Type of Analyses
In-situ Soil	N/A	109	Onsite thorium-232 and plutonium-238
In-situ Soil	N/A	109	Onsite PCB
In-situ Soil	N/A	22	Offsite PCB (fixed laboratory)
In-situ Soil	N/A	6	Target Compound List (TCL)
Drums-Soil	89	89	Onsite PCB
Drums-Soil	9	9	Toxicity Characteristic Leaching Procedure
Drums-Water	34	34	Offsite PCB (fixed laboratory)
Drums-Water	3	3	TCL volatile organics

Soil samples were analyzed onsite for PCBs with a L2000 PCB Analyzer™ manufactured by Dexsil Corporation, which has a detection limit of 5 ppm for PCBs in soil. The procedure for performing this analysis is presented in Appendix C. As soils were excavated, sample splits were collected and analyzed onsite for plutonium-238 and thorium-232 by EG&G Mound representatives. Approximately one of each ten soil samples collected was sent to the Roy F. Weston Analytics Division Lionville Laboratory in Lionville, Pennsylvania, for PCB analyses. A comparison of field-generated PCB results and laboratory-generated PCB results show that in the majority of cases the field generated result was the conservative value (i.e., higher than the lab value). An additional six samples that delineated the extent of PCB contamination directly above bedrock were sent to WESTON's analytical laboratory for analyses of Target Compound List (TCL) parameters.

Excavated soils were containerized in a total of 89 55-gallon drums, each drum was sampled and the soil was analyzed onsite for PCBs. Drums that contained soil with PCB concentrations less than 10 ppm were considered to be nonhazardous and were stored onsite. Additional analyses were conducted on one out of each ten nonhazardous drums for Toxicity Characteristic Leaching Procedure analyses in order to determine proper disposal methods.

Groundwater and surface water that entered the excavation during investigation activities was pumped out of the excavation into 55-gallon drums. Decontamination water was also containerized in 55-gallon drums. A total of 34 water drums were produced from site activities; each drum was analyzed for PCB concentrations by WESTON's analytical laboratory in Lionville, Pennsylvania. Three of the drums were also analyzed for TCL volatile organic compounds.

1.1.4.4. Analytical Results/Extent of Contamination

As described in subsection 1.1.4.1, a process of vertical and horizontal soil excavation followed by soil sampling and analyses was used to delineate the extent of subsurface PCB contamination at the West Powerhouse site. Figures 1.3 through 1.6 show the approximate boundaries of excavated soils at each two foot vertical interval and the locations of confirmation samples. The confirmation samples represent uncontaminated soil conditions and delineate the horizontal and vertical extent of PCB contamination. As shown in Figure 1.6, the extent of PCB contamination was relatively confined; the excavation measured approximately 30 ft by 5 ft and extended to an approximate depth of 8.5 ft BGS (top of bedrock).

Analytical results for soils analyzed onsite for PCBs, thorium-232, and plutonium-238 are presented in Appendix D. A summary of these results is presented in Table I.2. Laboratory analytical results, data validation reports, and chain-of-custody forms are presented in Appendix E. Data validation was

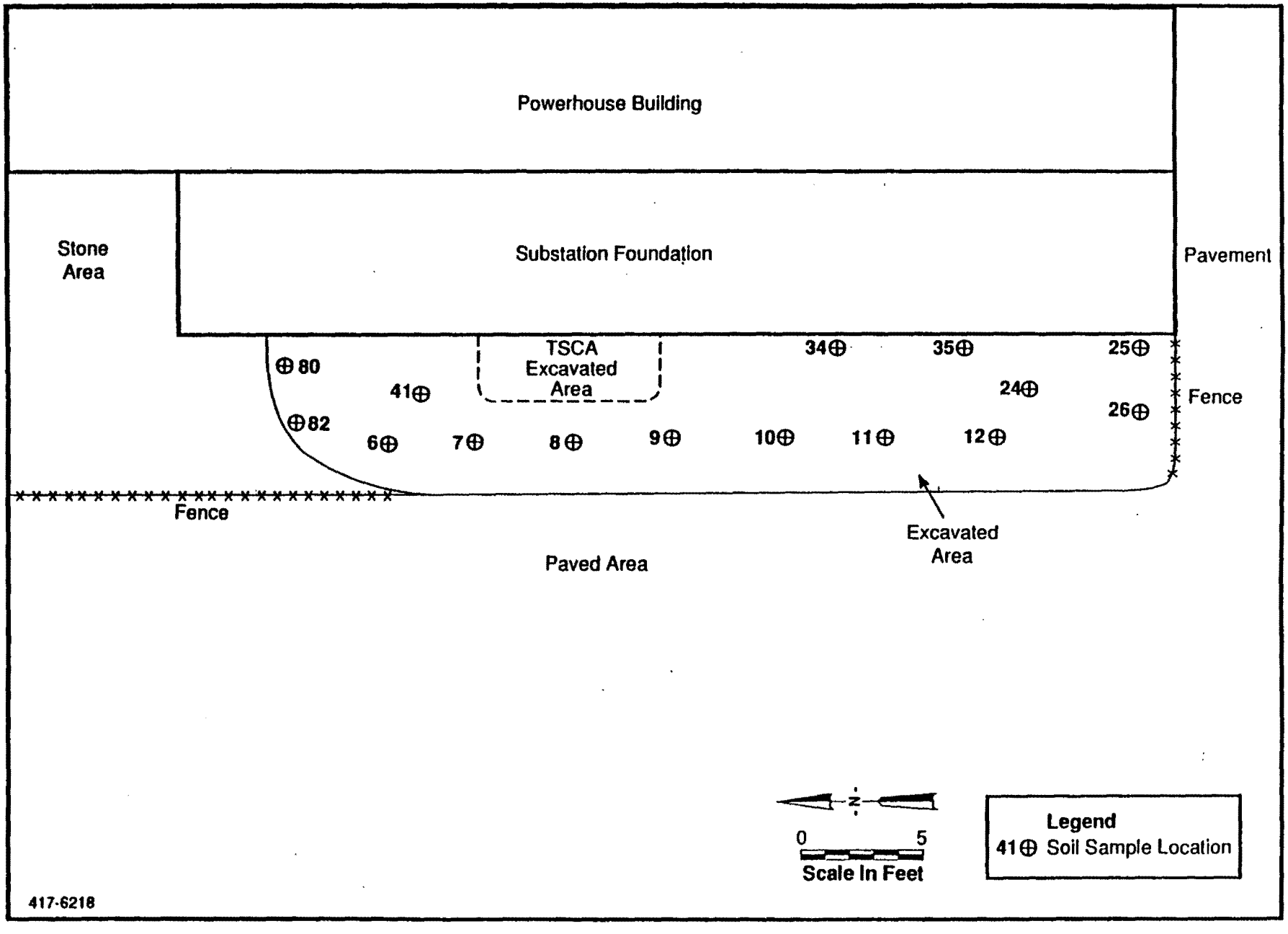


Figure 1.3. Excavated area from 0-2 ft BGS, confirmation sample locations

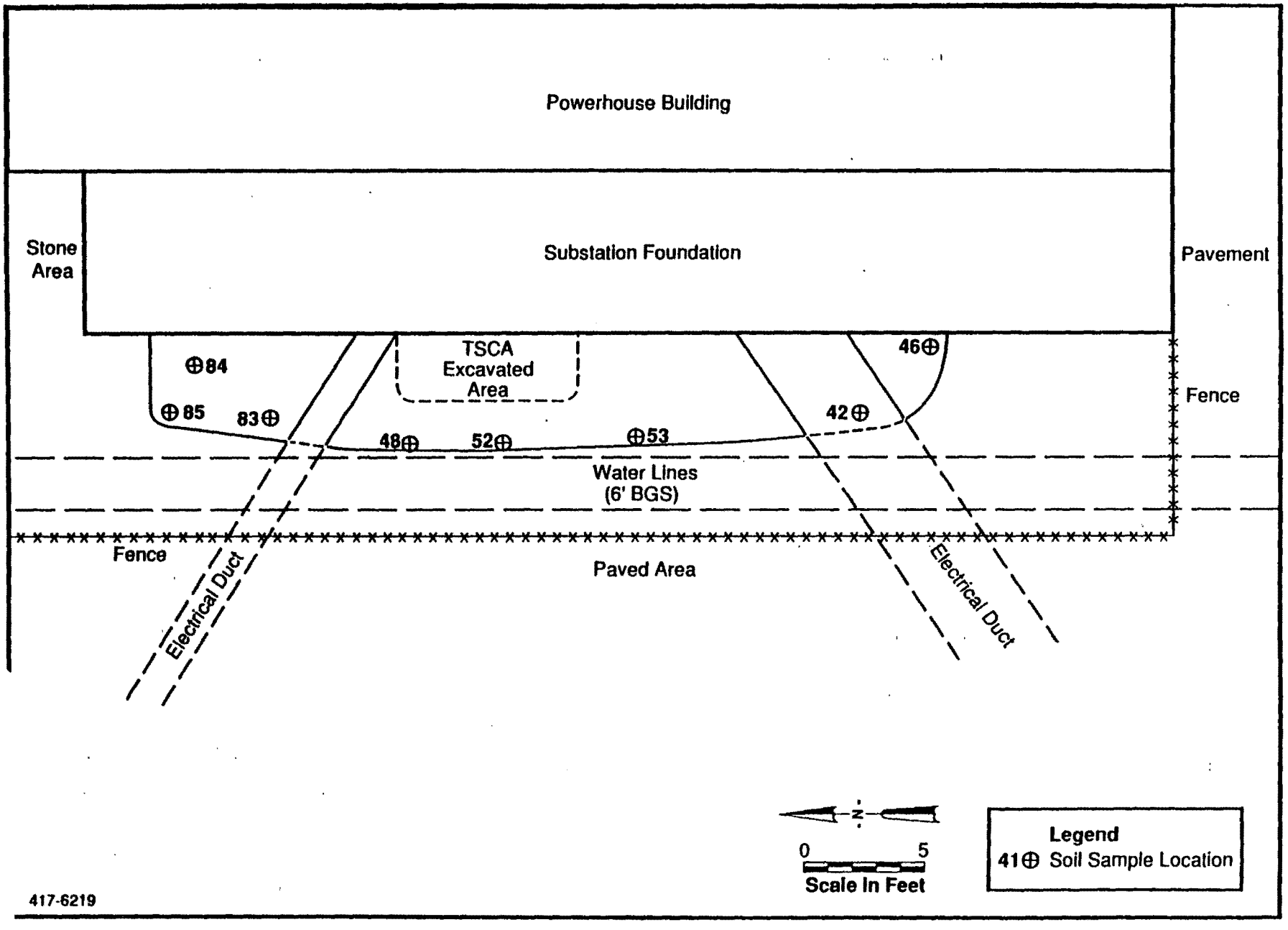


Figure 1.4. Excavated area from 2-4 ft BGS, confirmation sample locations

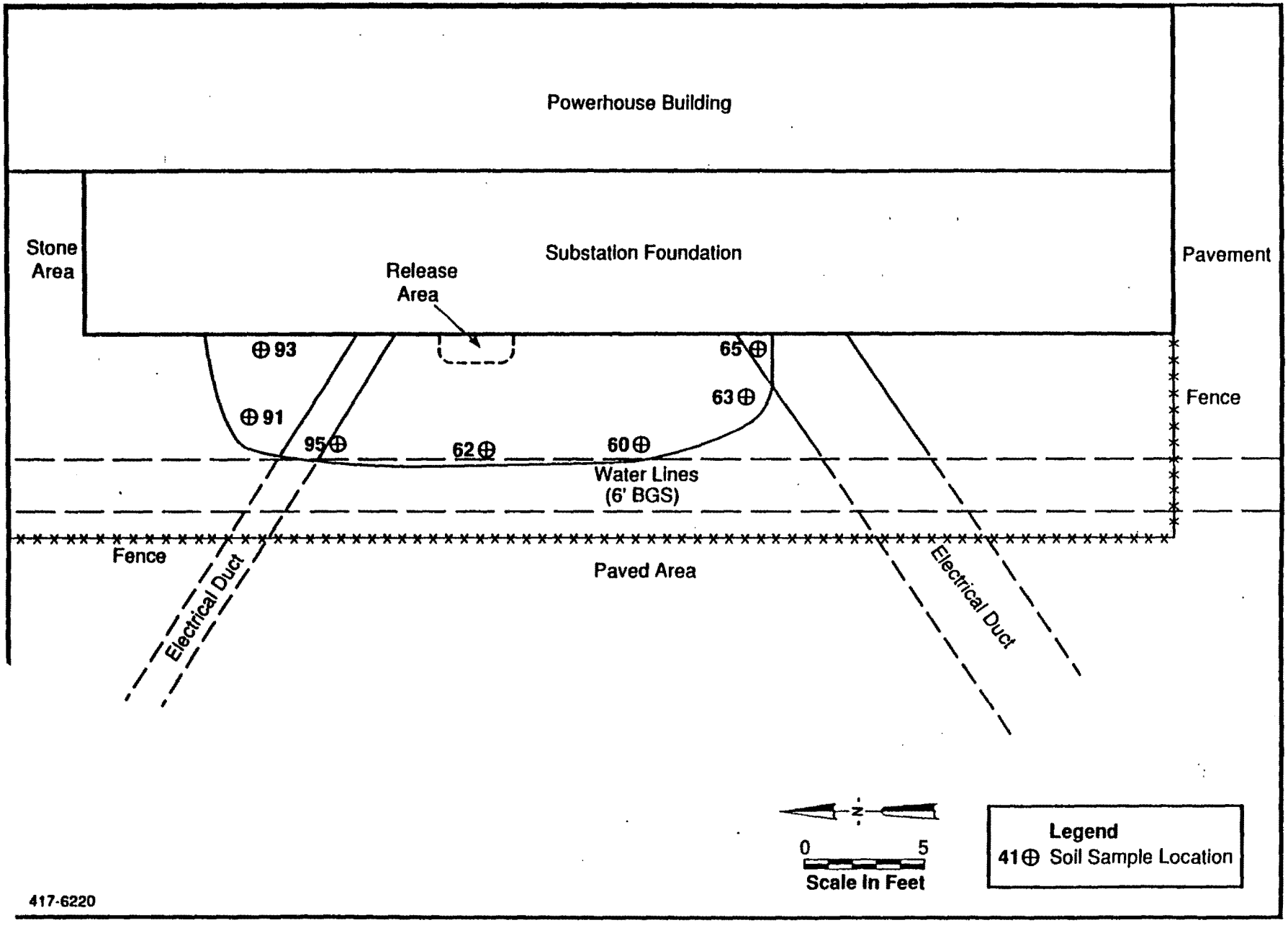


Figure 1.5. Excavated area from 4-6 ft BGS, confirmation sample locations

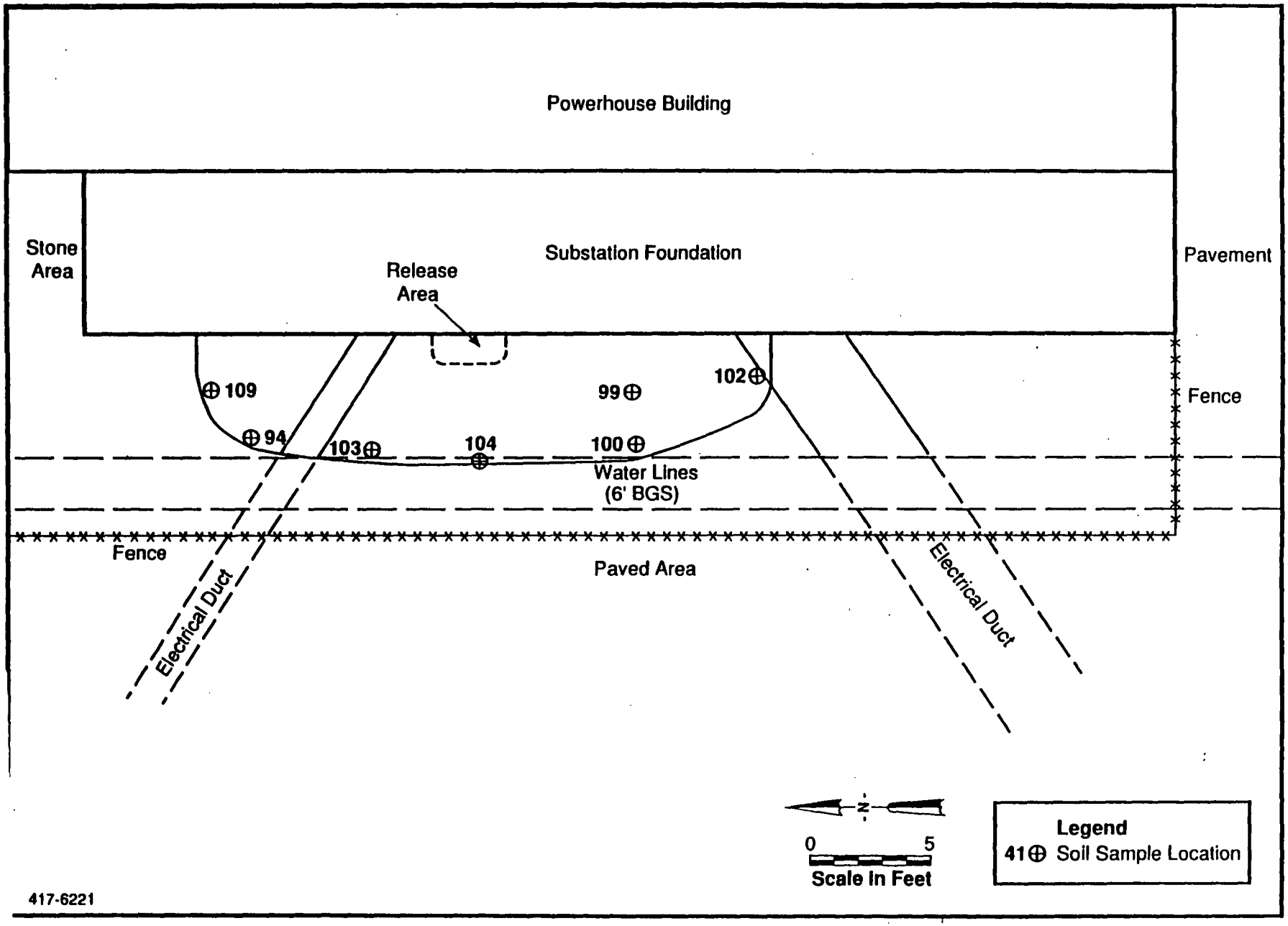


Figure 1.6. Excavated area from 6-8.5 ft BGS (Bedrock at 8.5 ft BGS), confirmation sample locations

Table I.2. Summary of the Detected Analytes for Onsite PCB, Thorium-232, and Plutonium-238

Sample ID	Aroclor 1260 ppm	TH 232 Pci/g	PU 238 Pci/g	Sample ID	Aroclor 1260 ppm	TH 232 Pci/g	PU 238 Pci/g
MND20-0019-0001	3.7	1.1	0.0	MND20-0019-0056	1.5	0.4	2.0
MND20-0019-0002	8.7	0.5	0.0	MND20-0019-0057	2.1	0.5	0.0
MND20-0019-0003	6.1	1.0	7.0	MND20-0019-0058	1.8	0.1	0.0
MND20-0019-0004	6.4	0.8	0.0	MND20-0019-0059	8.2	0.6	7.0
MND20-0019-0005	2.5	1.4	3.0	MND20-0019-0060	8.4	0.7	0.0
MND20-0019-0006	6.1	0.5	0.0	MND20-0019-0061	3.2	0.5	4.0
MND20-0019-0007	4.2	0.8	4.0	MND20-0019-0062	2.0	0.2	0.0
MND20-0019-0008	4.3	0.6	3.0	MND20-0019-0063	4.5	0.1	0.0
MND20-0019-0009	4.0	1.0	0.0	MND20-0019-0064	2.7	0.4	0.0
MND20-0019-0010	4.9	0.7	0.0	MND20-0019-0065	3.6	0.7	3.0
MND20-0019-0011	4.1	0.8	0.0	MND20-0019-0066	1.7	0.1	0.0
MND20-0019-0012	3.1	0.2	0.0	MND20-0019-0067	15.8	0.8	2.0
MND20-0019-0013	6.3	1.0	0.0	MND20-0019-0068	22.0	0.7	0.0
MND20-0019-0014	2.0	0.4	2.0	MND20-0019-0069	5.6	0.3	0.0
MND20-0019-0015	15.2	0.6	0.0	MND20-0019-0070	15.0	0.6	5.0
MND20-0019-0016	6.7	0.5	0.0	MND20-0019-0071	9.2	0.4	0.0
MND20-0019-0017	4.3	0.1	0.0	MND20-0019-0072	3.4	0.6	0.0
MND20-0019-0018	3.9	0.6	0.0	MND20-0019-0073	3.6	0.2	0.0
MND20-0019-0019	2.8	0.4	2.0	MND20-0019-0074	2.3	0.8	1.0
MND20-0019-0020	3.1	0.1	0.0	MND20-0019-0075	1.9	0.4	0.0
MND20-0019-0021	81.1	0.4	8.0	MND20-0019-0076	3.1	0.9	2.0
MND20-0019-0022	25.6	0.2	2.3	MND20-0019-0077	2.4	1.0	2.0
MND20-0019-0023	27.8	0.2	0.0	MND20-0019-0078	2.7	0.4	0.0
MND20-0019-0024	3.2	0.5	0.0	MND20-0019-0079	17.3	0.5	0.0
MND20-0019-0025	4.6	0.5	0.0	MND20-0019-0080	3.6	0.6	0.0
MND20-0019-0026	4.4	0.2	0.0	MND20-0019-0081	8.3	0.3	0.0
MND20-0019-0027	3.8	0.6	2.0	MND20-0019-0082	3.9	0.7	0.0
MND20-0019-0028	2.9	0.4	0.0	MND20-0019-0083	4.4	0.7	3.0
MND20-0019-0029	4.0	0.4	0.0	MND20-0019-0084	4.3	0.6	5.0
MND20-0019-0030	3.5	0.6	1.0	MND20-0019-0085	1.5	0.2	0.0
MND20-0019-0031	183.8	0.4	0.0	MND20-0019-0086	3.1	0.8	2.0
MND20-0019-0032	4.6	0.7	6.0	MND20-0019-0087	2.7	0.3	0.0
MND20-0019-0033	>2000	0.2	0.0	MND20-0019-0088	3.3	0.5	3.0
MND20-0019-0034	4.0	0.5	3.0	MND20-0019-0089	3.6	0.2	0.0
MND20-0019-0035	4.2	0.6	0.0	MND20-0019-0090	3.8	0.7	0.0
MND20-0019-0036	>2000	2.0	0.0	MND20-0019-0091	3.9	0.6	0.0
MND20-0019-0037	35.9	0.7	0.0	MND20-0019-0092	5.4	0.4	0.0
MND20-0019-0038	12.7	0.3	0.0	MND20-0019-0093	5.9	0.1	0.0
MND20-0019-0039	3.1	0.2	0.0	MND20-0019-0094	4.4	0.5	6.0
MND20-0019-0040	14.9	0.6	7.0	MND20-0019-0095	4.3	0.5	0.0
MND20-0019-0041	4.3	0.5	0.0	MND20-0019-0096	6.4	0.1	0.0
MND20-0019-0042	4.9	0.1	0.0	MND20-0019-0097	5.5	0.7	5.0
MND20-0019-0043	4.8	0.5	1.0	MND20-0019-0098	4.6	0.5	0.0
MND20-0019-0044	8.1	0.4	0.0	MND20-0019-0099	3.6	0.6	0.0
MND20-0019-0045	5.1	0.3	0.0	MND20-0019-0100	3.8	0.7	5.0
MND20-0019-0046	5.5	0.3	2.0	MND20-0019-0101	3.6	0.7	1.5
MND20-0019-0047	5.0	0.4	0.0	MND20-0019-0102	2.5	0.6	2.0
MND20-0019-0048	3.7	0.6	0.0	MND20-0019-0103	2.9	0.9	2.0
MND20-0019-0049	9.8	0.7	0.0	MND20-0019-0104	2.9	0.8	2.0
MND20-0019-0050	4.0	0.4	0.0	MND20-0019-0105	3.1	0.3	0.0
MND20-0019-0051	4.3	0.0	0.0	MND20-0019-0106	15.4	0.1	0.0
MND20-0019-0052	3.8	0.4	3.0	MND20-0019-0107	20.7	0.3	2.0
MND20-0019-0053	4.5	0.6	0.0	MND20-0019-0108	6.3	0.3	0.0
MND20-0019-0054	3.2	0.7	0.0	MND20-0019-0109	3.7	0.8	0.0
MND20-0019-0055	4.0	0.7	0.0				

performed for all samples analyzed by WESTON's analytical laboratory. Results of data validation show no significant changes to analytical results or significant problems with analyses. Tables I.3 through I.7 present a list of detected analytes for all samples analyzed at WESTON's analytical laboratory.

1.1.4.5. Excavation Backfill Procedure

Backfill of the excavation took place immediately after all soils were removed from the excavation and all soil sample PCB analytical results were received. The excavation was backfilled with "clean" gravel to the surface, was compacted, and was then leveled.

1.2. CAUSE AND SOURCE OF THE RELEASE

Record searches and employee interviews previously completed for the Mound Plant Environmental Restoration Program have not identified the potential for PCB contamination (DOE 1991c). Subsequent discussions with Mound Plant utilities personnel have also indicated that there have been no known large-volume PCB spills at Mound Plant.

Based on the results of the March 1991 removal action, the source of the subsurface PCB contamination appears to have originated from a surface release in the same area as the April 1990 release of approximately 2.5 quarts of transformer oil. The subsurface PCB contamination was of limited depth and lateral extent and may have resulted from the April 1990 release or a previous undocumented release.

1.3. EFFORTS TO OBTAIN RESPONSE BY RESPONSIBLE PARTIES

Not applicable, because the DOE is the responsible party.

1.4. ORGANIZATION OF THE RESPONSE

Not applicable, because DOE was the sole agency involved.

1.5. THE RESOURCES COMMITTED

One of the criteria for initiating the removal action was the indication that the removal action could be completed in less than one year and for less than one million dollars. The total project cost was less than $350,000.

Table I.3. Summary of the Detected Analytes for Soil PCB from WESTON's Lionville Laboratory

Sample ID	Aroclor 1254 ug/g	Aroclor 1260 ug/g
MND20-0019-0010	U	3.0
MND20-0019-0014	U	0.035J
MND20-0019-0020	0.13J	U
MND20-0019-0030	0.059J	U
MND20-0019-0033	U	310
MND20-0019-0036	U	22000
MND20-0019-0040	U	190
MND20-0019-0050	U	0.032J
MND20-0019-0060	U	0.037J
MND20-0019-0065	U	5.2
MND20-0019-0070	U	0.055J
MND20-0019-0080	U	0.18J
MND20-0019-0090	U	0.32
MND20-0019-0093	U	0.97
MND20-0019-0107	U	37
MND20-0019-0109	U	0.86
MND20-0021-0001	0.11J	U

J – Analyte present at less than detection limit.

U – Not detected.

Table I.4. Summary of the Detected Analytes for Water PCB from WESTON's Lionville Laboratory

Sample ID	Aroclor 1260 ug/L
MND20-0019-W1	6200
MND20-0019-W2	1600
MND20-0019-W3	1.2
MND20-0019-W4	9.5
MND20-0019-W5	86
MND20-0019-W6	600
MND20-0019-W7	29
MND20-0019-W8	7400
MND20-0019-W9	1900
MND20-0019-W10	6.2
MND20-0019-W11	2.5
MND20-0019-W12	4.3
MND20-0019-W13	6.1
MND20-0019-W14	2.9
MND20-0019-W15	10
MND20-0019-W16	2.0
MND20-0019-W17	0.56J
MND20-0019-W18	440
MND20-0019-W19	56
MND20-0019-W20	33
MND20-0019-W21	1.3
MND20-0019-W22	1.5
MND20-0019-W23	74
MND20-0019-W24	0.54J
MND20-0019-W25	36
MND20-0019-W26	0.57J
MND20-0019-W27	82
MND20-0019-W28	0.17J
MND20-0019-W29	0.98
MND20-0019-W30	1.9
MND20-0019-W31	0.81J
MND20-0019-W32	0.19J
MND20-0019-W33	7.0
MND20-0019-W34	1.1

J – Analyte present at less than detection limit.

Table I.5. Summary of the Detected Analytes for Water TCL from WESTON's Lionville Laboratory

Sample ID	Methylene Chloride µg/L	Acetone µg/L
MND20-00019-W14	4 JB	13 B
MND20-00019-W22	3 JB	7 JB
MND20-00019-W30	17 B	12 B

J - Analyte present at less than detection limit

B - Analyte found in associated blank

Table I.6. Summary of the Detected Analytes for Soil TCL from WESTON's Lionville Laboratory

COMPOUND	SAMPLE ID					
	MND20-00019-0092A	MND20-00019-0094	MND20-00019-0100	MND20-00019-0102	MND20-00019-0104	MND20-00019-0109
Volatiles ug/Kg						
Methylene Chloride	31 B	40 B	53 B	47 B	56 B	57 B
Acetone	8 JB	16 B	24 B	30 B	35 B	34 B
Semivolatiles ug/Kg						
1,2,4-Trichlorobenzene	560	U	U	U	U	U
Naphthalene	U	U	U	120 J	U	U
Acenaphthene	U	U	U	210 J	U	54 J
Dibenzofuran	U	U	U	83 J	U	U
Fluorene	U	U	U	160 J	U	U
Phenanthrene	U	U	U	1400	U	280 J
Anthracene	U	U	U	220 J	U	55 J
Fluoranthene	59 J	U	U	1700	U	360 J
Pyrene	61 J	U	U	1500	U	310 J
Benzo(a)anthracene	U	U	U	640	U	120 J
Chrysene	U	U	U	760	U	170 J
bis(2-Ethylhexyl)phthalate	130 J	86 J	48 J	U	50 J	76 J
Benzo(b)fluoranthene	U	U	U	630	U	130 J
Benzo(k)fluoranthene	U	U	U	510	U	97 J
Benzo(a)pyrene	U	U	U	550	U	110 J
Indeno(1,2,3-cd)pyrene	U	U	U	350 J	U	74 J
Dibenzo(a,h)anthracene	U	U	U	120 J	U	U
Benzo(g,h,i)perylene	U	U	U	380 J	U	93 J
PCBs ug/Kg						
Aroclor 1260	4400	52 J	U	U	U	690
Metals mg/Kg						
Aluminum	1560	1070	1500	1540	1130	2260
Antimony	4.70 B	U	U	4.60 B	U	U
Arsenic	4.80	3.13	5.30	4.80	4.40	5.60
Barium	18.9 B	7.80 B	11.5 B	23.3 B	19.4 B	23.0 B
Calcium	130000	113000	118000	156000	110000	124000
Chromium	1.40 B	U	0.860B	5.40	U	5.10
Cobalt	2.20 B	1.80 B	2.70 B	2.00 B	1.90 B	3.10 B
Copper	8.20	6.7	6.70	7.00	6.70	8.20
Iron	5620	4670	6250	5020	5260	6860
Lead	8.00	4.6	6.70	8.00	6.00	10.0
Magnesium	49500	38700	42700	49700	39900	36800
Manganese	275	170	222	265	174	264
Nickel	5.00 B	3.60 B	5.90 B	4.50 B	5.10 B	5.20 B
Potassium	341 B	U	281 B	383 B	271 B	417 B
Sodium	178 B	164 B	206 B	201 B	206 B	92.4 B
Vanadium	14.1	11.6	13.2	14.7	12.2	8.90 B
Zinc	25.4	22.2	30.3	26.2	23.8	29.3

J – Analyte present at less than detection limit.
U – Not detected.
B – Analyte found in associated blank.

Table I.7. Summary of the Detected Analytes for Soil TCLP from WESTON's Lionville Laboratory

Sample ID	Benzene µg/L	Barium µg/L
MND20-00019-0010	U	1220
MND20-00019-0024	11 J	1190
MND20-00019-0035	50 J	478
MND20-00019-0046	U	479
MND20-00019-0058	U	354
MND20-00019-0069	U	489
MND20-00019-0080	U	350
MND20-00019-0089	U	U
MND20-00019-0105	18 J	279

J - Analyte present at less than detection limit

U - Not detected

1.6. NATURAL RESOURCE TRUSTEE NOTIFICATION

A notification letter consistant with 40 CFR 300.410(g), summarizing the PCB removal action, was sent from the DOE Dayton Area Office to the EPA and the OEPA on February 22, 1991.

1.7. FEDERAL OR STATE TRUSTEE DAMAGE ASSESSMENT ACTIVITIES

A formal damage assessment was not completed by federal or state trustees.

1.8. THREAT ABATEMENT ACTION

Threat abatement action was not taken under CERCLA or under Section 311 (c) or (d) of the Clean Water Act.

1.9. DISPOSAL ACTIVITIES - PCB CONTAMINATED SOIL AND WATER

1.9.1. Alternatives Considered

Multiple treatment/disposal alternatives were considered for both soil and water, as described below.

Soil

Alternatives considered for treatment/disposal of soil, along with the reason not chosen, are as follows:

- Treatment with quicklime, an emerging technology at the time the removal was completed. It was not chosen because the relatively small volume of soil and low contaminant concentrations would not make it cost-effective.
- Disposal in a municipal landfill for contamination less than 50 ppm. Although allowable under TSCA regulations, it was discarded because it did not reduce the mobility, toxicity, or volume of the contaminants.

Water

Alternatives considered for treatment/disposal of water, along with the reason not chosen, are as follows:

- Discharge into the Mound Plant effluent was considered because of the extremely low concentration of PCBs. It was not chosen because of prohibitions against discharging PCBs into navigable waters (40 CFR 129.105).

- Disposal in a hazardous waste landfill was considered because concentrations were much less than 50 ppm, and disposal of soil in a municipal landfill is allowable at that level. It was not chosen because it was not prudent to place free liquid in a landfill.

Alternative Chosen

Contaminated soil and water were cleaned by incineration.

1.9.2. Summary of Disposal Activities

Excavated soils were containerized in 55-gallon drums as the investigation proceeded. Each drum was sampled for PCB analysis. Based on these results, the contents of each drum were determined to be contaminated (>10 ppm PCB) or non contaminated (<10 ppm PCB). The clean up level of 10 ppm for PCBs in soil is consistent with the TSCA requirement for the decontamination of spills involving 1 lb or more of PCBs in non restricted access areas. A total of approximately 96 drums of soil were generated from site activities; of this total, 15 drums of contaminated soils and 7 drums of health-and-safety-generated waste (i.e., tyvek, plastic, etc.) were sent offsite to the Ensco facility in Arkansas for treatment by incineration.

Groundwater and surface water that entered the excavation during the investigation was pumped into 55-gallon drums for subsequent analysis. Each 55-gallon drum was sampled and analyzed for PCBs. The water in all 34 drums contained a total PCB concentration greater than the detection limit of 1.0 μg/L. The release of pollutants in water from Mound Plant is regulated under an OEPA National Pollution Discharge Elimination System (NPDES) permit, numbered 11000005CD. The NPDES permit does not specifically address the release of PCBs, and the monitoring of Total Toxic Organic does not include PCBs on the list of analytical parameters. Therefore, no quantity of PCBs may be released through the NPDES system. EG&G Mound has transported all 34 liquid drums to the Ensco facility in Arkansas for treatment by incineration.

Removal activities at the site also generated approximately 252 ft^3 of concrete rubble. Samples were collected and analyzed onsite for PCBs. In addition, one of the three samples was split for analyses

at the WESTON analytical laboratory. The maximum concentration of the three samples was 37 ppm. Therefore, EG&G Mound has disposed of the concrete offsite at the Laidlaw Environmental/GSX facility (landfill) in South Carolina. Waste disposal manifests for all materials shipped offsite are included in Appendix F.

1.10. PUBLIC INFORMATION/COMMUNITY RELATIONS ACTIVITIES

A Notice of Availability of the administrative record for the West Powerhouse PCB removal action will be advertised by the DOE in an appropriate newspaper of general circulation in the community. An administrative record for this action, which will include the Sampling and Analysis Plan and the OSC Report, will be available at the Public Repository located at the Miamisburg Branch of the Dayton-Montgomery County Library. Public comment will be accepted and responses to comments will be included in the final document of action and will be available for public viewing at the Miamisburg Branch of the Dayton-Montgomery County Library. A draft copy of the notice is presented in Appendix G. A photographic record of the action was included in the March 1991 monthly report submitted by DOE to EPA (DOE 1991d). A copy of that report is contained in the administrative record.

2. EFFECTIVENESS OF REMOVAL ACTION

Cleanup activities resulting from the April 1990 release at the West Powerhouse area were conducted according to TSCA standards by an on-call environmental response contractor, Enroserv Inc. of Dayton, Ohio. Additional site work was performed by WESTON for the DOE in March 1991. The March 1991 site work was performed according to CERCLA Removal Action Standards, which resulted in the removal and disposal of all PCB-contaminated soil with a concentration of 10 parts per million or greater and all PCB-contaminated water. Soil excavation was continued in the area until all soils were removed to the top of bedrock. Final confirmation samples were collected along the side walls of the excavation as shown on Figure 1.6.

A summary of analytical results for the confirmation samples collected to define the extent of contamination at the bottom of the excavation (as shown on Figure 1.6), is presented in Table II.1. These analytical results along with the results of confirmation samples collected along the side walls at each two-foot level of the excavation document that all PCB-contaminated soil was removed from the release area.

Table II.1. Summary of Analytical Results for Confirmation Samples at 6 to 8.5 ft BGS

Sample I.D.	PCB Concentration (ppm)
094	0.05
099	Not detected
100	Not detected
102	Not detected
103	2.9[a]
104	Not detected
109	0.86

[a]Onsite analyses

3. PROBLEMS ENCOUNTERED AND RECOMMENDATIONS

There were no significant problems encountered throughout the duration of this project. The removal action was conducted solely by the DOE as a non-funded federal lead. As such, the action presented no potential problems in inter-agency cooperation. In order to prevent the recurrence of releases of hazardous substances such as transformer oils, the OSC recommends that the temporary storage of transformers be conducted at an approved onsite containment structure.

4. REFERENCES

DOE. 1991a. "Remedial Investigation/Feasibility Study Operable Unit 9, Site-wide Work Plan." Environmental Restoration Program, U.S. Department of Energy, Albuquerque Operations Office, Albuquerque, New Mexico. February 1991.

DOE. 1991b. "Mound Plant, Main Hill Seeps, Operable Unit 2 West Powerhouse PCB Contamination Sampling and Analyses Plan, Health and Safety Plan." Environmental Restoration Program, U.S. Department of Energy, Albuquerque Operations Office, Albuquerque, New Mexico. January 1991.

DOE. 1991c. "Operable Unit 9, Site Scoping Report Volume 7 - Waste Management Report." Environmental Restoration, U.S. Department of Energy, Albuquerque Operations Office, Albuquerque, New Mexico. July 1991 (Volume in Preparation).

DOE. 1991d. "Remedial Investigation/Feasibility Study Monthly Progress Report." Environmental Restoration, U.S. Department of Energy, Albuquerque Operations Office, Albuquerque, New Mexico. March 1991.

Date: June 7, 1994

From: Mike Isper

cc: S. Tunning
K. Koehler

Subject: PCB Transformers and Soil Verification

To: Bill Lyons

This memo is in response to Kathy Koehler's April 4, 1994 AOS comments to your PCB transformer replacement design criteria review.

Verification sampling of the concrete pads and the surrounding soils is not necessary and is not a requirement of 40 CFR 761. The sampling requirements in 40 CFR 761 Subpart G only address known spills and their associated cleanups occurring after May 4, 1987.

I discussed the idea of verification sampling with several EPA personnel on May 2, 1994- TSCA Hotline representatives; Tom Simons (USEPA, Pesticides and Toxic Substances Branch); Tony Silvasi (USEPA, Region 5, PCB Federal Facilities Coordinator); and Tom Buchan (Ohio EPA, PCB Inspector). All parties agreed that verification sampling was not necessary provided that our monthly inspection records (going back to 1982) show no history of leaks/spills. Several parties did mention that verification sampling to prove that a spill **did not** occur was not the intent of the regulations and is a waste of taxpayer money.

One thing to keep in mind, as Kathy noted, would be to observe the concrete pad under the transformer as it is being replaced. If any stains are present, clean the area by scrubbing with a degreaser/cleaner or even scarification of the surface. The cleanup standards of 40 CFR 761.125(c)(2)(i) (Requirements For Decontaminating Spills In Outdoor Electrical Substations) require the surface to be cleaned to 100 ppm PCB as measured by a standard wipe test.

Mike Isper
Waste Management