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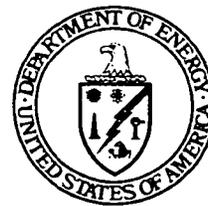
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DOCUMENT



Department of Energy

Ohio Field Office
Miamisburg Environmental Management Project
P.O. Box 66
Miamisburg, Ohio 45343-0066
MAR 12 1997



Mr. William E. Munro
Director, Waste Management Division
U.S. Environmental Protection Agency, Region V
77 W. Jackson St.
Chicago, Illinois 60604-3590

EG&G MOUND-30-06---9707240060

Dear Mr. Munro:

Section 3154 (e)(1) and (e)(2) of the National Defense Authorization Act requires that the Department of Energy receive concurrence from the Administrator of the U.S. Environmental Protection Agency with respect to property on the National Priorities List. This action will determine whether the environmental conditions of the property are such that leasing the property is consistent with the safety and the protection of public health and the environment.

The purpose of this letter is to request your expeditious review and approval to lease Building 89 in support of the economic development initiative of the Miamisburg Mound Community Improvement Corporation (MMCIC). The MMCIC has identified this building as a high priority for commercialization. All pertinent documentation concerning this building was provided to Mr. Timothy Fischer of your staff. The DOE Miamisburg staff, Ohio EPA, Ohio Department of Health, and Mr. Fischer have independently toured this facility and reviewed all environmental issues associated with this facility. Attached is the Mound Plant Recommendation for Building 89 signed by Mr. Fischer, Brian Nickel of Ohio EPA, and Sam Cheng of DOE. (Please note that this was the first building recommendation performed under our newly developed process for building disposition.)

The lease agreement that will be used for this facility will be the same as in past agreements utilized for private companies at the Mound Plant. We believe these lease agreements are consistent with past and existing operations at the site. Once these private companies are on site, they will be developing their operations. All issues with respect to startup, including permits, will be the private companies responsibility. We will, however, communicate with the private companies on issues that could affect Mound, such as meeting the limits set in NPDES permits.

We will continue to keep Mr. Fischer informed concerning the facilities and issues, with emphasis on environmental issues that could affect the occupancy of the facility, prior to requesting the U.S. EPA's approval for leasing facilities at the Mound Plant.

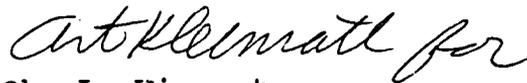
Mr. William E. Muno

-2-

MAR 12 1997

We would appreciate your expeditious review and concurrence with this request. Both the MMCIC and the Department of Energy are committed to making the economic development initiative a success at the Mound Plant and we appreciate your continued support. If you have any questions, please feel free to contact Kevin Donovan of my staff at (937)865-4661. If you wish, you may contact me directly at (937)865-3278.

Sincerely,



Oba L. Vincent
Associate Director
Office of Environmental Management

Enclosure

cc w/enclosure:

T. Fischer, US EPA, Region V
B. Nickel, OEPA
J. Webb, ODH
S. Cheng, DOE-MEMP
D. Porco, DOE-MEMP
O. Vincent, DOE-MEMP
D. Bird, MMCIC
S. Rohrig, EG&G
R. Bauer, EG&G - OSW-4

Mound Plant Recommendation

Bldg. 89

BACKGROUND:

Building 89 is a one-story concrete block structure with a partial basement. The building was constructed in 1985 as a warehouse for explosive material for the United States nuclear stockpile. The building is still used for equipment storage (nonexplosive). Although the building has no process history for radiological materials, equipment from areas with process history for radiological materials was stored in building 89. These materials were properly removed in the safe shutdown process. All radiological survey results are below criteria in the Building Data Package.

RECOMMENDATION:

After thorough review of the environmental data and the Phase I report, the Core Team agrees that all existing environmental issues associated with Building 89 have been resolved. Future use of Building 89 shall be restricted to industrial/commercial 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.

CONCURRENCE:

DOE/MEMP: *Sam Cheng* 2/19/97
Sam Cheng, D&D Team Leader (date)

USEPA: *Timothy J. Fischer* 2/19/97
Timothy J. Fischer, Rem. Proj. Mgr. (date)

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

LEASE OF BUILDING # 89: ENVIRONMENTAL CONCERN EVALUATION

Note:

DESCRIPTION	POTENTIAL PROBLEM?	COMMENT	PROPOSED RESOLUTION	REF
<p>1. Building currently houses equipment being turned over to the Miamisburg Mound Community Improvement Corporation. Contamination was found on some equipment. Equipment was removed.</p> <p>Clarify the removal of the contaminated equipment, especially the Keithly Scanner.</p>	<p>No</p>	<p>See RAD surveys for building 89 & equipment.</p>	<p>Equipment was removed from building as per note from David Porter, EG&G.</p> <p>Mound policy is to remove equipment immediately upon discovery of contamination. All contaminated equipment removed prior to completion of overall safe shutdown rad survey.</p> <p>The 3 equipment items that were found to have contamination, a Keithly Scanner, a sink spigot, and a belt guard, were bagged and tagged and moved to the M-building Radioactive Materials area.</p>	<p>Rad Surveys</p> <p>See cc mail note from Dave Porter, EG&G</p> <p>See cc mail not from Dave Porter, EG&G</p>

LEASE OF BUILDING # 89: ENVIRONMENTAL CONCERN EVALUATION

<p>2. The Phase I Env. Assessment stated that the status & assessment of Potential Release Site 239 should be monitored to ensure that the process is carried to completion.</p>	<p>No</p>	<p>Interview w/ Debra White, MEMP indicated that PRS 239 was binned by the Core Team 11/15/95 as an NFA. It was signed by the Core Team on 3/4/96. Public comment was held for 30 days thereafter and no comments were received.</p>	<p>Review of PRS Package confirmed location of PRS 239.</p>	<p>HOK/K 7.2 page28</p>
<p>3. Clarify nature of the excavation and/or tarp near east entrance of Building 89. HOK/K report had identified as a possible issue that PRS 239 was potentially mislocated on PRS maps.</p>	<p>No</p>	<p>Area east of Bldg 89 was used as a decon pad for summer 1994 CERCLA investigation of sanitary sewer lines which run near building 89. Section 9.96.5 of Mound Environmental Appraisal noted that a drum of "Decon Water" was present at time of the walk through.</p>	<p>Materials associated with the ER investigation cleared on 11/19/96. Decontamination water barrel has been removed.</p>	<p>HOK/K Photo 6 CC Mail from Dennis Gault, EG&G</p>

LEASE OF BUILDING # 89: ENVIRONMENTAL CONCERN EVALUATION

<p>4. Walkthrough by DOE MEMP on 11/12/96 showed evidence of an oil stain in the area where forgehammer was formerly located.</p>	<p>No</p>	<p>Forgehammer has been removed. Although stain can still be seen, area has been cleaned. Phase I report also states "although hydraulic oil is used in the forgehammer..., the unit is marked as a non-PCB-containing system... There were no other indications of PCBs at the subject site."</p>	<p>During the time the forgehammer was in operation (June 1994- Jan 1996), between 3 & 4 quarts of oil were added to keep oil levels within specifications. When oil was first noticed to be leaking, absorbal was sprinkled on the oil. The absorbal was then sent to Waste Management for disposal.</p>	<p>HOK/K 5.6 Page 23, 12/11/96 note from Neoma Dunn (for Dan Gorman)</p>
<p>5. Two occurrences were identified in the Occurrence Reporting System for Building 89.</p>	<p>No</p>	<p>Both occurrences were related to false alarms in the fire detection system.</p>	<p>No environmental concerns were connected with any of the occurrences for building 89.</p>	<p>Occurrence summary report</p>

LEASE OF BUILDING # 89: ENVIRONMENTAL CONCERN EVALUATION

<p>6. Clarify discrepancy between HOK/K Report (section 6.1, page 26) and language in the Environmental Appraisal that indicates a discrepancy in the presence/absence of asbestos.</p>	<p>No</p>	<p>Mound Asbestos Mngt Plan indicates that No materials were positively identified to be asbestos containing in Bldg 89. Floor and Mastic throughout bldg were assumed to be asbestos containing. This material was inspected and is in good condition with little potential for damage.</p>	<p>Complete</p>	<p>HOK/K 6.1 Page26 Env. Appraisal Section 9.96.4.4</p>
<p>7. Rad Survey results</p>	<p>No</p>	<p>Information included in safe shutdown survey to be reviewed by K. Hall, DOE MEMP.</p>	<p>See #10 below.</p>	<p>Rad Surveys</p>
<p>8. Clarify where the floor drains in the HVAC area go (i.e., sanitary sewer, storm sewer, etc.)</p>	<p>No</p>	<p>Core Team requested clarification on discharge points for floor drains</p>	<p>R. Bauer, EG&G, reviewed as-built drawings and visually inspected the floor drain in the mechanical room. He confirmed that the outlet of the drain is in the concrete channel to the south of the the building which is the storm sewer.</p>	<p>Dec 11, 1996 cc' mail message from R. Bauer to K. Donovan</p>

LEASE OF BUILDING # 89: ENVIRONMENTAL CONCERN EVALUATION

<p>9. Document the red stain on the floor in the HVAC area and explain what it is believed to be.</p>	<p>No</p>		<p>From R. Bauer, EG&G: the red stain on the floor in the mechanical area is believed to be iron oxide residue caused from the "blow down or clean out" of the steam line and traps in that area.</p>	<p>Dec 11, 1996 cc' mail message from R. Bauer to K. Donovan</p>
<p>10. Revise the radiological summary sheet to include tritium.</p>	<p>No</p>		<p>See revised sheet titled, "Radiological Characterization Summary for Building 89"</p>	

LEASE OF BUILDING # 89: ENVIRONMENTAL CONCERN EVALUATION

<p>11. Clarify in the process history narrative, that, although the building had no process history for radiological materials, equipment from areas with process history for radiological materials, equipment from areas with process history for radiological materials was stored in Building 89.</p>	<p>No</p>		<p>This is a summarized history of building 89: Building 89 is a one-story concrete block structure with a partial basement. The Building was constructed in 1985 as a warehouse for explosive material for the United States nuclear stockpile. The building is still used for equipment (nonexplosive storage). The building has its own standalone air conditioning system. A forgerhammer was used to crush parts for demilitarization and sanitation from June 1994 to January 1996 in the process area. Although the building has no process history for radiological materials, equipment from areas with process history for radiological materials was stored in building 89. Three items were found to have contamination. These 3 items were properly removed in the safe shutdown process as stated in #1 above.</p>	<p>HOK/K 3.3 page 9</p> <p>Env. Appraisal 9.96.3</p> <p>Dec 11, 1996 cc' mail message from R. Bauer to K. Donovan</p>
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**Radiologic Characterization
Summary
Building 89**

Type	RSDS	Location	Amount (dpm/100 cm ²)	5400.5 Guidelines for Groups 1,3,4 (fixed + loose) (dpm/100 cm ²)	NUREG 1500 Guidelines (loose) (dpm/100 cm ²)	Attachment 1 Limit (fixed + loose) (See Note 2) (dpm/100 cm ²)	Comments
Highest Alpha Smearable Activity	96-89-027SC	Room 101	15.67	20	211	20	No Action Necessary
Highest Alpha Fixed Activity	96-89-030SC	Room 101	3000	100	Note 1	100	Motor belt guard removed, bagged, tagged and moved to RMA in M- Building
Highest Beta Smearable Activity	96-89-009SC	Room 101	22.85	1000	9940	1000	No Action Necessary
Highest Beta Fixed Activity	ALL	ALL	< 5000	5000	Note 1	5000	No Action Necessary
Highest Tritium Smearable Activity	96-89-026SC	Room 101	365.4	1000	Note 1	1000	No Action Necessary

Note 1 NUREG-1500 gives guidelines for loose beta and alpha only.

Note 2 The limits referenced above is based on MD-80043, Radiological Work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste" Attachment 1.

General The detail radiological characterization data is available upon request of the DOE-MEMP.

**Equipment Greater Than Release Limits
Building 89**

Equipment	RSDS	Location	Amount (dpm/100 cm²)	5400.5 Guidelines for Groups 1,3,4 (fixed + loose) (dpm/100 cm²)	¹ NUREG 1500 Guidelines (loose) (dpm/100 cm²)	² Attachment 1 Limit (fixed + loose) (See Note 2) (dpm/100 cm²)	Comments
705 Keithley Scanner	96-89-019-SC	Room 101	1657 fixed alpha	100	211 loose alpha only	100	Bagged, Tagged as Radioactive Material and transferred to M-Bldg. RMA
Chemical Sample Sink Module	96-89-021-SC	Room 101	2300 fixed alpha	100	211 loose alpha only	100	Determined to be radon based on field measurements that verified decay
Motor Belt Guard	96-89-030-SC	Room 101	3000 fixed alpha	100	211 loose alpha only	100	Bagged, Tagged as Radioactive Material and transferred to M-Bldg. RMA

Note 1 NUREG-1500 gives guidelines for loose beta and alpha only.

Note 2 The limits referenced above is based on MD-80036 Radiological Operations Procedure 90014 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste" Attachment 1.

EG&G Reviewed on 02/11/97

Date: 11/18/1996 12:16 pm (Monday)
From: David Porter
To: BRUGTM
CC: sullsa, JOHNRL
Subject: Building 89 Surveys

your request, the following information is available:
On 9/12/96, a Keithly scanner was found to have 1600 dpm fixed alpha contamination; on 9/16/96, a sink spicket was found to have 1200 dpm fixed alpha contamination (later determined to natural radon) and on 9/18/96, a belt guard was found to have 3300 dpm fixed alpha contamination and 21 dpm loose alpha contamination. All the items were bagged and tagged and moved to M-Building Radioactive Material Area. Additional information can be gathered by contacting Dan Gorman.

If you have any additional questions concerning this information or need to review the data, please contact me at x3214.

David Porter

Author: MNDCONT.MNDPO:GAULDJ at MNDGW

Date: 11/19/96 8:51 AM

Priority: Normal

TO: Kevin Donovan at MOUND

CC: MNDCONT.MNDPO:BRAYAG at MNDGW

CC: MNDCONT.MNDPO:RAKEDA at MNDGW

Subject: Status of Area East of Bldg. 89 (Identified by photo 11/18/9

----- Message Contents -----

Date: 11/19/1996 08:51 am (Tuesday)

From: Dennis Gault

To: DOE_OH.MOUND.Donovan Kevin

CC: BRAYAG, RAKEDA

Subject: Status of Area East of Bldg. 89 (Identified by photo
11/18/96)

Ken:

The area you inquired about east of Building 89 was used as a decon pad for a CERCLA investigation in the summer of 1994. Operable Unit 2 had contracted ICF Kaiser to investigate the integrity of the Main Hill sanitary sewer lines in an effort to identify the possible sources of water for the Main Hill seeps. This was accomplished by video taping the sewer lines. The decon pad as well as one drum of decon water was left in place after the investigation was completed. At a later date the drum of decon water disposed of per ER SOP 1.15 once analytical results supported disposal. The plastic was not removed at that time because material had been stacked upon it. Once this material was removed the decon pad was dismantled and removed from the area per ER SOP 1.15. As of 11/19/96 the area has been cleared of materials associated with ER investigation materials.

If I can answer any more questions about this area please feel free to call me at Ext. 3913.

Dennis Gault, ER Environmental Engineer

Author: MNDCONT.MNDPO:DUNNNE at MNDGW
Date: 12/11/96 10:45 AM
Priority: Normal
CC: Kevin Donovan at MOUND
TO: MNDCONT.MNDPO:BAUERL at MNDGW
CC: MNDCONT.MNDPO:GORMDJ at MNDGW
Subject: OIL STAINS

----- Message Contents -----

Date: 12/11/1996 10:45 am (Wednesday)
From: Neoma Dunn
To: BAUERL
CC: DOE_OH.MOUND.Donovan Kevin
Subject: OIL STAINS

This memo concerns the oil stain in building 89 room 103. This stain was caused by leaking oil (Mobil DJE Oil BB) from a 10 ton Forge Hammer. This forge hammer was used for a demilitarization and sanitization operation. The forge hammer was in operation from June 1994 to January 1996. During that time period between three and four quarts of oil were added to this machine to keep the oil levels within specification.

When we first noticed the oil leaking absorbal was sprinkled on the oil which laid on the west side of the machine. The absorbal was periodically cleaned up and placed in plastic bags and sent to Waste Management for disposal. I have a copy of the MSDS sheets for the oil which I will deliver to you.

If you need any additional information, please call me on Ext. 3239.

Neoma Dunn
for Dan Gorman

Author: MNDCONT.MNDPO:BAUERL at MNDGW
Date: 12/11/96 12:23 PM
Priority: Normal
TO: Kevin Donovan at MOUND
CC: MNDCONT.MNDPO:GORMDJ at MNDGW
CC: MNDCONT.MNDPO:ROHRSD at MNDGW
Subject: Building 89 Open Items

----- Message Contents -----

Date: 12/11/1996 12:23 pm (Wednesday)
From: Richard Bauer
To: DOE_OH.MOUND.Donovan.Kevin
CC: ROHRSD, GORMDJ
Subject: Building 89 Open Items

Below is the responses to open items from the Mound Building
Disposition Process Meeting on Building 89:

89-3: Attached is a memo from Dan Gorman on the volume of oil used in
the forge hammer operation.

89-4: Attached Separately are the As-built drawings from the Building
89 construction. The floor drain in the mechanical room is tied into the
storm sewer. I visually inspected the area and confirmed the outlet of
the drain was in the concrete channel which id the storm sewer.

89-5: The process history could be extracted from the HOK/K report
page 19, section 4.4 and the paragraph that precedes it.

89-6: The red stain in the mechanical room is believed to be iron oxide
residue caused from the "blow down or clean out" of the steam line and
traps in that area.

Another clarification, Building 89 is not air conditioned by the central
chiller system at the Powerhouse. The building has it's own standalone
air conditioning system.

If you need further explanations or details please let me know. Thanks.

MATERIAL SAFETY DATA BULLETIN

1. PRODUCT AND COMPANY IDENTIFICATION

APPROVAL DATE: 01/01/95

PRODUCT NAME: MOBIL DTE OIL BB
SUPPLIER: MOBIL OIL CORP.
PRODUCTS AND TECHNOLOGY DEPT.
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - HOUR EMERGENCY (CALL COLLECT): 609-737-4411
PRODUCT AND MSDS INFORMATION: 800-662-4525 703-849-3265
CHEMTREC: 800-424-9300 202-483-7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

THIS PRODUCT IS NOT FORMULATED TO CONTAIN INGREDIENTS WHICH HAVE EXPOSURE LIMITS ESTABLISHED BY REGULATORY AGENCIES. IT IS NOT HAZARDOUS TO HEALTH AS DEFINED BY THE EUROPEAN UNION DANGEROUS SUBSTANCES/PREPARATIONS DIRECTIVES. SEE SECTION 15 FOR A REGULATORY ANALYSIS OF THE INGREDIENTS.

SEE SECTION 15 FOR EUROPEAN LABEL INFORMATION.

SEE SECTION 8 FOR EXPOSURE LIMITS (IF APPLICABLE).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.
EFFECTS OF OVEREXPOSURE: NO SIGNIFICANT EFFECTS EXPECTED.
EMERGENCY RESPONSE DATA: DARK AMBER LIQUID. NOTE: PRESSURIZED MISTS MAY FORM A FLAMMABLE MIXTURE. DOT ERG NO. - NA

MOBIL DTE OIL BB

600221-00 PAGE 2 OF 7

4. FIRST AID MEASURES

EYE CONTACT: FLUSH THOROUGHLY WITH WATER. IF IRRITATION OCCURS, CALL A PHYSICIAN.

SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER. HIGH PRESSURE ACCIDENTAL INJECTION THROUGH THE SKIN REQUIRES IMMEDIATE MEDICAL ATTENTION FOR POSSIBLE INCISION, IRRIGATION AND/OR DEBRIDEMENT.

INHALATION: NOT EXPECTED TO BE A PROBLEM.

INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER(PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG. SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS, SEWERS, OR DRINKING WATER SUPPLY.

SPECIAL PROTECTIVE EQUIPMENT: FOR FIRES IN ENCLOSED AREAS, FIRE FIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NOTE: PRESSURIZED MISTS MAY FORM A FLAMMABLE MIXTURE. FLASH POINT C(F): > 226(439) (ASTM D-92). FLAMMABLE LIMITS - LEL: NA, UEL: NA.

NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE. METAL OXIDES. ELEMENTAL OXIDES.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER (800) 424-8802. IN CASE OF ACCIDENT OR ROAD SPILL NOTIFY CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: ADSORB ON FIRE RETARDANT TREATED SAWDUST, DIATOMACEOUS EARTH, ETC. SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

ENVIRONMENTAL PRECAUTIONS: PREVENT SPILLS FROM ENTERING STORM SEWERS OR DRAINS AND CONTACT WITH SOIL.

PERSONAL PRECAUTIONS: SEE SECTION 8

MOBIL DTE OIL BB

600221-00 PAGE 3 OF 7

7. HANDLING AND STORAGE

HANDLING: HIGH PRESSURE INJECTION UNDER THE SKIN MAY OCCUR DUE TO THE RUPTURE OF PRESSURIZED LINES. ALWAYS SEEK MEDICAL ATTENTION.
STORAGE: DO NOT STORE IN OPEN OR UNLABELLED CONTAINERS. STORE AWAY FROM STRONG OXIDIZING AGENTS OR COMBUSTIBLE MATERIAL.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.
RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.
EYE PROTECTION: NORMAL INDUSTRIAL EYE PROTECTION PRACTICES SHOULD BE EMPLOYED.
SKIN PROTECTION: NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.
EXPOSURE LIMITS: THIS PRODUCT DOES NOT CONTAIN ANY COMPONENTS WHICH HAVE RECOGNIZED EXPOSURE LIMITS. HOWEVER, A THRESHOLD LIMIT VALUE OF 5.00 MG/M3 IS SUGGESTED FOR OIL MIST.

9. PHYSICAL AND CHEMICAL PROPERTIES

TYPICAL PHYSICAL PROPERTIES ARE GIVEN BELOW. CONSULT PRODUCT DATA SHEET FOR SPECIFIC DETAILS.

APPEARANCE: LIQUID
COLOR: DARK AMBER
ODOR: MILD
ODOR THRESHOLD: NA
PH: NA
BOILING POINT C(F): > 316(600)
MELTING POINT C(F): NA
FLASH POINT C(F): > 226(439) (ASTM D-92)
FLAMMABILITY: NA
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-MMHG 20 C: < 0.1
VAPOR DENSITY: > 2.0
EVAPORATION RATE: NA
RELATIVE DENSITY, 15/4 C: 0.893
SOLUBILITY IN WATER: NEGLIGIBLE
PARTITION COEFFICIENT: > 3.5
VISCOSITY AT 40 C, CST: > 204.6
VISCOSITY AT 100 C, CST: 19.3
POUR POINT C(F): < -3(27)
FREEZING POINT C(F): NE
VOLATILE ORGANIC COMPOUND: EXEMPT IN U.S.
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

MOBIL DTE OIL BB

600221-00 PAGE 4 OF 7

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): STABLE.
CONDITIONS TO AVOID: EXTREME HEAT.
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE. METAL OXIDES.
ELEMENTAL OXIDES.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): PRACTICALLY NON-TOXIC (LD50: GREATER THAN 2000 MG/KG). ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

DERMAL TOXICITY (RABBITS): PRACTICALLY NON-TOXIC (LD50: GREATER THAN 2000 MG/KG). ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): PRACTICALLY NON-IRRITATING. (DRAIZE SCORE: GREATER THAN 6 BUT 15 OR LESS). ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

SKIN IRRITATION (RABBITS): PRACTICALLY NON-IRRITATING. (PRIMARY IRRITATION INDEX: GREATER THAN 0.5 BUT LESS THAN 3). ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

OTHER ACUTE TOXICITY DATA: THE ACUTE TOXICOLOGICAL RESULTS SUMMARIZED ABOVE ARE BASED ON TESTING OF REPRESENTATIVE MOBIL PRODUCTS.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

REPRESENTATIVE MOBIL FORMULATIONS HAVE BEEN TESTED AT THE MOBIL ENVIRONMENTAL AND HEALTH SCIENCES LABORATORY BY DERMAL APPLICATIONS TO RATS 5 DAYS/WEEK FOR 90 DAYS AT DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS, INCLUDING MICROSCOPIC EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY FLUIDS, SHOWED NO ADVERSE EFFECTS.

---REPRODUCTIVE TOXICOLOGY (SUMMARY)---

DERMAL EXPOSURE OF PREGNANT RATS TO REPRESENTATIVE FORMULATIONS DID NOT CAUSE ADVERSE EFFECTS IN EITHER THE MOTHERS OR THEIR OFFSPRING.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR SEVERELY HYDROTREATED. CHRONIC MOUSE SKIN PAINTING STUDIES OF SEVERELY TREATED OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS. THESE RESULTS ARE CONFIRMED ON A CONTINUING BASIS USING THE MOBIL MODIFIED AMES TEST.

(SECTION CONTINUED NEXT PAGE)

MOBIL DTE OIL BB

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---SENSITIZATION (SUMMARY)---
REPRESENTATIVE MOBIL FORMULATIONS HAVE NOT CAUSED SKIN SENSITIZATION
IN GUINEA PIGS.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: NOT ESTABLISHED.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: PRODUCT IS SUITABLE FOR BURNING IN AN ENCLOSED, CONTROLLED BURNER FOR FUEL VALUE OR DISPOSAL BY SUPERVISED INCINERATION. SUCH BURNING MAY BE LIMITED PURSUANT TO THE RESOURCE CONSERVATION AND RECOVERY ACT. IN ADDITION, THE PRODUCT IS SUITABLE FOR PROCESSING BY AN APPROVED RECYCLING FACILITY OR CAN BE DISPOSED OF AT ANY GOVERNMENT APPROVED WASTE DISPOSAL FACILITY. USE OF THESE METHODS IS SUBJECT TO USER COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS AND CONSIDERATION OF PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D), NOR IS IT FORMULATED TO CONTAIN MATERIALS WHICH ARE LISTED HAZARDOUS WASTES. IT DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY AND IS NOT FORMULATED WITH CONTAMINANTS AS DETERMINED BY THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP). HOWEVER, USED PRODUCT MAY BE REGULATED.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

RID/ADR: NOT REGULATED BY RID/ADR.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS COMPLY WITH TSCA AND DSL.

EU LABELING: EU LABELING NOT REQUIRED.

(SECTION CONTINUED NEXT PAGE)

MOBIL DTE OIL BB

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U. S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:
THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: NONE.

THIS PRODUCT CONTAINS NO CHEMICALS REPORTABLE UNDER
SARA (313) TOXIC RELEASE PROGRAM.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:
CHEMICAL NAME CAS NUMBER LIST CITATIONS

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZINC (ELEMENTAL ANALYSIS) (0.08%)	7440-66-6	22
PHOSPHORODITHOIC ACID, O,O-DI	68649-42-3	22
C1-14-ALKYL ESTERS, ZINC SALTS (2: 1) (ZDDP) (0.48%)		

--- REGULATORY LISTS SEARCHED ---

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5A2	18 = CA RTK	23 = MN RTK
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5E	19 = FL RTK	24 = NJ RTK
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12B	21 = LA RTK	26 = RI RTK

CODE KEY: CARC = CARCINOGEN; SUS = SUSPECTED CARCINOGEN

MOBIL DTE OIL BB

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16. OTHER INFORMATION

USE: HYDRAULIC OIL

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

SEE CONTAINER LABEL FOR INGREDIENT INFORMATION.

FOR MOBIL USE ONLY: MHC: 1* 1* NA 1* 1*, MPPEC: A, REQ: US -
MARKETING, SAFE USE: L

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ

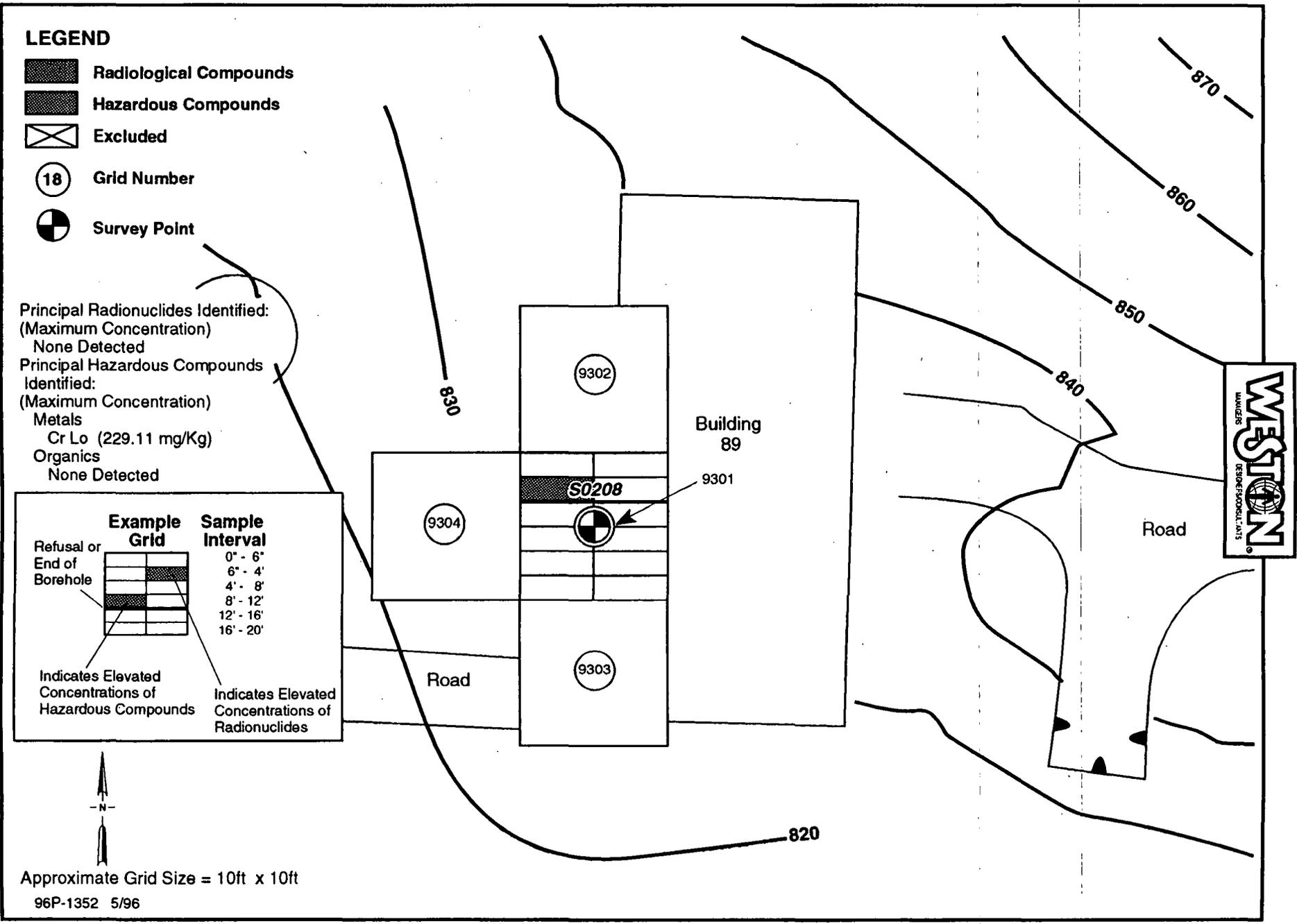


FIGURE 5.22 HOT SPOT S0208

DATE	FILE	ID	TIME	CrH	K	Ca	Ti	CrLO	Mn	Fe	Co	Ni	Cu
17-Aug-95		9003-5008		-742.756	19237	150724	2024.02	-14.5021	959.867	23930.7	339.226	-39.3801	73.7118
17-Aug-95		9003-5011		-911.225	16297	158010	1876.61	-17.0087	964.662	24371.2	7.48995	-30.2258	54.6218
17-Aug-95		9003-6011		-933.355	14470.3	219653	1699.93	-141.852	1447.63	21246.1	234.399	-22.2286	91.452
29-Aug-95	A082995A	9004-5001	20.154	-601	19061	21117	2771.4	59.758	664.78	25368	-37.035	76.328	-0.68998
21-Aug-95	A082195A	9005-5001	9.414	-430.6	17119	8675.9	3055.7	5.4447	821.27	24634	163.17	-57.885	-27.31
21-Aug-95	A082195A	9005-5004	9.623	-557.1	18912	89420	2391.7	83.284	525.3	24096	377.19	-11.473	-13.266
21-Aug-95	A082195A	9005-5008	10.517	-547.21	22823	126513	2178.6	127	502.62	24767	410.16	-11.787	-27.863
21-Aug-95	A082195A	9005-5011	10.766	-425.93	26880	84474	2438	102.22	533.93	27955	292.25	-28.232	-59.111
26-Jul-95	A072695A	9101-5001	10.859	-764.75	25605	60126	2334.5	-8.1345	562.89	24719	119.87	-64.375	60.505
26-Jul-95	A072695A	9101-5004	11.111	-683.02	20580	80380	2173.3	-47.572	423.56	22920	133.8	-41.927	60.949
26-Jul-95	A072695A	9101-5008	11.351	-763.57	34480	63852	3114.4	-107.03	481.06	29852	142.92	-48.088	45.66
26-Jul-95	A072695A	9101-5012	11.658	-570.64	35418	56964	3073.6	-88.939	623.33	31366	179.8	-1.3186	63.226
26-Jul-95	A072695A	9101-5014	14.239	-420.53	36537	69692	3306.9	-154.09	758.37	31122	229.75	-141.43	37.114
26-Jul-95	A072695A	9103-5001	13.33	-648.74	-29475	56477	-2493.1	65.998	417.99	-27633	124.22	-24.759	-17.017
26-Jul-95	A072695A	9103-5004	14.634	-507.67	19508	89341	1996.3	-6.5417	445.63	20354	-127.04	-17.1	12.413
26-Jul-95	A072695A	9103-5008	14.853	-853.19	30536	71916	2864.1	-85.005	708.91	27232	55.033	-61.324	51.292
26-Jul-95	A072695A	9103-5012	15.067	-691.91	34404	55833	3026.6	-72.343	917.46	28139	3.9561	-66.457	18.807
26-Jul-95	A072695A	9103-6001	13.548	-502.78	32261	62316	2796.6	-30.432	365.01	28751	-115.4	-12.61	29.792
30-Aug-95	A083095A	9104-5001	14.057	-686.42	24131	56820	2200.9	50.32	375.08	24054	-40.507	-25.157	-10.908
30-Aug-95	A083095A	9104-5004	14.261	-724.19	15083	85993	1476.3	58.606	-333.43	18673	-18.717	19.603	-5.9593
30-Aug-95	A083095B	9104-5008	15.882	-543.46	23532	66638	2296.8	24.672	308.13	22162	156.27	36.711	23.093
30-Aug-95	A083095B	9104-5012	16.094	-847.52	32863	68029	2437.7	11.069	440.48	27959	178.18	16.035	-1.7018
29-Aug-95	A082995A	9105-5001	14.98	-504.37	24466	70020	2369.5	229.98	587.32	24549	152.34	-150.63	-45.795
29-Aug-95	A082995A	9105-5004	15.191	-343.61	17243	83455	1797.6	120.2	185.76	19034	128.84	-117.64	-17.582
29-Aug-95	A082995A	9105-5008	15.397	-212.3	29921	80325	2712.9	87.434	572.46	26760	405.42	-106.34	-20.93
29-Aug-95	A082995A	9105-5012	15.602	-21.008	33589	54713	2870.1	130.43	524.71	30595	109.25	-38.335	-30.714
29-Sep-95	A092995A	9106-5001	15.479	-835.32	28502	66045	2452.1	48.748	1190.3	26309	103.76	-148.33	-122.57
29-Sep-95	A092995A	9106-5004	15.901	-467.93	29548	81521	2706.7	-38.643	484.05	27740	354.12	-181.26	-63.881
29-Sep-95	A092995A	9106-5008	16.113	-676.73	22712	89938	2124.8	-58.965	493.68	19873	93.837	-141.2	-58.565
29-Sep-95	A092995A	9106-6001	15.693	-946.61	30441	74250	2647.6	-8.5676	533.57	27328	-112.51	-147.9	-108.78
29-Sep-95	A092995A	9107-5001	16.333	-973.81	31104	100209	2661.2	-52.036	715.33	26888	-126.85	-103.43	-112.83
29-Sep-95	A092995A	9107-5004	16.989	-454.94	25299	139530	2461.6	-105.65	461.2	24522	449.95	-182.38	-59.172
29-Sep-95	A092995A	9107-5008	17.206	-692.64	23095	105790	2424.3	-51.048	77.638	21597	-40.822	-150.74	-69.004
29-Sep-95	A092995A	9108-5001	17.47	-792.29	35940	65825	3146	10.504	660.71	30868	27.138	-146.66	-63.821
29-Sep-95	A092995A	9108-5004	17.779	-1032.9	23123	95304	1943.1	-101.27	793.92	21848	-253.33	-183.67	-54.728
29-Sep-95	A092995A	9108-5008	17.981	-787.45	18035	93858	2120.5	47.915	275.79	18853	38.704	-118.47	-51.493
27-Jul-95	A072795A	9201-5001	15.636	-900.33	6340.6	140293	1118.9	63.381	183.29	9198.8	-17.086	-85.963	-21.687
27-Jul-95	A072795A	9201-5004	15.862	-590.81	26918	86116	2593.2	-68.081	918.07	27360	37.814	-16.107	35.649
27-Jul-95	A072795A	9201-5016	16.113	-707.45	30834	92408	3001.2	-44.948	685.53	29243	187.75	-44.867	9.0759
26-Jul-95	A072695A	9202-5008	15.296	-681.21	32055	85081	3279.7	-161.36	932.53	34705	166.24	-21.2	69.454
26-Jul-95	A072695A	9202-5012	15.508	-371.11	28254	102377	3072.6	-131.46	639.87	28954	315.63	-51.943	74.819
26-Jul-95	A072695A	9203-5004	15.759	-764.75	17262	140481	1675.5	-164.38	363.42	17889	-106.05	12.008	24.159
26-Jul-95	A072695A	9203-5008	16.069	-498.24	27746	119687	2739.5	-141.26	779.01	28160	153.81	-55.053	39.541
26-Jul-95	A072695A	9203-5012	16.306	-714.59	33006	85217	3133.5	-174.2	717.63	30818	70.049	53.852	51.172
26-Jul-95	A072695A	9203-5016	16.528	-725.57	28414	127517	2785.5	-110.46	947.1	28311	83.414	-33.105	42.008
27-Jul-95	A072795A	9203-5020	10.325	-507.6	16097	166083	1635.6	-62.093	632.69	20500	113.92	91.248	44.917
26-Jul-95	A072695A	9203-6016	16.811	-531.11	27811	130616	2754.9	-154.8	519.55	27042	24.427	-60.453	20.241
27-Jul-95	A072795A	9204-5004	10.657	-540.35	26127	90153	2522.7	-27.141	430.26	26029	169.86	-17.923	22.776
27-Jul-95	A072795A	9204-5008	10.975	-976.06	34567	69561	3399	-156.86	1279.7	34863	240.73	-9.5634	58.479
27-Jul-95	A072795A	9204-5012	12.588	-903.96	21213	139584	2093.9	-144.82	811.85	22885	-68.209	-15.213	31.32
27-Jul-95	A072795A	9204-5016	12.81	-342.97	26006	106973	2467.3	-151.37	834.44	26877	-53.542	-9.7097	-1.4589
27-Jul-95	A072795A	9205-5004	15.414	-363.11	31333	70178	2870.7	-13.124	1018.3	28024	233.67	-77.074	80.177
29-Aug-95	A082995A	9301-5002	16.569	-403.95	12904	137515	1401.8	229.11	361.92	13060	221.94	-22.285	-37.587
29-Aug-95	A082995A	9302-5002	19.302	-556.6	25815	94973	2639.7	95.086	190.45	23034	125.21	23.186	27.172
29-Aug-95	A082995A	9302-6002	19.512	-662.49	28116	95910	2823.3	-30.057	266.31	24798	258.64	-16.496	-15.027
29-Aug-95	A082995A	9303-5002	19.729	-550.32	22922	94462	2286.3	-28.928	349.35	20102	137.45	89.653	-34.611
29-Aug-95	A082995A	9304-5002	19.943	-564.75	14801	111444	1180.1	-31.129	-172.26	12739	-44.954	-19.411	-2.8268
10-Sep-95	A091095A	9401-5001	16.016	-511.68	7424.5	137331	959.66	-13.654	49.744	8540.5	-57.417	-70.013	43.873
10-Sep-95	A091095A	9401-5002	16.629	-455.42	6712.7	161426	722.22	-110.38	320.56	10135	-279.3	-36.6	15.49
30-Aug-95	A083095B	9403-5001	18.94	-774.05	5866.6	207202	219.74	27.969	-359.23	8626.9	-44.51	6.5251	-41.88
30-Aug-95	A083095B	9403-5004	19.163	-763.4	5488.9	210832	178.55	-2.5127	47.852	5307.8	-43.963	25.474	-17.299
30-Aug-95	A083095B	9403-5008	19.383	-901.62	28008	112843	2761.6	-114.92	293.39	25360	53.949	59.269	-46.786
30-Aug-95	A083095B	9403-5009	19.595	-1234.8	24621	116745	2299.8	41.919	47.573	20421	111.37	-9.9055	-35.78
28-Aug-95	A082895B	9404-5001	19.369	-280.84	10162	98406	1505.8	152.94	120.72	11414	28.758	-21.24	18.935
28-Aug-95	A082895B	9404-5004	19.58	-313.92	10876	122087	966.29	253.66	422.08	10618	168.34	-73.815	-46.2
29-Aug-95	A082995A	9404-5008	14.339	-113.52	14021	145756	1533.1	102.19	733.64	18656	140.56	-66.132	-48.779
29-Aug-95	A082995A	9404-5009	14.764	-186.58	10581	152333	1103.4	125.08	521.59	13901	9.7185	-38.219	-33.534
29-Aug-95	A082995A	9404-6008	14.552	-64.69	14169	147113	1446.7	119.87	280.49	15963	224.41	-17.07	-26.325
30-Aug-95	A083095B	9405-5001	19.809	-586.08	14605	41348	1803.8	59.527	290.3	18567	168.75	20.358	-57.15
30-Aug-95	A083095B	9405-5004	20.225	-858.41	16921	62434	1929.6	71.128	369.16	19807	-10.386	13.593	-73.91
30-Aug-95	A083095B	9405-5008	20.433	-909.49	14834	175573	1567.2	-99.442	532.7	17115	-174.1	62.056	-0.525
31-Aug-95	A083195A	9405-5009	13.841	-762.06	13311	98544	1549.7	14.437	491.1	19306	109.84	118.36	-14.353
30-Aug-95	A083095B	9405-6001	20.014	-580.99	16406	47344	2007.8	74.707	505.48	18817	-24.579	69.903	8.5225
14-Sep-95	A091495A	9901-5001	16.935	-679.89	5274.5	213708	441.37	-222.63	263.63	8054.7	-125.3	-173.93	-43.007
14-Sep-95	A091495A	9901-5004	17.171	-664.88	14783	165994	1183.1	-53.425	461.37	14684	74.01	-175.21	-99.913
14-Sep-95	A091495A	9901-5007	17.386	-1288.7	14118	182873	1157.1	-104.77	470.25	13764	22.929	-246.35	-95.1
23-May-95	A052395A	9902-5001	11.594	220.43	4762.2	193988	344.06	-152.22	92.83				



EG&G MOUND APPLIED TECHNOLOGIES

P.O. BOX 3000 MIAMISBURG, OHIO 45343-3000 • TEL (513) 865-4020

October 1, 1996

Mr. Steven P. Holliday
Safety, Operations & Technical Support
U.S. Department of Energy
Miamisburg Area Office
P.O. Box 66
Miamisburg, Ohio 54343-0066

Dear Mr. Holliday,

Building 89 EM Transition Walkthrough
EG&G Mound, Miamisburg, Ohio

This letter is to inform you that Building 89 is available for final EM Building Transition walkthrough at your earliest convenience. This building was identified to EG&G MAT as an economic development facility. The building is in "ready standby" mode and is awaiting disposition to MMCIC. Documentation regarding Safe Shutdown efforts for this facility are available upon request for your review. Please contact me at extension 3239 so that we may set up a time for the final walkthrough.

I have attached final documentation including the acceptance form, transition checklist, and, exception reports. Upon completion of signatures, I would appreciate if the attached document would be returned to C. Keith Ohler, A-206, for inclusion into our permanent files.

Sincerely,

Daniel J. Gorman

Transition Safe Shutdown Unit Manager

DJG:nd

cc: D. V. Eckman, DOE/MB R. L. Higgins, MD
C. K. Ohler, MD file

**EM BUILDING TRANSITION ACCEPTANCE FORM
FOR
THE BUILDING KNOWN AS:**

BUILDING 89

**LOCATED AT THE
MOUND PLANT
MIAMISBURG, OH**

The following EM Acceptance signature page shall serve as the official transfer release of the Subject structure from DP to EM type activities:

PHASE I CRITERIA COMPLETE

Daniel J. Gorman
EG&G Representative

Sept. 30, 1996
Date

DOE/DAO Representative

Date

DOE/EM Representative

Date

PHASE II CRITERIA COMPLETE

Daniel J. Gorman
EG&G Representative

Sept. 30, 1996
Date

DOE/DAO Representative

Date

DOE/EM Representative

Date

PHASE III CRITERIA COMPLETE

EG&G Representative

Date

DOE/DAO Representative

Date

DOE/EM Representative

Date

After completion of this signature page, the Subject building is ready for assignment either to:

EM-60 Caretaker Activities or Economic Development Activities

**EM BUILDING TRANSITION CHECKLIST
FOR
THE BUILDING KNOWN AS:**

BUILDING 89

**LOCATED AT THE MOUND PLANT
MIAMISBURG, OH.**

COMPLETED ACTION ITEM	BY	DATE	COMMENTS
PHASE I ACTIVITIES			
DP Activities Ceased	DJ/A	1-11-96	
Building Vacated - Access controlled by Building Manager	DJ/A	2-1-96	
Work for Others Approved by EM	DJ/A	2-8-96	
Remaining Occupants Performing Safe Shutdown Activities Only	DJ/A	2-8-96	
PHASE I ACTIVITIES COMPLETE	DJ/A	2-8-96	READY FOR SIGNOFF
SIGNATURE PAGE COMPLETE	DJ/A	9-30-96	- MILESTONE -
PHASE II ACTIVITIES			
Review/Inventory Complete of Radioactive Materials	DJ/A	2-22-96	N/A
Review/Inventory Complete of Explosive Materials	DJ/A	2-22-96	
Review/Inventory Complete of Production Chemicals	DJ/A	2-22-96	
Review/Inventory Complete of Existing Waste Materials	DJ/A	2-22-96	
Radioactive Material Inventory Removed from Building	DJ/A	3-1-96	N/A
Explosive Material Inventory Removed from Building	DJ/A	4-2-96	
Chemical Inventory Removed from Building	DJ/A	4-2-96	
Wastes Have Been Properly Removed from Building	DJ/A	8-22-96	
Non-Structural Equipment Has Been Relocated	DJ/A	9-27-96	

Structure/Remaining Equipment Has Been Surveyed For Residual Contamination	DJ/20	9-23-96	
Structure/Remaining Equipment Has Been Inspected and Reviewed By Safety	DJ/2	9-30-96	
Remaining Liabilities Have Been Documented	DJ/2	9-30-96	
All Programatic Waste Generation Has Ceased Within, and To This Building	DJ/2	9-30-96	
PHASE II ACTIVITIES COMPLETE	DJ/2	9-30-96	
SIGNATURE PAGE COMPLETE	DJ/2	9-30-96	
PHASE III ACTIVITIES			
Remaining Non-Essential Equipment Has Been De-energized			
Utility LOTO/Blanking Activities Completed			
Specific Building/Equipment Surveillance/Maintenance Requirements Have Been Determined			
Surveillance/Maintenance Activities Have Commenced			
All Historical Records and Files Have Been Inventoried			
Records/Files Have Been Relocated/Stored/Destroyed			
Final Building Document Package Completed			
PHASE III ACTIVITIES COMPLETE			
SIGNATURE PAGE COMPLETE			

**PHASE I EXCEPTIONS
FOR THE BUILDING KNOWN AS**

BUILDING 89

**LOCATED AT THE
MOUND PLANT
MIAMISBURG, OH.**

No Phase I exceptions.

**PHASE II EXCEPTIONS
FOR THE BUILDING KNOWN AS**

BUILDING 89

**LOCATED AT THE
MOUND PLANT
MIAMISBURG, OH.**

Remaining property requested for economic development and is to be transferred to MMCIC.

**PHASE III EXCEPTIONS
FOR THE BUILDING KNOWN AS**

BUILDING 89

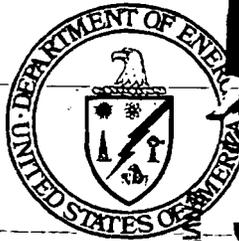
**LOCATED AT THE
MOUND PLANT
MIAMISBURG, OH.**

No Phase III exceptions.

MOUND



**Environmental
Restoration
Program**



OhioEPA

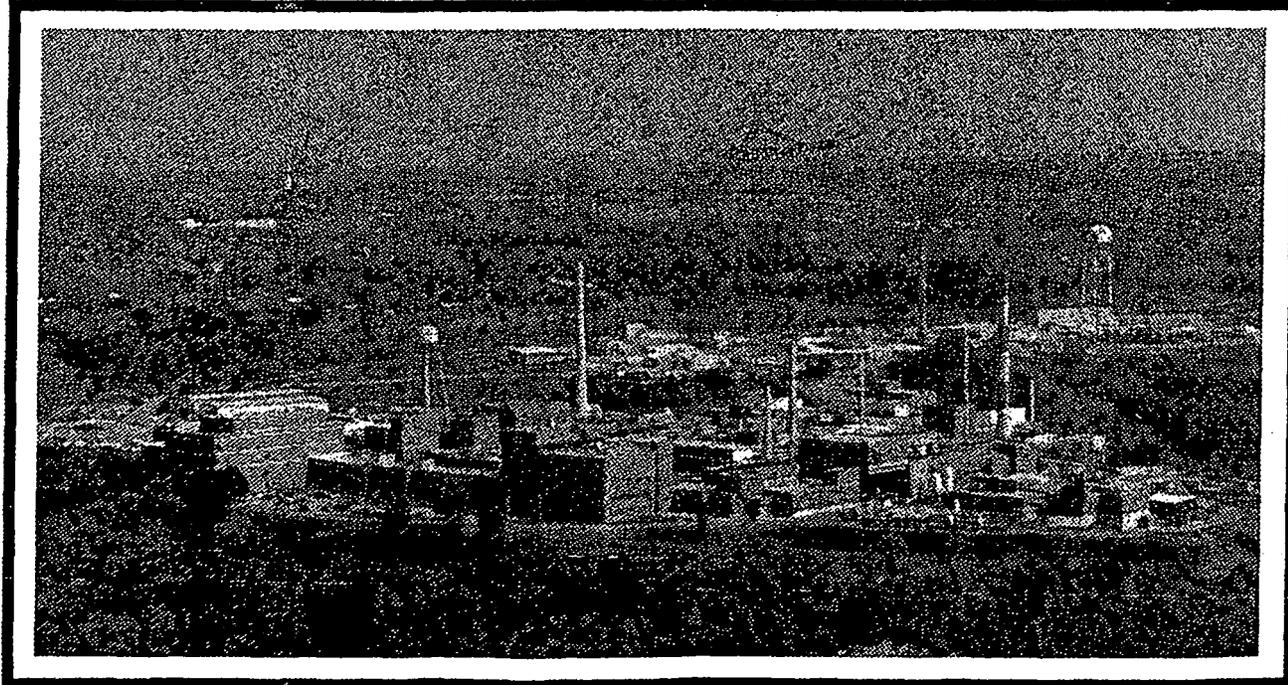


MOUND PLANT

Building 89 Status Report

Detonator Storage Building

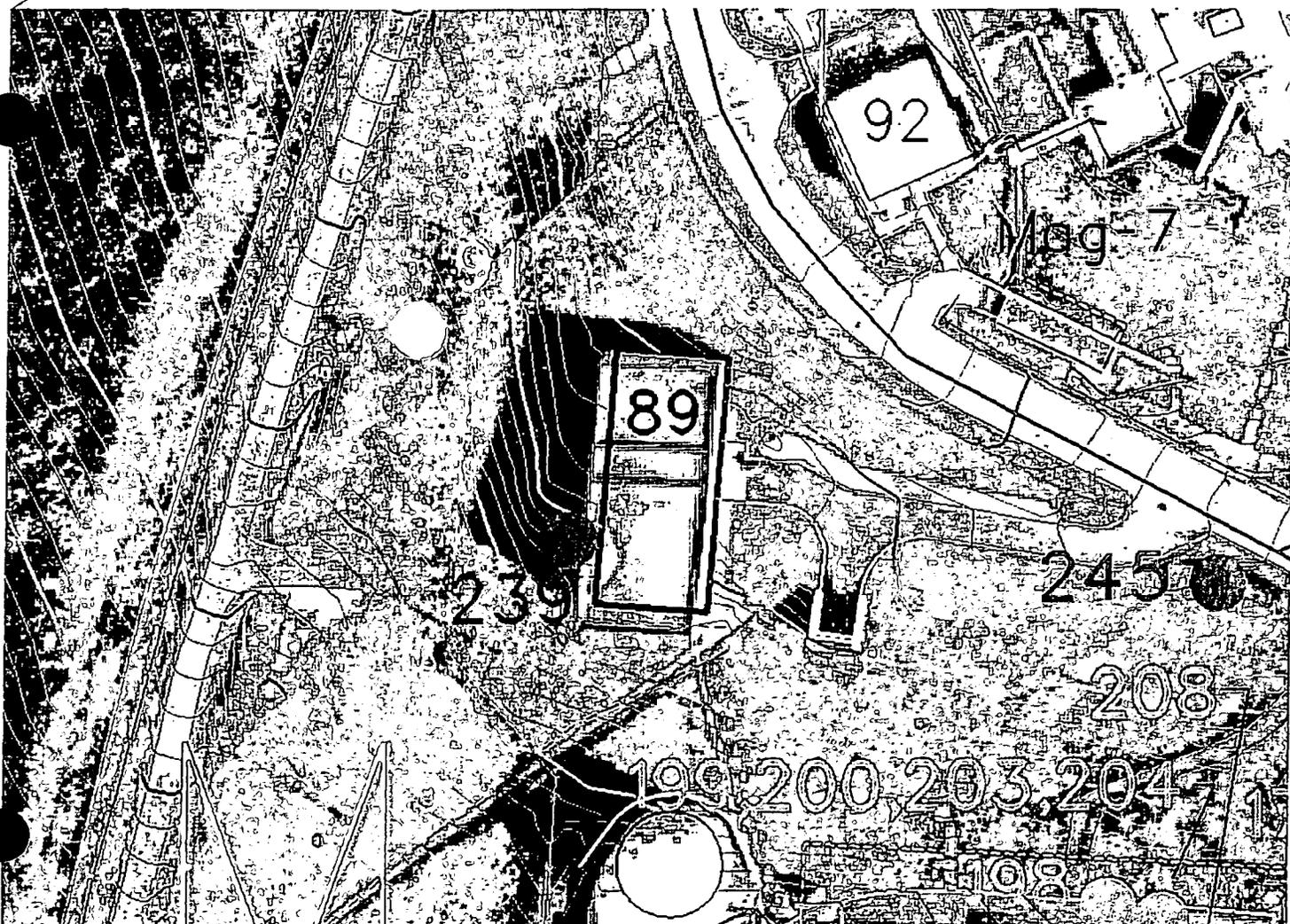
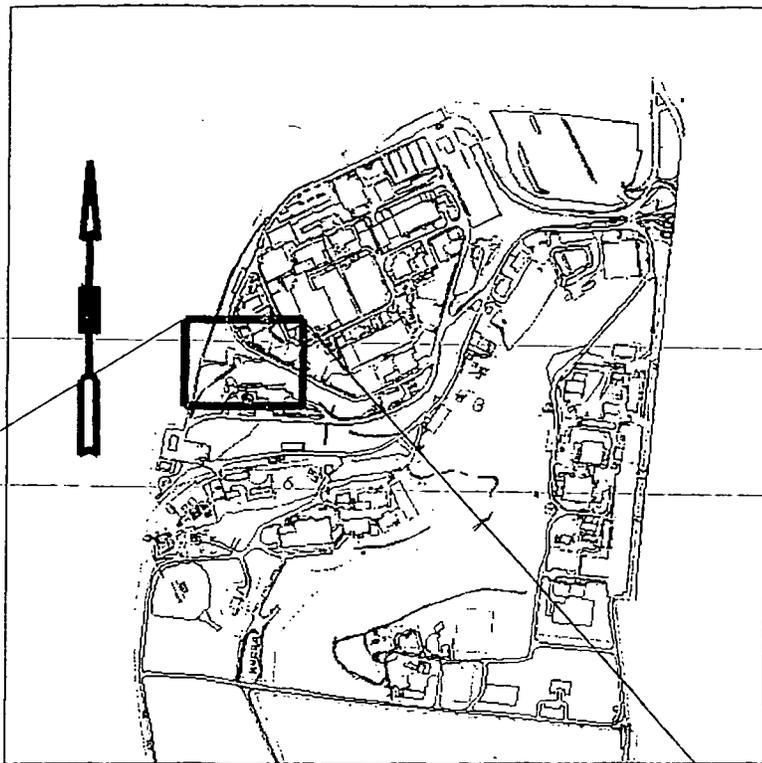
Located Within Release Block M

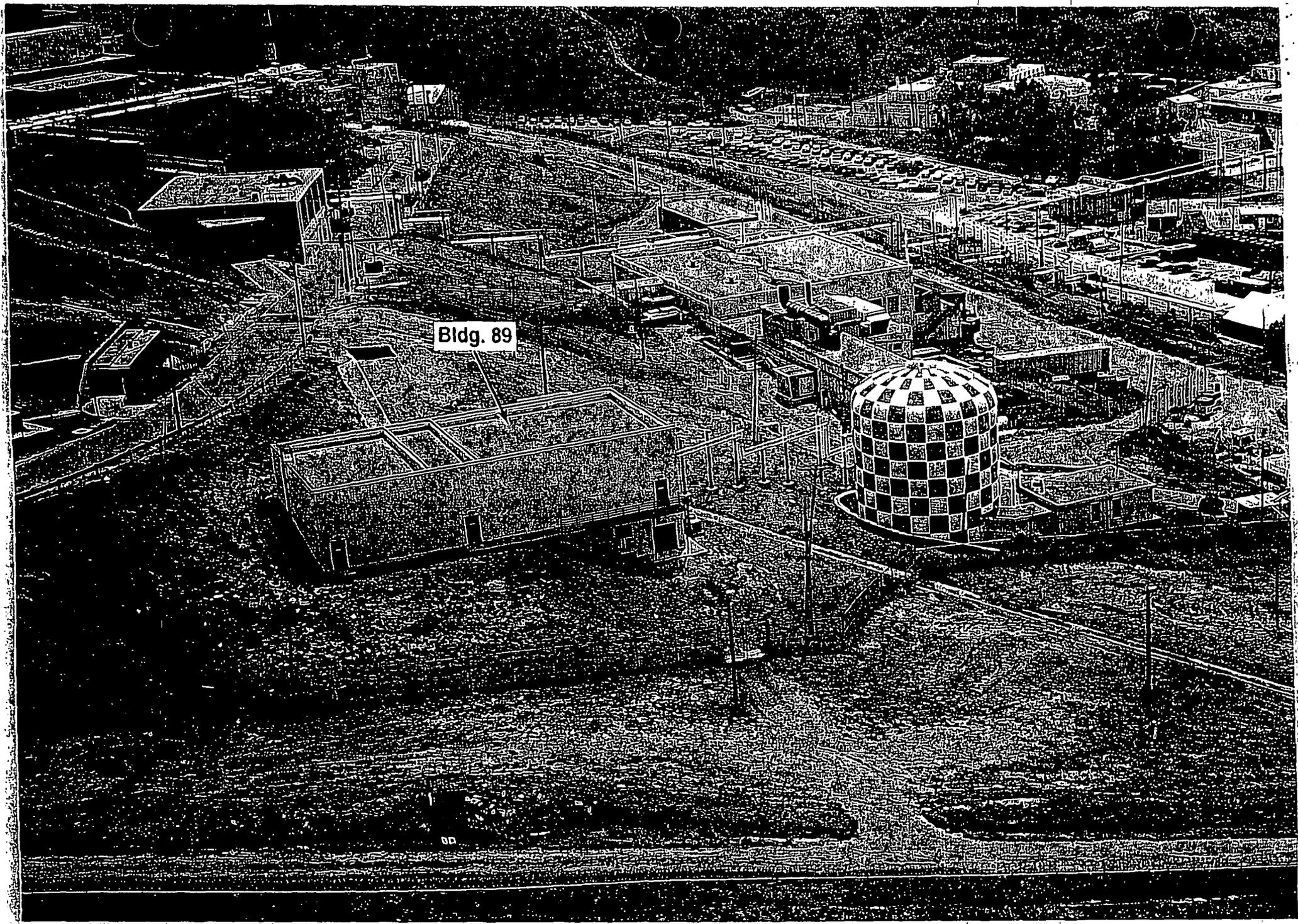


Mound Plant

Release Block M

Building 89
Detonator Storage
Building





Bldg. 89

00

MOUND



Environmental
Restoration
Program

**MOUND PLANT
BUILDING DATA PACKAGE**
Notice of Public Review Period



The following Building Data Packages will be available for public review in the CERCLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio beginning July 24, 1997. Public comment will be accepted on these packages from July 24, 1997, through August 26, 1997.

Building 87:	Explosives Testing Building
Building 89:	Detonator Storage Building

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

Information found within this building status report is taken in large part from the document Environmental Appraisal Report of the Mound Plant, MLM-ML-96-43-0001, March 1996 and does not represent an all inclusive record search for this facility. Although not reflective of any facility changes since the date of this publication, the information is representative of the facility's current status and is deemed acceptable for the purpose of a general building overview. Any questions or comments regarding this document should be submitted to DOE/MEMP to the attention of Alan S. Spesard, Sam C. Cheng, or Kevin Donovan.

November 20, 1996

Environmental Appraisal of the Mound Plant

9.96 BUILDING 89

9.96.1 Scope of Building 89 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 89 on the morning of February 20, 1996. The Environmental Appraisal Checklist (EAC) was used to record findings. The EAC is presented as Attachment 1 (Section 9.96.6.1). The appraisers were accompanied by the building manager and process owner. Other information was supplied by the building manager and recorded on the Building Manager's Questionnaire (BMQ), included as Attachment 2 (Section 9.96.6.2).

9.96.2 Description of Building

Building 89 is a two-story, 4,380-square-foot, reinforced concrete building with a built-up membrane roof. The location is shown in Attachment 3 (Section 9.96.6.3). The building is bordered by a roadway on the north, Building 56 on the south, a roadway on the east, and a hillside on the west. The first floor of the structure is a mechanical room. The second floor is a storage and process area. Floor plans are presented as Attachment 4 (Section 9.96.6.4). The building is serviced by central steam for heat, chilled water, and electrical service (*Mound Facility Physical Characterization*, 12-1-93).

Building 89 was constructed in 1985. The building has been used for the same purposes since construction. The building has areas of energetic material contamination. It is not contaminated with radioactive materials (*Mound Facility Physical Characterization*, 12-1-93).

9.96.3 Summary of Findings

Building 89 contains storage areas, a mechanical room, and a process area used to crush parts. These areas are in use. The building is well-maintained. One issue of environmental concern was identified during the walk-through and review of reference materials.

9.96.4 Observations

9.96.4.1 Air Emissions

There are no processes that create air emissions. There are no fuel-burning units in the building. There is no evidence of fugitive dust.

Environmental Appraisal of the Mound Plant

9.96.4.2 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.

9.96.4.2.1 Sanitary Wastewater

The building does not have sanitary services. According to a diagram of underground lines, presented as Attachment 5 (Section 9.96.6.5), the building is not serviced by a sanitary line. Confirmation of drainage of sanitary waste into sanitary conveyance lines was not within the scope of this effort, therefore, neither dye tests nor smoke tests were conducted.

9.96.4.2.2 Storm Wastewater

The building is serviced by storm drains according to Attachment 5 (Section 9.96.6.5). There were interior floor drains. Exterior grates and drains were not tested to confirm that they connect to the storm drainage system. Inspection showed no sign of odors, colored discharges, or scarring which would indicate that any materials other than storm water has entered the storm drainage system.

9.96.4.2.3 Chemicals

There were several chemicals stored outside the building in an NFPA-approved flammable solvent cabinet. At the time of the walk-through there were no chemicals stored in Building 89. According to information provided in Attachment 2 (Section 9.96.6.2), the BMQ, there were no chemicals listed as stored in building 89 during the 1994 chemical inventory. Chemical storage and handling procedures are in place for proper disposal of chemicals. There is no evidence that chemicals enter the storm or sanitary drains. There have been no reported spills from Building 89.

9.96.4.3 Potable and Service Water

Potable water is not supplied to the building. Water is supplied to a fire sprinkler system in the building.

Environmental Appraisal of the Mound Plant

9.96.4.4 Chemical Storage and Hazardous Materials

There are no chemicals or hazardous materials stored in Building 89. There are several chemical containers stored in a NFPA approved flammable cabinet outside the building. There were Material Safety Data Sheets (MSDS's) readily available for these materials. One drum, belonging to Environmental Restoration, was labeled "decon water" and has been sitting outside the building since October 1994. Chemicals are stored outside the building in accordance with applicable standards.

The building is equipped with appropriate emergency response equipment such as a fire extinguisher. Inspection tags were present and current. There is an Emergency Evacuation Plan, and signs were posted in work areas.

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

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

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

9.96.4.5 Solid, Hazardous, and Radioactive Wastes

Solid wastes generated are primarily scrap metal. There is paper and aluminum can recycling to minimize solid waste. Solid wastes are removed by janitorial personnel to a site collection point, then shipped offsite to a local landfill by a contractor. Aluminum cans, glass and cardboard are removed by janitorial personnel to specific collection points, then sent offsite to be recycled by a contractor. White paper is collected, compacted and sent offsite for recycling by a contractor. Scrap metal is collected at a specific site, then sent offsite to be recycled by a contractor. Lead-acid batteries are recycled by a contractor. All service contracts are maintained by Waste Management. Classified paper is collected and taken to the Montgomery County South Incinerator by Security. There is no evidence that hazardous materials or wastes are mixed with solid waste streams.

The processes that generated hazardous waste are no longer present.

9.96.4.6 Waste Minimization and Pollution Prevention

At Mound there is an active program to minimize waste streams in accordance with state and federal requirements and Executive Order 12856. Programs in Building 89 for waste minimization and pollution prevention are scrap metal, aluminum can and paper can recycling.

Environmental Appraisal of the Mound Plant

9.96.5 Findings and Recommendations

Photographs were taken to document inspection findings. They are included as Attachment 6 (Section 9.96.6.6). The environmental appraisal of Building 89 indicates that the following action items should be planned and scheduled for accomplishment thus assuring that best management and operating practices are in place.

89-1 Coordinate efforts to remove drum of "decon water" from the area and place it in an approved storage location.

Other Information

The processes that generated hazardous waste are no longer present. At one time the process area was used to crush parts containing heavy metals.

Building 89 is presently being used by the City of Miamisburg for storage of equipment acquired from Mound as a result of Safe Shutdown.

A radiological survey of Building 89 was done between September 9th and 23rd of 1996. No radiological contamination was found in or on Building 89 itself. However, three pieces of equipment acquired by and stored in the building by the City of Miamisburg were found to have radiological contamination. These three pieces of equipment were moved out of the building and transferred to a radiological controlled area.

Building 89 operations were classified as Standard Industrial Hazard.

Associated PRS(s)

There are no PRSs within nor attached to Building 89.

It is noted that PRS 239 is located immediately west of Building 89. PRS 239 was designated as a potential soils Hot Spot. No organic or radioactive contamination was detected. PRS 239 was binned as No Further Assessment.

Baseline Assumptions

In the EG&G Mound Environmental Restoration Mound 2000 Rebaseline Submittal, March 1996, the preliminary disposition decision for Building 89 was "cleanup for unrestricted use". This preliminary decision was premised upon the lack of any known radiological materials contamination within the facility as determined through its process history, a physical walk-through, and available radiological data. There are areas of suspected energetic material contamination. Facility Decontamination and Decommissioning (D&D) efforts were assumed to be limited and would include the assessment sampling, decontamination via High Energy Particulate Air (HEPA) vacuuming, wiping down of the interior surfaces with a decontamination solution, and the necessary final verification sampling. The debris from the wiping and HEPA vacuuming was assumed to be hazardous, thus requiring disposal in a landfill approved for hazardous waste.

References

- 1) MLM-ML-96-43-0001, Environmental Appraisal Report of the Mound Plant, Volume 9, March 1996.
- 2) MLM-3791, Mound Facility Physical Characterization, December 1993.

Available Additional References

- 3) MOUND PLANT Potential Release Site Package PRS #239.
- 4) Environmental Restoration Baseline Cost Estimate, March 1996, Block M.

Point of Contact

DOE/MB, Kevin Donovan, (513) 865-4661
EG&G/MAT, Richard L. Bauer, (513) 865-3738

November 20, 1996

Environmental Appraisal of the Mound Plant

99661 Environmental Appraisal Checklist

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ENVIRONMENTAL APPRAISAL CHECKLIST

Building Name 89

Appraisers:

Mary Elzimer
Name Discipline

Name Discipline

W. P. Lutt
Name Discipline

Henry A. Gardner
Name Discipline

Building Manager:

J. Boston 2/22/96

Process Manager:

TERRY L. HALDERMAN Terry L. Halderman

Date: 2/20/96

**ENVIRONMENTAL APPRAISAL
CHECKLIST**

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Revision 3.0 (1-5-96)

Environmental Assessment Checklist

Building Name: 89

Appraisers: Terry Glander
John Puckett

Mary-Louis Hoagland
Mary Sizemore

Date: 2/20/96

Clean Water Act (CWA) Screening Checklist

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

CWA Checklist

Regulatory Guideline	Question	Response	Comments
40 CFR 122 Appendix D Table V	If chemicals are used/stored in the building, are they on the attached list?	Y/N	N/A CHEMICALS ARE <u>NOT</u> STORED IN OR USED IN THE BUILDING
	Are they properly contained?	Y/N	
	Is the building in operation? What are the processes and where do they discharge to?	Y/N	BUILDING IS CURRENTLY USED BY THE CITY OF MIAMISBURG FOR STORAGE
	Do the floor drains, sinks & toilets appear to be draining properly?	Y/N	N/A - UNPLUGGED FLOOR DRAINS NOT IN USE
OAC 3745-33	Do the floor drains and sinks drain to a sanitary or storm sewer?	Sanitary Storm	STORM
	Is there a sump/pit in the building? If so, what does it contain? How often is it pumped out? Does water collect in sump? Does sump have secondary containment?	Y/N	N/A N/A
		Y/N Y/N	
	Are there any manholes, catch basins, drains, or fill pipes in or around the building? If so, are there any unusual appearances, colors, and/or odors? Describe in comment section. Can chemicals flow into the drain?	Y/N	N/A
		Y/N Y/N	

6-96-6

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Clean Air Act (CAA) Screening Checklist

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

CAA Checklist

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

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

CAA Checklist

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

TABLE A

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

Source: _____

9.96-11

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Hazardous Materials (HM) Screening Checklist

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

HM Checklist

Regulatory Guideline	Question	Response	Comments
29 CFR 1910.1200(b,f)	All containers of hazardous chemicals shall be labeled as to the identity of the chemical and the appropriate hazard warnings.	(Y) N	
29 CFR 1910.1200(g)	MSDS shall be available to the employees in close proximity to the work area.	Y (N)	NOT READILY AVAILABLE
29 CFR 1910.22, 1910.106, 1910.176	All places of employment, passageways, storerooms and service areas shall be kept clean and orderly and in a sanitary manner. Aisles shall be unobstructed. Drums and containers are not leaking and are tightly sealed.	(Y) N	
29 CFR 1910.106	Storage cabinets for flammable materials are constantly kept closed, are fire resistant and are labeled "FLAMMABLE - Keep Fire Away". Containers inside should be labeled and closed. No spills inside cabinet.	(Y) N	FLAMMABLE CABINET STORED OUTSIDE OF BUILDING 89
29 CFR 1910.106(d)(7)	Incompatible chemicals are not stored together.	(Y) N	
29 CFR 1910.106(d)(4)	Inside Flammable/combustible storage rooms must meet the following: 4 in. raised sill or trench that drains to a safe area, liquid tight wall/floor joints, self-closing doors, gravity or mechanical exhaust providing 6 room changes/hr., exhaust switch located outside room, at least one 3 ft. aisle; no cracks in secondary containment.	Y N	N/A

9.96-12

Environmental Appraisal Checklist

Building Name: 89

Appraisers: Terry Glander Mary-Louis Hoarland
 John Puckett Mary Sizemore

Date: 2/20/96

HM Checklist

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

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

HM Checklist

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

Above Ground Storage Tanks Inventory

TABLE B—Above Ground Storage Tanks Inventory							
Building	Capacity (Gal.)	Contents	Estimated Volume	In Service	Containment	Visual Stains/ Contamination	If Empty, Flushed
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N
 	 	 	 	Y/N	Y/N	Y/N	Y/N

Source: _____

9.96-14

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Safe Drinking Water Act (SDWA) Screening Checklist

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

SDWA Checklist

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

TABLE C—Water Fountain Survey

Building	Location	Model #	Comments / Date of Analysis for Lead
 	 	 	
 	 	 	
 	 	 	
 	 	 	

Source: _____

9.96-15

9.96-16

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

RCRA Screening Checklist

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

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745 52-11	<p>Has any material generated been characterized RCRA hazardous?</p> <p>Was characterization by analysis or by process knowledge?</p> <p>Are lab results or documentation of process knowledge readily available?</p> <p>Note any uncharacterized material in comment section. Is it waste?</p> <p>If yes, proceed with next section.</p>	<p>Y / (N)</p> <p>analysis / process</p> <p>Y / N</p> <p>Y / N</p>	<p>PROCESS KNOWLEDGE</p> <p>SOLID WASTE</p> <p>GENERATION CONSISTS OF SCRAP METAL RECYCLING EFFORTS</p>
OAC 3745 52-11	<p>Are any of the materials noted RCRA hazardous waste?</p> <p>If no, note and stop here.</p> <p>If yes, note the location of the management unit, and the method of management, and proceed with the appropriate section below.</p>	<p>Y / (N)</p>	

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

RCRA Checklist

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

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

RCRA Checklist

9.96-18

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

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

RCRA Checklist

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

9.96-19

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

RCRA Checklist

Regulatory Guideline	Question	Response	Comments
OAC 3745-68	Has any of the waste been managed in a Landfill? If yes, then note. Go to the next section.	Y / N	X
OAC 3745-68	Has any of the waste been managed in an Incinerator (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-68	Has any of the waste been managed in a Thermal treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-69	Has any of the waste been managed in a Miscellaneous Treatment Unit (other than Burn area units)? If yes, then note. Go to the next section.	Y / N	
OAC 3745-56	Has any of the waste been managed in a Waste Pile? If yes, then note. Go to the next section.	Y / N	

General Comments:

9.96-20

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Asbestos Screening Checklist

Does this facility contain ACM?	<input checked="" type="radio"/> Y / <input type="radio"/> N	If yes, conduct the following survey:
---------------------------------	--	---------------------------------------

Asbestos Checklist

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

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

9.96-21

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

TSCA Checklist

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

9.96-23

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

TSCA Checklist

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

GENERAL COMMENTS:

9.96-24

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Low-Level Waste and Transuranic Waste Screening Checklist

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

Low-Level Waste and Transuranic Waste Checklist

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

9.96-25

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Low-Level Waste and Transuranic Waste Checklist

9.96-26

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

Environmental Approval Checklist

Building Name: 89

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

Date: 2/20/96

Low-Level Waste and Transuranic Waste Checklist

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

9.96-27

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Low-Level Waste and Transuranic Waste Checklist

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

9.96-28

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Low-Level Waste and Transuranic Waste Checklist

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

GENERAL COMMENTS:

9.96-29

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Waste Minimization/Pollution Prevention Activities Screening Checklist

Does this facility generate waste or use chemicals?	(Y) N	If yes, conduct the following survey
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Waste Minimization/Pollution Prevention Activities Checklist

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

9.96-30

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.96-31

Environmental Appraisal Checklist

Building Name: 29

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

Date: 2/20/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.96-32

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.96-33

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.96-34

Environmental Appraisal Checklist

Building Name: 89

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

Date: 2/20/96

Waste Minimization/Pollution Prevention Activities Checklist

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

9.96-35

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Environmental Appraisal of the Mound Plant

99662 Building Managers' Questionnaire

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Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

NONE

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

NONE

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

4. Provide a physical description of the building.

Building is a one-story, 4,830-ft², reinforced concrete structure with a BUM roof (asphalt). It has central steam heat and package air conditioning. It was built in 1985. Building is slightly contaminated with energetic materials, but is not contaminated with radioactive materials. The building was found to be asbestos free in May of 1993.

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

5. Provide a drawing of the building.

Attached.

6. What is the current building use?

Building is used for long- and short-term storage of energetic materials that will be analyzed later in Building 48.

Source: Mound Buildings, 5-9-95

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

Source: Mound Buildings, 5-9-95

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

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

Process(es) Housed: Storage of components containing explosives

How Wastes Are Generated:

No hazardous wastes are generated in this building.

Contact:
Phone #:

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

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

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

10. Does the building have air emission sources? No

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

Source: Mound Air Emissions Database 11/30/95

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

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

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

Source: Air Permits 2/4/95

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

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

Source: Air Permits 2/4/95

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

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

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

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

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

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
Alternate: _____ Phone: _____

17. Does the building contain transformers or capacitors? No

Source: PCB ANNUAL DOCUMENT LOG

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

Source: PCB ANNUAL DOCUMENT LOG

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

Chemical Name	State	Amount (MAX)
NONE		

Source: Chemical Inventory 1994

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

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

Chemical	Amount	Clean-up Measures

Source: _____

21. Where do waste chemicals go?
WASTE management

22. What janitorial supplies are stored inside or outside of the building?
none

23. Where do excess janitorial supplies go?
N/A

Source: _____

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

Chemical	Amount	Chemical	Amount

Source: _____

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

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

NONE

26. Is there a sump or pit or underground tank in or around the building?
 Yes No Unknown

Is it double-walled? What does it contain? How many days per year is it filled?
 Is there an emergency overflow tank? Have there been previous overflows?

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

Source: _____

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

Materials	Amount
Alumina Powder	186.9
Silica Gel	170.4

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

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

28. Does the building have abandoned process equipment such as tanks, piping, containers, etc.? Yes No
29. Is waste material stored in or around the building for more than 90 days? Yes No
30. Has the building been identified as a 90-day waste accumulation area? Yes No
31. Has any area in the building been identified as a satellite accumulation area? Yes No
32. Is mixed waste generated, stored, or disposed of from the building? Yes No
 Where are logs found?

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

Source: _____

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

33. Is TRU radioactive waste generated, stored, or disposed of from the building?

Yes

No

Where are logs found?

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

Source: _____

Building Manager's Questionnaire

Building Name: 89 Building Manager: J.L. Boston Phone: _____ Date: 12-07-95
 Alternate: _____ Phone: _____

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

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

Source: _____

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

NONE

Building Manager's Questionnaire

Building Name: 89

Building Manager: J.L. Boston

Phone: _____

Date: 12-07-95

Alternate: _____

Phone: _____

36. Is there a waste minimization program in the building?
Discuss your ideas about how to minimize waste.

Yes

No

37. Has a pollution prevention program been developed for the building? Yes

No

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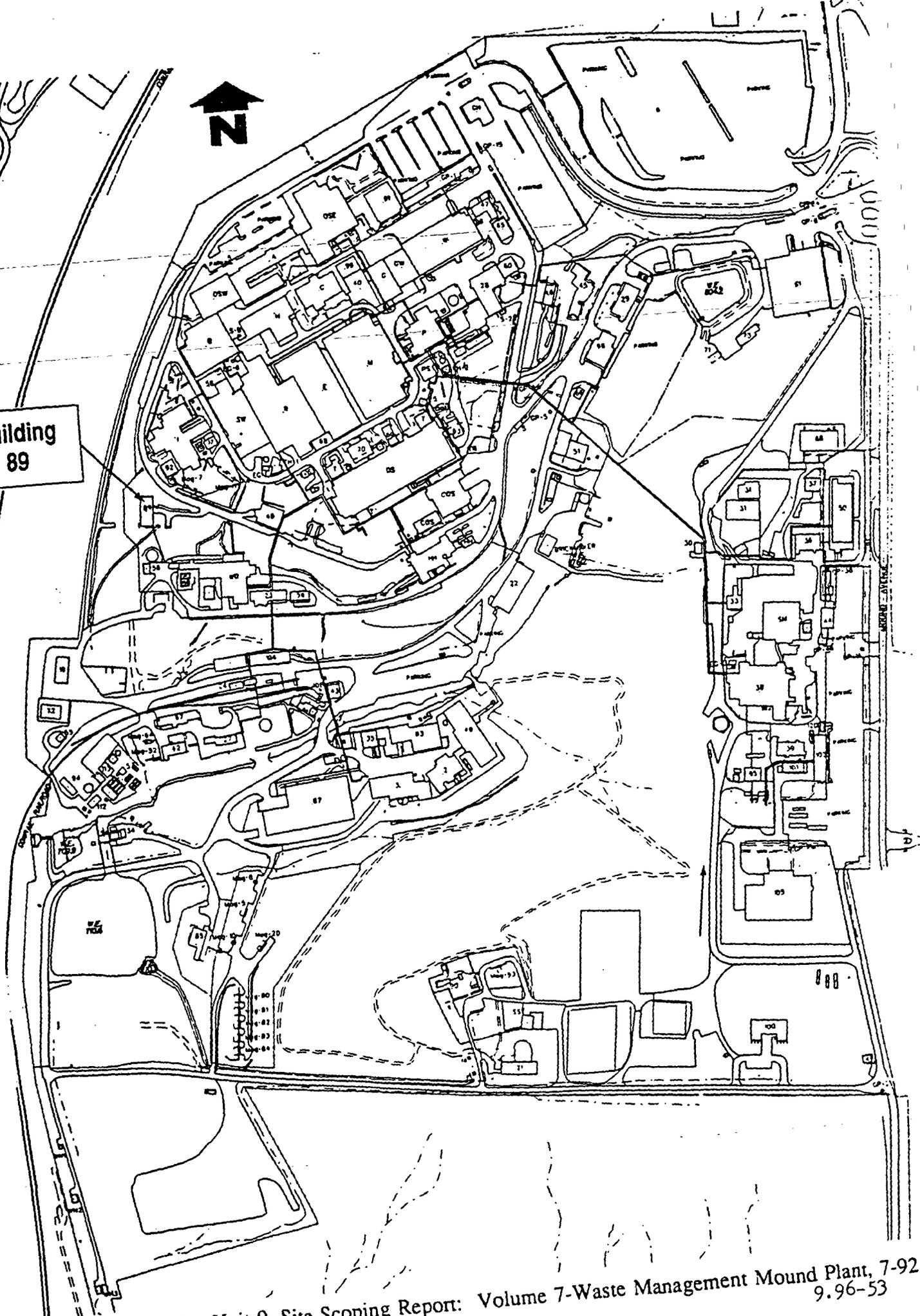
Environmental Appraisal of the Mound Plant

0.26.63 Location of Building 89

0.26.63

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Building
89



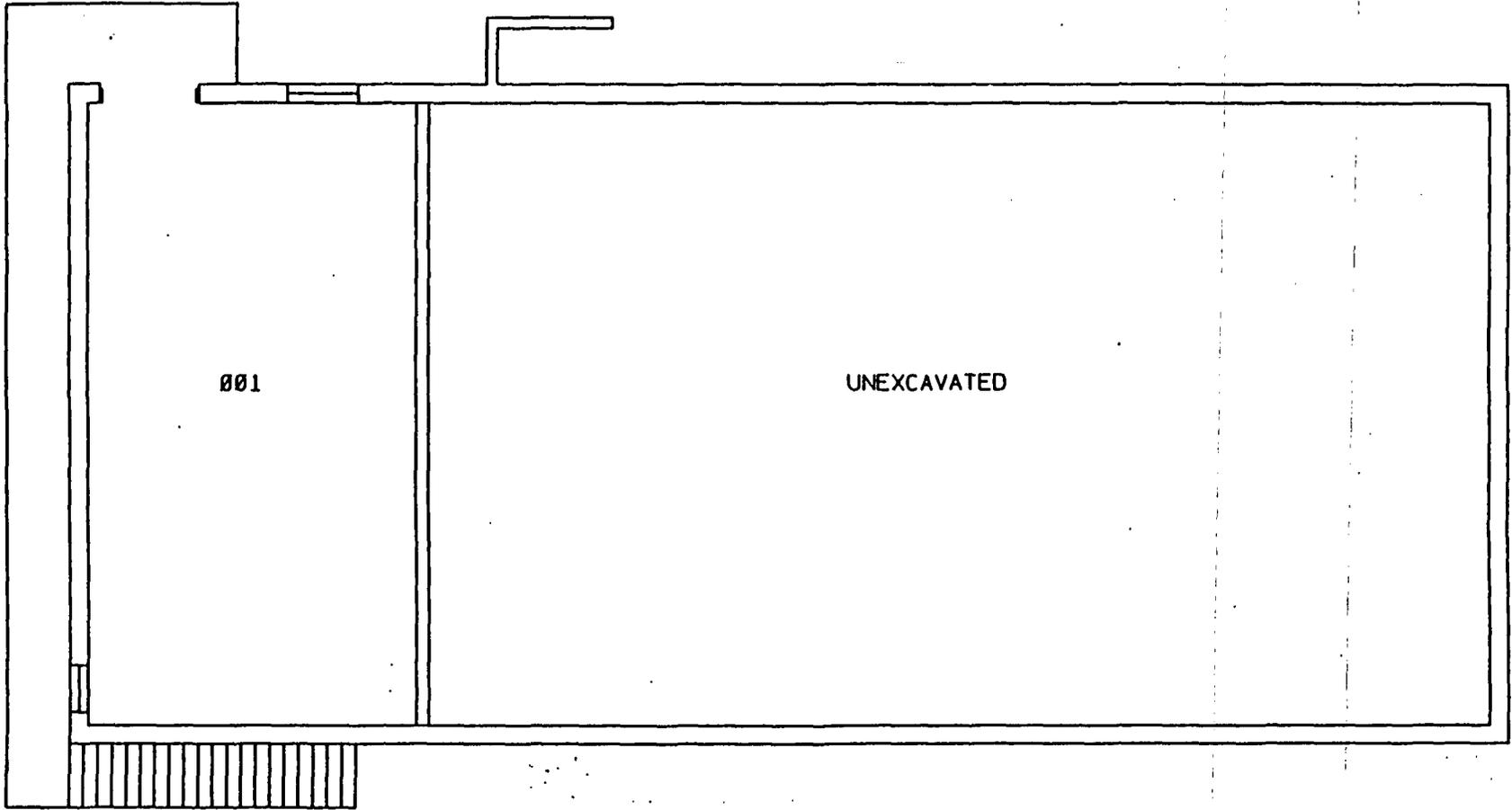
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Environmental Appraisal of the Mound Plant

09662 Floor Plans for Building 189

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REV	DATE	REVISION	BY	CHKD	APPD	NO
8	12/12/91	ASBUILT ISSUE	DCW			(DVO)



001

UNEXCAVATED

DERIVATIVE CLASSIFIER
[Signature]
 S. Chris. Amel. 2/20/96
 (Title) (Date)



**BLDG #89
 BASEMENT
 BLDG CODE:3088**



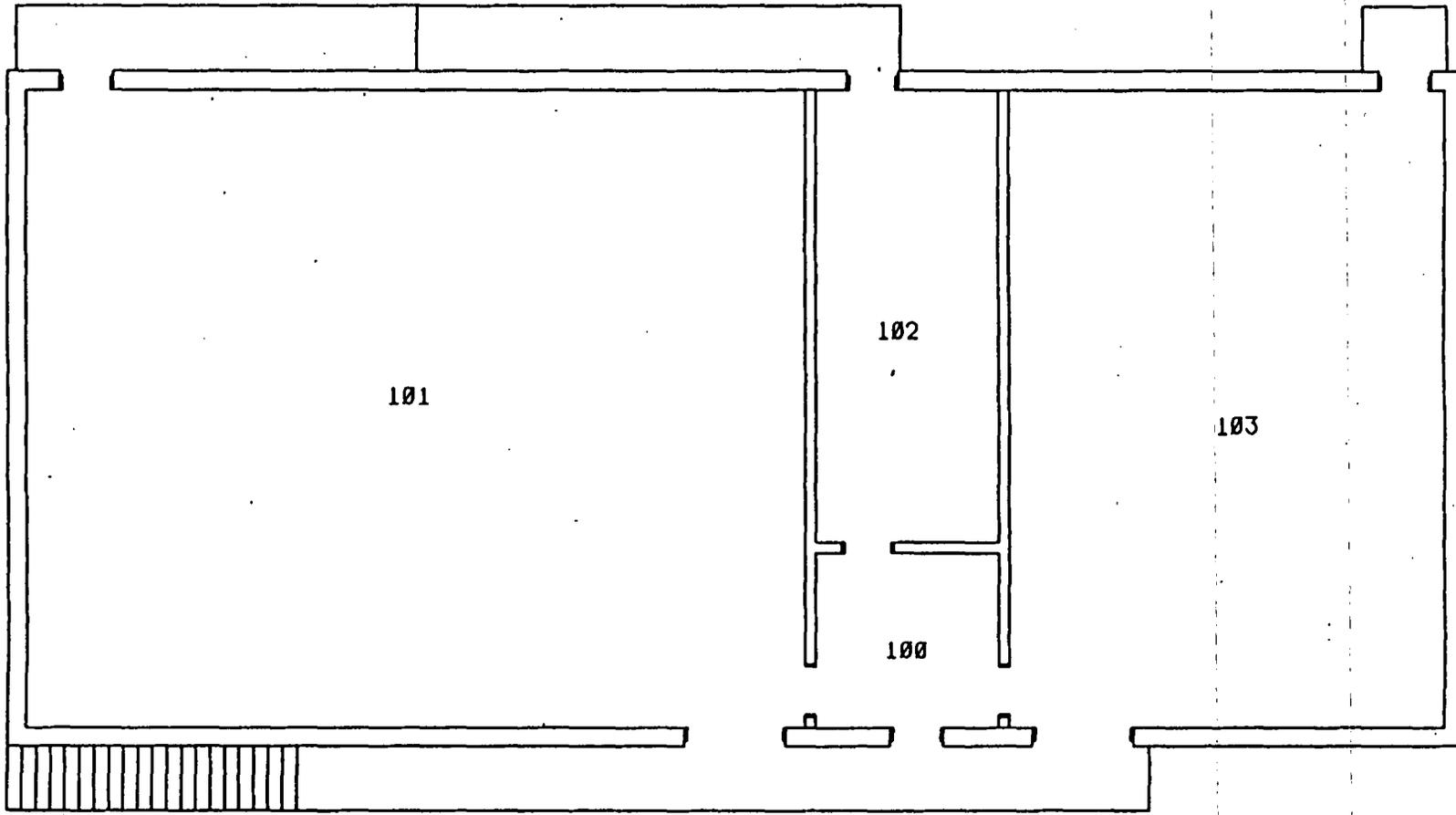
APPROVALS:	DATE:
SAFETY COMMITTEE REQUIRED:	
_____ NONE _____ DESIGN _____ CHECK _____	
TECH. DESK:	
DR. NO.:	
DESIGN:	
CHECK:	

NOT FOR PUBLIC DISSEMINATION
 MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION SUBJECT TO SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED (42 USC 2168). APPROVAL BY THE DEPARTMENT OF ENERGY PRIOR TO RELEASE IS REQUIRED.

SHEET	1	2	3	4	5	6	TITLE	(U) TITLE CLASSIFICATION
BLDG	8	8					BLDG #89 FLOOR PLANS	
DATE								
CLASS. CLASSIFICATION	UCR						ITEM ORIGIN NUMBER	JOB NUMBER
ORIG. TYPE	SFP	BLDG #89	SCALE 1/8"=1'-0"	SCALE AS NOTED			FSC911281	12335
STATUS	MD-REL-12/12/91	ORIGIN	MD-BR3-V3.8					

9.96-57

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DERIVATIVE CLASSIFIER
[Signature]
 Sr. Class. Insl. 2/20/96
 (Title) (Date)

BLDG #89
FIRST FLOOR
BLDG CODE:3089

NOT FOR PUBLIC DISSEMINATION
 MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR
 INFORMATION SUBJECT TO SECTION 148 OF THE
 ATOMIC ENERGY ACT OF 1954, AS AMENDED
 (42 USC 2168). APPROVAL BY THE DEPARTMENT
 OF ENERGY PRIOR TO RELEASE IS REQUIRED.

PROJECT NUMBER	FSC911281		JOB NUMBER	12335
CLASSIFICATION	UCM			
SCALE	SCALE 1/4"=1'-0"	SCALE AS NOTED		
SHEET	8	2		
STANDARD MO-REL-12/12/91				

9-96-59

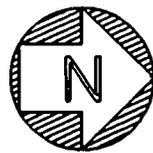
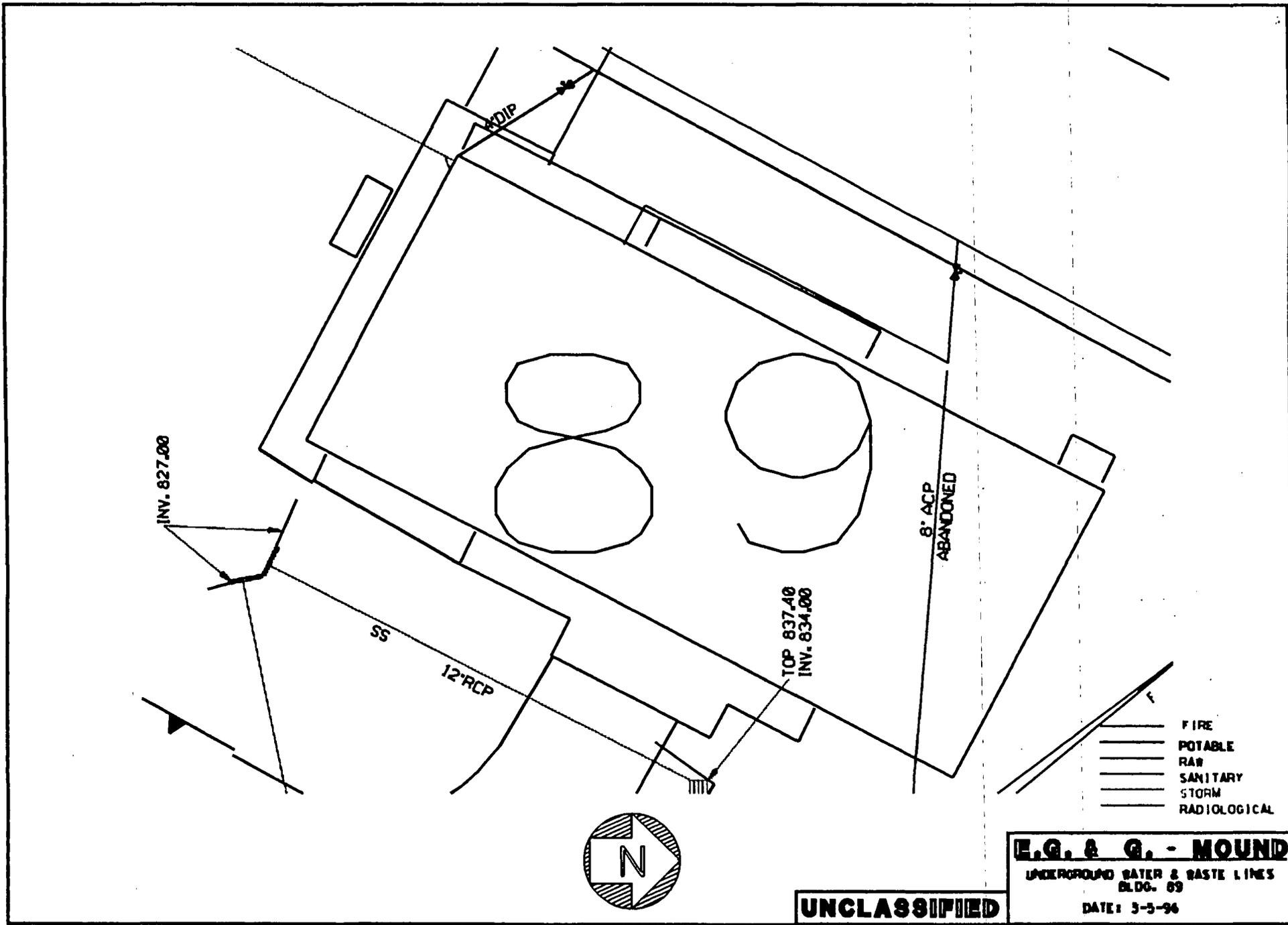
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Environmental Appraisal of the Mound Plant

99665 Underground Utility Lines

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9-96-6

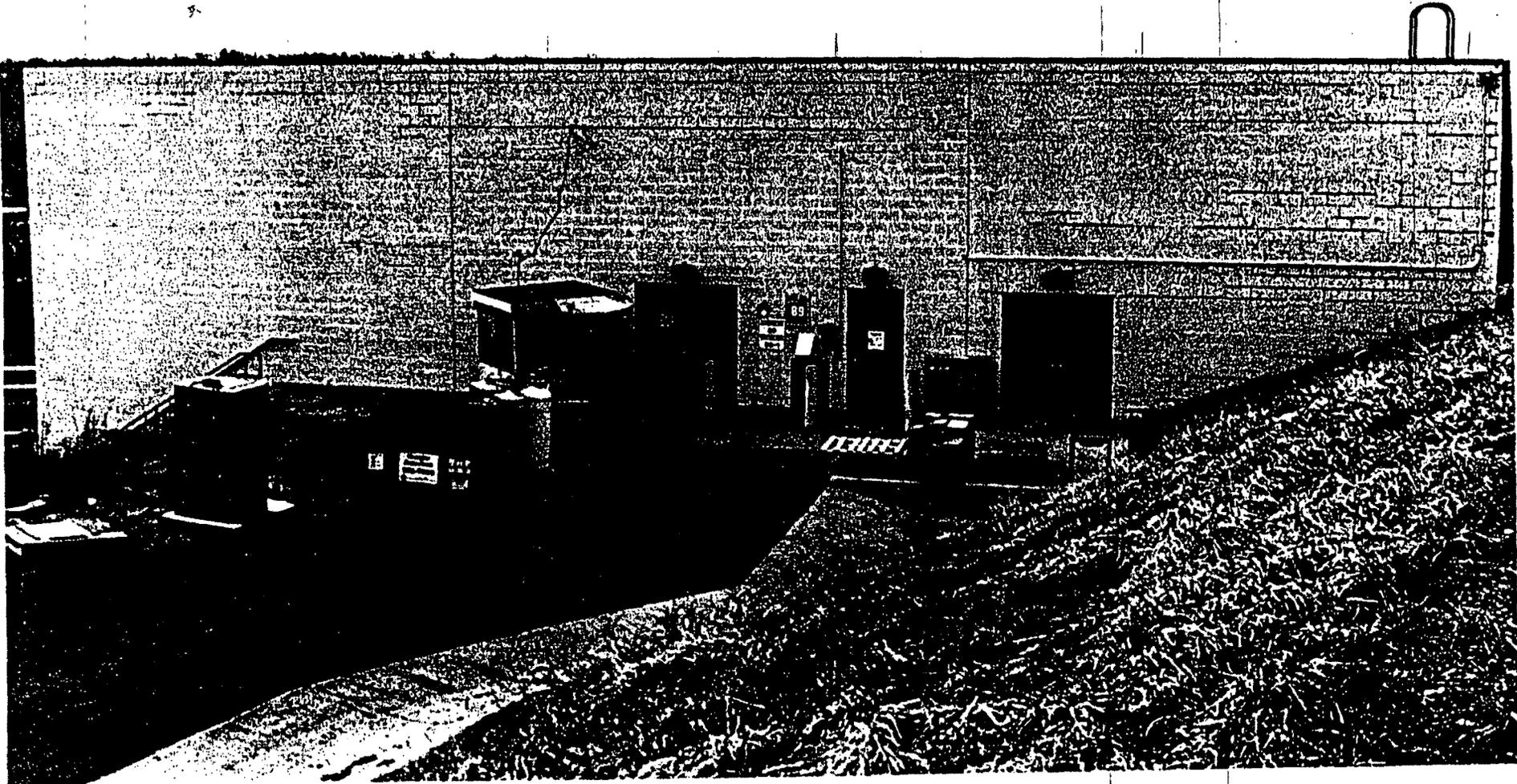


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Environmental Appraisal of the Mound Plant

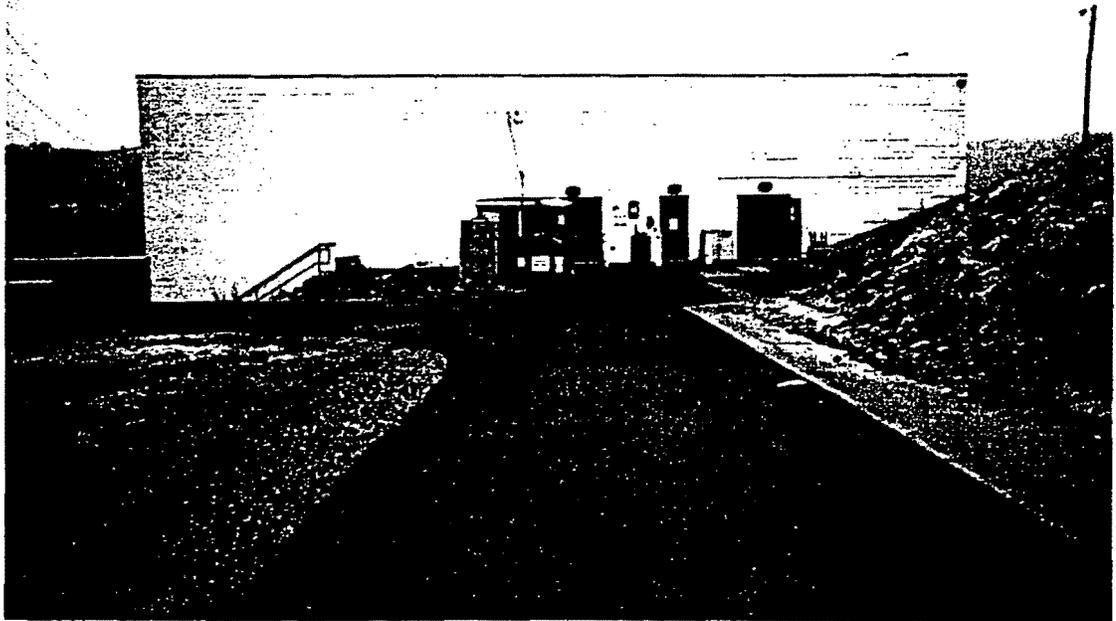
99666 Photographs

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Mound Plant Building 89

9.96-67



Mound Plant Building 89
Determine proper dispositioning of drum.

9.96-69

**Radiological Characterization
Summary
Building 89**

Type	RSDS	Location	Amount (dpm/100 cm ²)	5400.5 Guidelines for Groups 1,3,4 (fixed + loose) (dpm/100 cm ²)	NUREG 1500 Guidelines (loose) (dpm/100 cm ²)	Attachment 1 Limit (fixed + loose) (See Note 2) (dpm/100 cm ²)	Comments
Highest Alpha Smearable Activity	96-89-027SC	Room 101	15.67	20	211	20	No Action Necessary
Highest Alpha Fixed Activity	96-89-030SC	Room 101	3000	100	Note 1	100	Motor belt guard removed, bagged, tagged and moved to RMA in M- Building
Highest Beta Smearable Activity	96-89-009SC	Room 101	22.85	1000	9940	1000	No Action Necessary
Highest Beta Fixed Activity	ALL	ALL	< 5000	5000	Note 1	5000	No Action Necessary
Highest Tritium Smearable Activity	96-89-026SC	Room 101	365.4	1000	Note 1	1000	No Action Necessary

Note 1 NUREG-1500 gives guidelines for loose beta and alpha only.

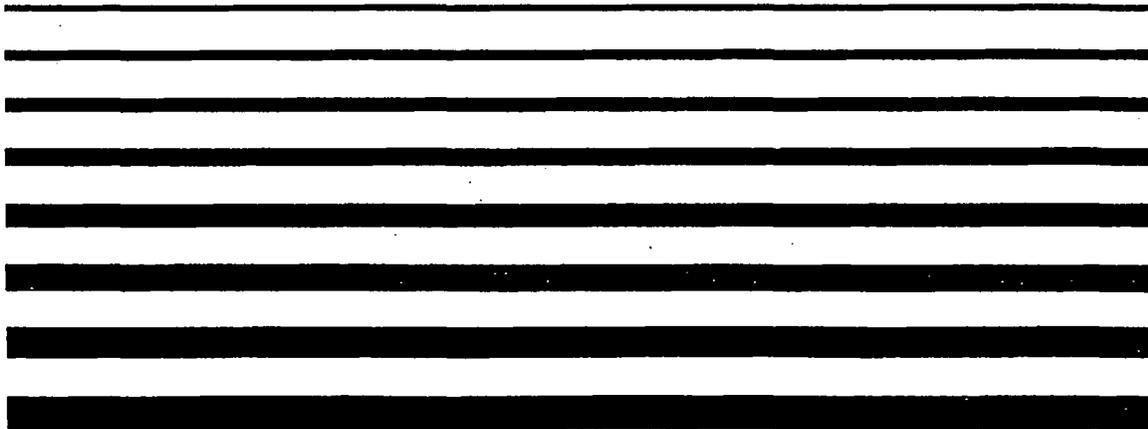
Note 2 The limits referenced above is based on MD-80043, Radiological Work Requirements Procedure 400 "Transfer of Radioactive Material and Unrestricted Release of Property/Waste" Attachment 1.

General The detail radiological characterization data is available upon request of the DOE-MEMP.



HOK/K

PHASE I
ENVIRONMENTAL SITE ASSESSMENT
OF
DOE MOUND, 89 BUILDING
DOE MOUND
MIAMISBURG, OHIO 45343-3020



HOK/K

March 18, 1996

Mr. Sam Cheng
United States Department of Energy
Miamisburg Area Office
P.O. Box 3020
Miamisburg, Ohio 45343-3020

Re: Phase I Environmental Site Assessment
DOE Mound, Building 89
Mound Road
Miamisburg, Ohio 45343-3020
Job #: H95234V

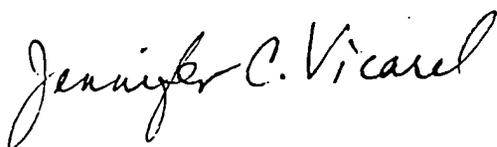
Dear Mr. Cheng:

HOK/K Industrial, Inc. has completed a Phase I Environmental Site Assessment of the Department of Energy Mound, Building 89, located at DOE Mound in Miamisburg, Ohio. Our investigation included an on-site inspection; a review of United States Department of Energy environmental reports and building prints; examination of historical aerial photographs and maps; a review of federal and state regulatory agency records; and personal interviews. A detailed report of the investigation is enclosed.

We understand that DOE Miamisburg Area Office is relying upon the contents of this report to identify Recognized Environmental Conditions that relate to this property. Disclosure of the contents of this report is at your discretion, and HOK/K will not release additional copies without your written authorization. HOK/K Industrial, Inc. performed its investigation according to the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Designation E 1527-94). The statements contained in this report are true and accurate to the best of our knowledge.

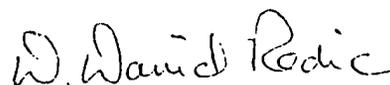
Sincerely,

HOK/K INDUSTRIAL, INC.



Jennifer C. Vicarel
Environmental Scientist

Reviewed by:



D. David Redic
Vice President

**PHASE I
ENVIRONMENTAL SITE ASSESSMENT
OF
DOE MOUND, 89 BUILDING
DOE MOUND
MIAMISBURG, OHIO 45343-3020**

Prepared for:

**Mr. Sam Cheng
United States Department of Energy
Miamisburg Area Office
P.O. Box 3020
Miamisburg, Ohio 45343-3020**

Prepared by:

**HOK/K INDUSTRIAL, INC.
2490 Technical Drive
P.O. Box 3004
Miamisburg, Ohio 45343-3004**

March 18, 1996

H95234V

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EXHIBIT B	PHOTOGRAPHS
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EXHIBIT D	COMPREHENSIVE TABULATION OF POTENTIAL RELEASE SITES
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EXHIBIT F	SANBORN MAP REQUEST RESPONSE
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ACRONYMS

AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ACM	Asbestos-Containing Materials
AL	U.S. Department of Energy Albuquerque Operations Office
ASTM	American Society for Testing and Materials
BUSTR	Bureau of Underground Storage Tank Regulations
CAA	Clean Air Act
CEG	Conditionally Exempt Generator
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COD	Chemical Oxygen Demand
CWA	Clean Water Act
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
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
MAT	Mound Applied Technologies
MCC	Monsanto Chemical Corporation
MMCIC	Miamisburg Mound Community Improvement Corporation
MRC	Monsanto Research Corporation
NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
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
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SHWS	State Hazardous Waste Site
SQG	Small Quantity Generator
SWMU	Solid Waste Management Unit
TRIS	Toxic Chemical Release Inventory System
TSD	Treatment, Storage, and Disposal Facility
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WHP	Well Head Protection (program)

1.0 EXECUTIVE SUMMARY

- 1.1 At the request of Mr. Sam Cheng of DOE Miamisburg Area Office, HOK/K Industrial, Inc. (HOK/K) has performed a Phase I Environmental Site Assessment of the Department of Energy Mound, 89 Building located at DOE Mound in Miamisburg, Ohio. This work was performed in accordance with proposal H95-284R1, approved on December 11, 1995. HOK/K performed its investigation according to the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Designation E 1527-94).

Our investigation included an on-site inspection; examination of historical aerial photographs and maps; a review of federal and state regulatory agency records; and personal interviews. The property inspection (site visit) took place on February 22, 1996, and was conducted by Ms. Jennifer Vicarel and Mr. John W. Ey. They were accompanied by Mr. Daniel Gorman of EG&G Mound Applied Technologies Maintenance and Operations Group (M&O). There were no significant exceptions to, or deletions from, our normal procedures, as are described in Sections 2.3 and 2.4 of this report.

- ◆ The subject site is located at the Mound Plant, adjacent to the southern perimeter of Miamisburg, Ohio. The entire Mound facility is situated on 305 acres of land and comprises more than 132 buildings.
- ◆ The subject property consists of the Mound Building 89 footprint and an arbitrarily selected 20-foot wide border of concrete sidewalk, asphalt pavement and grass-covered hillside around the perimeter of the building. Building 89 covers 4,830 square feet of space. It has served primarily as a warehouse for explosive material for the United States nuclear stockpile.

This assessment has revealed no evidence of Recognized Environmental Conditions at the subject site.

Detailed findings and recommendations are included in Section 7.0.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I Environmental Site Assessment is to identify, when possible, any recognized environmental conditions (defined below) that may affect the subject property.

2.2 Special Terms and Conditions

- 2.2.1 Environmental Professional** - A person having sufficient training and experience necessary to conduct site reconnaissance, interviews and other activities regarding a subject site according to standard practices. The environmental professional develops conclusions pertaining to recognized environmental conditions.
- 2.2.2 Environmental Site Assessment (ESA)** - The process by which a person or entity seeks to determine if a particular parcel of real property (including improvements) is subject to recognized environmental conditions. An environmental site assessment is both different from, and less rigorous than, an environmental audit.
- 2.2.3 Key Site Manager** - The key site manager is the person identified by the owner of a property as having good knowledge of the uses and physical characteristics of the property. Mr. Daniel Gorman of EG&G M&O Staff was designated as the key site manager for this project.
- 2.2.4 Recognized Environmental Condition (REC)** - The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicates an existing release, a likely release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.
- 2.2.5 User** - For the purposes of this report the user is designated as United States Department of Energy, Miamisburg Area Office.
- 2.2.6 List of Acronyms** - A list of acronyms utilized in this report is presented immediately following the Table of Contents.

2.2.7 Special Conditions

The site area for this Phase I assessment consists of the DOE Mound Building 89 footprint and an arbitrarily selected 20-foot border around the perimeter of the footprint.

At the request of the client, the Table of Contents for the Building 89 Phase I report follows the Recommended Table of Contents from the ASTM Standard. Text discussions for certain ASTM sections have been merged to reduce redundancy, and the appropriate sections are referenced.

2.3 Limitations and Exceptions of Assessment

The Building 89 site area, as stated above, is covered by the building footprint and surrounding concrete sidewalk and asphalt pavement on the east side and grass-covered hillside on the south, west, and north sides. Soil conditions beneath the building and paved sidewalk and driveway could not be observed.

Room 102 within Building 89 was locked and Mr. Gorman did not have access to the room (the City of Miamisburg possesses the key). However, HOK/K personnel were able to view portions of the room through the door window with the aid of a flashlight.

2.4 Limiting Conditions and Methodology Used

2.4.1 On-Site Methodology

Environmental Professionals examined this site. This examination consisted of detailed inspection of the site and a border survey of neighboring properties.

2.4.2 Use of Previous Assessments

2.4.2.1 Building 89 is one of a maximum of 132 buildings constructed on the original 182-acre tract of the Department of Energy Mound facility adjacent to Miamisburg, Ohio. Construction at the facility began in 1947. An additional 124-acre tract was acquired in 1981 and is still undeveloped. Numerous and overlapping maintenance programs and environmental programs (including investigation, identification, and remediation of chemical releases) have operated at the Mound Plant over the ensuing half century. Extensive documentation of these programs has created a large library of public information concerning the Mound facility, including Building 89. HOK/K accessed these documents through the Mound

Plant's CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act, or Superfund) Public Reading Room, the DOE Miamisburg Area Office CERCLA staff's document room, and from Mr. Mike Merker of DOE. A complete bibliography of the CERCLA Public Reading Room documents is available from DOE, Miamisburg Area Office.

Most of the historical Mound program data collected and reported prior to 1992 was conveniently summarized by EG&G Mound Applied Technologies, M&O contractor, in a twelve-volume Operable Unit 9 (OU 9) Site Scoping Report. To provide the reader with a regulatory framework for the reasons for producing that report, we have included the following excerpt from the Introduction of Volume 12 of the Site Scoping Report:

"The U.S. Department of Energy (DOE) Mound Plant, Miamisburg, Ohio ..., was placed on the ... CERCLA National Priorities List (NPL) on November 21, 1989 (54 Federal Register 48184). The placement of the Mound Plant on the NPL occurred as a consequence of historic disposal practices and releases of contaminants to the environment. The Mound Plant received an overall Hazard Ranking System (HRS) score of 34.61, which exceeded the threshold (28.51) for NPL listing (40 CFR 300, Appendix A). Pursuant to its NPL status, the DOE signed a CERCLA Section 120 Federal Facility Agreement (FFA) with the U.S. Environmental Protection Agency (EPA) that became effective October 11, 1990 (Administrative Docket #VW-'90-C-075). The Ohio EPA (OEPA) became a signatory to the agreement in July 1993. The terms of the FFA require that the DOE develop and implement remedial investigations (RIs) and feasibility studies (FSs) and conduct interim remedial actions in order to ensure that environmental impacts associated with past and present activities at the site are thoroughly investigated and appropriate action is taken to protect the public health, welfare, and the environment.

"The DOE Albuquerque Operations Office (AL) established the Environmental Restoration (ER) Program in 1984 to collect and assess environmental data in order to develop a conceptual site model, to assess both the nature and extent of contamination, and to identify potential exposure pathways and potential human and environmental receptors [at DOE facilities]. In order to provide the EPA with sufficient information and data gathered during these previous investigations, a multivolume scoping report, providing background information, [was] prepared. The [OU 9] Site Scoping Report provides descriptions and summaries of the current conditions and characteristics of Mound Plant and consists of the following volumes:

1. Groundwater Data: February 1987 - July 1990 with Addendum
2. Geologic Log and Well Information Report
2. Addendum - Stratigraphic and Lithologic Logs
3. Radiological Site Survey
4. Engineering Map Series
5. Topographic Map Series
6. Photo History
7. Waste Management
8. Environmental Monitoring Data
8. Addendum - Vegetation and Foodstuff
9. Annotated Bibliography
10. Permits and Enforcement Actions
11. Spills and Response Actions
12. Site Summary Report"

2.4.2.2 Operable Unit 9 (OU9) is a designation of the Mound FFA/Environmental Restoration (ER) program for site-wide studies that provide the framework for compliance with the CERCLA RI/FS process. Investigations that are best conducted for the entire Mound Plant and its regional setting are included in OU9.

2.4.2.3 Final versions of the foregoing twelve volumes date between February 1992 and December 1994. A brief synopsis of these twelve volumes is excerpted from Volume 12, Site Summary Report, and is included herein as Exhibit A. Each volume references its own extensive bibliography.

HOK/K relied primarily on Operable Unit 9 Site Scoping Report: Volume 7 - Waste Management (February 1993), to provide a history of operations at Building 89. This information is discussed in Section 4.3.

HOK/K reviewed Operable Unit 9 Site Scoping Report: Volume 12 - Site Summary Report (September 1994), for a description of all Potential Release Sites (PRSs) at the Mound Plant, including Building 89. PRSs are informally defined potential areas of concern in which knowledge of historic or current use indicates that the site may be considered a solid waste management unit (SWMU, as defined by the Resource Conservation and Recovery Act, RCRA) or has been identified as an area with potential releases of concern. The Site Summary Report not only provides a detailed tabulation of the PRSs at the Mound, but also presents a thorough synopsis of the chronology, authority, and application of the numerous interrelated federal and state regulatory programs in effect at the facility. A discussion of these regulatory records

pertaining to the Building 89 Phase I assessment is presented in Section 4.0.

- 2.4.2.4 Building and construction information regarding the whole Mound facility and Building 89 in particular was culled from Mound Facility Physical Characterization (December, 1993), prepared by EG&G Mound Applied Technologies. Information from this document is incorporated into Sections 3.2 and 3.3 (Site and Vicinity Characteristics and Descriptions of Structures, Roads, and Other Improvements).
- 2.4.2.5 Tank information for the entire Mound facility, and 89 Building specifically, was collected from the Active Underground Storage Tank Plan, EG&G Mound (November, 1994) by Dames & Moore. These data are presented in both the Records Review, Section 4.0, and in Section 5.5.2, Underground Storage Tanks.
- 2.4.2.6 Section 5.7.2, Geology, of this report summarizes information from two phases of technical memoranda describing methods and results of the OU9 hydrogeologic investigations conducted by EG&G Mound Applied Technologies:
- ◆ OU9, Hydrogeologic Investigation: Bedrock Report (January 1994), and
 - ◆ OU9, Hydrogeologic Investigation: Buried Valley Aquifer Report (March, 1994).
- 2.4.2.7 Although asbestos-containing materials (ACM) are not an ASTM-scope issue, at the client's request, HOK/K has included a discussion of ACM. Data compiled from asbestos surveys performed by PEI Associates in 1988 and Barge, Waggoner, Summer, and Cannon Inc. in 1993 were provided to HOK/K by Mr. Timothy Eilers of EG&G Mound Applied Technologies. The ACM data pertaining to Building 89 are described in Section 6.1.

2.4.3 Historical Information

Title and tax records were reviewed for this assessment to determine previous owners of the property. In addition, the large body of previous assessments, described in the foregoing subsection, provided the historical information as required by the ASTM Standard.

2.4.4 Records Review

Environmental Data Resources, Inc. of Southport, Connecticut, a regulatory database search company, was contracted to provide environmental regulatory information concerning the site and surrounding properties, consistent with the requirements of ASTM Standard E 1527-94. This information was reviewed by an Environmental Professional for indications of recognized environmental conditions.

Because the entire vicinity surrounding the 89 Building subject area is a Superfund NPL site, most of the detailed environmental regulatory information for Building 89 and adjacent properties (the Mound Plant) was obtained from public documents maintained in the EG&G Mound CERCLA Public Reading Room, as described in Section 2.4.2 above.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The Building 89 site of the U.S. DOE Mound Plant is located at the northwestern edge of the Main Hill of the Mound facility, which itself is situated on the south side of Miamisburg, Ohio in Sections 30 and 36 (Building 89 is in Section 36), Township 2 and Range 5 (from the Between the Miamis survey). Figure 1 shows the general location of the site. Figure 2 shows details of the site.

3.2 Site and Vicinity Characteristics

The subject site consists of the Mound Building 89 footprint and an arbitrarily selected 20-foot wide swath around the perimeter of the building. On the east side of the building this swath includes concrete sidewalks and asphalt-paved driveway (refer to Photograph 1 in Exhibit B). On the north, west, and south sides the perimeter of the building is bordered by grass-covered hillside (see Photograph 2). Building 89 comprises 4,830-square feet of space.

The Mound facility is situated on 305 acres of land and has comprised more than 132 buildings having a total of nearly 1.4 million square feet of floor space (some of these buildings have been torn down over the course of the last year). The original 182-acre site, purchased by the Manhattan Engineering District in 1946, is formed by two topographically high areas (hills) and a lower intermediate valley area. Building 89 is located at the northwest edge of the northern, or Main Hill, of these two high areas. The more recently-acquired 124-acre tract (1981) is generally undulating toward the southwest and is not currently developed.

The Mound Plant is bordered on the west by a Conrail Railroad line and the north-south trending Miami-Erie Canal. The northwest quadrant of the property slopes steeply (approximately 170 feet of relief) down to the Great Miami River flood plain. Building 89 sits on the edge of this slope. The northern boundary of the plant abuts an historic residential neighborhood 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 golf course, the Miamisburg Mound State Memorial park, old agricultural fields, woodlots, and scattered residential properties border the Mound facility on the east. Benner Road forms the southern property line of the Mound Plant, with agricultural fields and farms occupying the lands beyond.

In the immediate vicinity of Building 89, the following adjacent buildings of the Mound facility are located:

BUILDING	SQUARE FOOTAGE	CURRENT USE	DIRECTION FROM BLDG. M
N/A	N/A	Roadway and Hillside	North
92	1,600	Production Training (Torn Down 1995)	Northeast
I	25,736	Explosives/Pyrotechnics Production	Northeast
48	7,950	Surveillance (Explosives)	350 ft. East
N/A	N/A	Hillside	Southeast
SD	1,593	Decontamination and Decommissioning (D&D) Program	Southeast (~ 50 ft. downslope)
56	613	Fire Pump and Water Tank	South (~ 40 ft. downslope)
N/A	N/A	450 ft. Grass-covered Hillside to the CONRAIL Railroad Line	Southwest, West, and Northwest

3.3 Descriptions of Structures, Roads, and Other Improvements on the Site

Building 89 is a one-story concrete block structure with a partial basement. The building was constructed in 1985 as a warehouse for explosive material for the United States nuclear stockpile. The building is still used for equipment (nonexplosive) storage. HVAC equipment is installed in the partial basement.

A small, free-standing, approximately 6-foot by 6-foot guard shack is located adjacent to the concrete sidewalk on the east side of the building.

Most of the buildings at Mound, including Building 89, are heated by steam. There are two steam boilers located in the Powerhouse (Building P). The boilers generate saturated steam at 125 psig, which is distributed through above-ground pipes on elevated stanchions to the various buildings and the pressure is reduced to 30 psig for use in the buildings. The condensate is collected in the buildings in vented condensate receivers and is returned to the powerhouse for feed water to the boilers.

Many of Mound's buildings, including Building 89 are air conditioned by central chiller systems that chill and circulate an aqueous solution of 30 percent, by volume, ethylene glycol to the buildings through pipes elevated on above-ground stanchions. There are two central chiller systems: One is in the Powerhouse and one is in Building 95.

At Building 89, the above-ground steam and chiller pipes on stanchions are routed past the south end of the building. Extensive ductwork within the building provides a temperature-controlled environment for the sensitive energetic/explosive material that was formerly stored here.

Potable water and sanitary services at Building 89 are provided by the facility. The Mound Plant operates a potable water treatment plant (Building 24) that provides drinking water for the facility using groundwater produced from three on-site production wells (with a fourth well planned FY 1995-1996). The Mound facility also operates an on-site sanitary and storm water sewer treatment plant (Building 57) to manage the plant's storm water and sanitary wastewater pursuant to a National Pollutant Discharge Elimination System (NPDES) permit issued by OEPA.

A narrow, culverted storm water drainage ditch passes by the southeast corner of Building 89.

3.4 Information Reported by User Regarding Environmental Liens or Specialized Knowledge or Experience

Mr. Mike Merker of DOE Miamisburg Area office was interviewed regarding site environmental liens. Mr. Merker indicated that there were no environmental liens or deed restrictions encumbering the property. Mr. Daniel Gorman of EG&G Mound Applied Technologies was interviewed during the site visit regarding the site history, current activities and waste disposal practices. His knowledge of recognized environmental conditions related to the current or previous use of this property is referenced and documented in the appropriate sections of this report.

3.5 Current Uses of the Property

Room 101 of the subject property is currently being used for the storage of surplus or decommissioned equipment, which is being inventoried for distribution to the City of Miamisburg or the General Services Administration (GSA) (refer to Figure 2). Equipment consists primarily of instruments, meters, computer hardware, and cables (refer to Photographs 3 and 4).

According to Mr. Gorman, Room 102 contains several filing cabinets.

Room 100 is an office with a desk, shelving, and a computer.

Room 103 is currently houses a small hydraulic forgehammer operation used to pulverize inert, nonexplosive equipment associated with the explosive equipment decommissioned in Building 48.

3.6 Past Uses of the Property

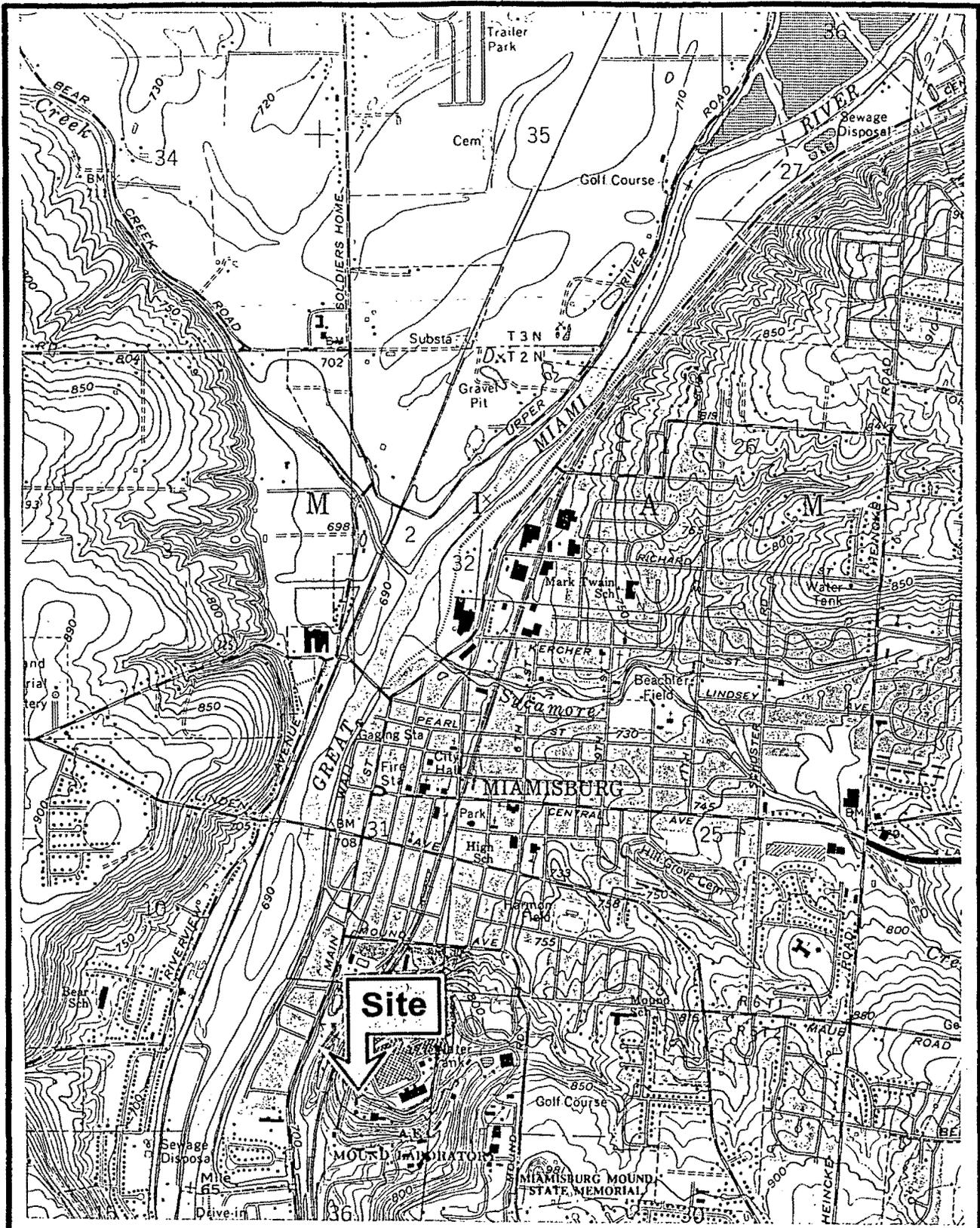
See Section 3.3 and Section 4.3.

3.7 Current and Past Uses of Adjoining Properties

See Section 3.2 and Section 4.3.

3.8 Site Rendering, Map, or Site Plan

See Figure 2.



Approximate Scale

0 2000 4000 6000
FEET FEET FEET

Reference: Miamisburg Quadrangle
USGS 7.5 Minute Series (Topographic)
1965, Revised 1987

Contour Interval 10 feet

Figure 1
Building #89
U.S. Department of Energy

HOK/K
Industrial

Project: 1195234V
Drawn By: SRP
Date: 3/18/98

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources, Federal and State

Environmental Data Resources, Inc. provided information regarding sites in the vicinity of the subject site which appear in regulatory agency summaries and databases. Sites under the jurisdiction of the following regulatory offices or programs were included in the EDR search report (provided in Exhibit B):

- ◆ Contaminated sites on the National Priorities List (NPL) which have been designated by the United States Environmental Protection Agency (EPA) as eligible for Superfund cleanup assistance;
- ◆ Sites which have been investigated or are scheduled for investigation, under authority of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA);
- ◆ Sites under investigation by the Ohio Environmental Protection Agency (OEPA) for possible hazardous waste are included in the OEPA Master Sites List. In the EDR report this list is referred to as State Hazardous Waste Sites (SHWS) records;
- ◆ Hazardous waste generator notifiers (LQG, SQG, and CEG) regulated under the Resource Conservation and Recovery Act (RCRA);
- ◆ RCRA hazardous waste treatment, storage, and disposal facilities (TSD);
- ◆ State licensed landfills;
- ◆ Leaking underground storage tanks (LUST) recorded with the Ohio Division of State Fire Marshal's Bureau of Underground Storage Tank Regulation (BUSTR);
- ◆ Underground storage tanks (UST) registered with BUSTR;
- ◆ Generators, transporters, commercial storers and/or brokers and disposers of polychlorinated biphenyls (PCBs) registered with EPA and recorded in the PCB Activity Database (PADS);
- ◆ Facilities that release toxic chemicals to the air, water, and land in reportable quantities under the Superfund Amendments and Reauthorization Act (SARA) Title III, Section 313, and which are identified in the Toxic Chemical Release Inventory System (TRIS);

- ◆ the United States Environmental Protection Agency Emergency Response Notification System's (ERNS) database of accidental releases of oil and hazardous substances.
- ◆ and "FINDS", a listing by the EPA of any site that has been reported to the agency as part of any regulatory requirement (e.g., permitting, hazardous waste generation) and does not necessarily indicate an environmental release.

There are fourteen sites within the appropriate radii (ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Sites Assessment Process Designation E1527-94), designated below as well as in the EDR Report which appears in Exhibit C.

PROPERTY NAME	ADDRESS AND PROXIMITY	STATUS
U.S. DOE Mound Plant	Mound Road Miamisburg, OH (target property)	NPL, PADS, CERCLIS, LUST, TRIS
D.J. Ceramics	611 S. Main St. Miamisburg, OH (W NW)	LUST
CG&R	901 S. Main St. Miamisburg, OH (W)	LUST
GMC Delco Products Div.	329 E. First St. Dayton (Miamisburg), OH (N NW)	RCRIS-SQG, FINDS
Dayton Public Schools	348 W. First St. Dayton (Miamisburg), OH (N NW)	RCRIS-SQG, FINDS
City of Miamisburg Pump Station	1021 S. Main St. Miamisburg, OH (W SW)	UST
Richard Church, Sr. Estate	1009 S. Main St. Miamisburg, OH	LUST

PROPERTY NAME	ADDRESS AND PROXIMITY	STATUS
Presto Adhesive Paper Co., Inc.	222 Mound Ave. Miamisburg, OH (N)	RCRIS-LQG, FINDS
Technicote, Inc.	222 Mound Ave. Miamisburg, OH (N)	RCRIS-SQG, UST, LUST
Plocher Andrew Sons	418 E. First St. Dayton (Miamisburg), OH (N NW)	RCRIS-SQG, FINDS
Shell Oil Co.	1224 S. Main St. Dayton (Miamisburg), OH (SW)	UST
Point Store	155 S. Main St. Miamisburg, OH (N)	LUST
Miamisburg Water Treatment Plant	302 S. Riverview Miamisburg, OH (NW)	LUST
Miamisburg Well Field/ Unknown Source	302 S. Riverview Ave. Miamisburg, OH (NW)	SHWS (organics contamination of groundwater)

4.1.1 Except for the Mound Plant itself, on which rests the subject property, all of the remaining identified sites listed above are located north or west of the site. These directions place these other sites as much as 170 feet lower in elevation than the Mound Main Hill, thus they are downgradient (or downslope in terms of surface water, and probably groundwater, flow). In this position these other sites are very unlikely to adversely effect the soil or groundwater conditions at the subject site.

4.1.2 The Mound site, however, has been identified as a contaminated site on the National Priority List under CERCLA (Superfund) since 1989, as described above in the Previous Assessments section (2.4.2). The Mound site was originally listed as a consequence of historic disposal practices including use of a commercial/industrial landfill, various spills, and the use of underground storage tanks, resulting in the contamination of soils and drinking water. The original contaminants of concern were calcium cyanide, copper cyanide, plutonium and its compounds, specifically

plutonium-238, and uranium and its compounds. Following its listing as an NPL site, DOE signed a CERCLA Section 120 Federal Facilities Agreement (FFA) with EPA, effective October 11, 1990. OEPA entered into the agreement in July 1993. The FFA, and its implementation through the DOE Environmental Restoration Program, requires DOE to perform RI/FSs and conduct interim remedial actions to ameliorate the environmental impact associated with past and present activities in order to protect the public health, welfare, and the environment.

As a result of the investigations and documentation conducted to comply with the CERCLA cleanup process via the FFA/DOE ER program, DOE and its M&O contractor (EG&G Mound Applied Technologies) tabulated all the potential release sites identified under the various regulatory programs in effect at the site. Many additional contaminants of concern and types of operations were identified beyond the original NPL listing of site activities. A total of 345 PRSs have been identified and are described in the OU9 Site Scoping Report: Volume 12 - Site Summary Report, Appendix A. This table has been reproduced in Exhibit D of this report. Of these 345 PRSs, none was attributed to operations at Building 89. However, an unrelated PRS was identified in a grassy area approximately 25 to 30 feet east of Building 89 (refer to Figure 2 for location):

- PRS 239 - Site Survey Project Potential Hot Spot Location S0208: Soil contaminated with Plutonium-238 was detected at this spot during the Site Survey Project conducted by Mound Plant in 1988. The Site Summary Report documents this release as the result of an isolated activity from an unknown source(s) and that further action under CERCLA is recommended. The site is currently cordoned off with orange snow fencing. At the time of our site visit, it appeared that soil had been excavated from the fenced area (see Photograph 6). Black polyethylene sheeting had been placed over the excavation. (Note: The PRS location plan from the Site Summary Report depicts the PRS 239 location on the west side of Building 89.)

- 4.1.3 In compliance with permit requirements under RCRA, the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), and the Clean Air Act (CAA), the Mound has applied for or has received permits for its surface water discharges, air emissions, and hazardous waste program. The Mound has submitted both a RCRA Part A and Part B Permit application and operates as a RCRA hazardous waste treatment and storage facility under interim status. Mound also maintains a NPDES surface water discharge permit with facility I.D. Number OH009857. 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 OEPA. The Mound also submits annual Emergency and Hazardous Chemical Inventory Forms to the OEPA, pursuant to SARA Title III, the Emergency Planning and Community Right-to-Know Act. The 1995 version of this report indicated that no chemicals are stored at Building 89 in quantities above regulatory thresholds.

- 4.1.4 DOE has legal authority derived from the Atomic Energy Act of 1954 (AEA) to conduct routine operations at Mound involving, among other things, underground tanks, equipment and other facilities. "Routine operations" include both the operation of currently active sites and the Decontamination & Decommissioning (D&D) of surplus sites. DOE has authority under the AEA to respond to any environmental contamination known or discovered for both active and inactive tanks. Because DOE has signed an FFA, it also has authority and responsibility derived from CERCLA and the FFA. The authorities of the AEA and CERCLA overlap, but CERCLA explicitly recognizes the integration of the overlapping authorities. At Mound, a D&D/Environmental Restoration Program agreement was established April 26, 1991, to define the soil activity responsibilities between the two programs.

4.2 Physical Setting Source(s)

See Figure 1 and Section 5.8.

4.3 Historical Use Information

A history of the site was developed to identify past uses that may have an environmental impact. HOK/K performed a review of title records at the Montgomery County Recorder's Office in Dayton, Ohio, to obtain a history of ownership. HOK/K also relied on previously published Mound documents, principally the OU 9 Site Scoping Report: Volume 7 - Waste Management (February 1993), to provide this history of ownership and operations.

A history of ownership for Building 89 must obviously reflect the ownership history of the Mound Plant. The following information is excerpted from Volume 7 - Waste Management:

"In the summer of 1942, the United States Army organized the Manhattan Engineer District for the purpose of developing an atomic bomb. This undertaking became known as the Manhattan Project. In 1943, the Director of Monsanto Chemical Company's (MCC's, now Monsanto Corporation's) Central Research Department in Dayton, Ohio accepted responsibility for the chemistry and metallurgy of radioactive polonium-210, and the Dayton Project was launched." MCC operated five units of the Dayton Project at various locations around the Dayton area. For

Dayton Unit V (more formally the Dayton Engineer Works under the Dayton Engineer District), a 182-acre site on the outskirts of the town of Miamisburg in Montgomery County, Ohio, was selected in 1946 as the location of the permanent research facility in support of the Manhattan Project. "In July of 1946, Monsanto Research Corporation (MRC), a subsidiary of MCC, engaged the firm of Giffels and Vallet of Detroit, Michigan, to design the plant ... Construction of the new facility, consisting of 14 original buildings [including Building M], began in February 1947 by Maxon Construction Co., Dayton, Ohio. The plant was the first permanent facility of the [Atomic Energy Commission] AEC, which had succeeded the wartime Manhattan Engineer District. The Mound Laboratory was occupied by MRC personnel in May 1948, and operations involving radionuclides began in January 1949.

"Mound is a government-owned and contractor-operated facility, originally administered under the Oak Ridge Operations Office of the AEC. The plant was assigned new production and development functions in 1955 when the administrative control was assumed by the AEC's Santa Fe operations office. The Santa Fe Operations Office was changed to the Albuquerque Operations Office in April 1956. In January 1975, the plant formally came under the Energy Research and Development Administration (ERDA) upon dissolution of the AEC. In October 1977, the plant was incorporated into the DOE complex and the facility designation changed from Mound Laboratory to Mound Plant. MRC was the sole operating contractor until October 1988, when EG&G-Mound Applied Technologies took over."

As described previously, Building 89 was constructed in 1985 as a warehouse for explosive material. As no waste was generated or stored in this building, no additional information pertaining to Building 89 is detailed in the Volume 7 - Waste Management document.

4.4 Additional Record Sources

4.4.1 Interviews

The interviews with Mr. Gorman produced the following information regarding past practices and operations at Building 89:

- ◆ Explosive material formerly stored in Building 89 was packaged in temperature-controlled containers sealed with humidity indicators. Pyrotechnic energetic material was segregated from primary and secondary explosive material.
- ◆ No fires, explosions, or other accidents have occurred at Building 89.

- ◆ No underground storage tanks have existed at the Building 89 site.
- ◆ The subject site was undeveloped hillside prior to the construction of Building 89.

4.4.2 Aerial Photographs

Aerial photographs from 1938, 1949, 1962, 1968, 1975, 1980, 1987, and 1995 were reviewed and copies are found in Exhibit E.

The 1938 photograph shows the Mound acreage as agricultural fields and undeveloped wood lots. The historic Miamisburg Indian Mound is visible for location reference.

The 1949 aerial shows the completed initial phase of construction on the Mound Main Hill. Approximately fourteen buildings are visible. Roadways on both the Main Hill and the eastern hill are present.

The 1962 and 1968 photographs show expanding activities at the Mound.

The overall Mound facility, as depicted in the 1975, 1980, 1987, and 1995 photographs, shows continuing change and expansion. Building 89 is visible in the 1987 and 1995 photographs.

4.4.3 Historic Sanborn Fire Insurance Maps

Sanborn Map coverage was not available for the Mound facility. A copy of the Sanborn Map Request Response is included in Exhibit F.

4.4.4 Building Prints

A series of building prints were made available to HOK/K by Mr. Tom Bruggeman of EG&G Mound Applied Technologies.

The 1985 building prints are the original and as-built construction plans for Building 89, including details of the cut-and-fill site work, soil boring logs and profile, and details of altering the location of existing fire lines and storm water sewer ditch.

5.0 INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS

5.1 Interior Observations

5.1.1 Heating/Cooling

The heating and cooling system for Mound was described in Section 3.3. At Building 89, boiler water, condensate, and chiller water pipes are marked where present in rooms through out the building. All of the HVAC equipment is installed in the partial basement.

Steam pipes and chiller water pipes leading from the facility powerhouse enter Building 89 on the south side. The pipes are supported on elevated stanchions and by brackets on the south wall.

5.1.2 Stains or Corrosion

Oily leaks were observed around the base of the hydraulic forgehammer. Most of the stained areas had been spread with oil absorbent granules (Speedi-Dry) (refer to Photograph 7).

5.1.3 Drains and Sumps

Only one floor drain was observed in Building 89. It is located adjacent to the condensate return machine in the basement and receives condensate water. Mr. Gorman reported that the floor drain is routed to the facility sanitary sewer system.

5.2 Exterior Observations

5.2.1 Pits, Ponds, or Lagoons

No pits, ponds, or lagoons were observed on the exterior of the building.

5.2.2 Stained Soil or Pavement, Stressed Vegetation

No stained soil or pavement or stressed vegetation was evident on the exterior of Building 89 during the site visit. However, an area of excavated soil was observed in a grassy area approximately 25 to 30 east of building 89. The excavation is associated with PRS 239.

5.2.3 Wells

There was no evidence of wells (such as a roadbox or pipe stick-up) at Building 89. In addition, our key site manager Mr. Gorman had no knowledge of any wells around Building 89.

5.2.4 Odors

No unusual odors were detected around Building 89.

5.2.5 Hazardous Waste

No evidence of hazardous waste was observed in Building 89. However, one 55-gallon drum labelled "hazardous waste" was sitting on the east side of the PRS 239 excavation (see Photograph 6).

5.2.6 Waste Water

Storm water is directed southwestward via a culverted drainage ditch in the vicinity of Building 89.

5.2.7 Septic Systems

There was no evidence of septic systems (such as leaching field or septic tank vent pipes) in the vicinity of Building 89. According to Mound documentation, there are no septic systems on the Mound Plant because it is serviced by a sanitary sewage treatment plant.

5.3 Hazardous Substances in Connection with Identified Uses

Hydraulic oil is utilized in the forgehammer in Room 103 of Building 89. According to a placard attached to the forgehammer, the oil in the machine does not contain polychlorinated biphenyls (PCBs).

5.4 Hazardous Substance Containers and Unidentified Substance Containers

Three 1-gallon plastic containers, and three boxes marked as 1-quart containers, of Fomblin Oil are stored on a utility shelf in Room 101 (see Photograph 8). Mr. Gordon did not know the purpose or application of this chemical.

A flammable storage cabinet is located against the east wall of the site building. HOK/K did not have access to this cabinet.

There were no unidentified substance containers noticed during the Building 89 site walkover.

5.5 Storage Tanks

5.5.1 Above-Ground Storage Tanks

No above-ground storage tanks are located at Building 89.

5.5.2 Underground Storage Tanks (USTs)

No evidence of USTs (such as vent or fill pipes) was observed on the subject site. Our key site manager had no knowledge of any USTs ever having existed at Building 89. In addition, none of the DOE or EG&G reference documents reported USTs being present at Building 89.

5.6 Indications of Polychlorinated Biphenyls (PCB's)

Under the Toxic Substances Control Act (TSCA), the EPA regulates the manufacture, distribution and use of PCBs. PCBs are a known carcinogen and are persistent in the environment. They were formerly widely used in the dielectric fluid of electrical transformers and capacitors, and in the oil of hydraulic systems. PCBs are also present in the ballasts of fluorescent lamps.

Although hydraulic oil is used in the forgehammer operated in the site building, the unit is marked as a non-PCB-containing system (i.e., less than 50 parts per billion PCBs). There were no other indications of PCBs at the subject site.

Fluorescent lighting is used in Building 89. Fluorescent lamp ballasts contain a small capacitor that may contain high concentrations of PCBs (greater than 900,000 ppm). All lamp ballasts showing a manufacture date through 1979 should be regarded as containing PCBs. If a ballast is not labeled "No PCBs," it should be considered to contain PCBs regardless of the date of manufacture.

Used lamp ballasts that are leaking PCB material are fully regulated under CERCLA and TSCA and must be incinerated at a TSCA approved incinerator. Used, non-leaking PCB-containing lamp ballasts are eligible for disposal as municipal solid waste, although EPA encourages proper disposal of PCB materials in a chemical waste landfill or a high temperature incinerator, which completely destroys the PCB material. However, incineration is costly and landfill disposal carries the potential for future cleanup liability. Lamp ballasts can be successfully recycled, and facilities disposing of waste fluorescent lamp ballasts should consider this disposal alternative.

5.7 Indications of Solid Waste Disposal

Solid waste was observed in Room 103 of the site building. Here inert, nonexplosive material from weapons parts are pulverized by the forgehammer. Most of the material is metal. The different types of scrap metal are segregated into several 55-gallon drums. The scrap metal is collected by Mound waste management staff for resale, recycling, or disposal.

5.8 Physical Setting Analysis

5.8.1 Surface Topography

A map of the area is included in Figure 1. This map is based on the U.S.G.S. 1965 (photorevised 1974) 7.5 Minute Topographic Map of the Miamisburg, Ohio Quadrangle. The site elevation ranges between 720 and 900 feet msl. Based on an evaluation of the surface topography, surface water flows in all directions away from the Mound Main Hill. However, in the vicinity of Building 89, surface water is assumed to flow southwestward down the valley slope.

5.8.2 Geology

An extensive site-wide (OU 9) hydrogeologic investigation has been completed by EG&G for the Mound Plant. The five technical memoranda written as part of the hydrogeologic investigation were cited in Section 2.5.2. Only a brief summary of geologic highlights for the Mound vicinity are described below.

The bedrock at the Mound Plant is comprised of marine shales and limestones of the Ordovician System within the Cincinnati Series.

The nature and distribution of natural fractures studied during the referenced investigation indicate that a fracture carapace (zone at the surface) is superimposed on the bedrock beneath Mound Plant. This fracture carapace is believed to consist of a network of interconnected vertical and bedding plane fractures that are water-saturated in the lower parts and unsaturated in the upper parts.

The aquifer system at the Mound Plant consists of two different hydrogeologic environments: groundwater flow through the bedrock beneath the hills and groundwater flow within the unconsolidated glacial deposits and alluvium associated with the Buried Valley Aquifer in the Great Miami River valley. The bedrock flow system is dominated by fracture flow; the Buried Valley Aquifer is dominated by porous flow with interbedded gravel deposits providing the major pathway for water movement. The Buried Valley Aquifer occupies the southwestern quadrant of the Mound site.

Based on the available data, the fracture carapace and underlying, relatively unfractured bedrock have different hydraulic characteristics. The fracture carapace has permeability values ranging from 0.09 to 0.9 ft/dy and the underlying bedrock has permeabilities that range from 1.3×10^{-3} to 2.9×10^{-2} ft/dy. The permeability of the fracture carapace and bedrock that underlie the Mound Plant is at least three orders of

magnitude less than the Buried Valley Aquifer, which has an average permeability of 500 to 1,500 ft/dy. Because of this quality, the Buried Valley Aquifer has been designated a sole source aquifer consistent with the Safe Drinking Water Act.

The Mound Plant maintains three drinking water production wells completed in the Buried Valley Aquifer, along the western edge of the facility. Miamisburg Water District production wells are located approximately one-half mile northwest of the Mound facility on the other side of the Great Miami River.

5.9 Other Conditions of Concern

See Section 7.0, Summary of Findings.

5.10 Site Plan

See Figure 2.

6.0 NON-SCOPE CONCERNS

Certain areas are considered beyond the ASTM standard scope of the Phase I Environmental Site Assessment. These areas are provided for informational purposes below.

6.1 Suspected Asbestos-Containing Material

ACM in buildings can be found in three forms: sprayed or troweled on ceilings and walls (surfacing materials); insulation around pipes, ducts, boilers, and tanks (pipe and boiler insulation); other products such as ceiling and floor tiles and wall boards (miscellaneous materials). ACM is of greatest concern when it is friable. Friable material can be crumbled, pulverized, or reduced to powder by hand pressure.

An asbestos survey was performed at Building 89 by Barge, Waggoner, Sumner, and Cannon Inc. in 1993. No ACM was detected in Building 89.

An old oven was located on the grass area east of Building 89 and adjacent to the PRS 239 excavation. Mr. Gorman reported this oven contains asbestos material and is awaiting disposal or distribution by Mound waste management.

6.2 Lead Paint

Lead based paint was used almost exclusively in the U.S. prior to the 1970's. Congress established maximum lead concentrations in residential paint in 1978. Due to the age of the building (constructed in 1985) it is unlikely that lead based paint has been used within the buildings. The risk of a lead based paint hazard exists when the painted surfaces are damaged (cracked, chipped, loosened, chewed). Analysis of the paint would be necessary to determine if there is lead paint and if a lead hazard exists.

6.3 Radon

The results of radon testing of 35 buildings in the same zip code as this site (45342) are on file with the Regional Air Pollution Control Agency in Dayton, Ohio, and were provided in the EDR report in Exhibit C. The average reading for the basement area of tested buildings was 5.963 picocuries/liter as compared to the EPA recommended standard of 4.0 picocuries/liter.

Radon levels are very site specific, depending heavily on location and the building ages and construction. Radon does not normally pose a threat in commercial or industrial buildings for several reasons. The fresh air which enters the structure and the venting provided can reduce the buildup of the radon gas. In addition, human exposure in these facilities is usually limited to eight hours per day. EPA's recommended standard of 4.0 picocuries/liter is based on the assumption of sixteen hours exposure per day.

A simple screening test can be performed to determine actual on-site radon levels.

6.4 Fluorescent Lamps

Fluorescent lamps are used for lighting in this building. Fluorescent lamps contain on average between 35 and 75 milligrams of elemental mercury and trace amounts of other hazardous heavy metals (e.g., cadmium and lead). Mercury is highly toxic to humans and animals, causing both immediate and long-term effects.

According to current federal law, used fluorescent lamps are considered a solid waste. Used fluorescent lamps are not listed as a hazardous waste under Code of Federal Regulations, Volume 40, Part 262.11 (40 CFR 262.11), but under RCRA, used fluorescent lamps are subject to evaluation against the RCRA hazardous waste characteristics, including the toxicity characteristic. The Toxicity Characteristic Leaching Procedure (TCLP) is a test to determine if a waste is characteristically hazardous. The regulatory limit for mercury is 0.2 milligram/liter. If TCLP results from fluorescent lamp samples show that mercury concentrations equal or exceed this limit, the waste must be managed as a hazardous waste. Conversely, if TCLP results are below the 0.2 mg/L mercury limit, the waste is not considered hazardous and can be managed as municipal solid waste.

In Ohio, used fluorescent lamps must be initially characterized to determine if they are hazardous via the TCLP test. If used fluorescent lamps are characteristically hazardous and bound for disposal, lamps must be managed in compliance with all of Ohio's applicable hazardous waste requirements. If, however, the characteristically hazardous used lamps are bound for recycling or reclamation, they are not considered a solid waste and are not subject to Ohio's hazardous waste requirements. Facilities using and disposing of fluorescent lamps should evaluate their disposal program and should consider recycling or reclamation as an alternative to other disposal methods.

7.0 FINDINGS AND CONCLUSIONS

- 7.1 HOK/K Industrial, Inc. has performed a Phase I Environmental Site Assessment of the DOE Mound, Building 89 located at DOE Mound in Miamisburg, Ohio. Any exceptions to, or deletions from, our standard procedures are described in Section 2.3 of this report.

This assessment has revealed no evidence of Recognized Environmental Conditions.

- 7.2 HOK/K Industrial, Inc. has the following recommendations for the site:

- ◆ The status of the assessment and remediation of PRS 239 (Site Survey Project Potential Hot Spot) should be monitored by DOE and EG&G staff to ensure that the process is carried to completion. In addition, DOE documentation should be sought to confirm that the map location of PRS 239 in the Volume 12 - Site Summary Report (west side of Building 89) does in fact refer to the existing PRS excavation on the east side of Building 89.
- ◆ Oil leaks at the base of the forgehammer should be cleaned regularly.

9.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS PARTICIPATING IN
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Resumes for the following employees are attached as Exhibit G:

- ◆ John W. Ey, P.E., REPA
Manager, Environmental Assessments
- ◆ Jennifer C. Vicarel
Environmental Scientist

EXHIBIT A

DESCRIPTION OF TWELVE VOLUME SITE SCOPING REPORT

(CAA). Mound Plant, however, conducts its routine operations under the Atomic Energy Act of 1954 (AEA). One of the goals of this report is to ensure that all PRSs are properly evaluated for their inclusion or omission from the ER Program.

1.2. OVERVIEW OF MOUND PLANT SCOPING PROCESS

Prior to signing the FFA, the DOE collected and interpreted data to develop a Site conceptual model to assess both the nature and extent of contamination and to identify potential exposure pathways and potential human and environmental receptors. The multivolume scoping report, compiled under the guidance of the FFA Statement of Work, provides descriptions and summaries of current conditions and characteristics of the Mound Plant Site. The volumes are arranged to provide a systematic data set as follows:

- Volume 1 Groundwater Data: February 1987 - July 1990 (Final February 1992). Provides a tabulation of laboratory reports of groundwater sample analyses from ER Program monitoring wells, plant supply wells and groundwater seeps collected from February 1987 to July 1990, before the FFA became effective.
- Volume 2 Geologic Log and Well Information Report (Final May 1992). Provides a location map, and construction and borehole lithology details for monitoring and production wells on and adjacent to Mound Plant that have been used to collect environmental samples. Selected residential and municipal wells are also included where appropriate.
- Volume 2 Addendum Stratigraphic and Lithologic Logs (Final June 1992). Provides stratigraphic and lithologic information including borehole logs and borehole location maps compiled from plant engineering, planning, and foundation studies and contaminant infiltration and movement investigations.
- Volume 3 Radiological Site Survey (Final June 1993). Provides a summary and tabulation of available radiological data collected at Mound Plant with emphasis on the extensive radiological characterization investigation conducted by Mound Plant during the Site Survey Project (Stought et al. 1988).
- Volume 4 Engineering Map Series (Final February 1992). Provides a series of engineering maps of the Site, including plant utilities, potable water and condensate cooling lines, process piping and tanks, municipal utilities adjacent to the plant, surrounding land uses and easements, adjacent property owners, and copies of the boundary survey conducted in 1982. All maps were reproduced at a scale of 1 inch = 200 ft and use the Ohio State Plane coordinate system.
- Volume 5 Topographic Map Series (Final February 1992). Provides a series of topographic maps of the Mound Plant and adjacent areas, including a topographic map with 2-ft contours, a map of surface water features, a digitized topographic map of the northern part of the site before the plant was constructed in 1946, and a contour map with 10-ft contours that estimates the amounts of cut and fill performed from 1946 to 1986, principally along the plant drainage ditch. All maps were reproduced at a scale of 1 inch = 200 ft and use the Ohio State Plane coordinate system.

- Volume 6 Photo History Report (Final February 1992). Provides a series of interpretive maps compiled from historical aerial photos of Mound Plant that span the years 1959 to 1981. Maps of the upper and lower valley areas were compiled for 1959, 1964, 1968, 1973, 1975, 1979, and 1981, as these areas were known to have been used for waste disposal and experienced significant changes in morphology and terrain elevation.
- Volume 7 Waste Management Report (Final February 1993). Provides a description of the history of ownership and operation of the plant with emphasis on the generation, treatment, storage, and disposal of hazardous wastes through the perspective of the major programs and projects at the plant. Also provides a summary list of the hazardous substances generated through process information. This tabulation was used to compile the list of analytical parameters for the Operable Unit 9 RI/FS (DOE 1993a).
- Volume 8 Environmental Monitoring Data: 1976-1989 (Final February 1992). Provides summaries and tabulations of environmental sampling conducted by Mound Plant as part of the ongoing environmental surveillance program, the Potable Water Standards Project (Dames and Moore 1976a,b) and the Plutonium Soil Inventory Program (MRC 1977). Analytical data included tritium, plutonium-238, uranium-233, uranium-234, and uranium-238 in surface water and silt samples collected from the Great Miami River from 1974 to 1989, tritium in groundwater from the Buried Valley aquifer from 1975 to 1990, and plutonium-238 in regional soils measured in 1977.
- Volume 8 Addendum Vegetation and Foodstuff (Draft March 1994). Provides summary of analytical data on tritium and plutonium-238 concentrations in vegetation (grass) and foodstuff (fish, vegetables and milk) for the years 1972 to 1991. Data was collected and reported as part of the Mound Plant environmental monitoring and surveillance program required by DOE.
- Volume 9 Annotated Bibliography (Final February 1993). Provides an annotated list of reports prepared for the Site prior to the signing of the FFA. The bibliography includes reports prepared by government agencies, subcontractors, scientific journal articles, and maps and drawings that may be relevant to the preparation of the RI/FS. Reports published or compiled since the effective date of the FFA are beyond the scope of Volume 9.
- Volume 10 Permits and Enforcement Actions (Final May 1992). Provides a summary of past and present permits and registrations requested and received by Mound Plant, as well as a summary of enforcement actions. As a government-owned, contractor-operated facility, Mound Plant must operate not only in compliance with Executive Orders and Orders of the DOE, but also with federal and state statutes and regulations, and corporate policies. This report includes only those activities relating to compliance with federal, state, and county environmental regulations and statutes. Conditions of discharges and other permit limitations were beyond the scope of the report. Copies of permits of interest were copied in the appendix of the report.
- Volume 11 Spills and Response Actions (Final March 1992). Provides summaries of past product and hazardous substance spills, including amounts and locations and the response actions conducted. Data were compiled from records and incident reports of the Mound Plant safety office. Limited data were also available from the health physics office. Only incidents that resulted in a spill or an environmental release are included in this report. Laboratory and tabletop accidents, releases that were entirely contained within buildings, and personal injuries and radiation or hazardous substance exposures that did not apparently result in an environmental release were beyond the scope of this report. Summaries of response actions conducted by the EPA and OEPA are also included.

8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

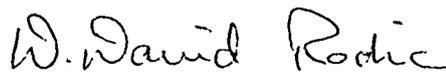
8.1 The following individuals wrote and/or reviewed this document:

Prepared by:



Jennifer C. Vicarel
Environmental Scientist

Reviewed by:



D. David Redic
Vice President

EXHIBIT B

PHOTOGRAPHS

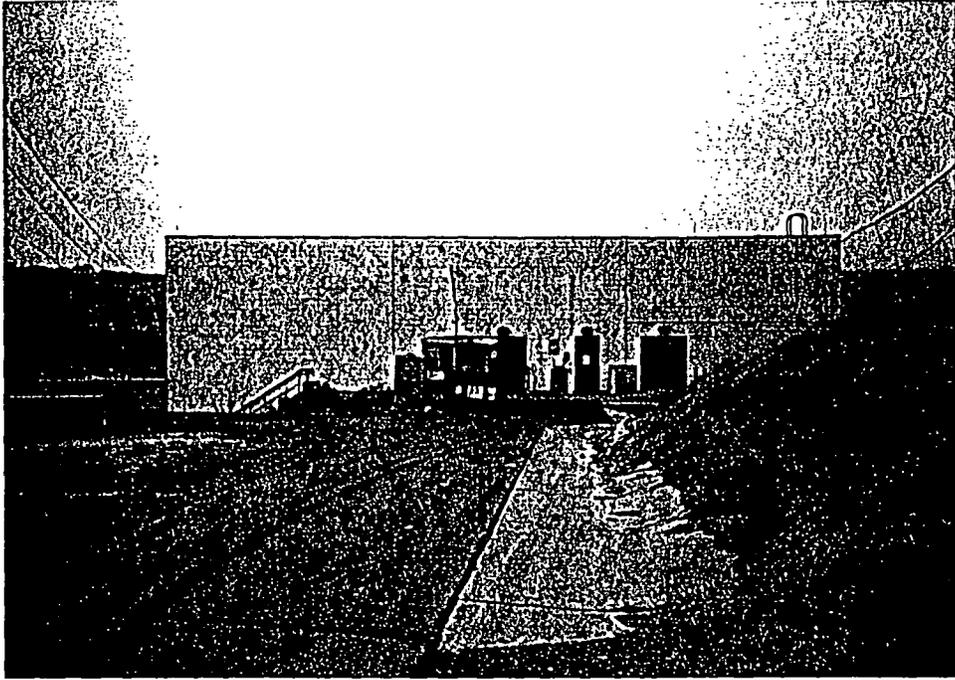


PHOTO 1:
EAST SIDE OF
BUILDING 89

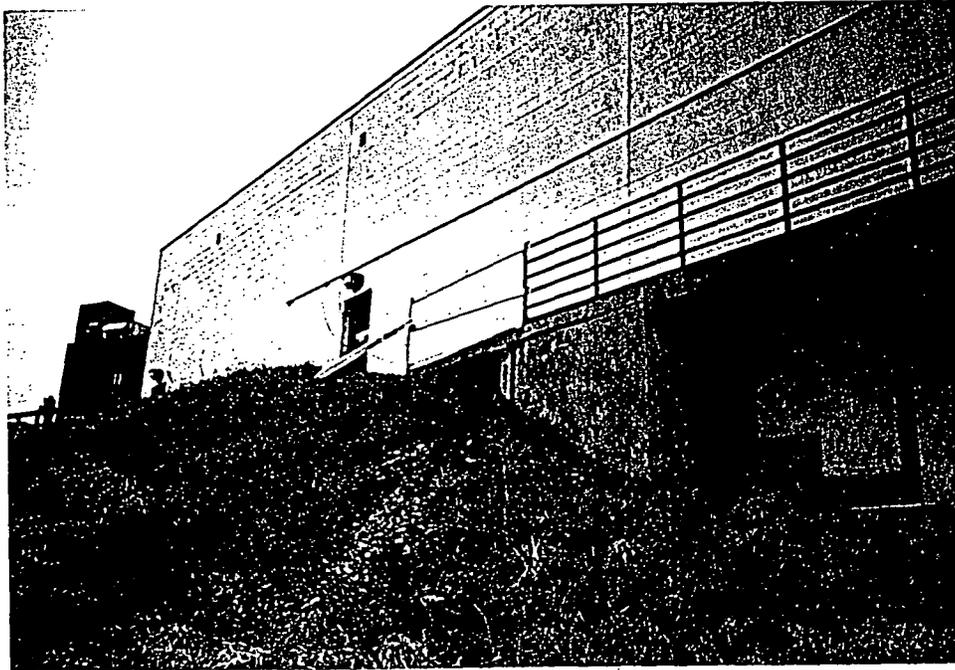


PHOTO 2:
WEST SIDE OF
BUILDING 89

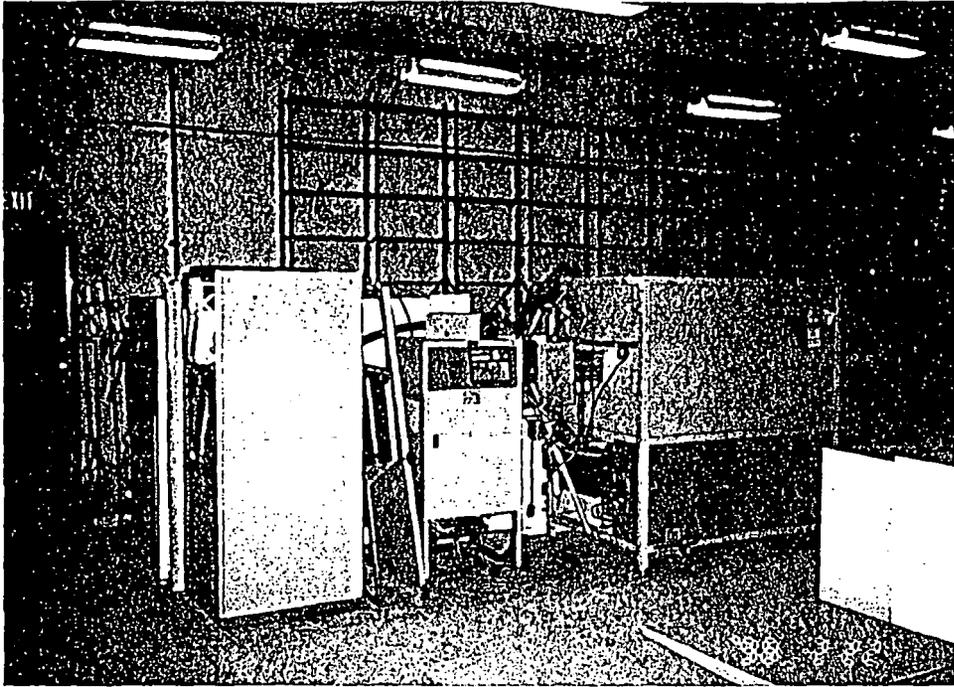


PHOTO 3:

EQUIPMENT STORAGE
IN ROOM 101, BUILDING 89



PHOTO 4:

EQUIPMENT STORAGE
IN ROOM 101, BUILDING 89

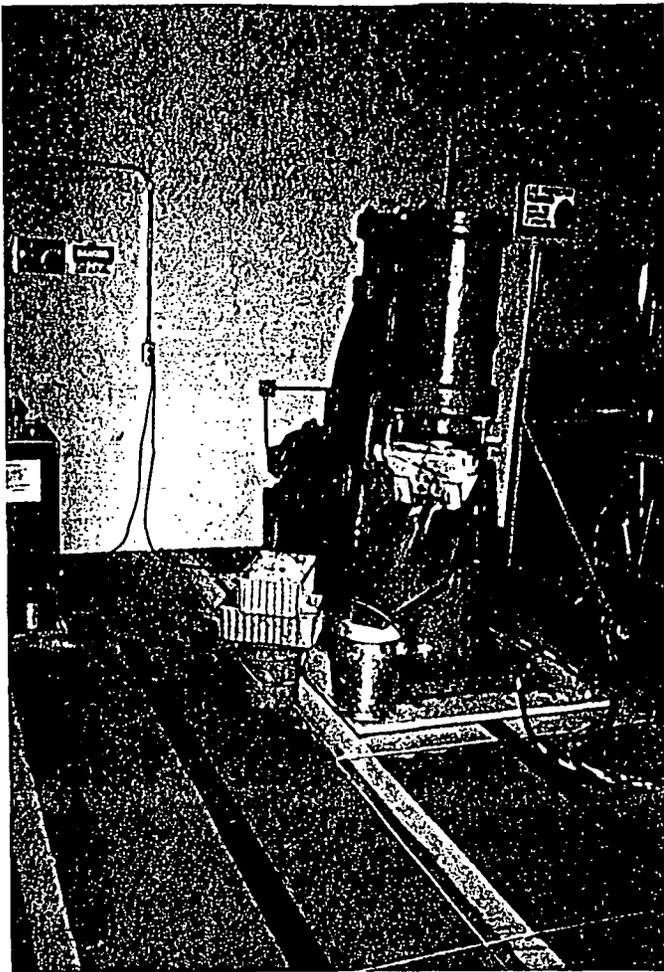


PHOTO 5:

FORGEHAMMER IN
ROOM 101, BUILDING 89

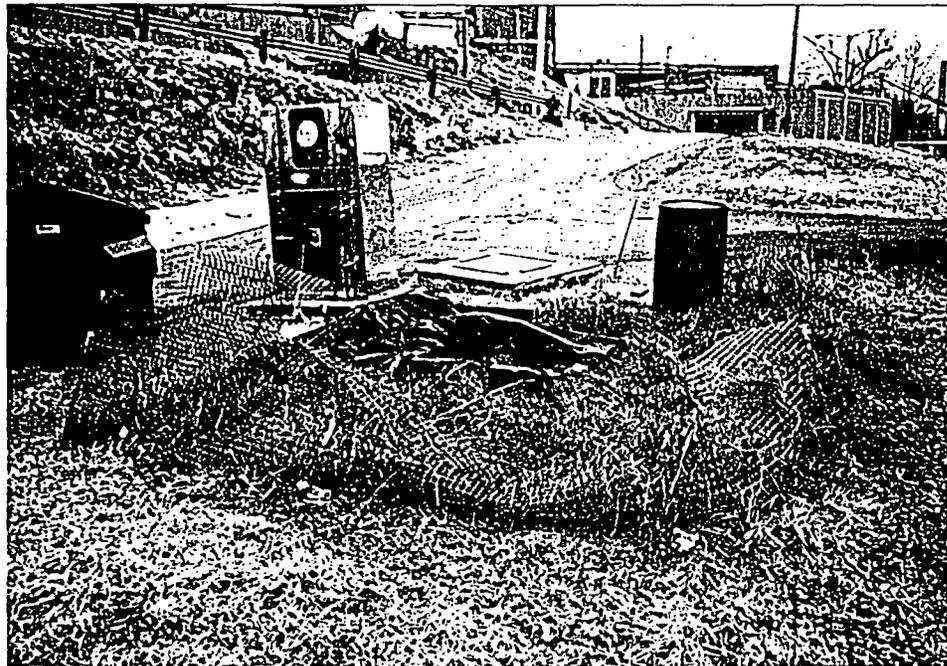


PHOTO 6:

EXCAVATION AT PRS 239,
EAST SIDE OF BUILDING 89

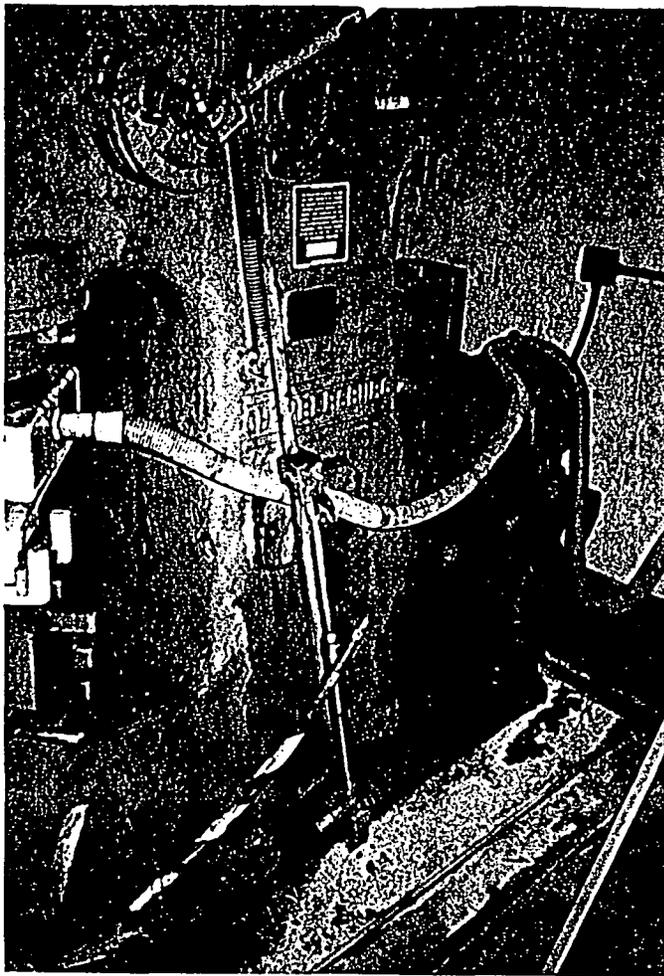


PHOTO 7:
OILY LEAKS AT
BASE OF FORGEHAMMER

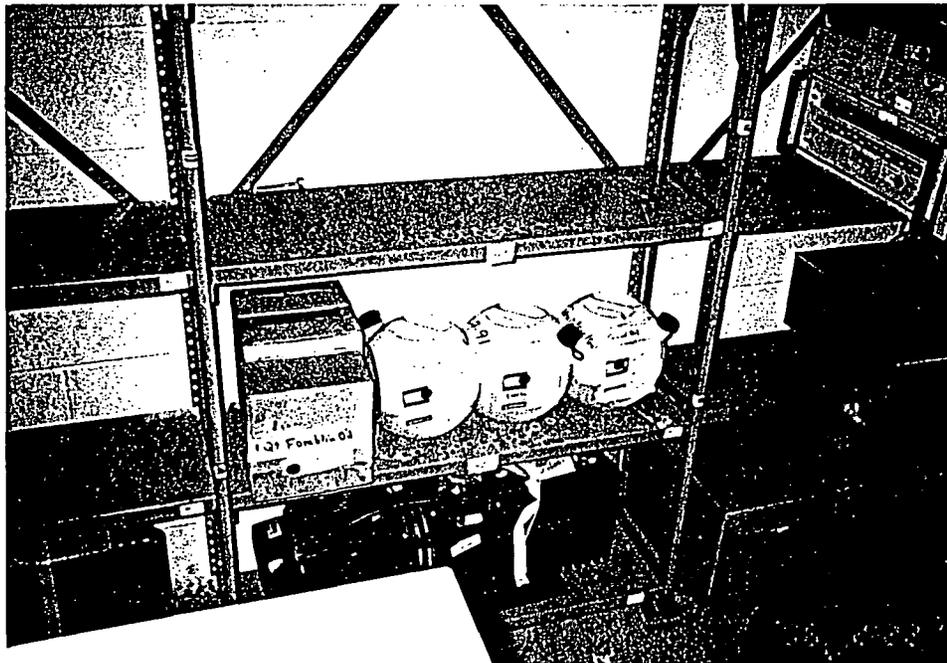


PHOTO 8:
CONTAINERS OF
FOMBLIN OIL

EXHIBIT C

EDR REGULATORY DATABASE SEARCH

**The EDR-Radius Map
with GeoCheck™**

US Department of Energy
Off Mound Rd.
Miamisburg, OH 45432

Inquiry Number: 100553.1s

December 13, 1995



**Environmental
Data
Resources, Inc.**

Creators of Toxicheck/®

***The Source*
For Environmental
Risk Management
Data**

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

This Report contains information obtained from a variety of public sources and EDR makes no representation or warranty regarding the accuracy, reliability, quality, or completeness of said information or the information contained in this report. The customer shall assume full responsibility for the use of this report.
No warranty of merchantability or of fitness for a particular purpose, expressed or implied, shall apply and EDR specifically disclaims the making of such warranties. In no event shall EDR be liable to anyone for special, incidental, consequential or exemplary damages.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The search met the specific requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-94, or custom distances requested by the user.

The address of the subject property for which the search was intended is:

OFF MOUND RD.
MIAMISBURG, OH 45432

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the subject property or within the ASTM E 1527-94 search radius around the subject property for the following Databases:

Delisted NPL:	NPL Deletions
RCRIS-TSD:	Resource Conservation and Recovery Information System
CERC-NFRAP:	Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS:	Corrective Action Report
State LF:	Licensed Solid Waste Facilities
RAATS:	RCRA Administrative Action Tracking System
HMIRS:	Hazardous Materials Information Reporting System
ERNS:	Emergency Response Notification System
NPL Liens:	Federal Superfund Liens
TSCA:	Toxic Substances Control Act
MLTS:	Material Licensing Tracking System
RODS:	Records Of Decision
CONSENT:	Superfund (CERCLA) Consent Decrees
OH Spills:	Not reported
Coal Gas:	Former Manufactured gas (Coal Gas) Sites

Unmapped (orphan) sites are not considered in the foregoing analysis.

Search Results:

Search results for the subject property and the search radius, are listed below:

Subject Property:

The subject property was not listed in any of the databases searched by EDR.

EXECUTIVE SUMMARY

Surrounding Properties:

Sites with an elevation equal to or higher than the subject property are in the left hand column; those with a lower elevation are in the right hand column. Page numbers refer to the EDR Radius Map report where detailed data on individual sites may be reviewed.

Sites listed in *bold italics* are in multiple databases.

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 09/01/1995 has revealed that there is 1 NPL site within approximately 1.33 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
<i>US DOE MOUND PLANT</i>	<i>8</i>	<i>US DOE MOUND PLANT</i>	<i>8</i>

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data comes from the Ohio Environmental Protection Agency's Master Sites List.

A review of the State Haz. Waste list, as provided by EDR, and dated 04/01/1995 has revealed that there is 1 State Haz. Waste site within approximately 1.33 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
		MIAMISBURG WELL FIELD / UNK SOURC	18

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 08/31/1995 has revealed that there is 1 CERCLIS site within approximately 0.83 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
<i>US DOE MOUND PLANT</i>	<i>8</i>	<i>US DOE MOUND PLANT</i>	<i>8</i>

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data comes from the Department of Commerce Division of State Fire Marshal's List of Reported Petroleum Underground Storage Tank Release Incidents.

A review of the LUST list, as provided by EDR, and dated 11/01/1995 has revealed that there are 7 LUST sites within approximately 0.83 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
<i>US DOE MOUND PLANT</i>	<i>8</i>	<i>US DOE MOUND PLANT</i>	<i>8</i>
		DJ CERAMICS	10
		CG&R	11
		RICHARD CHURCH SR ESTATE	13
		<i>TECHNICOTE INC</i>	<i>14</i>
		POINT STORE	17
		MIAMISBURG WATER TREATMENT PLT	17

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data comes from the Department of Commerce Division of State Fire Marshal's Facility File.

A review of the UST list, as provided by EDR, and dated 09/01/1995 has revealed that there are 3 UST sites within approximately 0.58 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
		CITY OF MIAMISBURG PUMP STATIO	12
		<i>TECHNICOTE INC</i>	<i>14</i>
		SHELL OIL CO. #23420931760	16

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 05/31/1995 has revealed that there are 4 RCRIS-SQG sites within approximately 0.58 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
		<i>GMC DELCO PRODUCTS DIV</i>	<i>12</i>
		<i>DAYTON PUBLIC SCHOOLS</i>	<i>12</i>
		<i>TECHNICOTE INC</i>	<i>14</i>
		<i>PLOCHER ANDREW SONS</i>	<i>16</i>

EXECUTIVE SUMMARY

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 05/31/1995 has revealed that there is 1 RCRIS-LQG site within approximately 0.58 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
		<i>PRESTO ADHESIVE PAPER CO INC</i>	<i>13</i>

PADS: The PCB Activity Database identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the United States Environmental Protection Agency of such activities. The source of this database is the U.S. EPA.

A review of the PADS list, as provided by EDR, and dated 10/14/1994 has revealed that there is 1 PADS site within approximately 0.33 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
<i>US DOE MOUND PLANT</i>	<i>8</i>	<i>US DOE MOUND PLANT</i>	<i>8</i>

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 07/27/1994 has revealed that there are 3 FINDS sites within approximately 0.33 Miles of the subject property.

<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
<i>US DOE MOUND PLANT</i>	<i>8</i>	<i>US DOE MOUND PLANT</i>	<i>8</i>
		<i>GMC DELCO PRODUCTS DIV</i>	<i>12</i>
		<i>DAYTON PUBLIC SCHOOLS</i>	<i>12</i>

TRIS: The Toxic Chemical Release Inventory System identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the U.S. EPA.

A review of the TRIS list, as provided by EDR, and dated 12/31/1992 has revealed that there is 1 TRIS site within approximately 0.33 Miles of the subject property.

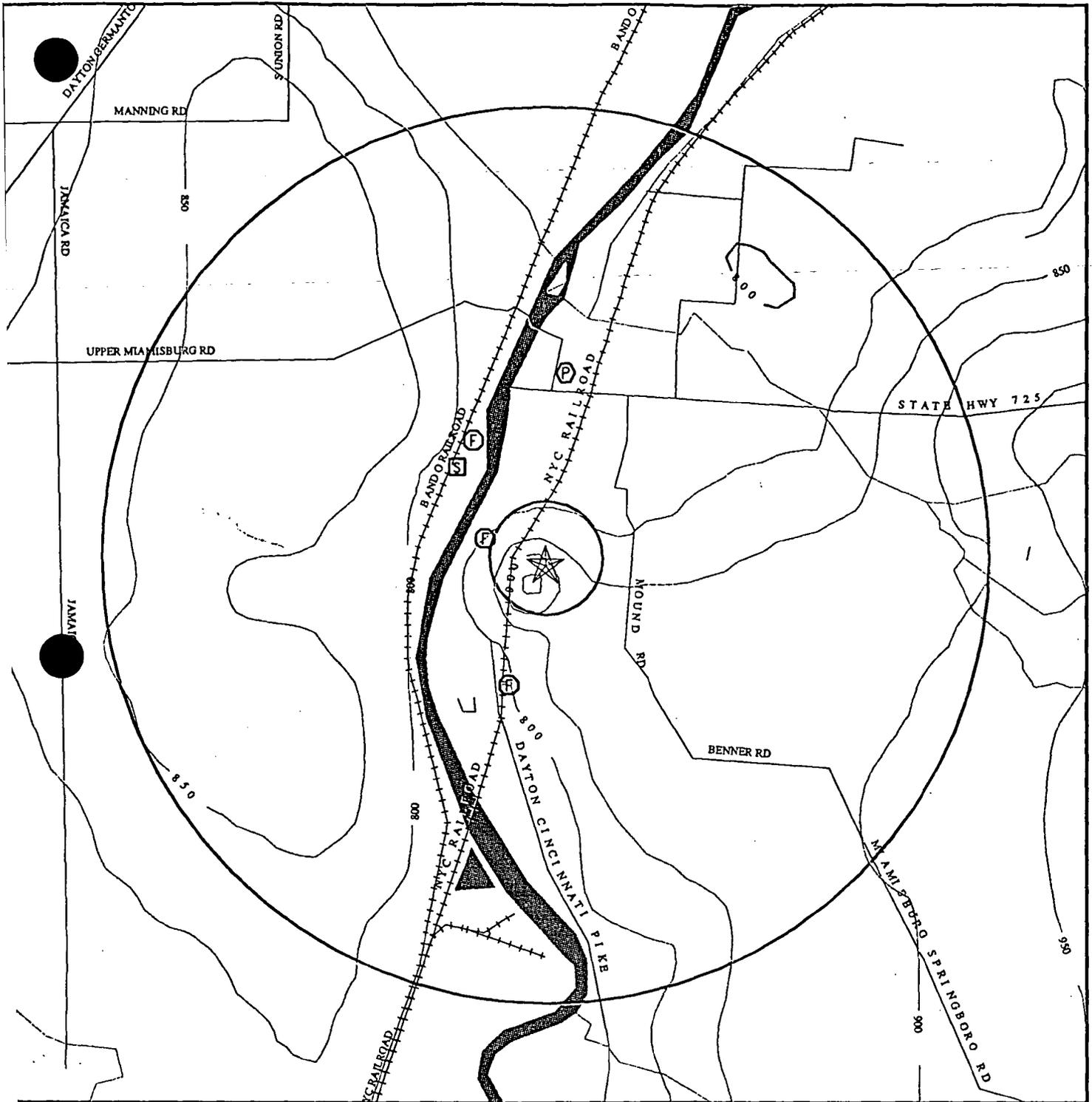
<u>Equal/Higher Elevation</u>	<u>Page</u>	<u>Lower Elevation</u>	<u>Page</u>
<i>US DOE MOUND PLANT</i>	<i>8</i>	<i>US DOE MOUND PLANT</i>	<i>8</i>

EXECUTIVE SUMMARY

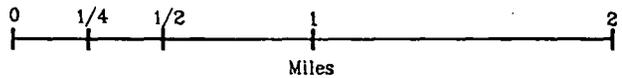
Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
PHILLIPS SAND & GRAVEL	FINDS,CERC-NFRAP,State Haz. Waste
US DOE MOUND FACILITY*	State Haz. Waste
DYES PENNZOIL	LUST
TOMS QUICK LUBE	LUST
KNOLLWOOD GARDEN CENTER	LUST
BOONE WATER SYSTEMS, INC.	UST,LUST
UNKNOWN	LUST
CATES SALES & SERVICE	UST
KNOLLWOOD MARATHON	UST
DYE'S KNOLLWOOD PENNZOIL	UST
TOM'S SUTO QUICK LUBE SERVIE I	UST
KNOLLWOOD FLORIST, INC.	UST
PENNZOIL	UST
GARY L. JESTICE	UST
WYLIE F. FAULKNER	UST
C G & R	UST
THE POINTE	UST
FRALEY FENCE	UST
CITY OF MIAMISBURG	UST
MONARCH MARKING SYS INC	UST
UES INC	RCRIS-SQG

TOPOGRAPHIC MAP - 100553.1s - HOK/K Industrial



Source: US Geological Survey 1-Degree Digital Elevation Model
Compiled 09/15/92



- ✓ - Major Roads
- ✓ - Contour lines (25 foot interval unless otherwise shown)
- ✓ ● - Waterways
- ◎ - Earthquake epicenter, Richter 5 or greater.
- (F)(S) - Closest well according to (F)ederal or (S)tate database in quadrant.
- (P) - Closest public water supply well.

TARGET PROPERTY: US Department of Energy
ADDRESS: Off Mound Rd.
CITY/STATE/ZIP: Miamisburg OH 45432
LAT/LONG: 39.6312 / 84.2884

CUSTOMER: HOK/K Industrial
CONTACT: Shelby R. Politte
INQUIRY #: 100553.1s
DATE: December 13, 1995

GEOCHECK VERSION 2.1 SUMMARY

GEOLOGIC AGE IDENTIFICATION†

Geologic Code: O3
 Era: Paleozoic
 System: Ordovician
 Series: Upper Ordovician (Cincinnatian)

ROCK STRATIGRAPHIC UNIT†

Category: Stratified Sequence

GROUNDWATER FLOW INFORMATION

General Topographic Gradient: General North
 General Hydrogeologic Gradient: The hydrogeologic data for this report indicates that groundwater flow generally is to the South. However, because of the number and/or location of wells, the various depths of aquifers or other insufficient data, the direction of groundwater flow is uncertain.

Note: In a general way, the water table typically conforms to surface topography.‡

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property: 2439084-F3 MIAMISBURG, OH

FEDERAL DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP	LITHOLOGY	DEPTH TO WATER TABLE
North	1/2 - 1 Mile	Sand and silt	12 ft.
South	1/2 - 1 Mile	Outwash	Not Reported
West	1/4 - 1/2 Mile	Not Reported	24 ft.

STATE DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP
Northern	1/2 - 1 Mile
Southern	>2 Miles

PUBLIC WATER SUPPLY SYSTEM INFORMATION (EPA-FRDS)

Searched by Nearest Well.

Location Relative to TP: 1/2 - 1 Mile North
 PWS Name: MOUND PLANT
 MANAGER, MAINTENANCE EG&G
 PO BOX 3000
 MIAMISBURG, OH 45343

Well currently has or has had major violation(s): No

AREA RADON INFORMATION

MONTGOMERY COUNTY, OH

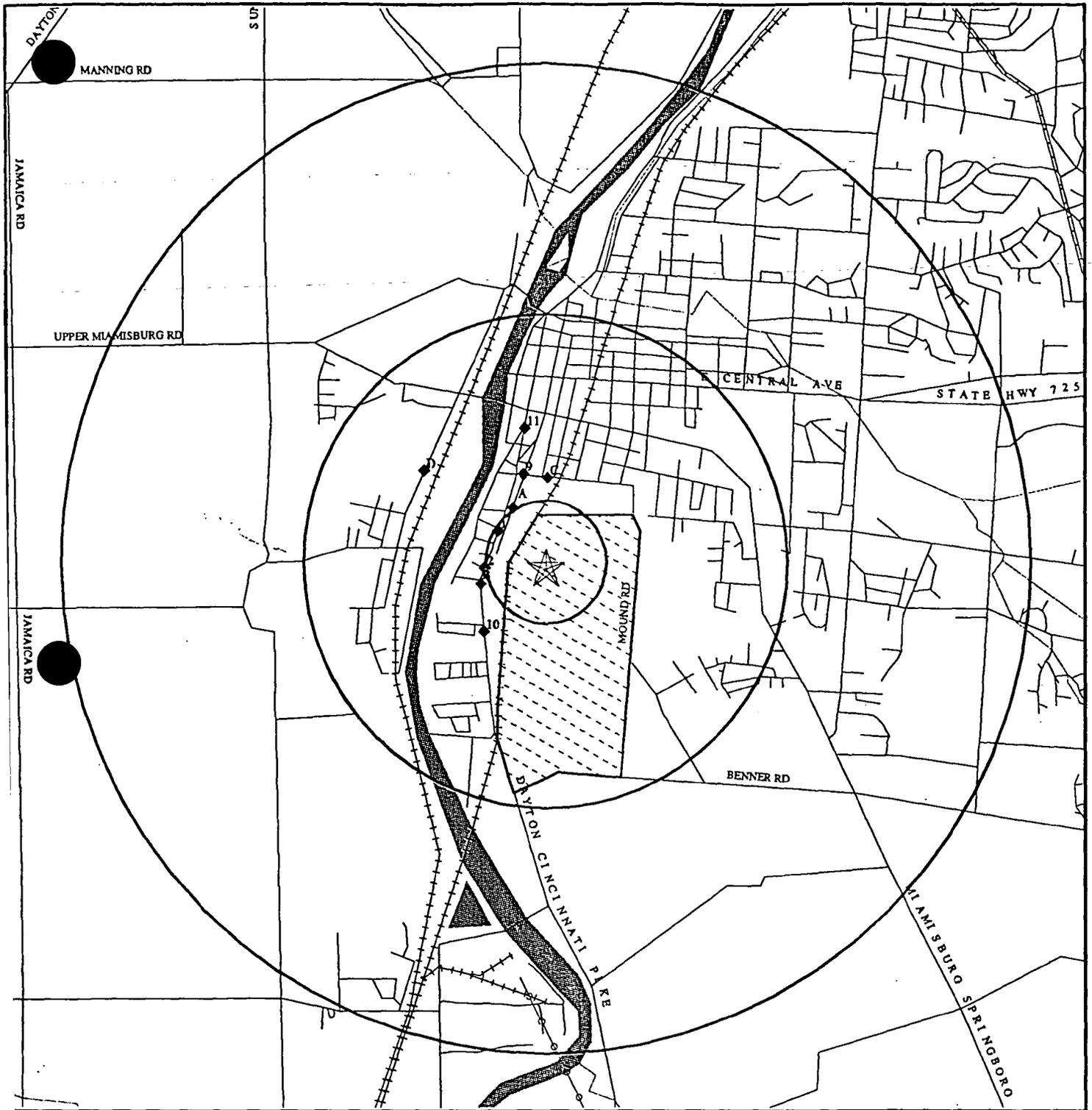
Number of sites tested: 35

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	2.966 pCi/L	77%	23%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	5.963 pCi/L	67%	27%	7%

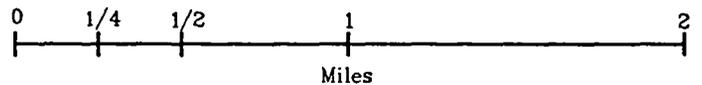
† Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beilman Map, USGS Digital Data Series DDS - 11 (1994).

‡ U.S. EPA Ground Water Handbook, Vol 1: Ground Water and Contamination, Office of Research and development EPA/625/6-90/016a, Chapter 4, page 78, September 1990.

OVERVIEW MAP - 100553.1s - HOK/K Industrial



- ★ - Indicates TARGET PROPERTY.
- ▲ - Indicates sites at elevations higher than or equal to the target property.
- ◆ - Indicates sites at elevations lower than the target property.
- - Coal Gasification Sites (if requested)
- - National Priority List Sites

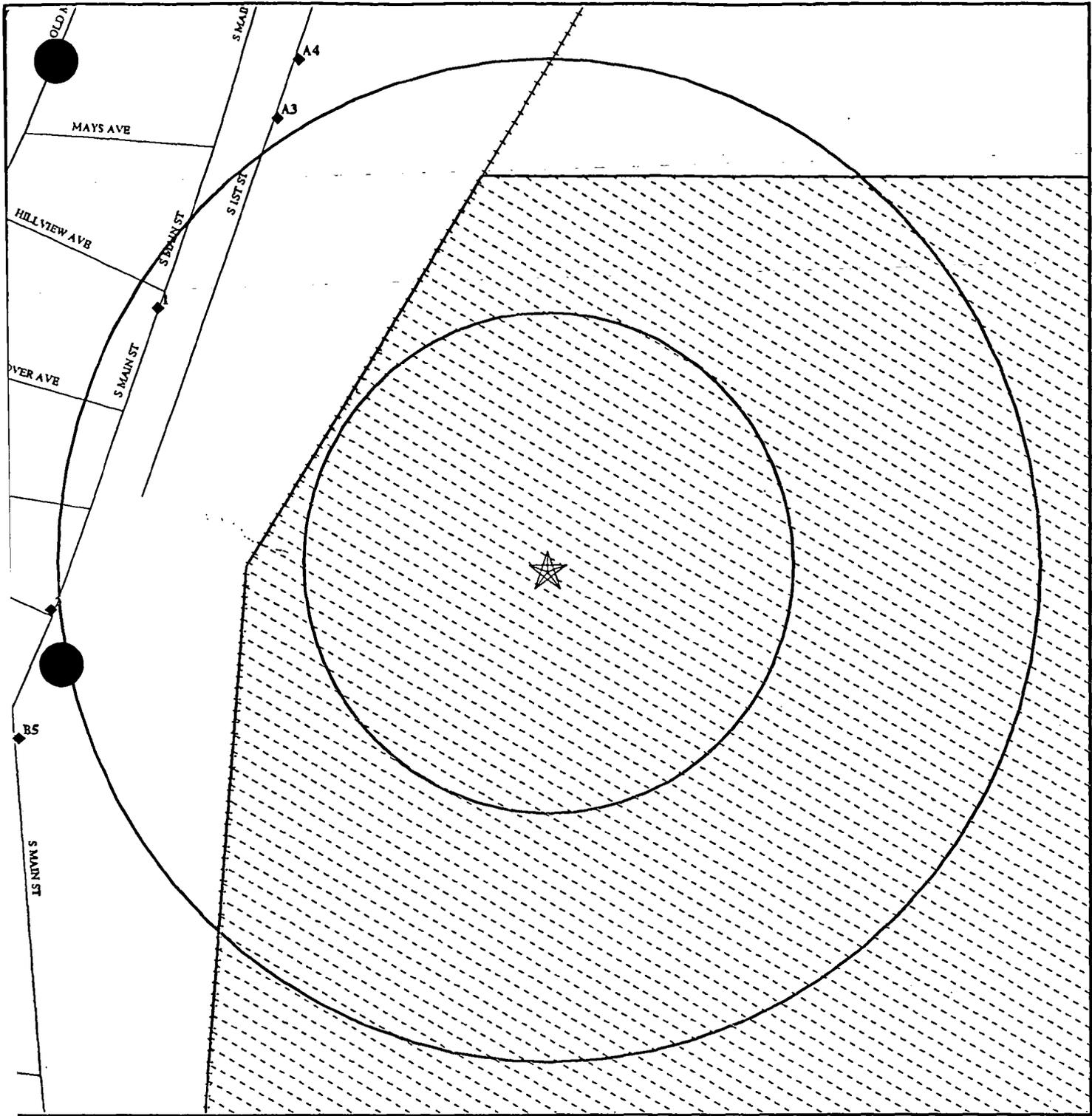


- ⚡ - Power transmission lines (USGS DLG, 1993)
- ⚡ - Oil & Gas pipelines (USGS DLG, 1993)

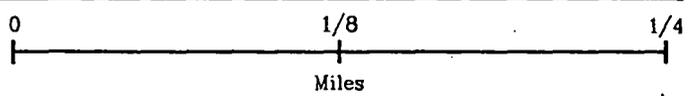
TARGET PROPERTY: US Department of Energy
 ADDRESS: Off Mound Rd
 CITY/STATE/ZIP: Miamisburg OH 45432
 LAT/LONG: 39.6312 / 84.2884

CUSTOMER: HOK/K Industrial
 CONTACT: Shelby R. Polite
 INQUIRY #: 100553.1s
 DATE: December 13, 1995

DETAIL MAP - 100553.1s - HOK/K Industrial



- ★ - Indicates TARGET PROPERTY.
- ▲ - Indicates sites at elevations higher than or equal to the target property.
- - Indicates sites at elevations lower than the target property.
- - Coal Gasification Sites (if requested)
- - Sensitive Receptors
- - National Priority List Sites



- ⚡ - Power transmission lines (USGS DLG, 1993)
- 🛢️ - Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY: US Department of Energy
 ADDRESS: Off Mound Rd.
 CITY/STATE/ZIP: Miamisburg OH 45432
 LAT/LONG: 39.6312 / 84.2884

CUSTOMER: HOK/K Industrial
 CONTACT: Shelby R. Polite
 INQUIRY #: 100553.1s
 DATE: December 13, 1995

MAP FINDINGS SUMMARY SHOWING ALL SITES

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.330	1	0	0	0	0	1
Delisted NPL		0.330	0	0	0	NR	NR	0
RCRIS-TSD		1.330	0	0	0	0	0	0
State Haz. Waste		1.330	0	0	0	1	0	1
CERCLIS		0.830	1	0	0	0	NR	1
CERC-NFRAP		0.330	0	0	0	NR	NR	0
CORRACTS		1.330	0	0	0	0	0	0
State Landfill		0.830	0	0	0	0	NR	0
LUST		0.830	1	1	3	2	NR	7
UST		0.580	0	0	3	0	NR	3
RAATS		0.330	0	0	0	NR	NR	0
RCRIS Sm. Quan. Gen.		0.580	0	0	4	0	NR	4
RCRIS Lg. Quan. Gen.		0.580	0	0	1	0	NR	1
HMIRS		0.330	0	0	0	NR	NR	0
PADS		0.330	1	0	0	NR	NR	1
ERNS		0.330	0	0	0	NR	NR	0
FINDS		0.330	1	0	4	NR	NR	5
TRIS		0.330	1	0	0	NR	NR	1
NPL Liens		0.330	0	0	0	NR	NR	0
TSCA		0.330	0	0	0	NR	NR	0
MLTS		1.330	0	0	0	0	0	0
ROD		1.330	0	0	0	0	0	0
CONSENT		1.330	0	0	0	0	0	0
OH Spills		0.330	0	0	0	NR	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

• Sites may be listed in more than one database

**MAP FINDINGS SUMMARY SHOWING
ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP**

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.330	0	0	0	0	0	0
Delisted NPL		0.330	0	0	0	NR	NR	0
RCRIS-TSD		1.330	0	0	0	0	0	0
State Haz. Waste		1.330	0	0	0	0	0	0
CERCLIS		0.830	0	0	0	0	NR	0
CERC-NFRAP		0.330	0	0	0	NR	NR	0
CORRACTS		1.330	0	0	0	0	0	0
State Landfill		0.830	0	0	0	0	NR	0
LUST		0.830	0	0	0	0	NR	0
UST		0.580	0	0	0	0	NR	0
RAATS		0.330	0	0	0	NR	NR	0
RCRIS Sm. Quan. Gen.		0.580	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.580	0	0	0	0	NR	0
HMIRS		0.330	0	0	0	NR	NR	0
PADS		0.330	0	0	0	NR	NR	0
ERNS		0.330	0	0	0	NR	NR	0
FINDS		0.330	0	0	0	NR	NR	0
TRIS		0.330	0	0	0	NR	NR	0
NPL Liens		0.330	0	0	0	NR	NR	0
TSCA		0.330	0	0	0	NR	NR	0
MLTS		1.330	0	0	0	0	0	0
ROD		1.330	0	0	0	0	0	0
CONSENT		1.330	0	0	0	0	0	0
OH Spills		0.330	0	0	0	NR	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s) EDR ID Number
EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

NPL US DOE MOUND PLANT
Region MOUND RD
 MIAMISBURG, OH 45342

PADS 1000190772
CERCLIS OH6890008984
FINDS
NPL
TRIS
LUST

CERCLIS Classification Data:

Site Incident Category: Not reported
Ownership Status: FEDERALLY OWNED
EPA Notes: Not reported

Federal Facility: YES
NPL Status: CURRENTLY ON THE FINAL NPL

CERCLIS Assessment History:

Assessment:	DISCOVERY	Completed:	11/01/1980
Assessment:	PRELIMINARY ASSESSMENT	Completed:	03/25/1986
Assessment:	SCREENING SITE INSPECTION	Completed:	07/14/1989
Assessment:	HAZARD RANKING DETERMINED	Completed:	07/14/1989
Assessment:	PROPOSAL TO NPL	Completed:	07/14/1989
Assessment:	FINAL LISTING ON NPL	Completed:	11/24/1989
Assessment:	TECHNICAL ASSISTANCE	Completed:	Not reported
Assessment:	TECHNICAL ASSISTANCE	Completed:	Not reported
Assessment:	REMOVAL ACTION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	06/12/1995
Assessment:	REMEDIAL ACTION	Completed:	Not reported
Assessment:	REMEDIAL DESIGN	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	06/12/1995
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported
Assessment:	COMBINED RI/FS	Completed:	Not reported
Assessment:	RECORD OF DECISION	Completed:	Not reported

CERCLIS Site Status:

This site is currently under investigation by the government to assess the extent of further action

CERCLIS Alias Name(s):

US DOE MOUND FACIL
MOUND PLANT (USDOE)

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

US DOE MOUND PLANT (Continued)

1000190772

NPL:

ID:	05OH073
Date Listed:	11/21/89 (FINAL)
EPA/ID:	Not reported
Haz. Rank Score:	34.61
Status:	LISTED ON NPL
Rank:	Not reported
Group:	15
Ownership:	Federal
Ownership:	Govt. Owned, Contract. Oper.
Permit:	NPDES
Permit:	Air
Permit:	RCRA Interim Status
Permit:	Radioactive
Site Activities:	Landfill, Comm./Indus.
Site Activities:	Spill
Site Activities:	Tank, below ground
Site Condition:	Contam. Drinking Water
Waste Type:	Metals
Waste Type:	Radioactive Substances
Contaminant:	Media Affected:
CALCIUM CYANIDE	Not reported
COPPER CYANIDE	Not reported
PLUTONIUM AND COMPOUNDS, NOS (PU)	Not reported
URANIUM AND COMPOUNDS, NOS (U)	Not reported
PLUTONIUM 238	Surface Water
Distance to nearest Population:	Not reported
Population within a 1 Mile Radius:	Not reported
Population within a 2 Mile Radius:	Not reported
Population within a 4 Mile Radius:	Not reported
Vertical Distance to Aquifer:	21 Feet to 75 Feet
Ground Water Use:	Used as Drinking Water, Alternative Source not Available
Distance to nearest Surface Water:	Not reported

Other Pertinent Environmental Activity Identified at Site:

facility has active water discharge permits
 facility has an emission permit under the Clean Air Act
 civil judicial and administrative enforcement cases against facility
 facility is a PCB generator, storer, transporter or permitted disposer

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

US DOE MOUND PLANT (Continued)

1000190772

LUST:

Facility ID:	570630	Incident ID:	579108400
Report No:	5791084	Facility Track:	0
Facility Tel:	513-865-4020	Responsibility:	-0-
Owner:	US DEPT OF ENERGY		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	07/16/91
Fiscal Track:	F900	Coordinator:	Central Office Corrective Actions
Facility Status:	Initial Corrective Action Program Report		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Incident eligible for LTF oversight and/or spending - a suspected or confirmed release of petroleum from a regulated UST.		
Emerg Response:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	HODNETT	Authorize Date:	07/12/91
Remarks:	0		
Summary:	-0-		
Added Date:	12/18/89	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

1
WNW
1/8-1/4
Lower

DJ CERAMICS
611 S MAIN ST
MIAMISBURG, OH 45342

LUST

S101424591
N/A

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site	Database(s)	EDR ID Number EPA ID Number
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DJ CERAMICS (Continued)

S101424591

LUST:

Facility ID:	-0-	Incident ID:	575048600
Report No:	5750486	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY95	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Response:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	04/20/95
Remarks:	-0-		
Summary:	-0-		
Added Date:	04/20/95	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

2
West
1/4-1/2
Lower

CG&R
901 S MAIN ST
MIAMISBURG, OH 45342

LUST

S101565590
N/A

LUST:

Facility ID:	572444	Incident ID:	574126900
Report No:	5741269	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY94	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Response:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	07/26/94
Remarks:	-0-		
Summary:	CLOS RPT RECD		
Added Date:	07/26/94	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site		Database(s)	EDR ID Number EPA ID Number
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A3 NNW 1/4-1/2 Lower	GMC DELCO PRODUCTS DIV 329 EAST FIRST STREET DAYTON, OH 45402	RCRIS-SQG FINDS	1000110283 OHD000817593
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RCRIS:

Owner: NAME NOT REPORTED
(312) 555-1212

Contact: KARENANN BERNER
(513) 258-7621

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D000	.00000 (N)	Notification	D001	.00000 (N)	Notification
D002	.00000 (N)	Notification	D003	.00000 (N)	Notification
F001	.00000 (N)	Notification	F002	.00000 (N)	Notification
F003	.00000 (N)	Notification	F005	.00000 (N)	Notification
F006	.00000 (N)	Notification	F007	.00000 (N)	Notification
F008	.00000 (N)	Notification	F009	.00000 (N)	Notification
F010	.00000 (N)	Notification	F011	.00000 (N)	Notification
F012	.00000 (N)	Notification	P029	.00000 (N)	Notification
P030	.00000 (N)	Notification	P074	.00000 (N)	Notification
P098	.00000 (N)	Notification	P104	.00000 (N)	Notification
P106	.00000 (N)	Notification	P121	.00000 (N)	Notification
U159	.00000 (N)	Notification	U160	.00000 (N)	Notification
U188	.00000 (N)	Notification	U210	.00000 (N)	Notification
U220	.00000 (N)	Notification	U226	.00000 (N)	Notification
U239	.00000 (N)	Notification			

(P) = Pounds, (K) = Kilograms, (M) = Metric Tons, (T) = Tons, (N) = Not Reported

A4
NNW
1/4-1/2
Lower

DAYTON PUBLIC SCHOOLS 348 W FIRST ST DAYTON, OH 45402		RCRIS-SQG FINDS	1000558707 OHD100060912
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RCRIS:

Owner: DAYTON PUBLIC SCHOOLS
(513) 461-3000

Contact: PETER WEIMER
(513) 439-0863

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D000	.00000 (N)	Notification	D001	.00000 (N)	Notification
D002	.00000 (N)	Notification	D003	.00000 (N)	Notification
F001	.00000 (N)	Notification	F002	.00000 (N)	Notification
F003	.00000 (N)	Notification	F004	.00000 (N)	Notification
F005	.00000 (N)	Notification			

(P) = Pounds, (K) = Kilograms, (M) = Metric Tons, (T) = Tons, (N) = Not Reported

Other Pertinent Environmental Activity Identified at Site:
facility is involved with pesticide/toxic substances production

B5
WSW
1/4-1/2
Lower

CITY OF MIAMISBURG PUMP STATIO 1021 S MAIN ST MIAMISBURG, OH 45342		UST	U000694613 N/A
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MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF MIAMISBURG PUMP STATIO (Continued)

U000694613

UST:

Facility ID:	0-576024	Tank ID:	1
Capacity:	1,000	Tank Status:	Curr
Tank Age:	7	Owner Name:	CITY OF MIAMISBURG
Product:	Diesel	Owner Address:	PO BOX 570
Material:	Fiberglass	City, State, Zip:	MIAMISBURG, OH 45343
Piping Material:	Copper	Facility Contact:	JESSE MULLINS
Piping Type:	Suction -- No Valve	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

B6
WSW
1/4-1/2
Lower

RICHARD CHURCH SR ESTATE
1009 S MAIN ST
MIAMISBURG, OH 45342

LUST

S101565323
N/A

LUST:

Facility ID:	571192	Incident ID:	570118000
Report No:	5701180	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	Not reported		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	04/21/92
Fiscal Track:	F900	Coordinator:	Central Office Closure
Facility Status:	No Further Action		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Response:	2	Response By:	-0-
Vacant:	1, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	04/17/92
Remarks:	0		
Summary:	CLOS RPT RECD		
Added Date:	05/24/90	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

C7
North
1/4-1/2
Lower

PRESTO ADHESIVE PAPER CO INC
222 MOUND AVE
MIAMISBURG, OH 45342

FINDS 1000389064
RCRIS-LQG OHD004243614

MAP FINDINGS

Map ID
Direction
Distance
Elevation

EDR ID Number
EPA ID Number

PRESTO ADHESIVE PAPER CO INC (Continued)

1000389064

RCRIS:

Owner: PITNEY BOWES
(312) 555-1212

Contact: ALAN GORSKI
(513) 865-2600

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	D003	.00000 (N)	Notification
F005	.00000 (N)	Notification	U002	.00000 (N)	Notification
U112	.00000 (N)	Notification	U140	.00000 (N)	Notification
U159	.00000 (N)	Notification	U220	.00000 (N)	Notification
U239	.00000 (N)	Notification			

(P) = Pounds, (K) = Kilograms, (M) = Metric Tons, (T) = Tons, (N) = Not Reported

Other Pertinent Environmental Activity Identified at Site:
facility has an emission permit under the Clean Air Act

C8
North
1/4-1/2
Lower

TECHNICOTE INC
222 MOUND AVE
MIAMISBURG, OH 45342

RCRIS-SQG 1000243045
UST OHD980896468
LUST

RCRIS:

Owner: TECHNICOTE
(312) 555-1212

Contact: TOM BLOSSER
(513) 859-4448

Waste	Quantity	Info Source
D001	.00000 (N)	Notification

(P) = Pounds, (K) = Kilograms, (M) = Metric Tons, (T) = Tons, (N) = Not Reported

There are 1 compliance/violation record(s) reported at this site:

Evaluation	Date	Violations
COMPLIANCE EVALUATION INSPECTION (CEI)	14-JAN-88	YES

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

TECHNICOTE INC (Continued)

1000243045

LUST:

Facility ID:	570319	Incident ID:	573000600
Report No:	5730006	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	-0-
Fiscal Track:	FY93	Coordinator:	Central Office Closure
Facility Status:	Reported		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Response:	2	Response By:	-0-
Vacant:	-, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	01/11/93
Remarks:	-0-		
Summary:	-0-		
Added Date:	01/11/93	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

UST:

Facility ID:	0-570319	Tank ID:	1
Capacity:	8,000	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	HAZ-69742-89-8	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		
Facility ID:	0-570319	Tank ID:	2
Capacity:	8,000	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	Not reported	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

TECHNICOTE INC (Continued)

1000243045

Facility ID:	0-570319	Tank ID:	3
Capacity:	500	Tank Status:	Remv
Tank Age:	Unk	Owner Name:	TECHNICOTE, INC.
Product:	Not reported	Owner Address:	222 MOUND AVE
Material:	Bare Steel	City, State, Zip:	MIAMISBURG, OH 45342
Piping Material:	Bare Steel	Facility Contact:	MILES D. TREECE
Piping Type:	Suction -- Valve	Telephone:	(513) 859-4448
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

9
NNW
1/4-1/2
Lower

PLOCHER ANDREW SONS
418 E FIRST ST
DAYTON, OH 45402

RCRIS-SQG 1000170454
FINDS OHD004243937

RCRIS:

Owner: PLOCHER ANDREW SONS
(312) 555-1212

Contact: CHUCK KRAFT
(513) 228-6128

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	F003	.00000 (N)	Notification
F005	.00000 (N)	Notification			

(P) = Pounds, (K) = Kilograms, (M) = Metric Tons, (T) = Tons, (N) = Not Reported

10
SW
1/4-1/2
Lower

SHELL OIL CO. #23420931760
1224 S MAIN ST
DAYTON, OH 45409

UST U000894456
N/A

UST:

Facility ID:	0-570157	Tank ID:	1
Capacity:	8,000	Tank Status:	Curr
Tank Age:	25	Owner Name:	SHELL OIL CO.
Product:	Gasoline	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Fiberglass	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Fiberglass	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

Facility ID:	0-570157	Tank ID:	2
Capacity:	10,000	Tank Status:	Curr
Tank Age:	25	Owner Name:	SHELL OIL CO.
Product:	Gasoline	Owner Address:	7777 WASHINGTON VILLAGE DR
Material:	Fiberglass	City, State, Zip:	DAYTON, OH 45459
Piping Material:	Fiberglass	Facility Contact:	MIKE HORVATH
Piping Type:	Pressure	Telephone:	Not reported
Remed. Des. Tanks:	Not reported		
Remed. Des. Piping:	Not reported		

MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Site	Database(s)	EDR ID Number EPA ID Number
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SHELL OIL CO. #23420931760 (Continued)

U000894456

<p>Facility ID: 0-570157 Capacity: 10,000 Tank Age: 24 Product: Gasoline Material: Fiberglass Piping Material: Fiberglass Piping Type: Pressure Remed. Des. Tanks: Not reported Remed. Des. Piping: Not reported</p>	<p>Tank ID: 3 Tank Status: Curr Owner Name: SHELL OIL CO. Owner Address: 7777 WASHINGTON VILLAGE DR City, State, Zip: DAYTON, OH 45459 Facility Contact: MIKE HORVATH Telephone: Not reported</p>
<p>Facility ID: 0-570157 Capacity: 1,000 Tank Age: 22 Product: Used Oil Material: Bare Steel Piping Material: Bare Steel Piping Type: Pressure Remed. Des. Tanks: Not reported Remed. Des. Piping: Not reported</p>	<p>Tank ID: 4 Tank Status: Curr Owner Name: SHELL OIL CO. Owner Address: 7777 WASHINGTON VILLAGE DR City, State, Zip: DAYTON, OH 45459 Facility Contact: MIKE HORVATH Telephone: Not reported</p>

11
North
1/2-1
Lower

POINT STORE
155 S MAIN ST
MIAMISBURG, OH 45342

LUST

S100648047
N/A

LUST:

<p>Facility ID: 570738 Report No: 5731824 Facility Tel: -0- Owner: -0- -0- -0-, OH -0- -0- Operator: -0- -0- -0-, OH -0- -0- Inspector: -0- Fiscal Track: FY93 Facility Status: Reported Classification: Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions. Trust Fund: Closure of an underground storage tank. Emerg Response: 2 Vacant: -, -0- Authorized By: GILL Remarks: -0- Summary: -0- Added Date: 09/23/93 Response Srch: -0-</p>	<p>Incident ID: 573182400 Facility Track: 0 Responsibility: -0- Revised Date: -0- Coordinator: Central Office Closure Response By: -0- County Num: 57 Authorize Date: 09/07/93 Entry By: UNGER Priority: 2</p>
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D12
NW
1/2-1
Lower

MIAMISBURG WATER TREATMENT PLT
302 S RIVERVIEW
MIAMISBURG, OH 45342

LUST

S101565457
N/A

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site	Database(s)	EDR ID Number EPA ID Number
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MIAMISBURG WATER TREATMENT PLT (Continued)

S101565457

LUST:

Facility ID:	570747	Incident ID:	572089900
Report No:	5720899	Facility Track:	0
Facility Tel:	-0-	Responsibility:	-0-
Owner:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Operator:	-0-		
	-0-		
	-0-, OH -0-		
	-0-		
Inspector:	-0-	Revised Date:	05/14/92
Fiscal Track:	FY92	Coordinator:	Central Office Closure
Facility Status:	No Further Action		
Classification:	Known suspected or confirmed source and responsible person is voluntarily, or under an informal enforcement action, proceeding with investigation of corrective actions.		
Trust Fund:	Closure of an underground storage tank.		
Emerg Response:	2	Response By:	-0-
Vacant:	1, -0-	County Num:	57
Authorized By:	GILL	Authorize Date:	05/13/92
Remarks:	-0-		
Summary:	CLOS RPT RECD		
Added Date:	04/23/92	Entry By:	UNGER
Response Srch:	-0-	Priority:	2

D13
NW
1/2-1
Lower

MIAMISBURG WELL FIELD / UNK SOURCE
302 S RIVERVIEW AVE
MIAMISBURG, OH 45342

SHWS

S100037719
N/A

SHWS:

Facility ID:	557-1359	EPA ID:	NOT ASSIGNED	Prelim. Assessment Date:	Not reported
Priority:	HIGH - There is evidence or it is suspected that hazardous waste has been managed and there is evidence of a release of hazardous waste which which may present a substantial threat to public health or safety.				
Problem:	GW ORGANICS				

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
BEAVERCREEK	U001964051	CATES SALES & SERVICE	3310 DAYTON XENIA RD	45432	UST	0-292261
BEAVERCREEK	S101562515	DYES PENNZOIL	3851 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	S101562533	TOMS QUICK LUBE	3815 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	S101562553	KNOLLWOOD GARDEN CENTER	3766 DAYTON XENIA RD	45432	LUST	-0-
BEAVERCREEK	U000892037	KNOLLWOOD MARATHON	3844 DAYTON-XENIA RD	45432	UST	0-290099
BEAVERCREEK	U000696152	DYE'S KNOLLWOOD PENNZOIL	3851 DAYTON-XENIA RD	45432	UST	0-294274
DAYTON	U001431511	BOONE WATER SYSTEMS, INC.	1519 S CENTRAL DR	45432	UST, LUST	290587
DAYTON	U000892071	TOM'S SUTO QUICK LUBE SERVICE	3815 DAYTON XENIA RD	45432	UST	0-293719
DAYTON	U000894584	KNOLLWOOD FLORIST, INC.	3766 DAYTON XENIA RD	45432	UST	0-570895
DAYTON	1000990750	UES INC	4401 DAYTON-XENIA RD	45432	RCRIS-SQG	
DAYTON	1000289261	PHILLIPS SAND & GRAVEL	NORTH FAIRFIELD RD	45432	FINDS, CERC-NFRAP, SHWS	
MIAMISBURG	S100031602	UNKNOWN	ADJ 150 RIVERVIEW AVE	45342	LUST	-0-
MIAMISBURG	U002223400	PENNZOIL	8681 DAYTON CINCINNATI PIKE	45342	UST	0-572210
MIAMISBURG	U000894692	GARY L JESTICE	72 N MAIN ST	45342	UST	0-577617
MIAMISBURG	U000894676	WYLIE F. FAULKNER	110 N MAIN ST	45342	UST	0-576514
MIAMISBURG	U001964188	C G & R	901 S MAIN ST	45342	UST	0-572444
MIAMISBURG	U001431648	THE POINTE	155 S MAIN ST	45342	UST	0-570738
MIAMISBURG	U001431608	FRALEY FENCE	311 N MAIN ST	45342	UST	0-570049
MIAMISBURG	U000894675	CITY OF MIAMISBURG	600 N MAIN ST	45342	UST	0-576023
MIAMISBURG	S100779275	US DOE MOUND FACILITY*	MOUND RD	45342	SHWS	
MIAMISBURG	U001431691	MONARCH MARKING SYS INC	ST RT 725 AND BYERS RD	45432	UST	0-574851

**GEOCHECK VERSION 2.1 ADDENDUM
FEDERAL DATABASE WELL INFORMATION**

Well Closest to Target Property (North Quadrant)

BASIC WELL DATA

Site ID:	393819084173900	Distance from TP:	1/2 - 1 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1990	County:	Montgomery
Altitude:	692.17 ft.	State:	Ohio
Well Depth:	44.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	11.50 ft.	Prim. Use of Site:	Observation
Date Measured:	11271990	Prim. Use of Water:	Unused

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Pleistocene
Principal Lithology of Unit:	Sand and silt
Further Description:	SILT/SAND BROWN

WATER LEVEL VARIABILITY

Not Reported

**GEOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION**

Well Closest to Target Property (South Quadrant)

BASIC WELL DATA

Site ID:	393724084172900	Distance from TP:	1/2 - 1 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1964	County:	Montgomery
Altitude:	698.00 ft.	State:	Ohio
Well Depth:	226.00 ft.	Topographic Setting:	Valley flat
Depth to Water Table:	Not Reported	Prim. Use of Site:	Withdrawal of water
Date Measured:	Not Reported	Prim. Use of Water:	Industrial

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Pleistocene
Principal Lithology of Unit:	Outwash
Further Description:	Not Reported

WATER LEVEL VARIABILITY

Not Reported

**GEOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION**

Well Closest to Target Property (West Quadrant)

BASIC WELL DATA

Site ID:	393757084173600	Distance from TP:	1/4 - 1/2 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1955	County:	Montgomery
Altitude:	691.00 ft.	State:	Ohio
Well Depth:	95.00 ft.	Topographic Setting:	Valley flat
Depth to Water Table:	24.13 ft.	Prim. Use of Site:	Withdrawal of water
Date Measured:	12311975	Prim. Use of Water:	Public supply

LITHOLOGIC DATA

Not Reported

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Water Well Information:

Well Within 1/2 - 1 Mile of Target Property (Northern Quadrant)

PWS ID:	5701212	Population Served:	18,500
Latitude:	0393813	Longitude:	0841744
Owner:	MIAMISBURG, CITY OF		
Source:	Ground		

Well Within >2 Miles of Target Property (Southern Quadrant)

PWS ID:	8301412	Population Served:	7,800
Latitude:	0393505	Longitude:	0841733
Owner:	SPRINGBORO, VLG. OF-CHAUTAUQUA		
Source:	Ground		

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest Well.

PWS SUMMARY:

PWS ID: OH5744912 PWS Status: Active Distance from TP: 1/2 - 1 Mile
Date Initiated: Not Reported Date Deactivated: Not Reported Dir relative to TP: North
PWS Name: MOUND PLANT
MANAGER, MAINTENANCE EG&G
PO BOX 3000
MIAMISBURG, OH 45343

Addressee / Facility Type: Not Reported
Facility Name: Not Reported

Facility Latitude: 39 38 34 Facility Longitude: 084 17 12
City Served: Not Reported
Treatment Class: Treated Population Served: 1,001 - 2,500 Persons

Well currently has or has had major violation(s): No

EPA Waste Codes Addendum

Code	Description
D000	NOT DEFINED
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D003	A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BE WASTE GUNPOWDER.
F001	THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F002	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F004	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: CRESOLS AND CRESYLIC ACID, AND

EPA Waste Codes Addendum

Code	Description
	NITROBENZENE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F006	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
F007	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS
F008	PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F009	SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F010	QUENCHING BATH RESIDUES FROM OIL BATHS FROM METAL HEAT TREATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F011	SPENT CYANIDE SOLUTIONS FROM SALT BATH POT CLEANING FROM METAL HEAT TREATING OPERATIONS.
F012	QUENCHING WASTE WATER TREATMENT SLUDGES FROM METAL HEAT TREATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
P029	COPPER CYANIDE
P029	COPPER CYANIDE CU(CN)
P030	CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED
P074	NICKEL CYANIDE
P074	NICKEL CYANIDE NI(CN) ₂
P098	POTASSIUM CYANIDE
P098	POTASSIUM CYANIDE K(CN)
P104	SILVER CYANIDE
P104	SILVER CYANIDE AG(CN)

EPA Waste Codes Addendum

Code	Description
P106	SODIUM CYANIDE
P106	SODIUM CYANIDE NA(CN)
P121	ZINC CYANIDE
P121	ZINC CYANIDE ZN(CN) ₂
U002	ACETONE (I)
U002	2-PROPANONE (I)
U112	ACETIC ACID ETHYL ESTER (I)
U112	ETHYL ACETATE (I)
U140	ISOBUTYL ALCOHOL (I,T)
U140	1-PROPANOL, 2-METHYL- (I,T)
U159	2-BUTANONE (I,T)
U159	METHYL ETHYL KETONE (MEK) (I,T)
U160	2-BUTANONE, PEROXIDE (R,T)
U160	METHYL ETHYL KETONE PEROXIDE (R,T)
U188	PHENOL
U210	ETHENE, TETRACHLORO-
U210	TETRACHLOROETHYLENE
U220	BENZENE, METHYL-
U220	TOLUENE
U226	ETHANE, 1,1,1-TRICHLORO-
U226	METHYL CHLOROFORM
U239	BENZENE, DIMETHYL- (I,T)
U239	XYLENE (I)

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM RECORDS:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA/NTIS

Telephone: 703-416-0702

CERCLIS: CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 08/31/95

Date Made Active at EDR: 12/04/95

Date of Data Arrival at EDR: 11/02/95

Elapsed ASTM days: 32

ERNS: Emergency Response Notification System

Source: EPA

Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/94

Date Made Active at EDR: 05/25/95

Date of Data Arrival at EDR: 04/11/95

Elapsed ASTM days: 44

NPL: National Priority List

Source: EPA

Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 09/01/95

Date Made Active at EDR: 10/25/95

Date of Data Arrival at EDR: 10/17/95

Elapsed ASTM days: 8

RCRIS: Resource Conservation and Recovery Information System

Source: EPA/NTIS

Telephone: 703-308-7907

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/95

Date Made Active at EDR: 08/22/95

Date of Data Arrival at EDR: 06/28/95

Elapsed ASTM days: 55

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDERAL NON-ASTM RECORDS:

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies

Date of Next Scheduled Update: 09/01/95

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 703-308-7907

CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/95

Date of Next Scheduled Update: 12/18/95

FINDS: Facility Index System

Source: EPA/NTIS

Telephone: 800-908-2493

FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CIGIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/94

Date of Next Scheduled Update: 01/08/96

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/94

Date of Next Scheduled Update: 04/30/96

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/01/95

Date of Next Scheduled Update: 01/15/96

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91

Date of Next Scheduled Update: 02/26/96

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-260-3992

PADS: PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/94

Date of Next Scheduled Update: 02/19/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/95

Date of Next Scheduled Update: 12/18/95

ROD: Records Of Decision

Source: NTIS

Telephone: 703-416-0703

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/31/95

Date of Next Scheduled Update: 03/04/96

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS

Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/92

Date of Next Scheduled Update: 04/12/96

TSCA: Toxic Substances Control Act

Source: EPA/NTIS

Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 01/31/95

Date of Next Scheduled Update: 03/18/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE OF OHIO ASTM RECORDS:

LUST: List of Reported Petroleum Underground Storage Tank Release Incidents

Source: Department of Commerce

Telephone: 614-752-7926

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 11/01/95

Date of Data Arrival at EDR: 11/06/95

Date Made Active at EDR: 12/05/95

Elapsed ASTM days: 29

SHWS: Master Sites List

Source: Ohio Environmental Protection Agency

Telephone: 614-644-3143

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 04/01/95

Date of Data Arrival at EDR: 04/24/95

Date Made Active at EDR: 05/16/95

Elapsed ASTM days: 22

SWF/LS: Licensed Solid Waste Facilities

Source: Ohio Environmental Protection Agency

Telephone: 614-644-2621

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/22/95

Date of Data Arrival at EDR: 06/26/95

Date Made Active at EDR: 07/27/95

Elapsed ASTM days: 31

UST: Facility File

Source: Department of Commerce

Telephone: 614-752-7926

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/01/95

Date of Data Arrival at EDR: 09/18/95

Date Made Active at EDR: 10/10/95

Elapsed ASTM days: 22

STATE OF OHIO NON-ASTM RECORDS:

SPILLS: Included Reported Incidents, Spills or Releases to The Environment

Source: Ohio EPA

Telephone: 614-644-2084

SPILLS: All reported incidents, spills or releases to the environment.

Date of Government Version: 12/31/93

Date of Next Scheduled Update: 12/18/95

Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

DELISTED NPL: Delisted NPL Sites

Source: EPA
Telephone: 703-603-8769

DELISTED NPL: The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

NFRAP: No Further Remedial Action Planned

Source: EPA/NTIS
Telephone: 703-416-0702

NFRAP: As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

FRDS: Federal Reporting Data System

Source: EPA/Office of Drinking Water
Telephone: 202-260-2805

FRDS provides information regarding public water supplies and their compliance with monitoring requirements, maximum contaminant levels (MCL's), and other requirements of the Safe Drinking Water Act of 1986.

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals who, due to their fragile immune systems, are deemed to be especially sensitive to environmental discharges. These typically include the elderly, the sick, and children. While the exact location of these sensitive receptors cannot be determined, EDR indicates those facilities, such as schools, hospitals, day care centers, and nursing homes, where sensitive receptors are likely to be located.

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1994 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Water Dams: National Inventory of Dams

Source: Federal Emergency Management Agency

Telephone: 202-646-2801

WATER DAMS: National computer database of more than 74,000 dams maintained by the Federal Emergency Management Agency.

Ohio Public Water Systems

Source: Ohio EPA, Division of Drinking & Groundwater

EXHIBIT D

**COMPREHENSIVE TABULATION OF
POTENTIAL RELEASE SITES**

Table A.1. Comprehensive Tabulation of Potential Release Sites

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*	Results	Ref.
1	Miami-Erie canal (north pond)	C-5	Historical	Plutonium-238, tritium	1, 8, 5	Plutonium-238	S, SW	10	13	Table B.9	18, 19
2	Miami-Erie canal (south pond)	C-5	Waters of the U.S.						3, 13	Tables B.6, B.7, B.8, B.9, and B.11	15, 19
3	Miami-Erie canal (north canal)	D-4 E-4 F-4 G-4	Waters of the U.S.						2, 3, 4, 5, 6, 13, 16	Tables B.6, B.7, B.8, B.9, and B.10	16
4	Miami-Erie canal (runoff hollow)	G-4	Tributary Drainage						13	Table B.9	18, 19
5	Miami-Erie canal (south canal)	I-4 J-4 K-4 L-4	Waters of the U.S.						2, 3, 4, 5, 6, 13, 16	Tables B.9 and B.10	16
6	Miami-Erie canal (overflow creek)	M-4 N-4	Waters of the U.S.						13	Table B.9	16
7	Plant Sanitary Pipeline	H-5 I-3 I-4	In service	Plutonium-238		Suspected	S	4	16	see item 88	20
8	Site Sanitary Landfill	I-5	Historical	Contaminants listed under Historic Landfill	4, 5, 18	None Suspected			No Data		
9	Area 18, Site Sanitary Landfill Cover	I-5	In service	Plutonium-238 Thorium	1, 18				2, 3, 4, 5, 6, 10, 11, 14, 16	Table B.1 (Table IV.7 in Ref. 6) Tables B.6, B.7, B.8 and B.9	6, 24
10	Historic Landfill	I-4 I-5	Historical	Administrative and laboratory trash Beryllium, Mercury, Nickel carbonyl, Trichloroethene, carbon tetrachloride, Lithium hydride, Benzene, Alcohol, Acetone, Polychlorinated biphenyl oils, Waste antifreeze, Waste oil, Paints, Solvents, Photo-processing solutions, Plating solutions Sediment from plant drainage ditch Bioassay samples Scintillation "cocktails"	1, 4, 5, 18	Suspected VOCs	GW, S	4, 18	14 2, 3, 4, 5, 6 3	Table B.9 (Table IV.7 in Ref. 6) Tables B.6, B.7, B.8 and B.9	6 24

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*	Results	Ref
11	Area 2, Thorium and Polonium-Contaminated Wastes (AKA Crusted Drums)	I-4 I-5	Historical	Polonium-210, thorium-contaminated drums, Polonium-210 contaminated sand and debris Thorium sludge constituents, Plutonium-238	1, 4, 5, 18	Thorium and daughters	S	1, 4	14 2, 3, 4, 5, 6 10, 11, 14, 16	Table B.1 (Table III.1 in Ref. 6) Tables B.6, B.7, B.8 and B.9	6 24
12	Area B Drum Storage Area	I-5	Historical	Chemical wastes	4	None Suspected			2, 3, 4, 5, 6 10, 11, 14, 16	Tables B.6, B.7, B.8 and B.9	24
13	Trash Incinerator	J-5	Historical	Solid Waste	4	None Suspected			No Data		
14	Area C, Waste Storage Area (AKA Drum Staging Area and Chemical Waste Storage Area)	H-6	Historical	VOCs	4, 5, 7	Suspected, not confirmed	S	7	3, 4, 5, 6 14	Tables B.6, B.7, B.8, and B.9 RSS ^c Location S0518 (Appendix E in Ref. 6)	7 6
15	Area C, Lithium Burn Area (AKA Lithium Carbonate Disposal)	H-5	Historical	Lithium Hydride	4	Possible lithium residues, not confirmed	S	4, 7	2, 3, 4, 5, 6, 7, 8, 9, 10 14	Tables B.6, B.7, B.8, and B.9 RSS ^c Locations S0552 and S0553 (Appendix E in Ref. 6)	7 6
16	Area C, Past Hazardous Waste Storage Area (AKA old Building 72) see related site 345	H-6	Historical	Potential contaminants listed under Hazardous Waste Storage Area	4, 5, 18	Minor, historically remediated	S	18	4	Table B.6	18
17	Oil Burn Structure	H-5	Inactive	Aviation fuel, benzene, toluene, ethyl benzene, xylenes	5, 7, 18	Confirmed EPH, dioxin/furans		7, 18	2, 3, 4, 5, 6, 7, 8, 9, 10	Tables B.6, B.7, B.8, and B.9	7
18	Building 34, Fire Fighting Training Facility Pits	H-5	Inactive	Diesel Fuel	5, 7, 18	Confirmed EPH		7, 18	3, 4, 5, 6, 7, 8, 9, 10 14	Tables B.6, B.7, B.8, and B.9 RSS Location S0556 (Appendix E in Ref. 6)	7 6
19	Building 34, Historical Firefighting Training Pit	H-5	Historical	Diesel Fuel		Suspected Confirmed dioxin/furan	S, SW S	10 7	2, 3, 4, 5, 6, 7, 8, 9	Tables B.6, B.7, B.8, and B.9	7

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.
20	Building 34 Aviation Fuel Storage Tank (Tank 219)	H-5	Historical	Aviation fuel	3, 5, 18	Tank removed, VOC residuals		7, 18, 22	3, 4, 5, 6, 8	Tables B.6, B.7, and B.8	7, 22
21	Building 1 Leach Pit (Area I)	G-6	Surplus	Wastewater from explosives processes Organic solvents (primarily acetone)	1, 4, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6 14	Tables B.6, B.7, B.8, and B.9 RSS ^c Location S0504 (Appendix E in Ref. 6)	7 6
22	Building 1 Explosives Wastewater Settling Basin (Tank 200)	G-6	Surplus	Wastewater from explosives processes Organic solvents	3, 4, 5, 18	Suspected		7, 18	No Data		4
23	Building 43 Explosives Wastewater Settling Basin (Tank 201)	G-6	Surplus	Explosives production process wastes	3, 11	Suspected		7, 18	No Data		
24	Building 43 Solvent Storage Tank (Tank 221)	G-6	Never used Removed	None suspected (never used)	3	Suspected		7, 18	No Data		
25	Building 27 Leach Pit (Area I)	H-6	Surplus	Wastewater from explosives processes Organic solvents (primarily acetone)	1, 4, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6, 12	Tables B.6, B.7, and B.8	4, 7
26	Building 27 Concrete Flume (Tank 217)	G-6	Surplus	Wastewater from explosives processes Organic solvents (primarily acetone)	3, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6, 12	Tables B.6, B.7, and B.8	4, 7
27	Building 27 Settling Sump (Tank 218)	G-6	Surplus	Wastewater from explosives processes Organic solvents (primarily acetone)	3, 4, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6, 12	Tables B.6, B.7, and B.8	4, 7
28	Building 27 Solvent/Drum Storage Area	G-6	Surplus	Wastewater from explosives processes Organic solvents (acetone and ethanol)	4, 5, 18	Suspected, not confirmed		7, 18	3, 4, 5, 6, 12	Tables B.6, B.7, and B.8	7
29	Building 27 Filtration System	G-6	Inactive	Wastewater from explosives processes Organic solvents		Not Suspected		7, 18	No Data		

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.
30	Building 27 Diesel Fuel Storage Tank (Tank 123) (AKA Building 27 Propane Tank)	G-6	Inactive	Tank is actually above ground	3				Not Applicable		
31	Underground Sanitary Sewer Line G5	H-5	In service	Organic solvents	5, 18			7, 18	3, 4, 5, 6, 10, 11, 12, 14, 16	Tables B.6, B.7, and B.8	7
32	Underground Sanitary Sewer Line G12	F-8 G-8		Plating solutions, Laboratory chemicals Nitric acid, Hydrochloric acid Methylene chloride Strong acids and bases		Suspected, not confirmed	S	2, 7	3, 4, 5, 6, 10, 11, 12, 14, 16	Tables B.6, B.7, B.8, and B.9	7
33	Underground Sanitary Sewer Line G14 EAST	H-5 H-6									
34	Underground Sanitary Sewer Line G14 WEST	H-5 H-6									
35	Underground Sanitary Sewer Lines G19 & G14	G-5									
36	Underground Sanitary Sewer Line G15	E-9									
37	Building 51 Waste Solvent Storage Tank (Tank 220)	F-8	Historical	Organic solvents, Paints, Waste oils	3, 4, 5, 18	Tank Removed 1991, VOC residuals	S	4, 23	3, 4, 5, 6, 8	Tables B.6, B.7 and B.8	7, 23
38	Building 51 Waste Incinerator	F-8	Historical	Contaminants listed under Bldg. 51 Waste Solvent Storage Tank (Tank 220)	4, 5		A	4	No Data		
39	Building 51 Waste Incinerator Scrubber	F-8	Historical	Combustion products from Bldg. 51 Waste Incinerator	4, 5	Water released to plant drainage ditch	SW	4	No Data		
40	Building 66 Lot	F-8	Grounds	Plutonium-238 from unknown source	6	Plutonium-238	S	6	13	Table B.1 RSS ^b Location S0323 (Appendix E in Ref. 6)	6

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
41	Area 3, Thorium Drum Storage and Redrumming Area	G-5 H-5	Grounds	Thorium-232 and daughters	1, 4, 5, 6, 18	Thorium dust	S	4, 6	14, 16 1	Table B.1 (Table V.2 in Ref. 6) SGS ^b , Table B.5 Locations 5221 and 5222	6 12
42	Area A, Construction Soils from T Building	H-5	Grounds	Construction soil from T Bldg.	1	None Suspected			No Data		
43	Wastewater Treatment plant Building 57 Grit Chamber (Tank 101)	H-5	In service	Sanitary wastewaters Water softener backwashes discharged to storm sewer Plutonium-238 and other radionuclides	3, 4, 5	None Suspected	S	4	No Data on soils		
44	Building 57 Grit Conveyor										
45	Building 57 Comminuter (Tank 102)										
46	Building 57 Equalization Basin (Tank 103)										
47	Building 57 Equalization Basin (Tank 104)										
48	Building 57 Equalization Basin (Tank 105)										
49	Building 57 Equalization Basin (Tank 106)										
50	Building 57 Aeration Basin (Tank 107)										
51	Building 57 Aeration Basin (Tank 108)										
52	Building 57 Clarifier (Tank 109)										
53	Building 57 Clarifier (Tank 110)					Treated effluent released to Great Miami River via closed pipeline NPDES permitted outfall 001	SW	4	Water analyses submitted monthly to OEPA in accordance with permit		

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.
54	Building 57 Sand Filters (2 units)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)		
55	Building 57 Chlorine contact chamber (Tank 111)										
56	Building 57 Chlorine contact chamber (Tank 112)										
57	Sludge Drying Beds	H-5	Historical	Plutonium-238	4, 5, 18	Suspected	S	4	14	Table B.9	6
58	Dredge Spoil Drying Beds	H-5	Surplus	Contaminants listed under Asphalt-Lined Pond	4, 5, 18	Suspected	S	4	No Data		
59	Contaminated Soil Box Storage Area	G-6	Historical	Plutonium-238	4, 5, 18	Suspected			14	Table B.9	6
60	Hazardous Waste Storage Area (Building 72)	G-5	In service	Combustible and flammable liquids, Waste oils, Solvent-containing wastes, Ignitable wastes, Plating wastes, Photo-processing wastes, Polymeric wastes, Toxic wastes	4, 5, 18	None Suspected			1	SGS ^b Table B.5 Locations 5221 and 5222	12
									14		Table B.9 RSS ^c Location C0103 (Appendix E in Ref. 6)
61	Building 72 Outdoor Hazardous Waste Storage Area		Inactive	Waste oils	4, 5, 18				1	SGS ^b Table B.5 Locations 5221 and 5222	12
					14	Table B.9 RSS ^c Location S0541 (Appendix E in Ref. 6)	6				
62	Building 72 Empty Drum Storage Area		In service	None suspected	4, 5, 18				1	SGS ^b Table B.5 Locations 5221 and 5222	12

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
63	Building 19 Soils	G-5	Grounds	Cobalt-60	10	Cobalt-60	S	10	1 14, 16	SGS ^b Table B.5 Location 5221 Table B.9 RSS ^c Locations C0099, C0100, S0530, S0532, S0533, S0534, S0535, S0538 (Appendix E in Ref. 6)	12 6
64	Building 19 Historic Gasoline Tank (Tank 238)	G-5	Historical	Gasoline	3	No information on when tanks were removed			No Data		
65	Building 61 Area, Former Heavy Equipment Area	E-10	Historical	Waste oil	1, 5, 7, 18	Suspected	S	7, 10	3, 4, 5, 6, 8 1 14	Tables B.6, B.7, B.8, and B.9 SGS ^b , Table B.3 Locations 2216 and 2217 RSS ^c Locations S0233, S0234, S0235, S0236, S0237, S0240 (Appendix E in Ref. 6)	7 12 6
66	Area 7, Thorium and Polonium Wastes	E-8 E-9 F-8 F-9	Historical	Plutonium-238, Thorium-232 and -238, Polonium-210, Actinium-227, Radium-226, Cesium-137	1, 4, 5, 18	Suspected	S	4, 12, 18	14, 15, 16 1	Table B.1 (Table III.5 in Ref. 6) SGS ^b Table B.3	6 12

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.
67	Plant Drainage Ditch	F-4 F-5 F-6 F-7 F-8 G-4 G-5 G-6 G-7 G-8 H-4 H-5 H-6 H-7	In service, Waters of the U.S.	Plutonium-238, Thorium, Tritium Fuel oil, boiler blowdown water, ethylene glycol, sodium sulfite, sodium phosphate, octadecylamin, cyclohexylamine Effluent from asphalt-lined pond	4, 5, 18	Plutonium-238 Oil Zinc chromate Calcium chloride Ethylene glycol	SW	10	1 14, 15	Table B.9 RSS ^c Locations S0401, S0420, S0442, S0443, S0449, S0505, S0506, S0514, S0554 (Appendix E and Table X.4 in Ref. 6) SGS ^b Table B.3 Locations 4158 and 4159 Table B.1	6 12
68	Asphalt-Lined Pond	E-9	In service, Waters of the U.S.	Wastewater from SM/PP Hill Storm Sewers Plutonium-238 Non-contact cooling water - cooling tower blowdown, regeneration of zeolite water softeners	4, 5, 18	Effluent to Plant Drainage Ditch	SW	4	3 2	Table B.8 Table B.9	18 18
69	Overflow Pond	H-5 I-5	In service, Waters of the U.S.	Site sanitary landfill leachate, plutonium-238 Effluent from plant drainage ditch Stormwater runoff	4, 5, 18	Zinc chromate Calcium chloride Ethylene glycol	SW	10			
70	Retention Basins and Weir Basin	H-5	In service, Waters of the U.S.	Stormwater runoff Effluent from Plant Drainage Ditch Plutonium-238	4, 5, 18		SW				
71	Building 85 Waste Solvent Tank (Tank 136)	I-5	Inactive	None (never used)	3	Never Used			No Data		

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
72	Area 13, Polonium-Contaminated Wood from Dayton Unit IV	H-7	Historical	Polonium-210	1, 4, 5	None Suspected	S	6	14	Tables B.1 and B.9	6
73	Evaporator Storage Area (AKA Lower storage area)	H-7	Historical	Actinium-227, Cesium-137, Radium-226	4				14, 15, 16	Table B.9 RSS ^b Locations S0692 and S0697 (Appendix E in Ref. 6)	6
74	Quonset Hut (former)	H-7	Historical	Polonium-210, cobalt-60, bismuth					14	Table B.9 RSS ^b Locations S0684, S0685, and S0689 (Appendix E in Ref. 6)	6
75	Railroad Siding	G-6 G-7	Inactive	Thorium and daughters	4	Suspected thorium	S	4	14	Table B.1	6
76	Warehouse 9	G-7	Historical	Thorium-232	4	Suspected thorium	S	4	No Data		
77	Warehouse 10	G-9	Historical	Polonium-210	4	None suspected			No Data		
78	Warehouse 13	G-9	Historical	Reactor waste including Strontium-90, Cesium-137, and Nickel-63	4	Cesium 137	S	4	No Data		
79	Warehouse 15	E-8	Historical	Radioactive waste Plutonium-238 wastes and sludge Thorium sludge constituents (c)	4	Suspected	S	4	See Area 7 (No. 66)	Table B.9	6
80	Warehouse 15A	F-8	Historical	Plutonium-238, thorium	4						
81	Drilling Mud Drum Storage Areas (3 locations)	H-5 I-4	Historical	Barium	4, 5, 18	None Suspected			No Data		
82	Building 57 Diesel Fuel Storage Tank (Tank 118)	H-5	In service	Diesel fuel	3				No Data		
83	Building 2 Propane Storage Tank (Tank 122)	H-7	Inactive	Propane	3				No Data		
84	Building 56 Diesel Fuel Storage Tank (Tank 223)	F-5	Historical	Diesel fuel	3	Tank Removed			No Data		

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
85	Building 29 Solvent Storage Shed	E-8	Inactive	Acetone	4	Suspected	S	4	1 14	SGS ^b Table B.3 Location 2137 Table B.9 RSS Location S0275	12 6
86	Building 29 Septic Tank (Tank 224)	E-9	Historical	Actinium-227, Radon-222, Thorium-228, Radium-226	3, 4, 6	Suspected	S	4, 6	2	Table B.9 (See discussion for Area 7 in Ref. 6)	6
87	Building 49 Solvent Storage Shed	G-7	Inactive	Organic solvents (including trichloroethene, isopropanol, ethanol, freon-TF, hexane)	4 9	Suspected	S	4	No Data		
88	Tritium in Buried Valley Aquifer	H-4	Historical	Tritium	1 18	Tritium, historically remediated	GW	18	16	Table B.9	11 18
89	Test Fire Residual Storage Area	H-7	In service	Unexploded detonation devices	4, 5, 18	None Suspected		5	No Data		
90	Site Survey Project Potential Hot Spot Location S0425	G-8	Grounds	Thorium	6	Unknown			14	Table B.9 (Appendix E in Ref. 6)	6
91	Main Hill Seep 0601	F-5	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18
92	Main Hill Seep 0602	G-7	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18
93	Main Hill Seep 0603	D-8	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	No Data		
94	Main Hill Seep 0604	D-6	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	No Data		
95	Main Hill Seep 0605	D-6	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18
96	Main Hill Seep 0606	C-7	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	No Data		
97	Main Hill Seep 0607	C-7	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18
98	Main Hill Seep 0608	D-6	NA	Tritium, VOCs	5, 18	Tritium, VOCs	SW	13	3, 4, 5, 10, 11, 16	Tables B.6, B.7, B.8, and B.9	18

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.
99	Area 6, WD Building Filter-Cleaning Waste	D-8	Historical	Polonium-210, Cobalt-60, Radium-226	1, 4, 5, 6, 18	Suspected	S	4	2, 14	Table B.1 (Table III.4 in Ref. 6)	6
100	Area F, Chromium Trench	D-8	Historical	Chromium plating bath solution treated with sodium bisulfide, cadmium, nickel, silver	1, 4, 5, 18	Suspected	S	4	1	SGS ^b Table B.4 Locations 1109, 1110	12
101	Cooling Tower Basins	E-7 E-8	In service	<p>Sulfuric acid</p> <p>Chromates</p> <p>NALCO 2575 (phosphonate base, tolytriazole, polyacrylate, sodium chromate)</p> <p>NALCO 2532 (bistributyltin) oxide, n-alkyldimethylbenzyl ammonium chloride, potassium hydroxide)</p> <p>NALCO 2590 (calcium hypochlorite)</p> <p>ANCO CSA (phosphonate base, tolytriazole, polyacrylate)</p> <p>MICROBICIDE 77 (5-chloro-2 methyl-4-isothiazolin-3-one, 2-methyl-4-isothiazolin-3-one)</p> <p>ANCO ALGAECIDE No. 1 (2-benzyl-4-chlorophenol, sodium hydroxide)</p> <p>SILTEX (sodium polyacrylate)</p> <p>ANCOCIDE 4020 (glutaraldehyde)</p> <p>ANCOSPERSE 3830 (polyalkylene glycol, n-alkyldimethylbenzylammonium chloride)</p> <p>ANCOOL 3310 (phosphonate, triazole, sodium molybdate, sodium hydroxide)</p>	4, 5, 18	Blowdown water is released to storm sewer and drainage ditch.		4	No Data		

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*	Results	Ref
102	Cooling Tower Drum Storage Area	E-7 E-8	In service	Contaminants listed under Cooling Tower Basins Ethylene glycol	4, 5				No Data		
103	E Building Soils	E-6 E-7 F-7	Grounds			Indicated by Soil Gas Survey	S	12	1 14	SGS ^b Table B.4 Locations 1046, 1047, 1048, 1066, 1067 Table B.9 RSS ^c Locations S0152, S0153, S0164 (Appendix E in Ref. 6)	12 6
104	Scintillation Vial Storage Area	E-6	In service	Tritium, Trimethylbenzene	4, 5, 18	None suspected (within E Building)			No Data		
105	E Building Solvent Storage Shed	F-6	Historical	Trichloroethene, Ethanol, Methanol	4, 5, 18	Closed before construction of E Building Annex, soil removed	S	4	1	SGS ^b Table B.4 Location 1066	12
106	G Building Soils (AKA Garage Area)	E-7	Grounds	Waste oil, Waste antifreeze, Automotive batteries Asbestos	1, 4, 18	Suspected petroleum products			1 14	SGS ^b Table B.4 Locations 1019 Table B.9 RSS ^c Locations S0137 and S0141 (Appendix E in Ref. 6)	12 6
107	G Building Gasoline Tank (Tank 202)	E-7	Historical	Gasoline	3, 18	Tanks removed 1986, petroleum contaminated soils removed		3, 18	No Data		
108	G Building Gasoline Tank (Tank 203)	E-7	Historical								

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
109	G Building Gasoline Tank (Tank 204)	E-7	Historical	(Cont.)	(Cont.)	(Cont.)		(Cont.)	(Cont.)		
110	I Building Soils	E-6 F-6	Grounds	Toluene, acetone, Freon	4	Indicated by Soil Gas Survey	S	12	1 14, 16	SGS ^b Table B.4 Locations 1075, 1227, 1228 Table B.9 RSS Locations S0171, S0178, S0181, S0183, S0186, S0187, S0190, S0193, S0195, S0255 (Appendix E in Ref. 6)	12 6
111	Monitor Well 0034	F-7	Surplus	Waste oil	5, 18	Suspected	GW	5	No Data		
112	Paint Shop Area	E-7	In service	Paints, Thinners, Solvents (including toluene and methylene chloride) Lead, Chromates	1, 4, 5, 18	Suspected, confirmed lead	S	5	3, 4, 5, 6, 16	Tables B.6, B.7, B.8, and B.9	7
113	Powerhouse Soils	E-7	Grounds	Calcium chloride, magnesium chloride, zinc chromate, PCBs	4	Indicated by Soil Gas Survey	S	12	1 14, 16	SGS ^b Table B.4 Location 1052 Table B.9 RSS ^c Locations S0155, S0156, S0158, S0253 (Appendix E in Ref. 6)	12 6
114	Powerhouse Fuel Oil Storage Tank (Tank 113)	E-7	In service	Fuel oil	1, 3, 5, 7, 18	Fuel Oil, confirmed EPH	S	10, 7	3, 4, 5, 6, 8	Tables B.6, B.7, and B.8	7
115	Powerhouse Fuel Oil Storage Tank (Tank 114)										
116	Powerhouse Fuel Oil Storage Tank (Tank 115)										
117	Powerhouse Fuel Oil Storage Tank (Tank 116)										

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
118	M Building Soils	E-7	Grounds	Copper cyanide, Silver cyanide Machine oils, Solvents	4	Oils, Copper cyanide, Silver cyanide	S	10	1 14	SGS ^b Table B.4 Locations 1050, 1051, 1062 Table B.9 RSS ^c Locations S0162, S0163, S0252 (Appendix E in Ref. 6)	12 6
119	Room M-38 Metal Plating Rinse Water Sump (Tank 225)	E-7	Surplus	Rinse waters from metal plating operations. Possible contaminants include nickel, cadmium, silver, gold, manganese, cyanide, and aluminum. Sodium hydroxide solution Potassium permanganate	3, 4	None Suspected			No Data		
120	Room M-108 Metal Plating Rinse Water Tank (Tank 119)	E-7	In service	Rinse waters from metal plating operations. copper, gold, silver, nickel, aluminum, and uranium	3, 4	Silver cyanide	SW	10	No Data		
121	Vapor Degreasers	E-7	In service	Perclene D (perchloroethylene)	4, 5, 18	None Suspected			No Data		
122	Underground Radioactive Waste Lines (Main Hill)	E-6 F-6	Inactive	Alpha wastes from SW Bldg., R Bldg., and H Bldg. Wastewater from B Building Plutonium-238, Cobalt-60	4, 18	Suspected	S	4, 10	No Data		
123	Area 5, Radioactive Waste Line Break	F-6 F-7	Grounds	Cobalt-60, Cesium-137, Plutonium-238	1, 5, 18	Cobalt-60	S	1, 18	2, 14, 16	Table B.1 (Table III.3 in Ref. 6)	6
124	Building 48 Hillside	F-6	Inactive	Plutonium-238		Plutonium-238	S	6	14	Table B.1	6
125	Underground Sanitary Sewer Line G24	F-6	In service	Organic solvents, Plating Solutions, Laboratory chemicals, Nitric acid, Hydrochloric acid, Methylene chloride, Strong acids and bases		Suspected	S	5, 18	3, 4, 5, 6, 14, 16	Tables B.6, B.7, and B.8	7
126	Building 28 Solvent Storage Area	E-8	Grounds	Organic solvents (including alcohol, methylene chloride, and acetone)	4, 5, 9, 18	Suspected	S	4	1	SGS ^b Table B.4 Location 1054	12

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.
127	Building 28 Solvent Storage Shed	E-8	In Service	Organic solvents (including alcohol, methylene chloride, and acetone)	4, 5, 18	Suspected	S	4	1	SGS ^b Table B.4 Locations 1190 and 1231	12
128	DS Building Solvent Storage Shed	F-7	In service	Organic solvents (including 1,1,1-trichloroethane, trichlorofluoromethane, ethanol, and trichloroethane)	4, 5, 18	Suspected	S	4	1 14	SGS ^b Table B.4 Location 1194 No Hits Table B.9 RSS ^c Location S0128 (Appendix E in Ref. 6)	12 6
129	B Building Solvent Storage Shed	E-6	Inactive	Organic solvents (including trichloroethene, trichlorofluoromethane, ethanol, methanol, isopropanol, acetone, methylene chloride, toluene) Oils	4, 5, 18	Suspected	S	4	1 14	SGS ^b Table B.4 Locations 1202, 1203 Table B.9 RSS ^c Location S0146 (Appendix E in Ref. 6)	12 6
130	B Building Temporary Drum Storage Area	E-6	Inactive	Waste solvents, waste oil, and trash from E and B Bldgs.	4						
131	SW Building Soils	E-6 F-6	Grounds	Tritium, Radium-226, Actinium-227, Thorium-232	4, 6, 18	Tritium beneath the building	S	1, 18	14, 16	Table B.1 RSS ^c Locations S0154 and S0180 (Appendix E in Ref. 6)	6
132	Area 15, Entombed SW Cave (Room SW 1-B)	F-6	Historical	Radon-222, Radium-226, Actinium-227, Thorium-228	1, 4, 6, 18	Radon-222	A	1, 6	No Data		
133	SW Building Room 1-A	F-6	Historical	High-activity wastewater from radium and actinium processing, reactor waste including Radium-226, Actinium-227, Cesium-137, Plutonium-238, and Uranium-238.	4	Cesium-137 (sealed in concrete in building floor)		4	No Data		
134	SW Building Drum Storage Area	E-6	In service	Hazardous wastes Asbestos, Waste oils, Antifreeze	4, 5, 18				14	Table B.9 RSS ^c Location S0180 (Appendix E in Ref. 6)	6
135	Room SW-8 Beta Wastewater Tank (Tank 20)	F-6	In service	Tritium	3, 4				No Data		

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.
136	Room SW-125 Beta Wastewater Tank (Tank 21)	F-6	In service	Tritium	3, 4	Suspected historical leaks			No Data		
137	Room SW-143 Beta Wastewater Tank (Tank 22)	F-6	In service	Tritium	3, 4	Tanks lined			No Data		
138	Room SW-137 Alpha Wastewater Sump (Tank 23)	E-6 F-6	Inactive	Alpha wastewater from drains, sinks, and processes in SW Bldg - Uranium-238.	3, 4	Suspected uranium-233			No Data		
139	Room SW-10 Beta Wastewater Sump (Tank 226)	F-6	Inactive	tritium	3, 4	Suspected historical leaks, tank lined			No Data		
140	Beta Waste Solidification Facility - SW Building	E-6 F-6	In service	tritium Waste oils including vacuum pump, gear box, and diffusion pump oils.	4				No Data		
141	Tritium Effluent Removal System	E-6	In service	Vacuum pump oils Organic solvents Tritium wastewater		Tritium	A	4, 10	No Data		
142	SW/R Building Solid Radioactive Waste Compactor	E-6 F-6	In service	Tritium	4				No Data		
143	R/SW/T Building Stack Diesel Fuel Storage Tank (Tank 117)	F-6	In service	Diesel fuel	3				1	SGS ^b Table B.5 Location 1021	12
144	R Building Sanitary Waste Collection Tank (Tank 120)	F-6	In service	Sanitary wastes	3, 4				No Data		
145	Room R-128 Alpha Wastewater Tank (Tank 19)	E-6	In service	Alpha wastewater generated in R Bldg. Possible contaminants include Pu-238,-239, Ra-226, and Ac-227	3, 4				No Data		
146	R Building Rooms 121, 144, 146, and 148 entombed drains	F-6	Historical	Radium-226, Actinium-227	4	Sealed in concrete in building floor drains		4	No Data		

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
147	HH Building Soils	F-7	Grounds	Polonium-210, cobalt-60, tritium	4, 18	Indicated by Soil Gas Survey	S	12	1	SGS ^b Table B.4 Locations 1114, 1119, 1206, 1207, 1230	12
148	HH Building Solidification Unit	F-7	Historical	Cobalt-60, Polonium-210	4	Unknown			No Data		
149	HH Building Pilot Incinerator	F-7	Historical	Polonium-210	4	Probable air releases in 1951	A		No Data		
150	Room HH-15 Beta Wastewater Sump (Tank 236)	F-7	Inactive	Beta wastewater from restrooms and process area floor drains - tritium	3	Unknown			No Data		
151	Room HH-6 Alpha Wastewater Sump (Tank 237)	F-7	Historical	Alpha wastewater from process area floor drains. Possible contaminants include polonium-210, cobalt-60, and bismuth.	3, 4	Unknown - filled with concrete			No Data		
152	HH Building Beta Wastewater Sump (Tank 24)	F-7	In service	Beta wastewater from process area sinks and floor drains	3, 4	Unknown			No Data		
153	Area 20, Radioactive Waste Line Break	G-7	Grounds	Sodium nitrate, Plutonium-238, Cesium-137, Thorium, Cobalt-60	4, 5, 18	Cobalt-60	S	6, 18	1 2, 14, 16	SGS ^b Table B.4 Locations 1119 and 1120 Table B.1 (Table III.8 in Ref. 6)	12 6
154	Area 23, Thorium Contaminated Soil	F-6 G-6	Grounds	Thorium-230	18	Thorium-230	S	6	1 2	SGS ^b Table B.4 Location 1122 Table B.1 RSS ^c Location S1092 (Appendix E in Ref. 6)	12 6
155	Old Sanitary Disposal (SD) Plant (AKA Old Sanitary Wastewater Treatment Plant)	F-6	Surplus	Chromic acid, Calcium cyanide, Nickel sulfate, Nickel chloride, Black oxide, Copper cyanide	4, 5, 18	Unknown			No Data		
156	Old SD plant Tank (Tank 205)	F-6	Surplus	Polonium-210, Cobalt-60	3, 5						

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
157	Old SD plant Tank (Tank 206)	F-6	Surplus	Photo-processing solutions	3, 5	Unknown			No Data		
158	Old SD plant Tank (Tank 207)	F-6	Surplus	Metal Finishing Rinse Water							
159	Area 4A, Sewage Sludge Drying Pits	F-5 F-6 G-5 G-6	Surplus	Sanitary wastewaters Sludge from old sanitary wastewater treatment plant Plutonium-238, Thorium, Cesium-137, Cobalt-60 Calcium cyanide, Nickel Sulfate, Nickel chloride, Black oxide, Copper Cyanide Radioactive wastes, Process effluent, Metal finishing rinse water		SD Plant effluent was released to pit	S	4, 6	1 4, 5, 6 14, 16 3	SGS ^b Table B.4 Locations 1124 and 1127 Table B.5 Location 5225 Tables B.6 and B.7 Table B.1 (Table III.2 in Ref. 6) Table B.8	12 8 6 8
160	Mixed Waste Storage Area (Building 23)	G-6	In service	Tritium, Thorium compounds, Uranium compounds, Plutonium-238 Trimethylbenzene, Octane, Oils, cleaning materials, Polychlorinated biphenyls, Lead Various chemicals (including mercury, acids, solvents)	4, 5, 18	None Suspected			No Data		
161	Glass Melter Furnace	F-6	Inactive	Ion exchange resins Plutonium-238, Cobalt, Strontium, Cesium SD Building sludge Scintillation fluid constituents Acetonitriles Nitrate salt wastes Liquid solvent wastes	4, 5, 18	Test burns only	A	4, 7	No Data		
162	Glass Melter Feed Drum	F-6	Inactive								
163	Off-Gas Treatment System Deluge Tank										

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*	Results	Ref
164	Off-Gas Treatment System Venturi Scrubber	F-6	Inactive	Contaminants listed under Glass Melter Furnace and Cyclone Incinerator	4, 5, 18	Test burns only	A	4, 7	No Data		
165	Off-Gas Treatment System Cyclone Demister										
166	Off-Gas Treatment System HEPA Filter										
167	Off-Gas Treatment System WD Building Filter Bank										
168	Off-Gas Treatment System Recycle Tank										
169	Off-Gas Treatment System Strainer										
170	Off-Gas Treatment System Leaf Solution Filter	F-6	Historical			Filter removed and replaced			No Data		
171	Off-Gas Treatment System Iodine Absorption Filter	F-6	Historical	None suspected (never used)	4, 5, 18				No Data		
172	WDA Building Basement Wash Sump (Tank 11) (AKA Glass Melter Room Sump)	F-6	In service	Alpha wastewater from floor and sink drains in WD Annex Bldg. Possible contaminants include acrylonitrile, phenol, acetonitrile, kerosene, chlorobenzene, carbon tetrachloride, xylene, acetone, ethanol, and methylene chloride.	3, 4, 5, 18	None Suspected beyond routine operation			3, 4, 5, 6, 8, 16	Tables B.6, B.7, B.8, and B.9	3, 7
173	Cyclone Incinerator	F-6 G-6	Historical	Plutonium-238 Tributyl phosphate Kerosene Vacuum pump oils	4, 5, 18	None Suspected			No Data		
174	WD Building Drum Staging Area	F-6	In service	Solidified plutonium sludge from the Alpha Wastewater Treatment System Low specific activity decontamination and decommissioning wastes	4, 5, 18	Suspected, not confirmed	S	4	3, 4, 5, 6, 13, 16	Tables B.6, B.7, B.8, and B.9	7

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*	Results	Ref
175	Area 4, WD Building Influent Tank Overflow	F-6	Surplus	Plutonium-238	1, 4, 5, 18	Low risk waste overflowed influent tank	S	10	1 4, 5, 6 14, 16	SGS ^b Table B.4 Locations 1124 and 1127 Table B.5 Location 5225 Tables B.6, B.7, and B.8 Table B.1 (Table III.2 in Ref. 6)	12 8 6
176	Area 14, Radioactive Waste Line Break	G-5 G-6	Historical	Plutonium-238, nitric acid	1, 4, 5, 18	Plutonium-238	S, SW	6, 10	1 4, 5, 6 14, 15	SGS ^b Table B.4 Locations 1125 and 1126 No Hits Tables B.6, B.7, and B.8 Table B.1 (Table IV.4 in Ref. 6)	12 8 6
177	Building 41 Alpha Wastewater Tank (Tank 208)	G-6	Historical	Alpha wastewater from SM Bldg. and Bldg. 38 Plutonium-238, nitric acid	3, 4	Suspected Plutonium-238, removed 1985	S	10	See data for Area 19		
178	Building 41 Alpha Wastewater Tank (Tank 209)										
179	WD Building Alpha Wastewater Influent Tank (Tank 3)	F-6	In service	Influent alpha wastewater from H Bldg., SW/R Complex, SM Bldg. and Bldg. 38 . Possible contaminants include polonium-210, bismuth, plutonium-238, -239, radium-226, thorium-230,-232,-234, uranium-238, -234, -235, tritium, and actinium-227. Supernatant liquids from polonium processes in the HH Bldg. Possible contaminants include Protactinium-231, Cobalt-60, Radium-226 and aluminum chloride and bismuth chloride. Detergents, Organic solvents, waste chemicals, Lubricating oil	1, 3, 4, 5	Overflow of tanks recorded, see Area 4A			See Area 4A		

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*	Results	Ref.		
(Cont.)	(Cont.)	(Cont.)	(Cont.)	Citric acid, Chelating agents, Sodium nitrate, Sodium Nitrite, Sodium hydroxide, Formic acid, Sodium tartrate, Formaldehyde, Potassium carbonate, Potassium Sulfate, Copper Sulfate, Calcium carbonate, Oxalic acid, Lithium chloride, Zirconium oxide, Sodium carbonate, Potassium bromide, Nickel sulfate, Asbestos fiber, Methylene blue, Mercury, Lead, Beryllium, Cyanides,	(Cont.)	(Cont.)			(Cont.)				
180	WD Building Alpha Wastewater Influent Tank (Tank 4)	F-6	In service										
181	WD Building Alpha Wastewater Influent Tank (Tank 5)												
182	WD Building Alpha Wastewater Influent Tank (Tank 6)												
183	Room WD-1 Basement Sump (Tank 12)	F-6	In service	Alpha wastewater from floor and sink drains in the WD Bldg. Possible contaminants include Plutonium-238,-239, Thorium-230,-232,-234, Radium-226, tritium and Cobalt-60.	3	None Suspected			No Data				
184	Room WD-1 Alpha Wastewater Sump (Tank 17)	F-6	In service		3	None Suspected			No Data				
185	Room WD-1 Sanitary Waste Sump (Tank 134)	G-6	In service	Sanitary wastes	3								
186	Room WD-8 Alpha Wastewater Sump (Tank 18)	F-6	In service	Alpha wastewater from floor drains	3								
187	WD Building Alpha Wastewater Clariflocculators (2 units)	F-6 G-6	In service	Contaminants listed under WD Building Alpha Wastewater Influent Tank (Tank 3)	4, 5, 18								
188	WD Building Alpha Wastewater Mixing Box												

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*	Results	Ref
189	WD Building Alpha Wastewater Sand Filters (2 units)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)			(Cont.)		
190	WD Building Alpha Wastewater Bone Char Columns (2 units)										
191	WD Building Alpha Wastewater Effluent Tank (Tank 7)	G-6	In service	Treated alpha wastewater prior to discharge	3, 4, 5, 18	Released through closed pipeline to Great Miami river NPDES Outfall 001 effluent less than DOE Effluent release criteria	SW	4	No Data		
192	WD Building Alpha Wastewater Effluent Tank (Tank 8)										
193	WD Building Alpha Wastewater Effluent Tank (Tank 9)										
194	WD Building Alpha Wastewater Effluent Tank (Tank 10)	G-6	In service	Treated alpha wastewater prior to discharge	3, 4, 5, 18	Ibid	SW	4	No Data		
195	WD Building Alpha Wastewater Sludge Pits (2 units)	F-6 G-6	In service	Contaminants listed under WD Building Alpha Wastewater Influent Tank (Tank 3)	4, 5, 18	None Suspected			No Data		
196	WD Building Alpha Wastewater Sludge Solidification/Drumming Unit	F-6 G-6	In service	Contaminants listed under WD Building Alpha Wastewater Influent Tank (Tank 3)	4, 5, 18	None Suspected			No Data		
197	WD Building Solid Radioactive Waste Compactor	F-6 G-6	In service	Solid alpha wastes	4	None Suspected			No Data		
198	WDA Building Basement Sanitary Waste Tank (Tank 135)	F-6	In service	Sanitary wastewater from WD Bldg. Annex Penthouse	3	None Suspected			No Data		

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*	Results	Ref
199	WDA Building Beta Wastewater Influent Tank (Tank 13)	F-6	In service	Beta wastewater from T Bldg. equipment decontamination, floor mopping, and sprinkler system including tritium and solvents	3, 4, 5, 18	Historic effluent released to plant drainage ditch, effluent less than AEC release criteria	SW	4	No Data		
200	WDA Building Beta Wastewater Influent Tank (Tank 14)	F-6	In service	Contaminants listed under WD Bldg. Beta Wastewater Influent Tank (Tank 13)	3, 4, 5, 18	None Suspected			No Data		
201	WDA Building Beta Wastewater Metering Station	F-6	In service	Contaminants listed under WD Bldg. Beta Wastewater Influent Tank (Tank 13)	4, 5, 18						
202	WDA Building Beta Wastewater Mixing/Solidification Unit	F-6	In service	Contaminants listed under WD Bldg. Beta Wastewater Influent Tank (Tank 13)	4, 5, 18						
203	WDA Building Alpha Wastewater Influent Tank (Tank 15)	F-6	In service	Influent alpha wastewater. Possible contaminants include Polonium-210, Cobalt-60, Plutonium-238, Radium-226, Actinium-227, Cesium-137, thorium, Uranium-238.	3, 4						
204	WDA Building Alpha Wastewater Influent Tank (Tank 16)	F-6	In service	Ibid	3,4	None Suspected			No Data		
205	WDA Building Alpha Effluent Tank (Tank 214)	F-6	Inactive	Contaminants listed under WD Building Alpha Wastewater Influent Tank (Tank 3)	3, 4	Effluent released to plant drainage ditch, effluent less than AEA Release criteria	S, SW	4	No Data		
206	WDA Building Alpha Effluent Tank (Tank 215)										
207	WDA Building Alpha Effluent Tank (Tank 216)										
208	WDA Building Solidification Unit	F-6	Historical	Plutonium-238	4	None Suspected			No Data		

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*	Results	Ref
209	Building 62 Stack Deluge Tank (Tank 1)	E-6	In service	None suspected (never used)	3	None Suspected			No Data		
210	Room H-131 Laundry Water Tank (Tank 2)	E-6	In service	Alpha wastewater from laundry operations. Possible contaminants include Pu-238, Th-230,-232,-234, tritium, Ra-226,-228, and Ac-227. Ethylene glycol monbutyl ether, Sodium hydroxide, Ammonium bicarbonate, Sodium hexametaphosphate	3, 4	None Suspected			No Data		
211	A Building Decontamination Shower Water Tank (Tank 28)	E-6	In service	Wastewater from medical decontamination shower. Plutonium-238 and -239, Thorium-228, -230, and -232, Radium-226 and -228, and tritium	3	None Suspected			No Data		
212	A Building Decontamination Shower Water Tank (Tank 29)	E-6	In service	Wastewater from medical decontamination shower. Plutonium-238 and -239, Thorium-228, -230, and -232, Radium-226 and -228, and tritium	3	None Suspected			No Data		
213	T Building Solidification Unit	F-7	Historical	Cobalt-60, Polonium-210	4	None Suspected			No Data		
214	T Building Solid Radioactive Waste Compactor	F-7	In service	Low specific activity beta wastes - tritium	4						
215	Room T-1 Cooling Water Sump (Tank 124)	F-7	In service	Single pass non-contact cooling water	3, 4						
216	T Building, Corridor 2 Sanitary Wastewater Sump (Tank 125)	F-7	In service	Sanitary wastewaters from restrooms	3						
217	Room T-11F Sanitary Wastewater Sump (Tank 126)	F-7	In service	Sanitary wastewaters	3						
218	Room T-15 Sanitary Wastewater Sump (Tank 127)	F-7	In service	Sanitary wastewaters from restrooms and non-work area sinks	3						
219	T Building, Stair 3 Cooling Water Sump (Tank 128)	F-7	In service	Single pass cooling water from floor drains in air handling area	3, 4						
220	Room T-78 Steam Condensate Sump (Tank 129)	F-7	In service	Steam condensate from heating system in air handling area	3						

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*	Results	Ref
221	T Building, Corridor 8 Sanitary Wastewater Sump (Tank 130)	F-7	In service	Sanitary wastewater from restrooms and non-work area sinks - tritium	3	(cont.)			(cont.)		
222	Room T-78A Sanitary Wastewater Sump (Tank 131)	F-7	In service	Sanitary wastewater from restrooms - tritium	3						
223	Room T-90 Cooling System Condensate Sump (Tank 132)	F-7	In service	Condensation from cooling units in air handling area - tritium	3, 4						
224	Room T-99 Sanitary Wastewater Sump (Tank 133)	F-7	In service	Sanitary wastewater from restrooms - tritium	3						
225	Room T-23 Beta Wastewater Sump (Tank 227)	F-7	Historical	Beta wastewaters	3, 4	None suspected, Sump underwent removed 1975			No Data		
226	Room T-3 Floor Drain Sump (Tank 228)	F-7	Historical Filled with concrete 1985	Wastewater from nonradiological work area floor drains	3, 4	None Suspected			No Data		
227	Room T-40 Alpha Wastewater Sump (Tank 229)	F-7	Historical Filled with concrete	Alpha wastewater from process area floor drains	3, 4						
228	Room T-41 Alpha Wastewater Sump (Tank 230)	F-7	Historical Filled with concrete	Alpha wastewater from process area floor drains	3, 4	None Suspected			No Data		
229	Room T-50 Alpha Wastewater Sump (Tank 231)	F-7	Historical Filled with concrete 1975	Process alpha wastewater	3, 4						
230	Room T-50 Alpha Wastewater Sump (Tank 232)	F-7	Historical Filled with concrete 1975	Process alpha wastewater	3, 4						

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
231	T Building, Corridor 8 Alpha Wastewater Sump (Tank 233)	F-7	Historical Filled with concrete 1982	Alpha wastewater from process area floor drains	3, 4	Unknown - filled with concrete			No Data		
232	T Building, Corridor 7 Alpha Wastewater Sump (Tank 234)	F-7	Historical Filled with concrete 1982	Alpha wastewater from process area floor drains	3, 4	Unknown - filled with concrete			No Data		
233	Room T-63 Alpha Wastewater Sump (Tank 235)	F-7	Historical Filled with concrete 1982	Alpha wastewater from process area floor drains	3, 4	Unknown - filled with concrete			No Data		
234	Building 58 Diesel Fuel Storage Tank (Tank 222)	E-6	Historical	Diesel fuel	3	Tank Removed			No Data		
235	Area of Possible Elevated Thorium Activity	E-8	Grounds	Thorium	6	Possible fugitive dust	S	4, 6	1	SGS ^b Table B.3 Locations 2021, 2148, and 2149	12
									14, 15	Table B.1	6
236	Site Survey Project Potential Hot Spot Location S0166	F-6	Grounds	Plutonium-238	6	Isolated activity from unknown sources			13	Table B.9 (Appendix E in Ref. 6)	6
237	Site Survey Project Potential Hot Spot Location S0175	E-5 E-6	Grounds	Cobalt-60, Cesium-137	6				14, 15	Table B.9 (Appendix E in Ref. 6)	6
238	Site Survey Project Potential Hot Spot Location S1092	G-7	Grounds	Thorium	6				14	Table B.9 (Appendix E in Ref. 6)	6
239	Site Survey Project Potential Hot Spot Location S0208	F-5	Grounds	Plutonium-238	6				13	Table B.9 (Appendix E in Ref. 6)	6
240	Site Survey Project Potential Hot Spot Location S0472	G-6	Grounds	Thorium	6				14	Table B.9 (Appendix E in Ref. 6)	6

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
241	Northwest Parking Lots	D-7	Grounds	Toluene, Freon-113, Trichloroethene	12	Indicated by Soil Gas Survey	S	12	1	SGS ^b Table B.4 Locations 1002, 1007, 1008, 1009, 1010, 1014, 1101, 1102, 1106, 1109, 1110	12
242	VOC Potential Hot Spot Location 1016	D-7	Grounds	Toluene, Trichloroethene	12				1	SGS ^b Table B.4	12
243	VOC Potential Hot Spot Location 1064	E-7	Grounds	Toluene	12						
244	VOC Potential Hot Spot Locations 1076, 1077, 1079, and 1080	E-6	Grounds	Toluene, Freon-113, 1,1,1-Trichloroethane	12						
245	VOC Potential Hot Spot Location 1085	F-6	Grounds	Freon-113, Trichloroethene, 1,1,1-Trichloroethane	12						
246	VOC Potential Hot Spot Locations 1117 and 1118	G-7	Grounds	Tetrachloroethene	12						
247	VOC Potential Hot Spot Location 1129	F-8	Grounds	Freon-113, Trichloroethene, 1,1,1-Trichloroethane, Tetrachloroethene	12	Indicated by soil gas survey	S	12	1	SGS ^b Table B.4	12
248	HH Building Stack	F-7	In service	Polonium-210, Tritium	4, 18	None suspected beyond routine emissions	A	4, 18	Emissions reported in Annual Environmental Monitoring Reports		18
249	SW Building Stack (NCPDF)	E-6	In service	Tritium	4, 18						
250	SW Building Stack (SW1C)	E-6	In service	Uranium-238	4, 18						
251	SW Building Stack (HEFS)	E-6	In service	Tritium	4, 18						
252	B Building Stack	E-6	Inactive	Polonium-210, Tritium	4, 18						
253	T Building WEST Stack	F-6	In service	Tritium, Plutonium-238 -239, Uranium-238	4, 18						
254	T Building EAST Stack	E-7	In service	Tritium, Plutonium-238, Uranium-238	4, 18						
255	WD Building Stack (ALR)	F-6	In service	Plutonium-238	4, 18						

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
256	WD Building Stack (AHR)	F-6	In service	Plutonium-238	4, 18	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)	(Cont.)
257	WD Building Stack (SS)	F-6	In service	Plutonium-238	4, 18						
258	Area H Open Burn Unit (AKA Pyrotechnic Waste Disposal Area)	I-7	In service	Wastewater from explosives processes Organic solvents (primarily acetone)	1, 4, 5, 18	Suspected, not confirmed	S	7, 18	3, 4, 5, 6, 10, 11, 12 14	Tables B.6, B.7, and B.8 Table B.9 RSS ^c Location S0783 (Appendix E in Ref. 6)	7 6
259	Pyrotechnic Waste Shed	I-7	In service	Pyrotechnic powders Pyrotechnic-contaminated wastes Mineral oil	4, 5, 18	Suspected, not confirmed	S	7, 18	3, 4, 5, 6, 12 14	Tables B.6, B.7, and B.8 Table B.9 RSS ^c Location S0780 (Appendix E in Ref. 6)	7 6
260	Thermal Treatment Unit	I-7	Inactive	Antifreeze Explosives Program waste Mild detonating cords and fuses Pyrotechnic powders Solid primary explosives	4, 5, 18	Suspected, not confirmed	S	7, 18	3, 4, 5, 6, 12 14	Tables B.6, B.7, and B.8 Table B.9 RSS ^c Location S0783 (Appendix E in Ref. 6)	7 6
261	Trash Burner Area	I-7	Historical	Mild detonating fuses Pyrotechnic material Thermite Freon Acetone	4, 5, 18	Suspected, not confirmed	S	7, 18	3, 4, 5, 6, 12, 13	Tables B.6, B.7, and B.8	7
262	Retort	I-7	In service	Explosives Programs constituents Metals, Asbestos Diallyl-phthalates-based plastic components	4, 5, 18	Gaseous and particulate emissions released to atmosphere	A	4	No Data		
263	Building 90 Blockhouse										

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*	Results	Ref
264	Explosive Waste Storage Bunker (Magazine 53)	I-7	In service	Classified, non-explosive wastes Explosion residuals (primarily aluminum residuals) Contaminants listed under Explosive Waste Storage Bunker (Magazine 53) Detonators, Detonating cord, Thermite, Pyrotechnic powders, Primary explosives High explosive powder, PETN, PBX, RDX, HMX, HNS, CP HNS (hexanitrostilbene)	4, 5, 18	None Suspected			No Data		
265	Biodegradation Unit	I-7	Inactive	Soapy wastewater containing explosives constituents	4, 5, 18	Suspected	S	7, 18	See Pyrotechnic Waste Shed		4
266	Area 8, Thorium-Contaminated Soils from Areas 1 and 9	F-9	Grounds	Thorium-232, Plutonium-238	1, 4, 5, 18	Thorium	S	4, 6	14, 15, 16	Table B.1 (Table V.3 in Ref. 6)	6
267	Area 9, Thorium Storage and Redrumming Area	F-9 G-9	Grounds	Plutonium-238, Thorium Thorium sludge constituents (c)	1, 4, 5, 18	Thorium	S	4, 6	14	Table B.1 (Table V.4 in Ref. 6)	6
268	Building 31, Contaminated Material Storage Building	F-9	In service	Plutonium-238 Thorium Tritium	4 3	None Suspected			See Area 9	Table B.9	6
269	Building 36 Historic Gasoline Tanks (Tanks 239 and 240)	G-10	Historical	Gasoline	3	No information on when tanks were removed			No Data		
270	Underground Sanitary Sewer Lines G6 & G7	G-10	In Service	Organic solvents, plating solutions, laboratory chemicals, nitric acid, hydrochloric acid, methylene chloride, strong acids and bases	4	Suspected VOCs	S	4	3, 4, 5, 6, 9, 10, 11, 12, 13, 16	Tables B.6, B.7, B.8, and B.9	7
271	Building 37 Sanitary Waste Tank (Tank 100)	F-10	In service	Sanitary wastes	3, 4	None Suspected			No Data		

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
272	Area 10, Concrete Debris	G-8 G-9	Grounds	Polonium-210, Cobalt-60, Plutonium-238 (from runoff)	1, 4, 5, 18	Suspected	S	4, 6	14	Table B.1 (Table III.6 in Ref. 6)	6
273	Area 12, Thorium-Contaminated Soil from Area 1	G-9	Grounds	Thorium, Plutonium-238 (from runoff)	1, 4, 5, 18	Suspected thorium	S	4, 6	14, 15	Table B.1 (Table V.5 in Ref. 6)	6
274	Area 21, Old Bunker	H-9	Grounds	Cesium-137, Strontium-90, Actinium-227, Radium-226	4, 5, 18	Suspected thorium	S	4, 6	14, 15, 16	Table B.1 (Table VII.2 in Ref. 6)	6
275	Area 21, Detonator Shack	H-8	Grounds	Cesium-137, Strontium-90, Actinium-227, Radium-226	4, 5, 18	Suspected thorium	S	4, 6	14, 15, 16	Table B.1 (Table VII.2 in Ref. 6)	6
276	Area 22, Orphan Soil from other Areas	I-8	Inactive	Polonium-210, Radium-226, Cobalt-60, Plutonium-238, Cesium-237	4, 5, 18	Suspected	S	6	14, 15, 16	Table B.1 (Table X.1 in Ref. 6)	6
277	Area J, Hillside Disposal Area (AKA Dredged Material Disposal Area 11a)	H-8 H-9	Historical	Construction/building debris, Paints, Thinners, Chemical contaminants, Asbestos, Thorium, Plutonium-238	1, 4, 18	Suspected VOCs	S	4	1 14, 15, 16	SGS ^b Table B.2 Table B.1 (Table X.2 in Ref. 6)	12 6
278	Area J, Hillside catch basin	H-8	In service	Plutonium-238 (from runoff)	1, 4, 18	Suspected	SW	18	No Data		
279	Old Firing Range Drum Storage Area	H-9	Historical	Liquid chemical wastes	5, 18	Confirmed VOCs	S	4	1 2, 3, 4, 5, 6 14, 15	SGS ^b Table B.2 Locations 3152, 3153, and 3187 Tables B.6, B.7, B.8, and B.9 RSS ^c Locations S0162, S0163, and S0647 (Appendix E in Ref. 6)	12 7 6

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*	Results	Ref
280	Waste Oil Drum Field Area	I-8	Historical	Waste oil Plating Operations waste Explosive/solvent waste Herbicides Waste chemicals Photo-processing waste Batteries Kitchen grease Epoxy resins Ethylene glycol Scintillation vials	4, 5, 18	Confirmed VOCs	S	4	3, 4, 5, 6, 8, 12	Tables B.6, B.7, and B.8 RSS ^c Locations S0263, S0164, S0265, and S0266 (Appendix E in Ref.6) Table B.9	7 6
281	Area E, Waste Oil Spill	J-8	Historical	Waste oil	1	Minor oil	S	1	No Data		
282	Spoils Disposal Area/Construction Spoils Area	J-5 K-5	In service	Plutonium-238, Thorium Gasoline contaminated soils from G Building	4, 5, 18	Plutonium-238 < 25 pci/gm Thorium < 5 pci/gm	S	6	14, 15, 16	Table B.1 (Table X.3 in Ref. 6)	6
283	Area 1, Bulk Transfer of Thorium Drums (AKA, Plutonium Recoverable Waste Storage)	I to L 6 to 8	Grounds	Thorium sludge constituents, Plutonium-238	1, 4, 5, 18	Thorium dust, Plutonium-238	S	6	3, 4 14, 15, 16	Tables B.6, B.7, and B.8 Table B.1 (Table IV.2 in Ref. 6)	8 6
284	Building 21, Thorium Sludge Storage Facility	J-7 J-8	Surplus	Thorium sludge constituents	4	Thorium dust	S	4, 6	See Area 1		
285	Area 11, Contamination from SM Building Operations	G-9	Surplus	Plutonium-238	1, 4, 5, 18	Plutonium-238	S	6	3, 4, 5, 6 14, 16	Tables B.6, B.7, and B.8 Table B.1 (Table IV.3 in Ref. 6)	8 6
286	Area 16, SM Building Sanitary Sewage Septic Tank Leach Field	F-9 G-9	Surplus	Plutonium-238, Thorium Sanitary wastes from SM Building	1, 4, 5, 18	Plutonium-238	S	6	3, 4, 6 14, 15, 16	Tables B.6, B.7, and B.8 Table B.1 (Table IV.5 in Ref. 6)	8 6

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*	Results	Ref
287	SM Building Historic Septic Tank (Tank 241)	G-9	Historical	Plutonium-238	3, 4	Plutonium-238			No Data		
288	Area 17, SM Building Soils	G-9 G-10	Surplus	Plutonium-238, Thorium	1, 5, 18	Plutonium-238	S	6	4, 6 14, 15	Table B.6, B.7, and B.8 Table B.1 (Table IV.6 in Ref. 6)	8 6
289	SM Building Alpha Wastewater Tank (Tank 210)	G-9	Historical	Alpha wastewater from plutonium processing	3, 4	Tanks removed 1986-1988			See Area 17		
290	SM Building Alpha Wastewater Tank (Tank 211)										
291	SM Building Alpha Wastewater Tank (Tank 212)										
292	SM Building Alpha Wastewater Tank (Tank 213)										
293	SM Building Solidification Unit (Room SM-1)	G-9	Historical	Plutonium-238	4	None Suspected, equipment removed 1970		4	No Data		
294	WS Building Solidification Unit	G-9	Historical	Plutonium-238	4	None Suspected D&D 1983			No Data		
295	Building 38 Solid Radioactive Waste Compactors (2 units)	G-9 H-9	Inactive	Plutonium-238	4	None Suspected D&D 1986			No Data		
296	Building 38 West Dock Sump (Tank 25)	H-9	In service	Precipitation and potentially spilled waste material from a radiological waste drum storage pad - Pu-238	3	None Suspected			No Data		
297	Building 38 Alpha Wastewater Sump (Tank 26)	G-9	In service	Wastewater from floor drains and decontamination showers	3, 4	None Suspected			No Data		
298	Building 38 Alpha Wastewater Sump (Tank 27)	G-9	In service	Wastewater from floor drains and decontamination showers	3, 4	None Suspected			No Data		
299	Building 38 Diesel Fuel Storage Tank (Tank 121)	G-9	In service	Diesel fuel	3	None Suspected			No Data		

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*	Results	Ref
300	Area 19, Underground Waste Transfer Line	G-6 G-7 G-8 G-9	Historical	Plutonium-238, Nitric acid	1, 4, 5, 18	Plutonium-238	S	1, 6, 18	14	Tables B.1, B.6, B.7, and B.8	6, 8
301	Building 38 In-Line Incinerator	G-9	Historical	Plutonium-238	2, 4	None Suspected D&D 1986			No Data - pending verification		
302	Area D, Acid Leach Field	H-8 H-9 G-8 G-9	Historical	Plutonium-238, Thorium	1, 4, 5, 18	Plutonium-238	S	6	4, 6 14	Tables B.6, B.7, and B.8 Table B.1 (Table IV.10 in Ref. 6)	8 6
303	Warehouse 14 (AKA Pad 14)	G-9	Grounds	Thorium sludge constituents Plutonium-238	4	None Suspected			14	Table B.9 RSS ^c Locations C0127 and C0128 (Appendix E in Ref. 6)	6
304	Excavated Materials Disposal Area (AKA Rader's Hill)	I-8	Grounds	Thorium	4	Thorium < 2 pci/gm	S	6	14	Table B.1	6
305	SM Stack	G-9	In service	Plutonium-238	4	None suspected beyond routine emissions	A	4, 18	No Data		
306	SM/PP Hill Seep O609	L-9	NA	None suspected	5, 18	None suspected			No Data		
307	Site Survey Project Potential Hot Spot Location C0007	E-9	Grounds	Thorium	6	Isolated activity from unknown source			14	Table B.9 (Appendix E in Ref. 6)	6
308	Site Survey Project Potential Hot Spot Location C0028	F-10	Grounds	Thorium	6						
309	Site Survey Project Potential Hot Spot Location S0307	F-9	Grounds	Thorium	6						
310	Site Survey Project Potential Hot Spot Location S0647	H-9	Grounds	Cesium-137	6						

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		

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*	Results	Ref
321	Dayton Unit II	Dayton	Historical	Explosives (including ammonium picrate and ammonium nitrate) Rocket propellant	1, 4	None Suspected			No Data		
322	Dayton Unit III	Dayton	Historical	Polonium-210, Tellurium, Bismuth, Cobalt, Nickel, Beryllium, Thorium	1, 4	Suspected Cobalt-60	S	4	No Data		
323	Dayton Unit IV	Dayton	Historical	Contaminants listed under Dayton Unit III	1, 4	Suspected Cobalt-60	S	4	No Data		
324	Dayton Warehouse	Dayton	Historical	Polonium-210	4	None Suspected			No Data		
325	Scioto Facility (Marion)	Scioto	Historical	Facility never used	4	None Suspected			No Data		
326	Building 38 Sanitary Sump (Tank 254)	G-9	In Service	Sanitary wastewater	25	None Suspected			No Data		
327	R-111 Calorimetry Bath (Tank 255)	E-6	Inactive	Deionized water with potential alpha contamination	25	None Suspected			No Data		
328	R-111 Calorimetry Bath (Tank 266)										
329	Building 62 Hot Waste Sump (Tank 258)	E-6	In Service	Sanitary wastewater with potential alpha contamination	25	None Suspected Tank removed			No Data		
330	Building 2 Fuel Oil Tank (Tank 260)	H-7	Historical	Fuel oil	25	Unknown			No Data		
331	Building 2 Tank (Tank 261)	H-7	Historical	Sanitary Wastes	25	Unknown Closed in place			No Data		
332	Building G Waste Oil Tank (Tank 262)	E-7	Inactive	Waste oils	25	Unknown			No Data		
333	Building 87 Explosive Surge Tank (Tank 263)	H-7	In Service	Exhaust air from explosives testing	25	None Suspected			No Data		
334	Building 87 Explosive Surge Tank (Tank 264)										
335	Building 87-Explosive Surge Tank (Tank 265)										

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
336	Building 37 Waste Tank (AKA Low Risk Waste Tank) (Tank 267)	F-10	Inactive	Wastewater	25	None Suspected Never used for low-risk wastewaters			No Data		
337	Building H Condensate Sump (Tank 268)	E-6	In Service	Condensate wastewater	25	None Suspected			No Data		
338	Building 29 Septic Tank (Tank 270)	E-9	Inactive	Sanitary wastewater	25	None Suspected (Abandoned in place?)			No Data		
339	T-44 Wastewater Sump (Tank 250)	F-7	Historical	Wastewater	25	Unknown - filled with concrete			No Data		
340	T-16b Wastewater Sump (Tank 251)	F-7	Historical	Wastewater	25	Unknown - filled with concrete			No Data		
341	T-90 Condensate Sump (Tank 269)	F-7	In Service	Condensate wastewater	25	None Suspected			No Data		
342	T-1 Hot Side Fire Water Tank (Tank 271)	F-7	In Service	Wastewater/Radioactive wastewater	25	None Suspected			No Data		
343	T-20 Fire Water Sump (Tank 272)	F-7	In Service	Wastewater/Radioactive wastewater	25	None Suspected			No Data		
344	T-37 Fire Water Sump (Tank 273)	F-7	In Service	Wastewater/Radioactive wastewater	25	None Suspected			No Data		
345	Former Equipment Storage Area see related site 16	H-6	Historical	Potential contaminants listed under Hazardous Waste Storage Area	4, 5, 18	Historically related to site 16	S	7, 18	No Analytical Data		7

^aAnalyte List Codes

^bSGS, Soil Gas Survey

^cRSS, Radiological Site Survey

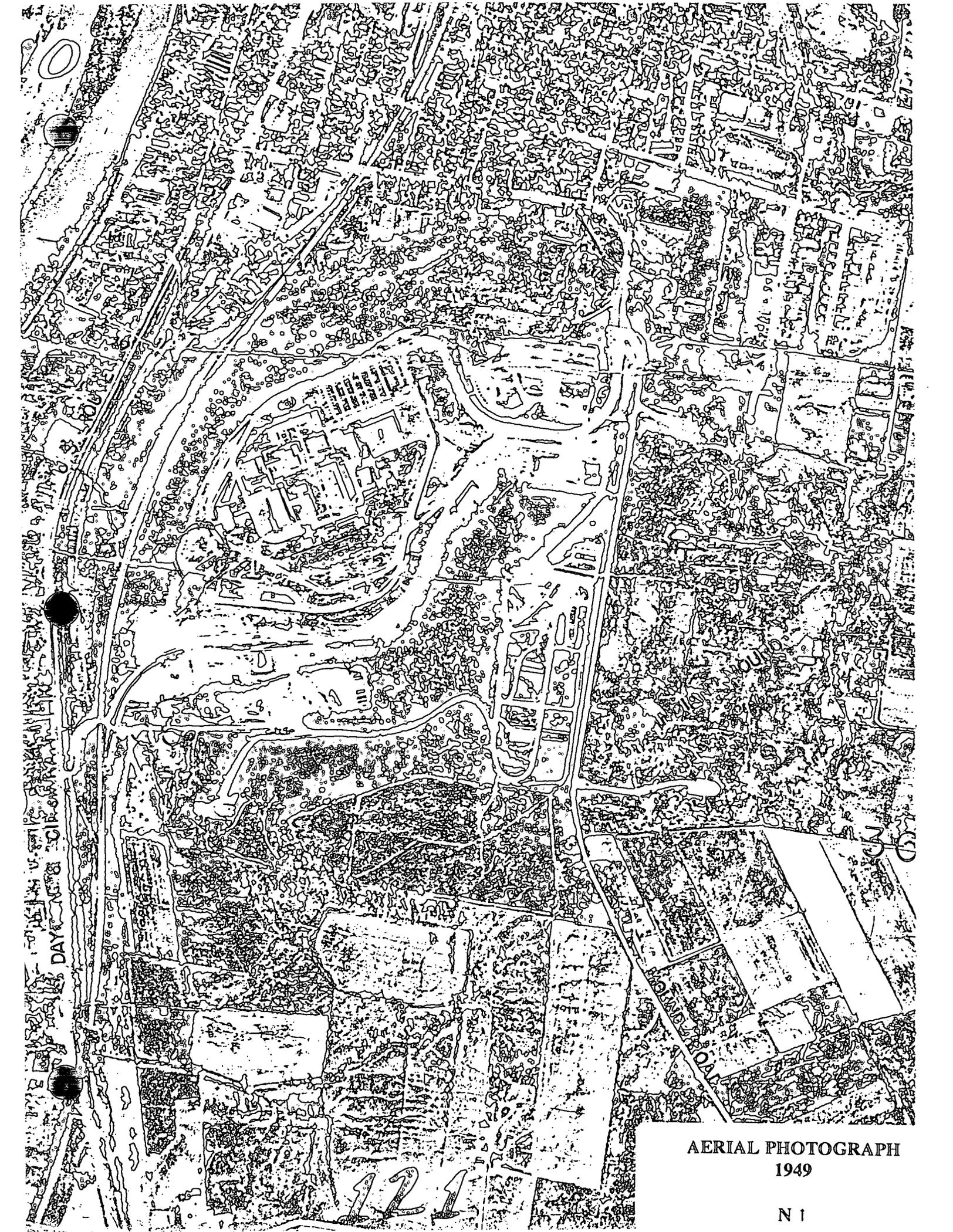
- 1 - Soil Gas Survey - Freon 11, Freon 113, Trans-1,2-Dichloroethylene, Cis-1,2-Dichloroethylene, 1,1,1-Trichloroethane, Perchloroethylene, Trichloroethylene, Toluene
- 2 - Gamma Spectroscopy - Thorium-228, -230, Cobalt-60, Cesium-137, Radium-224, -226, -228, Americium-241, Actinium-227, Bismuth-207, 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
2. DOE 1992a
3. DOE 1992c
4. DOE 1993a
5. EPA 1988a
6. DOE 1993d
7. DOE 1993c
8. DOE 1992d
9. Fentiman 1990
10. DOE 1992f
11. Styron and Meyer 1981
12. DOE 1993b
13. DOE 1993d
14. DOE 1991b
15. Halford 1990
16. DOE 1993e
17. DOE 1990
18. DOE 1992a
19. Rogers 1975
20. DOE 1992h
21. Dames and Moore 1976a, b
22. DOE 1992i
23. DOE 1992j
24. DOE 1994
25. EG&G 1994

EXHIBIT E

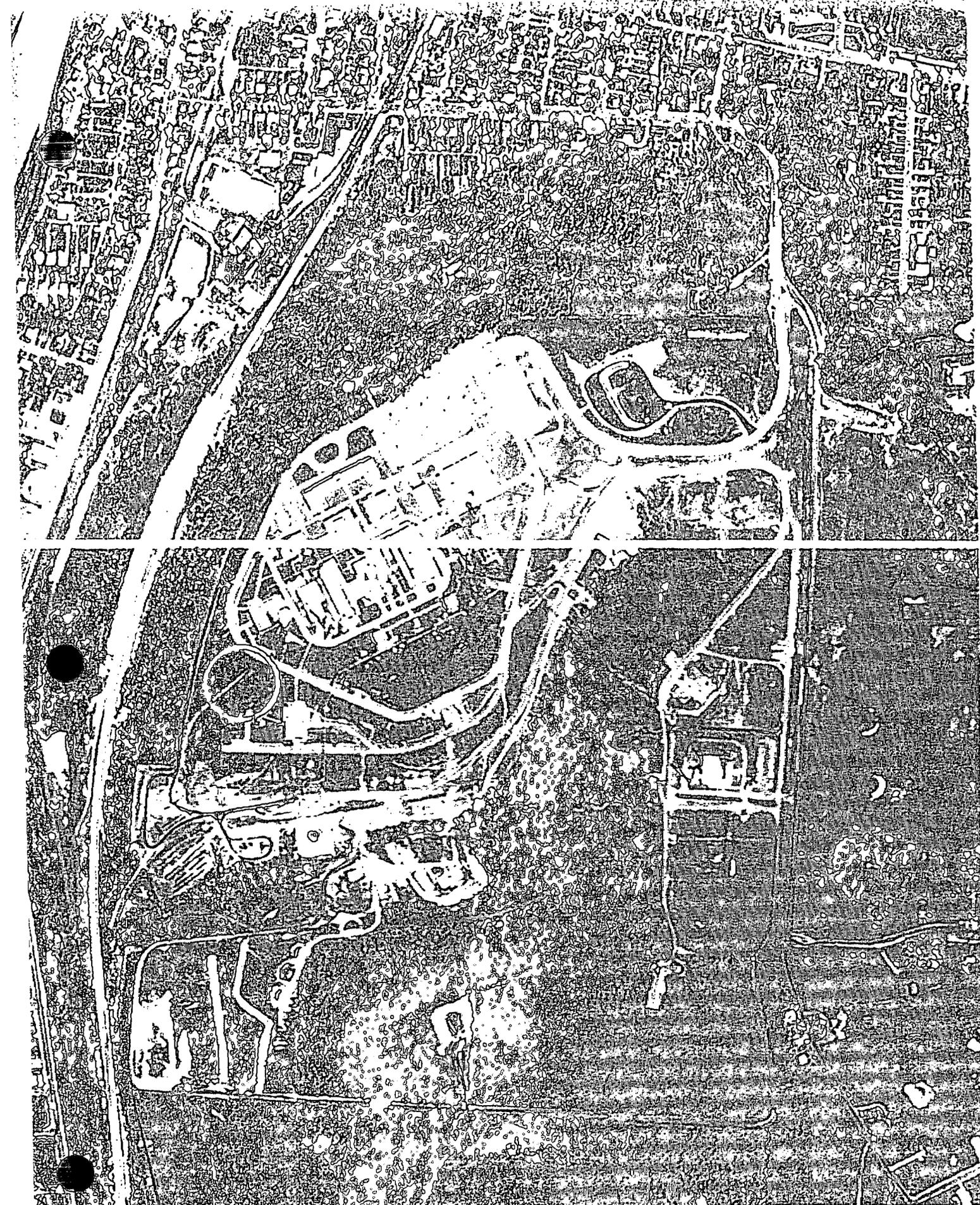
AERIAL PHOTOGRAPHS



AERIAL PHOTOGRAPH
1949

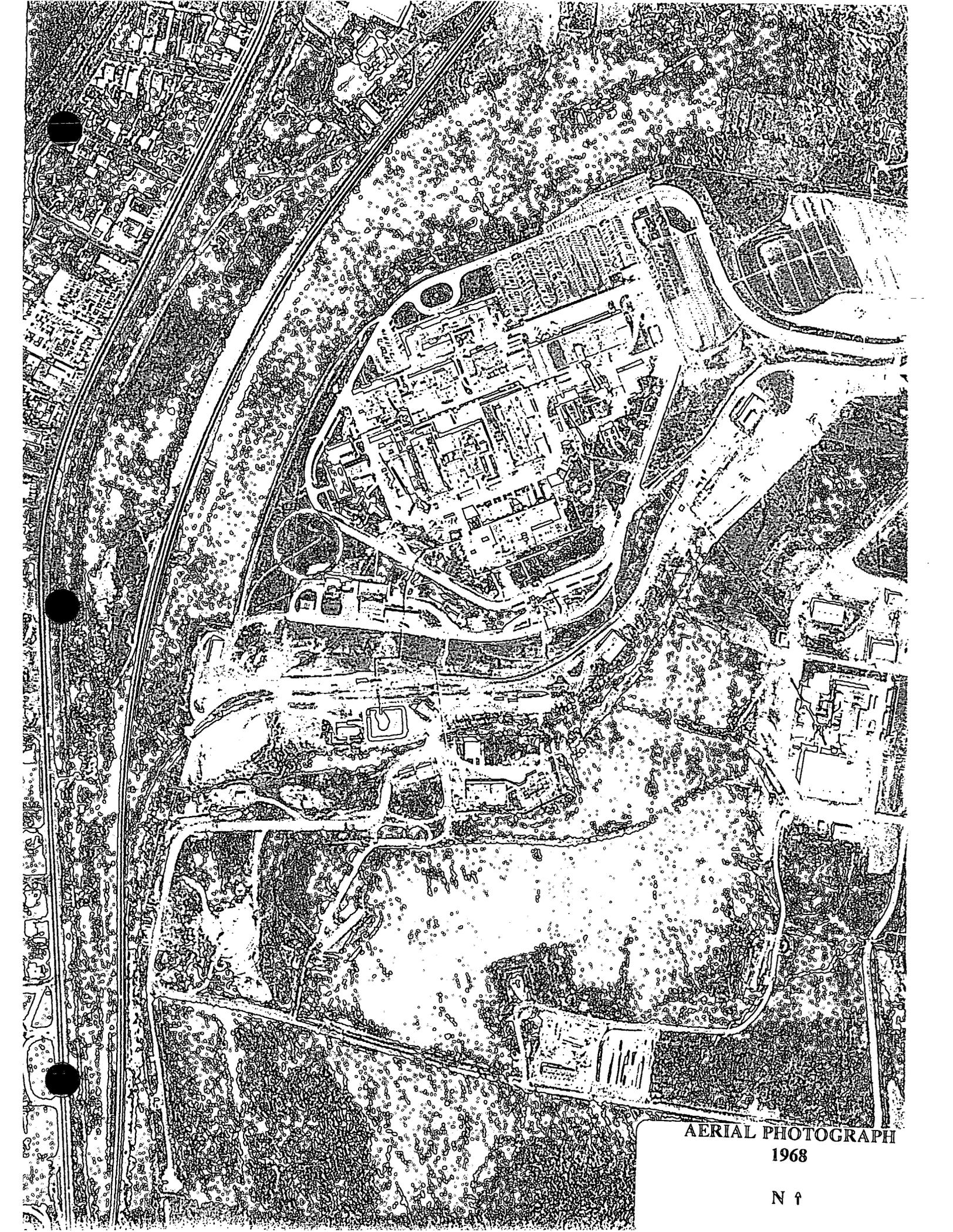
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121



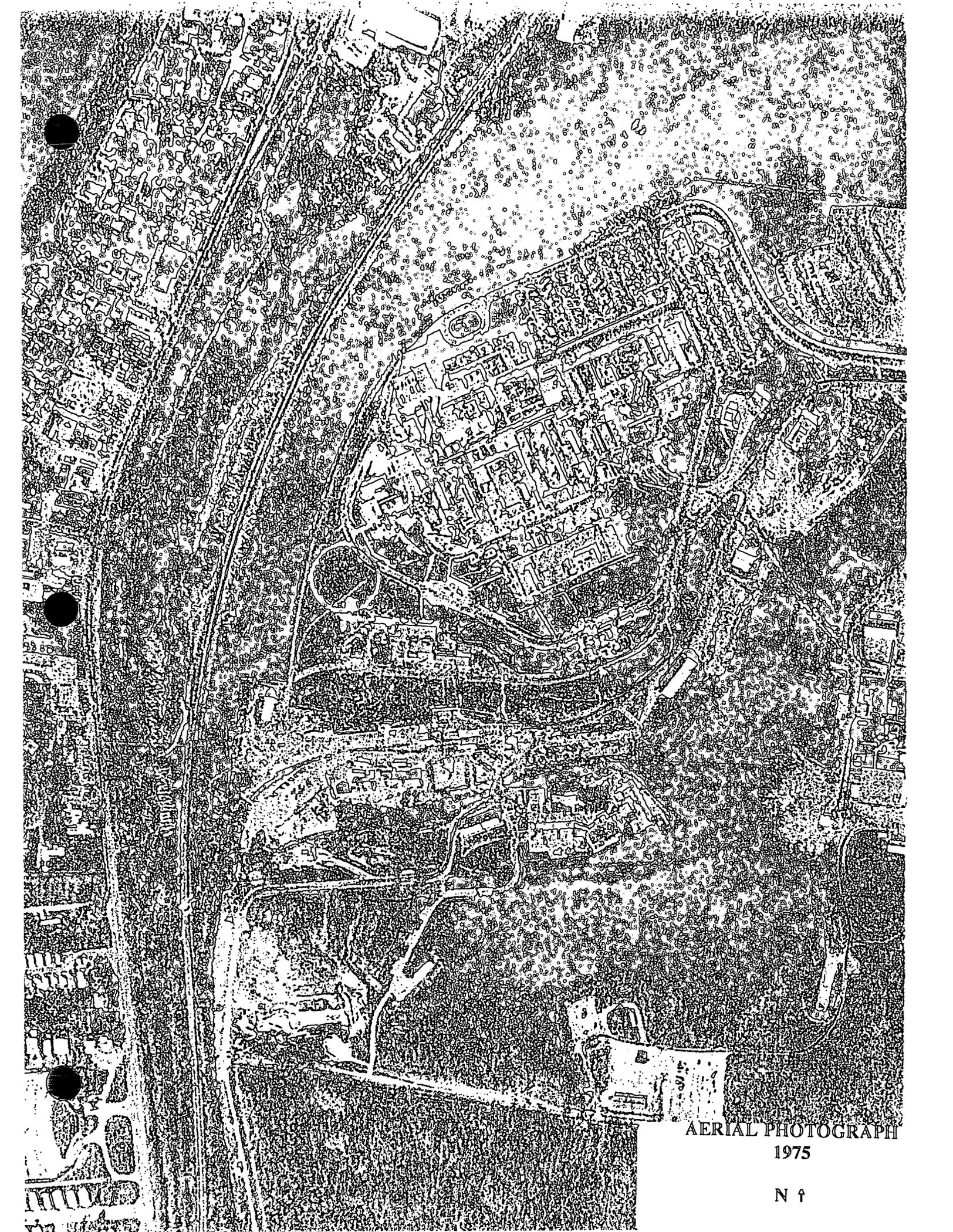
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AERIAL PHOTOGRAPH
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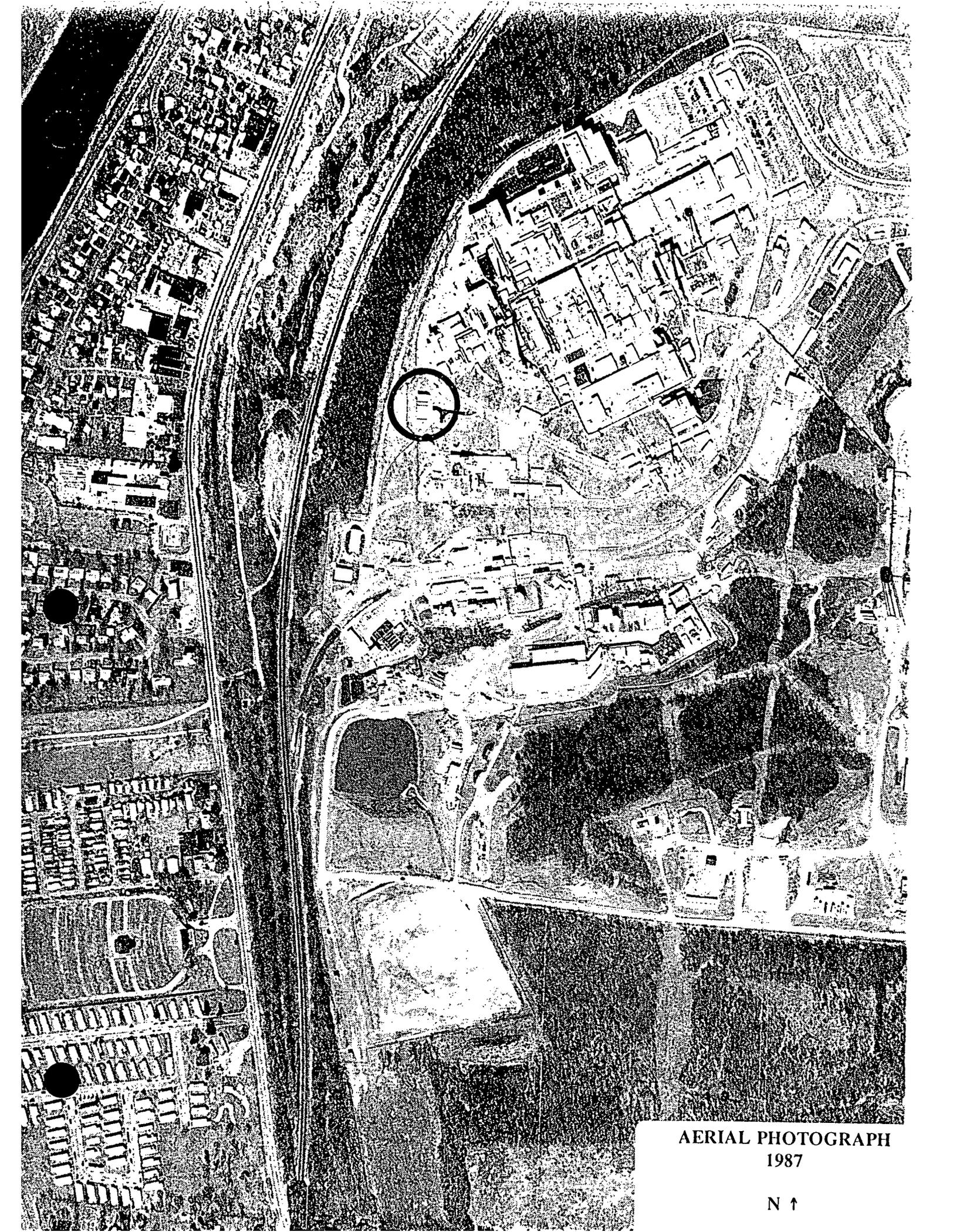
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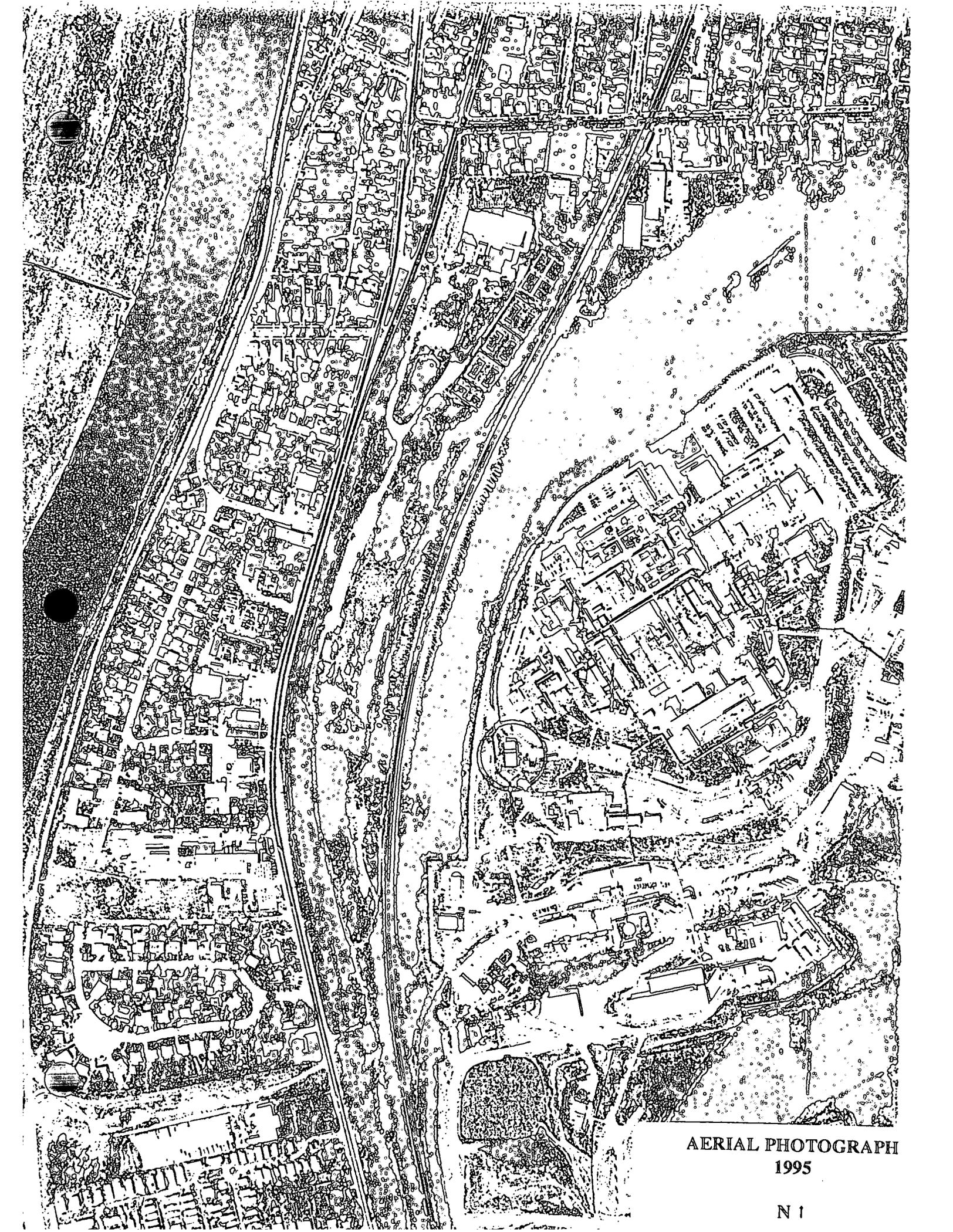
AERIAL PHOTOGRAPH
1980

N ↑



AERIAL PHOTOGRAPH
1987

N ↑



AERIAL PHOTOGRAPH
1995

EXHIBIT F

SANBORN MAP REQUEST RESPONSE

02/06/96

Environmental Data Resources, Inc.
3530 Boston Post Road
Southport, CT 06490

Phone: (203) 255-6606
Fax : (203) 255-1976

Sanborn Map Search

ORDER# 100553-2

Order Date : 12/12/95

Customer Information

Shelby R. Politte
HOK/K Industrial
2490 Technical Drive
Box 3004
Miamisburg, OH 45343
Phone#:513-866-4211
Fax #:513-866-7473

SPECS FOR SANBORN MAP SEARCH:

Site Name & Address:

US Department of Energy
Off Mound Rd.

Miamisburg, OH 45432

Account # : 1018424
Account Exec : PCD

Cross Street :
Intersection :
County : montgomery

No Sanborn maps were found for the site searched.

EXHIBIT G

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

HOK/K

STAFF PERSONNEL QUALIFICATIONS RESUME

JOHN W. EY, P.E.

MANAGER, ENVIRONMENTAL ASSESSMENTS

Education Bachelor of Mechanical Engineering, Vanderbilt University (1979)

MBA - Finance, University of Cincinnati (1988)

Registration Registered Professional Engineer, Ohio, 1989
Registered Professional Engineer, Louisiana, 1986
Registered Environmental Property Assessor (REPA), 1994
Certified Professional - Ohio EPA Voluntary Action Program (Brownfields), 1994

Qualifications Mr. Ey is currently the Manager of Environmental Assessments. Mr. Ey has performed over one hundred environmental site assessments throughout Ohio and other midwest states. He has also performed regulatory compliance audits in several large industrial facilities throughout the U.S.

Mr. Ey's former assignment at HOK/K was in the area of underground storage tanks (USTs). His responsibilities included the evaluation of tank systems, oversight of tank integrity testing, removal of underground storage tank systems, testing of soils and groundwater, coordination of remedial action plans with state and regulatory officials and writing of closure plan documents. He has prepared reports in compliance with BUSTR, USEPA and OEPA regulations. After receiving his MBA in 1988, he managed a construction company specializing in installation of UST systems for various petroleum products retailers.

Mr. Ey is a Professional Engineer with seventeen years of experience in a variety of industrial settings. His broad experience began with a major oil company where he had assignments in both refining and production. He developed specific experience in engineering design, plant operations and regulatory liaison. In his regulatory position, he was responsible for commenting on proposed EPA and OSHA regulations, interpreting the promulgated rules, and implementing them for oil and gas operations over a six state area. He coordinated annual NPDES reporting to USEPA for over 100 offshore drilling locations.

Qualifications (cont'd)

In addition, he has a working knowledge of a wide range of environmental regulations associated with the CWA, CERCLA, RCRA, OSHA and SARA.

Relevant Experience

Environmental Site Assessments and Audits

Performed over 100 environmental site assessments throughout Ohio and the midwest. These assessments are used to establish the innocent landowner defense under CERCLA. Mr. Ey has a working relationship with various lending institutions and developers.

Participated in environmental compliance audits of several industrial facilities throughout the U.S. These audits are typically performed for the legal counsel of the potential purchaser of the properties.

Underground Storage Tanks

Provided project management expertise for removal of over 100 underground storage tanks in northwest and southwest Ohio. These closures were prepared in accordance with BUSTR, USEPA and OEPA regulations.

Managed a construction company specializing in installation of underground storage tank systems for various petroleum products retailers.

Regulatory Engineering

Served on oil industry associations and worked with various state and federal regulatory agencies to influence development of new regulations.

Developed company positions regarding proposed regulations and submitted comments to the various agencies.

Interpreted new regulations (USCG, OSHA, COE, EPA and agencies over a six state area) and developed compliance procedures for company use.

Coordinated annual environmental (NPDES) reporting to USEPA for over 100 offshore production and drilling platforms.

Drilling Engineering

Designed drilling plans for fifteen oil and gas wells varying in depth from 5,000 feet to over 15,000 feet in Southeastern United States. This work included selection of appropriate drilling techniques, design of casing and selection of casing points, and testing of productive wells.

**Relevant
Experience (cont'd)**

Refinery Engineering

Monitored refinery energy performance and presented monthly reports to upper management. Developed annual energy use forecasts.

Provided engineering support for mechanical equipment and was responsible for product quality.

Provided engineering support for major unit renovations (turnarounds).

Employment History

1989 - Present	HOK/K INDUSTRIAL Miamisburg, Ohio Manager, Environmental Assessments
1988 - 1989	COURTESY PETROLEUM MAINTENANCE Beavercreek, Ohio Vice President
1979 - 1987	EXXON COMPANY, U.S.A. Baton Rouge and New Orleans, Louisiana Refinery Engineer and Drilling Engineer

HOK/K

STAFF PERSONNEL QUALIFICATIONS RESUME

JENNIFER C. VICAREL

ENVIRONMENTAL SCIENTIST

Education

Bachelor of Arts, Geology and Spanish, Trinity University (1982); cum laude, Phi Beta Kappa, Who's Who Among American Colleges and Universities.

Junior Academic Year Abroad, Institute of European Studies, Madrid, Spain (1981-1982).

Master of Science, Geology, Ohio State University (1985). Thesis field area: Navidad, Chile.

Continuing Education: Aquatic Toxicology, Tulane University (1986); Hydrogeology, University of New Orleans (1987); Analysis and Design of Aquifer Pumping Tests, National Ground Water Association (1989); Risk Assessment for Soil Contamination, University of Milwaukee-Wisconsin (1992).

Certifications

OSHA 40-hour Hazardous Waste Site Worker Certification; 8-hour Refresher Certification current through 1994

OSHA 8-hour Hazardous Waste Site Supervisor Certification

Qualifications

Ms. Vicarel's qualifications include ten year's experience as an environmental geologist in the environmental industry. Most recently she has performed hydrogeologic and remedial investigations, baseline risk assessments, and environmental impact statements for Fortune 50 industrial clients. Ms. Vicarel has completed numerous environmental site assessments for real estate transactions. She has also participated in environmental investigations of a Mexican border (maquiladora) facility for a Fortune 50 property, for which she also served as translator and liaison with the Spanish-speaking staff.

Qualifications (cont'd)

Ms. Vicarel's duties have included preparation of project proposals, budgets, and schedules; organization and execution of field investigations for data collection and analysis; evaluation of data and assessment of exposure and toxicological effects for baseline risk assessments; performance of hydrogeologic evaluations of state-regulated hazardous waste sites targeted for remediation; supervision of peers and field staff; participation in preliminary design and implementation of remediation systems; and authorship of technical reports and regulatory file review reports.

Ms. Vicarel has also served as an Health & Safety Representative of her company. Responsibilities include preparation and approval of health and safety plans, implementation of medical monitoring program, maintenance of OSHA training requirements, compliance with OSHA recordkeeping requirements, and purchasing of personal protective and monitoring equipment.

Relevant Experience

Risk Assessments

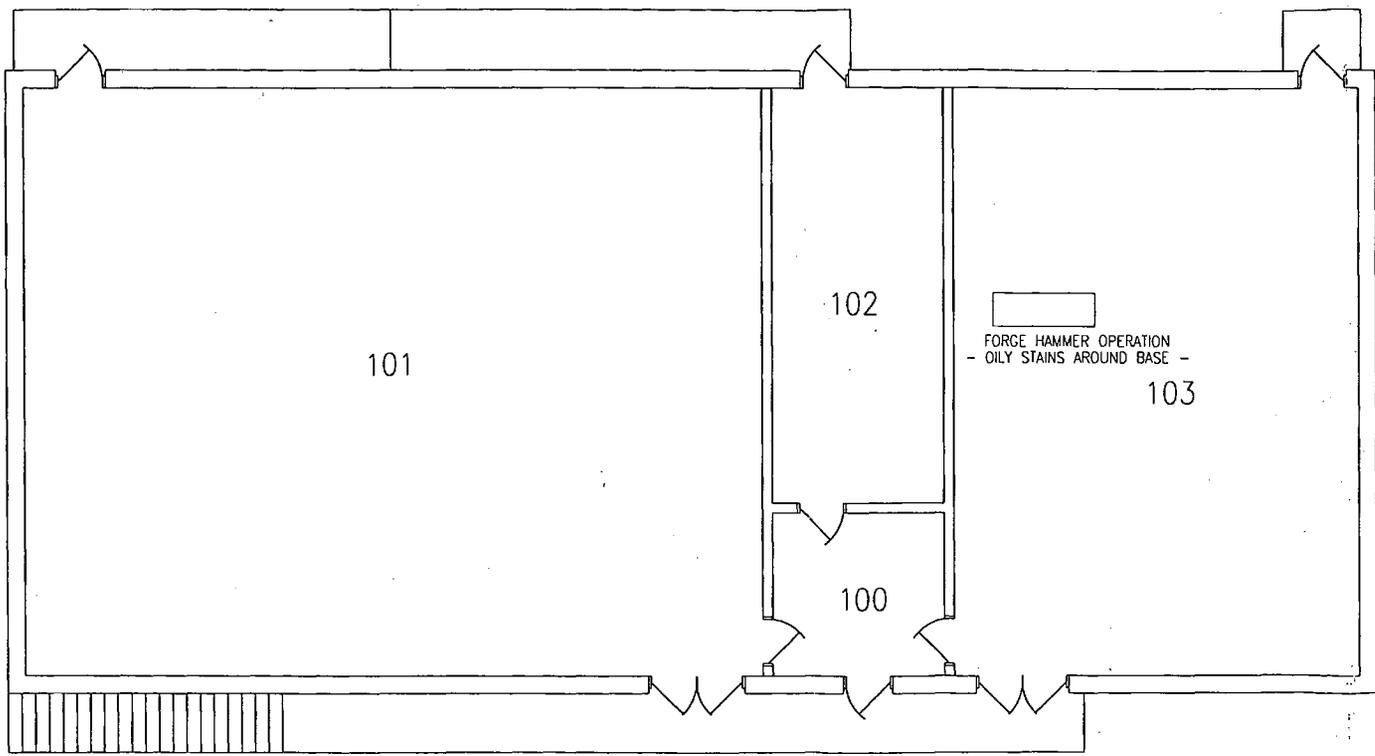
Ms. Vicarel has performed risk assessments for both RCRA- and state Superfund-regulated sites in New York and Ohio. Contaminants of concern at these facilities have included a suite of chlorinated solvents, pesticides, and fuels.

Hydrogeologic and Remedial Investigations

Working on sites regulated by state-Superfund (CERCLA) and RCRA programs in Massachusetts, New York and Ohio, Ms. Vicarel has investigated industrial facilities including a shipyard, several large aeronautics manufacturing facilities, a vacuum products manufacturing plant, corporate headquarter facilities of two large photographic equipment producers, an automotive assembly plant, a nursery, and an electric and gas utility. Chemicals released to soil and/or groundwater at these sites include fuels (gasoline, diesel, fuel oil), PCBs, chlorinated solvents, pesticides, and semivolatle compounds (PAHs, creosote compounds).

Environmental Site Assessments

Ms. Vicarel has performed numerous environmental site assessments in Massachusetts (under Chapter 21E Law), New York, and Ohio prior to real estate transactions. The objective of these assessments is to establish innocent landowner defense under CERCLA. Clients for these projects have included developers, banks, lawyers, manufacturing facilities, and industrial companies.

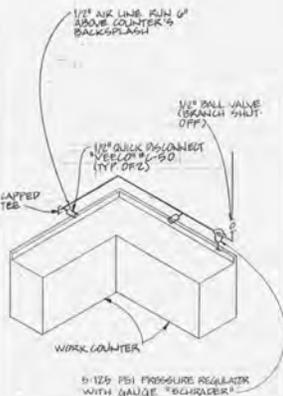


25' TO PRS239:
UNRELATED PLUTONIUM -
CONTAMINATED SOIL HOT SPOT

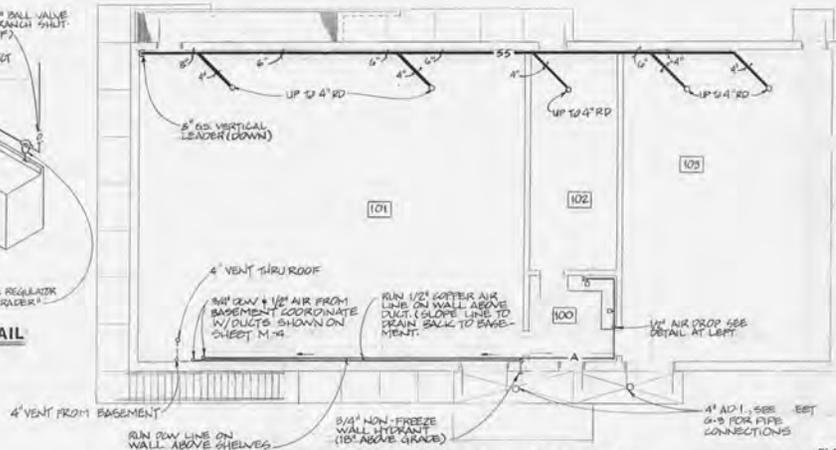


BUILDING 89 SITE PLAN - FIGURE 2
SCALE: N.T.S.

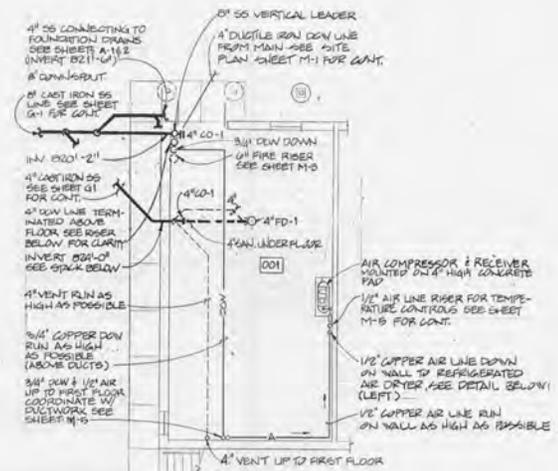
BUILDING 89 SITE PLAN	
FIGURE 2 DOE MOUND MIAMSBURG, OHIO	
HOK/K Industrial	2490 TECHNICAL DR. MIAMSBURG, OHIO 45342 TELEPHONE: 513-866-4211
DWG. NO.:	Fig. 2



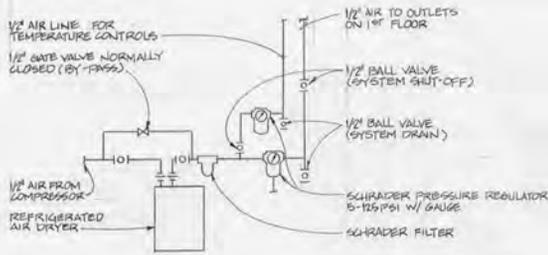
AIR DROP DETAIL
NTS



PLUMBING FIRST FLOOR PLAN
1/8"=1'-0"



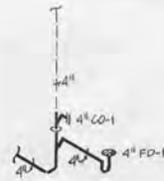
PLUMBING BASEMENT PLAN
1/8"=1'-0"



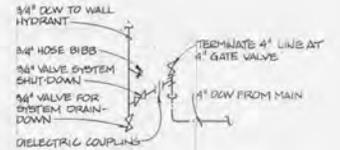
AIR DRYER PIPING DETAIL
NTS

DRAINS & CLEANOUTS SCHEDULE			
ITEM	DESCRIPTION	MFG. & MODEL	ACCESSORIES
FD-1	FLOOR DRAIN	JOBAN B120	CAST IRON BODY & GRATE, W/ SEDIMENT BUCKET AND DRAINAGE FLANGE
AD-1	AREA DRAIN	JOBAN B2000	CAST IRON BODY & GRATE W/ PERIMETER DRAINAGE SLITS
RD-1	ROOF DRAIN	JOBAN B2K012	CAST IRON BODY W/ CLAMP RINGS, BOTTOM OUTLET AND CAST IRON DOME
LD-1	CLEANOUT	JOBAN B20020	CAST IRON BODY W/ CADMIUM PLATED HEAD PLUS

PLUMBING SYMBOLS			
— CW —	COLD WATER LINE	— PV —	PRESS. REDUCING VALVE
— HW —	HOT WATER LINE	— BS —	BALANCING & SHUTOFF
— HWB —	HOT WATER RETURN LINE	— CV —	CHECK VALVE
— SS —	STORM SEWER	— V —	V-STRAINER
— SAN —	SANITARY SEWER	— BV —	BALL VALVE
— SAN —	SANITARY UNDER FLOOR	— FC —	FLUE COCK
— SAN —	SANITARY ABOVE FLOOR	— GC —	GAUGE COCK
— V —	VENT LINE	— BP —	BACKFLOW PREVENTER
— DW —	DOMESTIC WATER SERVICE	— ER —	ECCENTRIC REDUCER
— TW —	TEMPERED WATER	— CR —	CONCENTRIC REDUCER
— 140° F —	140° F. HOT WATER	— U —	PIPE UNION
— SW —	SOFTENED WATER LINE	— F —	PIPE FLANGE
— HW —	HAW WATER LINE	— S —	PIPE SLEEVE
— B —	BRINE	— H —	PIPE HANGER
— DW —	DISTILLED WATER	— C —	CAPPED LINE
— DW —	DISTILLIZED WATER	— G —	GAUGE
— SS —	BUILDING STORM SEWER	— P —	PRESSURE GAUGE
— COMB —	COMBINATION SEWER	— F —	FLOW DIRECTION ARROW
— IWO —	INDIRECT WASTE LINE	— SAF —	SAFETY RELIEF VALVE
— AW —	ACID WASTE LINE	— T —	TRAP
— AV —	ACID WASTE VENT	— RD —	ROOF DRAIN
— PD —	PUMP DISCHARGE	— W —	WALL WINDIANT
— G —	GAS LINE	— H —	HOSE BIBB
— P —	PROPANE LINE	— CB —	CURB BOX & VALVE
— FOS —	FUEL OIL SUPPLY	— V —	VACUUM
— FOR —	FUEL OIL RETURN	— G —	GAS OUTLET
— VC —	VACUUM CLEANING LINE	— D —	DISTILLED WATER
— WD —	WASTE OIL LINE	— G —	GAS OUTLET
— CA —	COMPRESSED AIR LINE	— P —	PIPE DROP
— O —	OXYGEN LINE	— R —	PIPE RISE
— NO —	NITROGEN OILIC LINE	— C —	PLUMB CLEANOUT
— N —	NITROGEN LINE	— F —	FLOOR CLEANOUT
— AC —	ACETYLENE LINE	— S —	SLOPE LINE DOWN IN DIRECTION OF ARROW
— VAC —	VACUUM LINE	— R —	EXISTING LINE TO REMAIN
— G —	GATE VALVE	— R —	EXISTING LINE TO BE RE-LOCATED
— A —	ANGLE VALVE		
— G —	GLOBE VALVE		
— D —	DRAIN VALVE		
— E —	EXISTING LINE TO REMAIN		
— R —	EXISTING LINE TO BE RE-LOCATED		



STACK
NTS



DOMESTIC WATER RISER
NTS

NO. DATE		REVISIONS	BY	CHK	PROJ. LEAD	WEEK	APP.
A 1/8		ORIGINAL ISSUE			DD		
1/8		AS BUILT			MRS	MRS	
UNITED STATES DEPARTMENT OF ENERGY DAYTON AREA OFFICE MOUND MARIETTA, OHIO							CONTRACT NUMBER 82028.0 DRAWN BY JLB CHECKED BY MGP DESIGNED BY JLB
PROJECT TITLE							APPROVALS
BUILDING 89							A.E. FIELD GWP MGP JLB DATE 10 JAN 84
DRAWING TITLE							SCALE AS NOTED
PLUMBING PLANS							DATE 10 JAN 84
SUBMITTED		RECOMMENDED	DATE		DATE	BY	
Korda Engineering, Inc.		John L. B.	1/8		10 JAN 84	BY	
KORDA ENGINEERING, INC.		308100	DRAWING NO.		SHEET NO.		
			24202 - M-2				

