

1304-1002220004



Department of Energy
Office of Legacy Management

June 11, 2009

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Subject: Annual Assessment of the Effectiveness of Site Wide Institutional Controls
Applied to the Former Mound Site Property, June 2009

Dear Mr. Fischer and Mr. Nickel:

Enclosed please find the final "Annual Assessment of the Effectiveness of Site-Wide Institutional Controls Applied to the Former Mound Site Property," June 2009. This report was prepared in accordance with the "Operation and Maintenance Plan for the Implementation of Institutional controls at the 1998 Mound Plant Property, Phase I Parcel Update, Rev. 0."

The report includes results of DOE's April physical inspections of the site, including the April 14, 2009, walkaround. It also includes information obtained during the DOE review of related records from the City of Miamisburg, Miamisburg Mound Community Improvement Corporation and Ohio Department of Natural Resources well logs.

Copies of the Report are available to the public in the Mound Reading Room, and a pdf copy will be added to the LM Mound Website under "Transition, Other Documents."

Mr. Tim Fischer
Mr. Brian Nickel
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If you have any questions regarding the attached report, please contact me at 937-847-8350 extension 318.

Sincerely,



Arthur W. Kleinrath
LM DOE Site Manager

AWK:jp

Enclosure

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LMS/MND/S05263

Annual Assessment of the Effectiveness of Site-Wide Institutional Controls Applied to the Former DOE Mound Site Property

June 2009



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

LMS/MND/S05263

**Annual Assessment of the Effectiveness of
Site-Wide Institutional Controls
Applied to the Former
DOE Mound Site Property**

June 2009

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Abbreviations

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRP	Comprehensive Reuse Plan
DOE	U.S. Department of Energy
EM	Office of Environmental Management
EPA	U.S. Environmental Protection Agency
IC	institutional controls
LM	Office of Legacy Management
MMCIC	Miamisburg Mound Community Improvement Corporation
MNA	monitored natural attenuation
NESHAPs	National Emission Standards for Hazardous Air Pollutants
O&M	Operations and Maintenance
ODH	Ohio Department of Health
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
OU	Operable Unit
ROD	record of decision
TCE	trichloroethylene

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1.0 Introduction

This report documents the U.S. Department of Energy (DOE) Office of Legacy Management (LM) 2009 annual assessment of the effectiveness of site-wide institutional controls (ICs) for the Mound Site¹ in Miamisburg, Ohio. This 2009 annual assessment covers only those parcels that have completed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120(h) requirements for property transfer. The ICs, which are legal and administrative tools in the form of deed restrictions, are defined in the record of decision (ROD) for each parcel and are described in the *Operation and Maintenance (O&M) Plan for the Implementation of Institutional Controls at the 1998 Mound Plant Property, Phase I Parcel update, Rev. 1, February 17, 2004 (O&M Plan)*.

This annual assessment for the period from April 15, 2008, to April 14, 2009, includes the ICs for Parcels D, H, 3, and 4 and the Phase I Parcel (comprising sub-parcels A, B, and C) of the Mound Site. The Miamisburg Mound Community Improvement Corporation (MMCIC) currently owns all of these parcels. Parcels 6, 6A, 7, 8, and 9 are not included in this IC assessment because they have not completed the CERCLA process.

The ICs are developed and presented in the ROD process, which includes input from the public, the City of Miamisburg, the regulators, and MMCIC. RODs require that DOE perform an annual assessment to document the effectiveness of the ICs (in the form of deed restrictions) and to confirm that all site changes comply with them. Section 3.0 describes the ICs in detail.

Each annual assessment includes a physical inspection of land parcels; discussions with the property owners; a review of all applicable records, including (but not limited to) construction, street opening, occupancy, and other permits; zoning modification requests; and well drilling logs.

DOE contacted the U.S. Environmental Protection Agency (EPA), the Ohio Environmental Protection Agency (OEPA), and the Ohio Department of Health (ODH) 30 days before the visual inspection. DOE must submit the draft annual assessment report to EPA and OEPA no later than June 13 of each year.

2.0 Overview of Parcel Transfer Process

In January 1998, DOE executed the original sales agreement with MMCIC. The agreement calls for the transfer of discrete land parcels to MMCIC, via a series of quitclaim deeds, after the parcels have been declared excess to DOE's needs and after all requirements of CERCLA 120(h) have been met for property transfer. When MMCIC acquires a parcel, it becomes part of the Mound Advanced Technology Center, which is a light industrial/technology park operated by MMCIC. The same parcel transfer process was continued in the revised sales agreement, *Sales Contract by and between the United States Department of Energy and the Miamisburg Mound Community Improvement Corporation, August 28, 2008*.

¹ The Mound Site was also formerly identified as the Mound Laboratory and the Mound Plant.

The following properties covered by this annual assessment were transferred to MMCIC on the dates shown:

- March 1999—Parcel D (formerly called Release Block D), containing approximately 12.5 acres of land and two buildings.
- August 1999—Parcel H (formerly called Release Block H), containing approximately 14.3 acres of land, a large parking lot, and a site-access road.
- April 2001—Parcel 4, containing approximately 95 acres of undeveloped land. MMCIC has built the Flex Building on this parcel.
- August 2002—Parcel 3, containing approximately 5 acres of land and Buildings GH and GP-1.
- February 2009—Phase I Parcel (A, B, and C), containing approximately 52 acres of land; Buildings 3, 87, and 102; and Magazines 80 through 84.

The O&M Plan for site-wide ICs applies to all land parcels that have undergone the CERCLA 120(h) process for property transfer, whether or not title to those parcels has actually been transferred to MMCIC. This annual assessment includes Parcels D, H, 3, and 4 and the Phase I land parcel, which represent approximately 60 percent of the total acreage of the former DOE Mound Site Property (estimated total acreage: 306). The remaining acreage has been divided into five parcels (Parcels 6, 6A, 7, 8, and 9). DOE is completing the CERCLA 120(h) requirements for Parcels 6, 7, 8, and 9. Parcel 6A is not part of the CERCLA process.

Figure 1 shows the original boundaries of the former DOE Mound Site Property divided into parcels:

- Parcels D, H, 3, and 4 and the Phase I Parcel (A, B, and C) have completed the CERCLA 120(h) process and been transferred to MMCIC.
- Parcels 6, 7, and 8 have not completed the CERCLA 120(h) process for property transfer. EM still owns them.
- Parcel 9 has not completed the CERCLA 120(h) process and is still owned by LM.
- Parcel 6A is not covered by CERCLA and is still owned by LM.

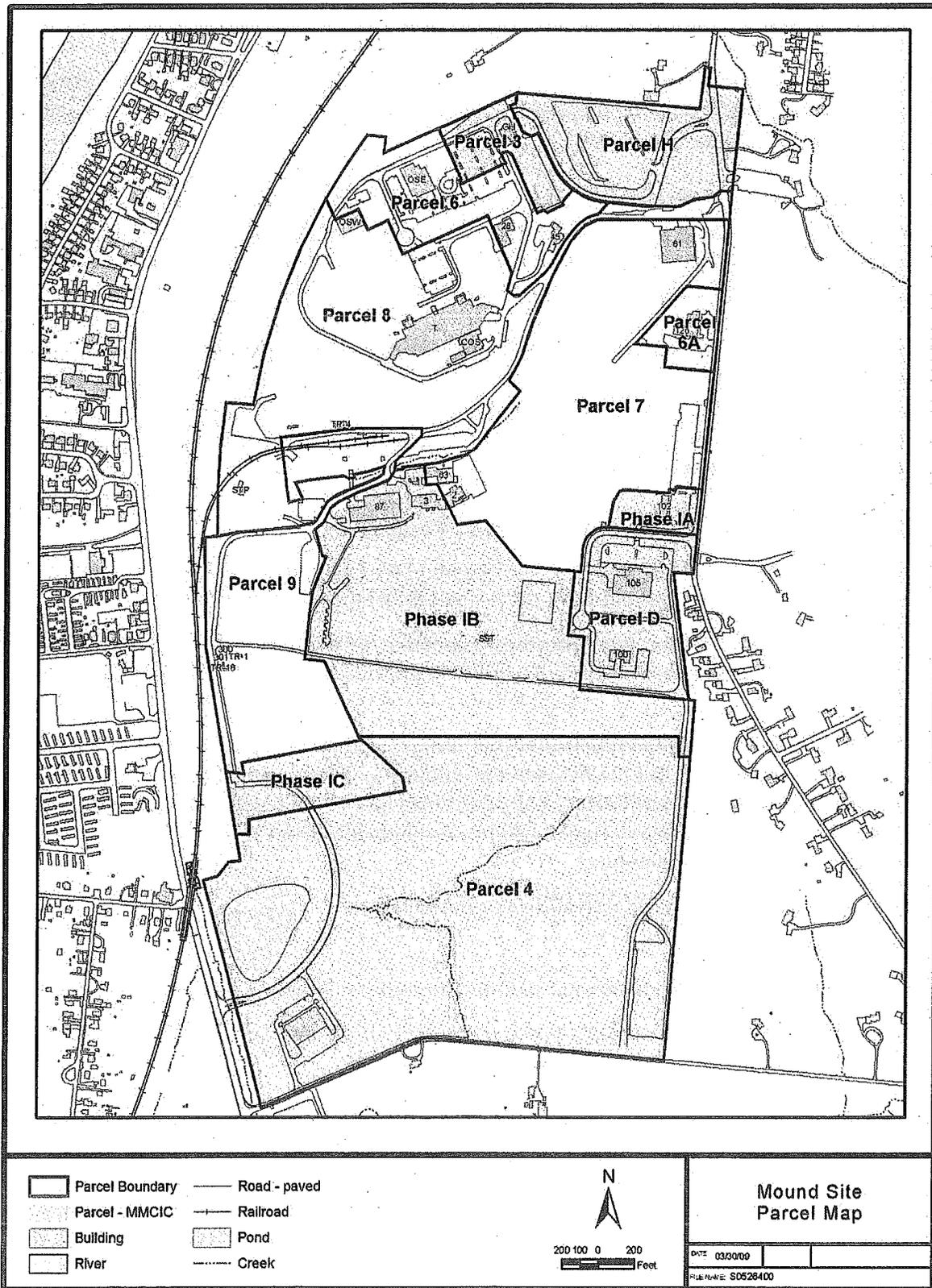


Figure 1. Parcel Map of the Former DOE Mound Site Property, Miamisburg, Ohio

3.0 Overview of Institutional Controls (ICs)

The ICs are defined in the RODs for each parcel and are described in the O&M Plan. They are developed and presented in the ROD process, which includes input from the public, the City of Miamisburg, the regulators, and MMCIC.

The former DOE Mound Site Property was remediated to EPA's risk-based standards for industrial/commercial use only. Certain restrictions, called ICs (which are in the form of deed restrictions), were placed on the property and its use. ICs are legal and administrative tools for protecting human health and the environment. (See Appendix C.)

Each parcel ROD contains deed-restriction language to be embedded in the quitclaim deed and includes the *CERCLA 120(h) Summary Notice of Hazardous Substances* for the parcel. Because both the quitclaim deed and the CERCLA summary notice are recorded with Montgomery County, Ohio, all future property owners will know about the deed restrictions that the CERCLA remedy has imposed on their property.

The three deed restrictions for the five parcels are designed to:

1. **Prohibit the removal of soil** from the original DOE Mound Site Property boundaries, unless prior written approval from OEPA and ODH has been obtained.
2. **Prohibit the extraction, consumption, exposure, or use in any way of the groundwater** underlying the premises, unless prior written approval from EPA and OEPA has been obtained.
3. **Limit land use to industrial/commercial only.** Each parcel ROD identifies land uses that will not be permitted, but the list is not all-inclusive. Parcels may not be used for any residential or farming activities, or any activities that could result in the chronic exposure of children under 18 years of age to soil or groundwater from the premises. Restricted uses include, but are not limited to:
 - Single or multi-family dwellings or rental units.
 - Daycare facilities.
 - Schools or other educational facilities for children under 18 years of age.
 - Community centers, playgrounds, or other recreational or religious facilities for children under 18 years of age.

The preceding language on the deed restrictions is a summary only. RODs for individual land parcels contain the parcel-specific deed-restriction language. RODs for parcels, as well as other parcel-specific CERCLA documents, are available in the CERCLA Public Reading Room, located at 955 Mound Road, Miamisburg, Ohio 45342. These RODs are also available electronically on the LM Mound website (<http://www.lm.doe.gov/land/sites/oh/mound/mound.htm>) by clicking the "CERCLA Administrative Record" link.

4.0 Period of Review

This annual assessment covers the period from April 14, 2008, to April 14, 2009.

Each annual assessment identifies new information, such as new construction, demolition, or excavation; lot-splits or the sale of parcels to new landowners; and permit applications filed by property owners or their agents since the last reporting period. All previous annual assessments are available in the CERCLA Public Reading Room or online at the LM Mound website (<http://www.lm.doe.gov/land/sites/oh/mound/mound.htm>) by clicking the "CERCLA Administrative Record" link.

5.0 Aerial View of the Mound Site Property

Figure 2 and the following individual parcel figures are from an April 2006 aerial photograph of the Mound Site, showing parcel and phase boundaries. The actual photographs were taken at low altitude, using a nominal negative scale of 1:4800, and were developed using 1"=100' scale planimetric mapping (the scale sizes of figures in this assessment vary). Photographic-controls points were Horizontal Datum: NAD83, Vertical Datum: NAVD88, U.S. Survey Feet, and State Plane – Ohio South Zone.

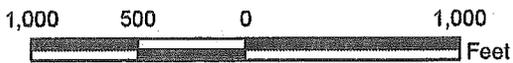
6.0 Summary of Previous Year's Annual Assessment

The *2008 Annual Assessment of the Effectiveness of Site-Wide Institutional Controls Applied to the Former DOE Mound Site Property* (2008 annual assessment) concluded that the ICs functioned as designed, adequate oversight mechanisms appeared to be in place to identify possible violations, and adequate resources were available to correct or mitigate any problems if a violation were to occur.

The 2008 annual assessment made three new recommendations:

1. The LM contractor will add a label to well P033.
2. The landowner or management organization will notify LM when address or street names change on site. (Building permits are filed by street address.)
3. LM will add landowner or management organization (MMCIC) contracts and easement documents to those reviewed for the annual IC assessment.

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U.S. DEPARTMENT OF ENERGY MAMISBURG, OHIO	Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AC01-07LA00080
Mound Site - Parcel Map 2006 Aerial View	
DATE PREPARED: March 30, 2009	FILENAME: S0526500

Figure 2. April 2006 Aerial View of Mound Plant Showing Parcel Boundaries

7.0 Summary of Physical Inspections Performed

DOE conducted the physical inspections in stages during April 2008. Art Kleinrath, LM Site Manager, and S.M. Stoller Corporation (Stoller) personnel conducted preliminary physical inspections of all areas, observed changes, and took photos.

The annual physical inspection of Parcels D, H, 3, and 4 and the Phase I Parcel occurred on April 14, 2009. Participants included Art Kleinrath, LM; Paul Lucas, DOE Office of Environmental Management (EM); Tim Fisher, EPA; Brian Nickel, OEPA; Joe Crombie, ODH; Frank Bullock, MMCIC; Ellen Stanifer, City of Miamisburg; Gary Weidenbach, Stoller; and Joyce Massie, Stoller.

The results of the physical inspection for each parcel are summarized in the following sections. A copy of the physical inspection checklist is also included (Appendix A).

7.1 Parcel D

In Parcel D (Figure 3), there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal from the original boundaries of the DOE Mound Site Property.

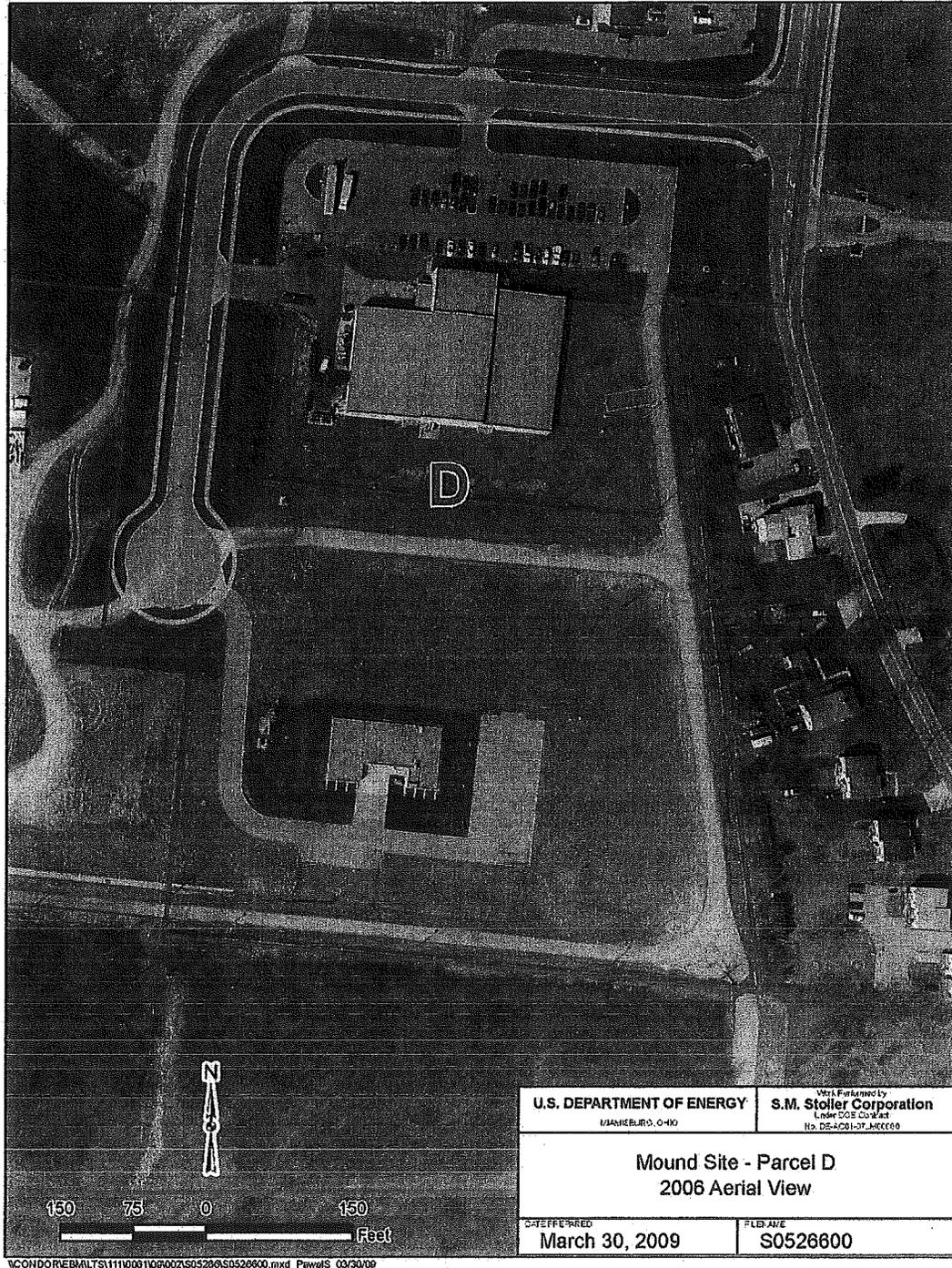


Figure 3. Parcel D 2006 Aerial View

7.2 Parcel H

In Parcel H (Figure 4), there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property.

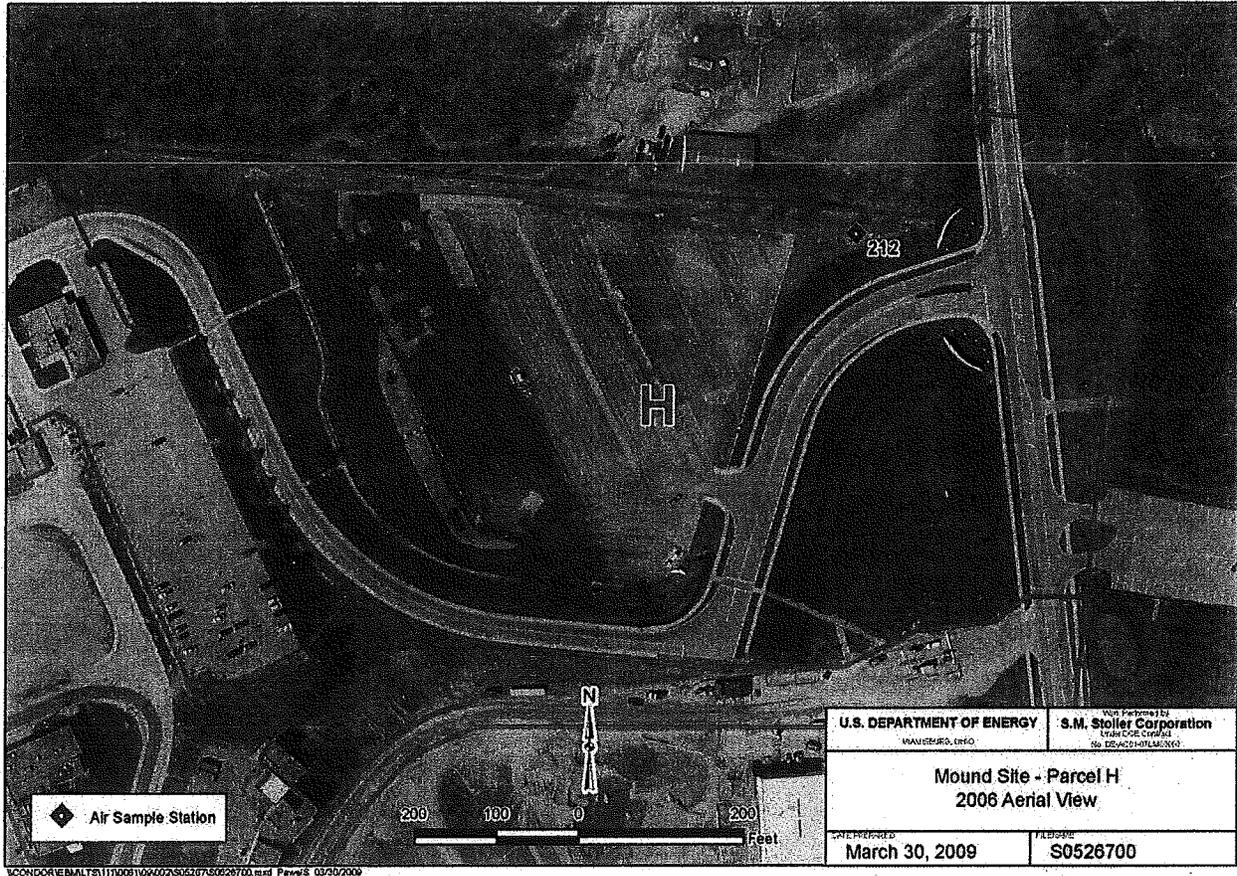


Figure 4. Parcel H 2006 Aerial Photo

One area of Parcel H is exempt from the soil removal restriction. This area, shown in Figure 5, was isolated from the original Mound property during modifications of the entry and rerouting of Mound Road.

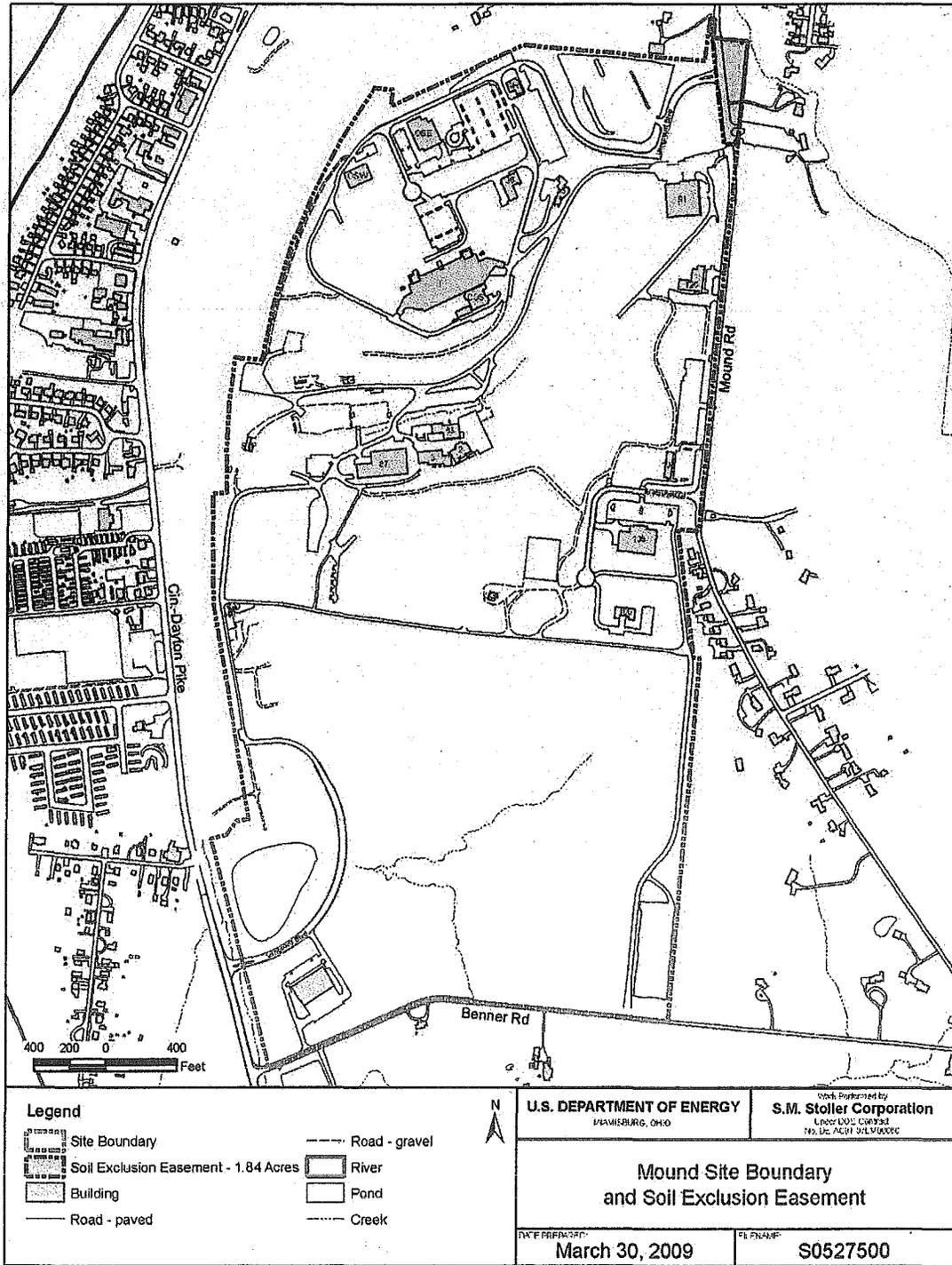


Figure 5. Parcel H Soil Removal Exclusion Area

Although air monitoring is not part of the CERCLA remedy for any parcel covered by this assessment, DOE continues to use site air monitoring stations. One station is on the northeast corner of Parcel H (Figure 6). The white OEPA station nearby was not operational, and it was removed on May 28, 2009.



Figure 6. Parcel H DOE (Green) and OEPA (White) Air Monitors

DOE will continue to operate its Mound Site air monitoring stations until the National Emission Standards for Hazardous Air Pollutants (NESHAPs) requirements are met after Operable Unit (OU)-1 work is completed. Stations are also identified on the aerial photos of Parcel H and IA (Figure 4 and Figure 17, respectively).

7.3 Parcel 3

In Parcel 3 (Figure 8), there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property. There are no groundwater monitoring wells in Parcel 3.

Figure 7 shows the Mound Museum Association building located in Parcel 3.

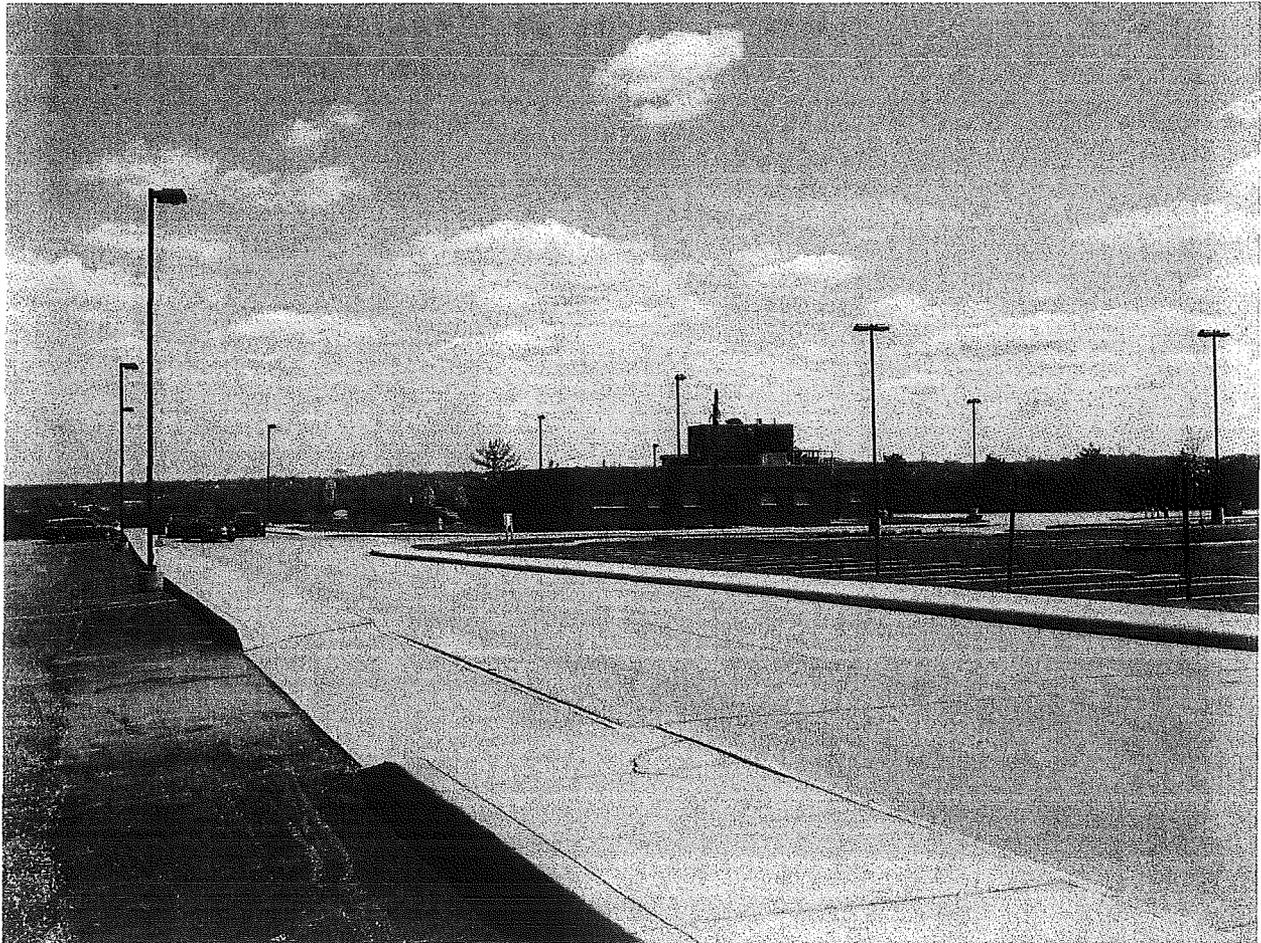
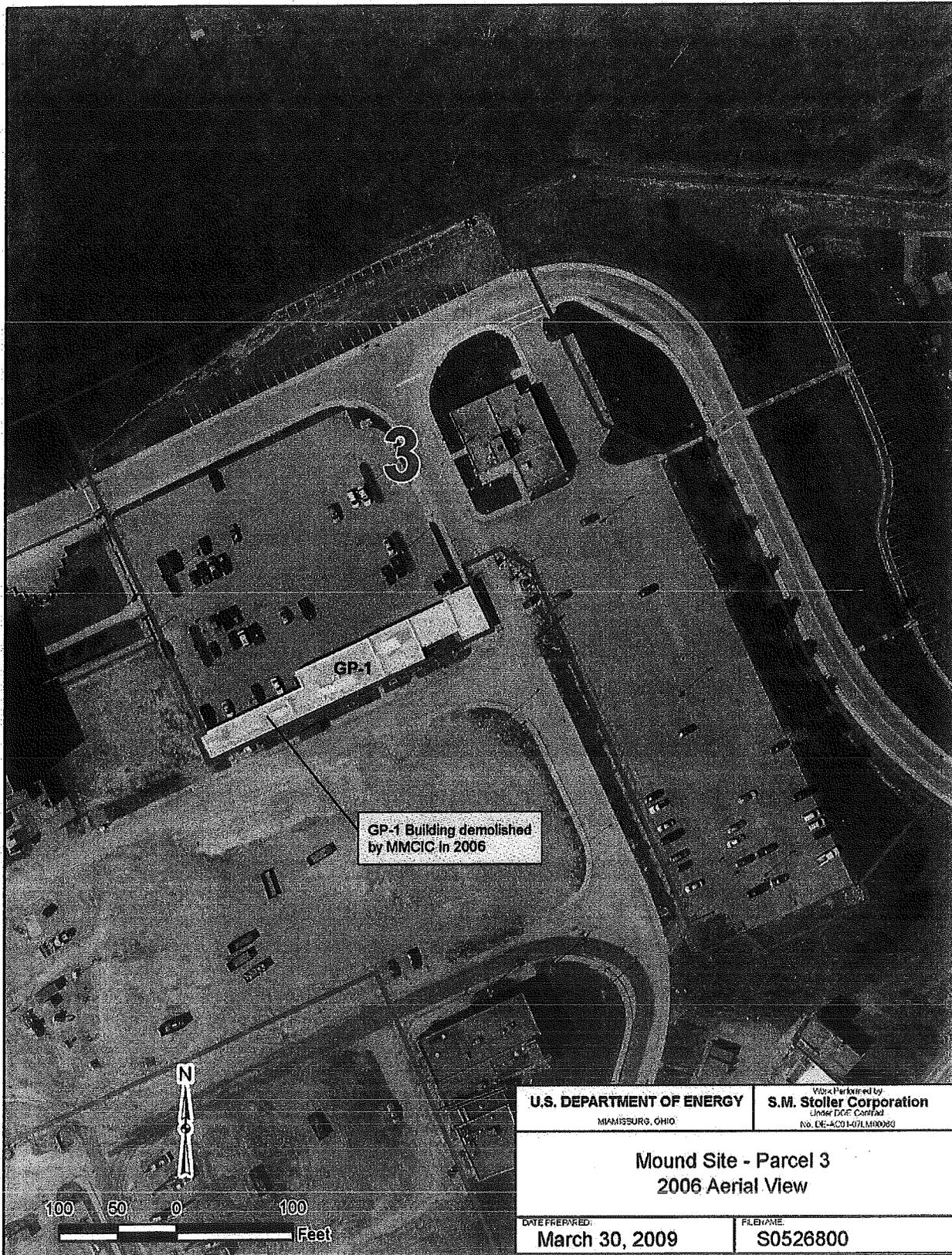


Figure 7. Parcel 3 View from Parking Lot East toward Mound Museum Building



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Figure 8. Parcel 3 2006 Aerial View

7.4 Parcel 4

In Parcel 4 (Figure 11), there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property.

The Flex Building in the southwest corner of Parcel 4 (Figure 9) is leased to a single tenant. The tenant's line of business is consistent with the City of Miamisburg's I-2 General Industrial District Zoning ordinance. Unauthorized vehicular access to the old southeast construction road is still prohibited by a sidewalk installed along Benner Road. The northern entrance to this road is blocked by fencing and a locked gate (Figure 10).



Figure 9. Parcel 4 MMCIC Flex Building in Southwest Corner of Parcel 4. Looking West from Old Construction Road Entrance in Parcel 4.



Figure 10. Parcel 4 Locked Gate, Facing South on Old Construction Road



Figure 11. Parcel 4 2006 Aerial View

There is a pond for retaining and detaining stormwater runoff in the southwest part of Parcel 4 (Figure 12). Three new signs were observed around the lake's perimeter which state, "Recreational Use Prohibited." The signs were apparently vandalized and replaced before both the 2008 and 2009 annual inspections.



Figure 12. Parcel 4 MMCIC Retention Pond with New Signage. Bike Path at Left of Photo.

Well 0444 (Figure 13), the only active groundwater monitoring well in Parcel 4, is on the northern boundary of Parcel 4, south of the Phase IB land parcel. Well 0444 was padlocked and in good repair. It now has a permanent identification marker (Figure 14).

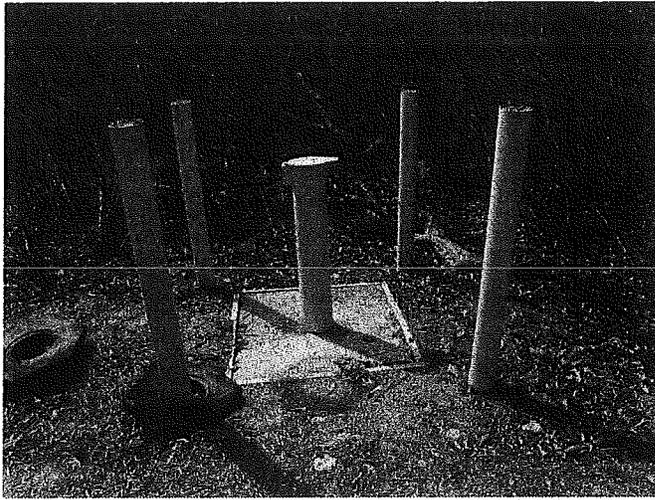


Figure 13. Parcel 4 Well 0444, Locked and in Good Repair

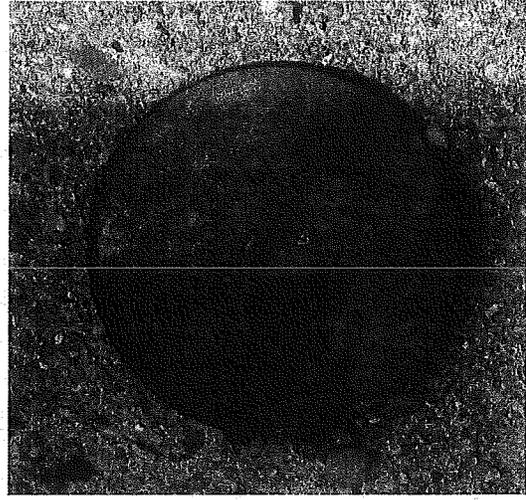


Figure 14. Well 0444 Identification Marker

A log, noted last year, was still lying across a damaged fence along the northern boundary of Parcel 4 near well 0444 (Figure 15). The fencing is not part of the IC for that parcel.

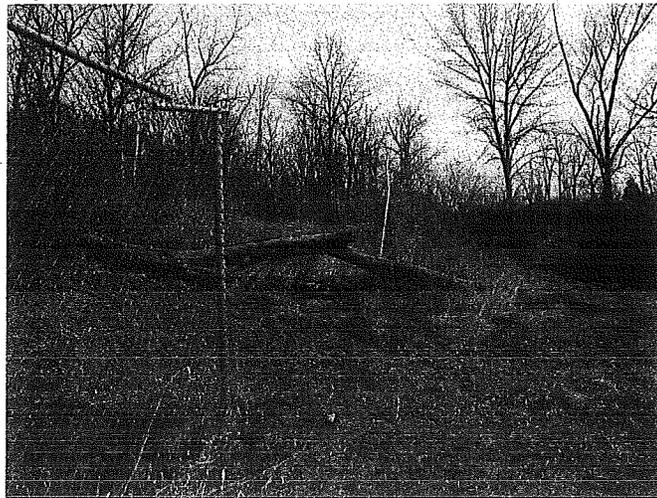


Figure 15. Parcel 4 Fallen Log Lying across Fence. Fence Was Peeled Back.

7.5 Phase I Parcel

The Phase I Parcel consists of three noncontiguous sub-parcels (A, B, and C), which were transferred to MMCIC in February 2009. The remedy for Phase I (A, B, and C) includes ICs for

the land parcel and monitored natural attenuation (MNA) to address trichloroethylene (TCE)-impacted groundwater.

In the Phase I Parcel, there were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation or soil removal within the original boundaries of the DOE Mound Site Property. A well drilled by the OU-1 excavation contractor in Parcel 9 near the northwest boundary of Parcel IC was removed, but the well was still shown on the Ohio Department of Natural Resources (ODNR) website. This well was used for dust suppression during the OU-1 excavation.

The groundwater monitoring component is provided in the *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Plan*, Final, September 29, 2004. Table 1 and Figure 16 give the requirements and locations of the wells and seep for the Phase I groundwater monitoring. Under the MNA remedy, TCE and its degradation products are monitored to verify that concentrations are decreasing. Although not part of the remedy, monitoring is conducted to confirm the behavior of barium, radium, nickel, and chromium in Phase I groundwater. The wells for this monitoring are listed under the "Confirmatory" column in Table 1. Ten groundwater monitoring wells and one groundwater seep are sampled for Phase I.

Table 1. Monitoring Wells and Seeps in Parcels Inspected or Part of Phase I Remedy

Monitoring Requirement		Well/Seep #	Located in Parcel				
Remedy (MNA)	Confirmatory		4	IA	IB	IC	9
X	X	Well P033				X	
	X	Well 0319				X	
X		Well 0353					X
X	X	Well 0400				X	
X	X	Well 0402					X
X		Well 0411			X		
	X	Well 0442			X		
X	X	Well 0443			X		
X		Well 0444	X				
X	X	Well 0445				X	
X		Seep 0617			X		

This annual assessment report documents the effectiveness of the ICs' remedy applied to the Phase I Parcel (and Parcels D, H, 4, and 3). This does not include a determination of the effectiveness of the various groundwater remedies, including the MNA remedy associated with the Phase I Parcel. All of the monitoring wells shown are in operable condition. The *Phase I Groundwater Monitoring Report Calendar Year 2008* can be found in the CERCLA Public Reading Room at 955 Mound Road, Miamisburg, Ohio 45342.

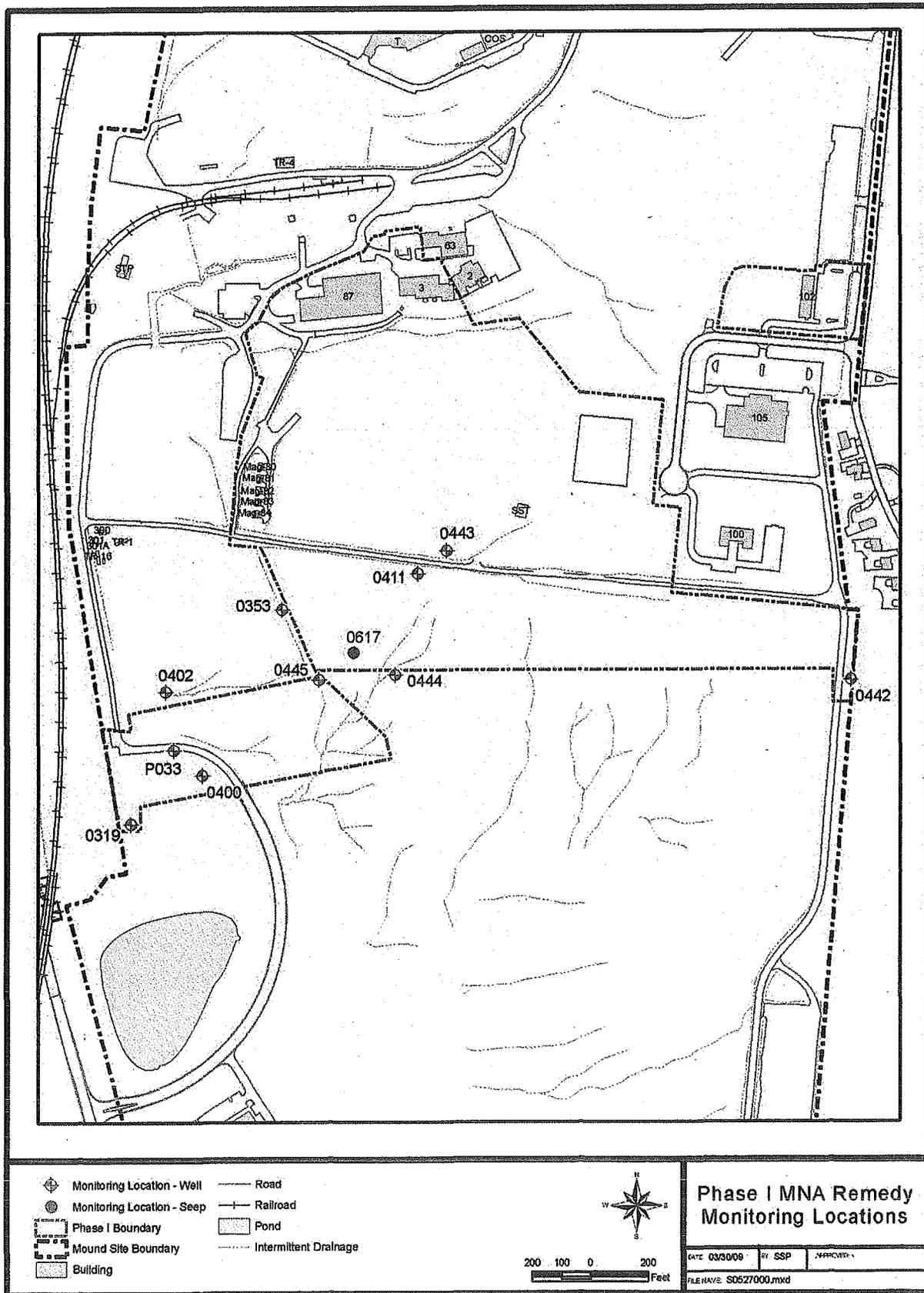


Figure 16. Phase I MNA Remedy Monitoring Locations

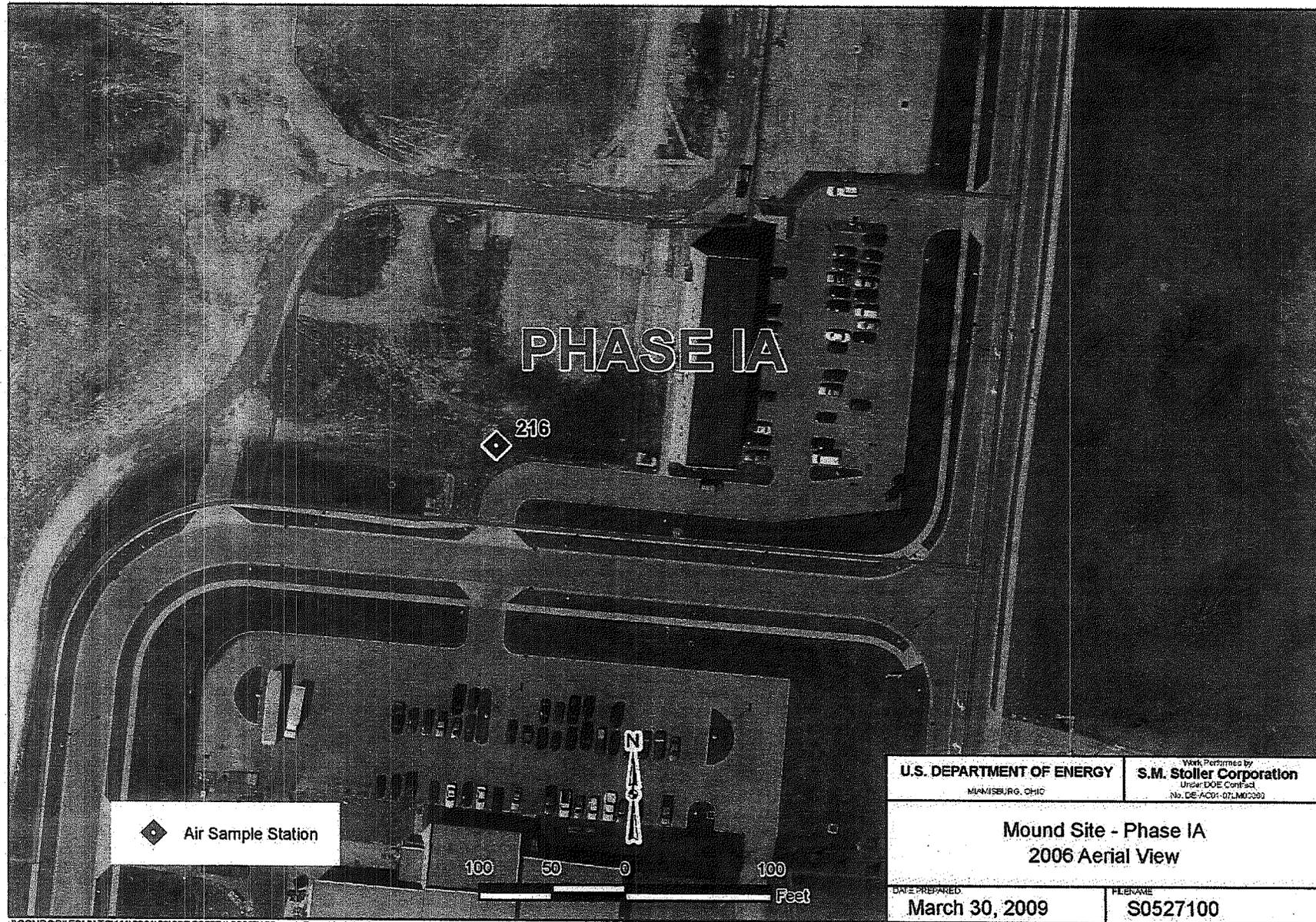


Figure 17. Parcel Phase IA 2006 Aerial View

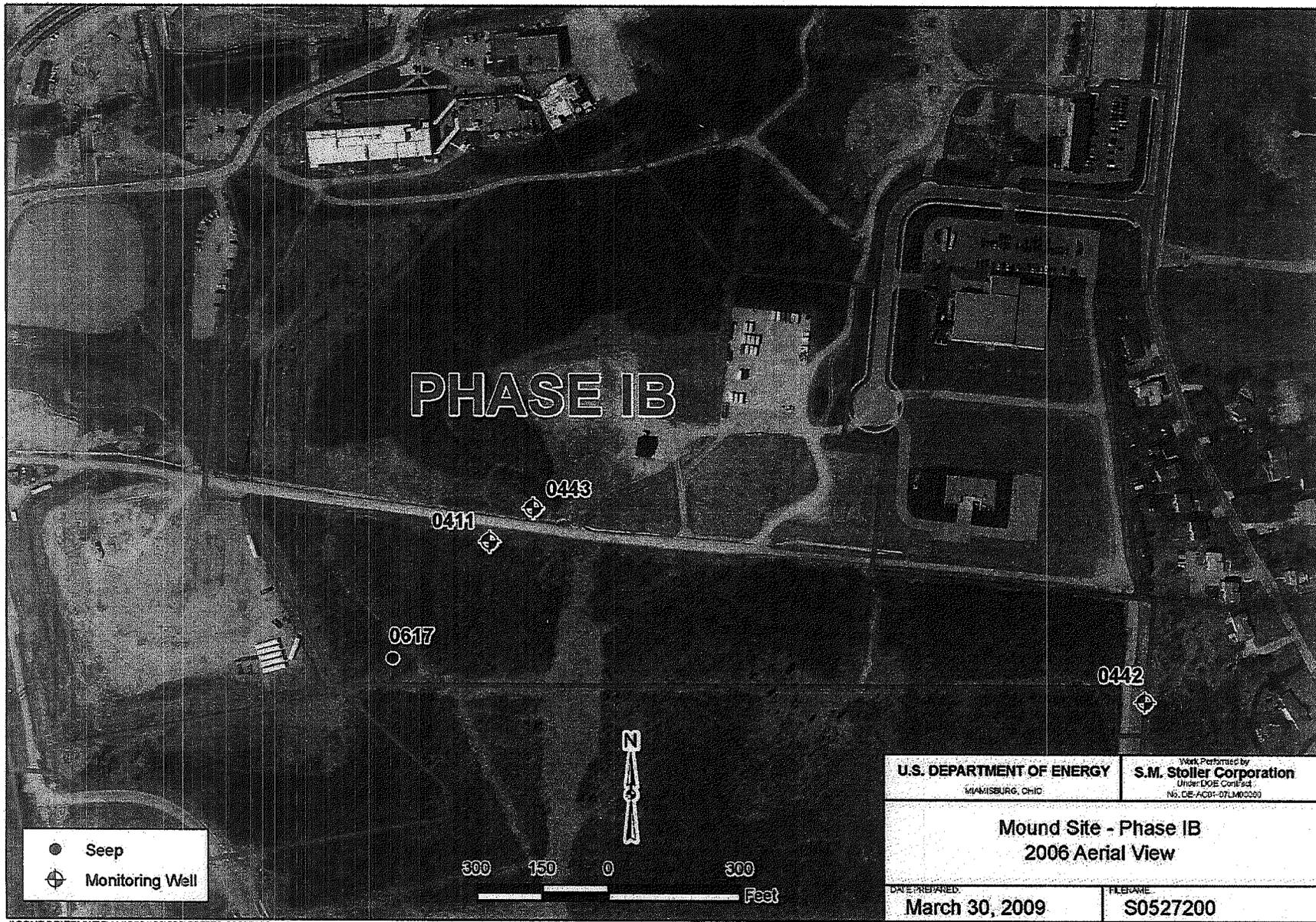


Figure 18. Parcel Phase IB 2006 Aerial View



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Figure 19. Parcel Phase IC 2006 Aerial View

The salt storage shed shown in Figure 20 and the concrete pad in Parcel IB remain empty.



Figure 20. Phase IB Empty Salt Storage Shed

Wells 0411 (Figure 21), 0442 (Figure 22), and 0443 (Figure 23) in Phase IB were locked, labeled, and in good repair. Seep 0617 (Figure 24) was in good condition.



Figure 21. Phase IB Well 0411, Locked, Labeled, and in Good Repair

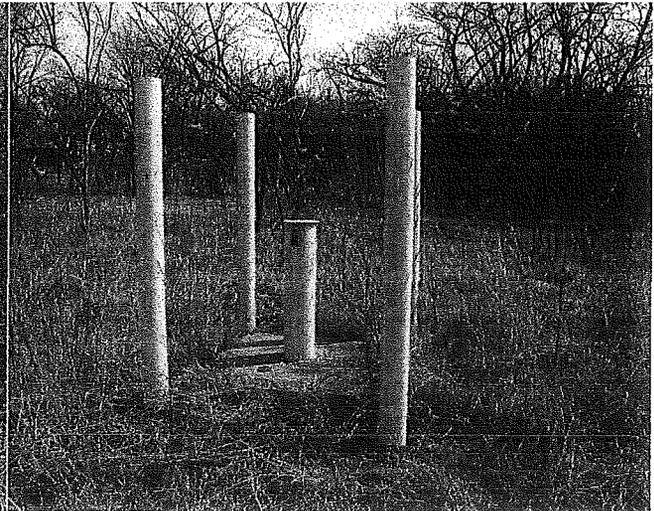


Figure 22. Parcel IB Well 0442, Locked, Labeled, and in Good Repair

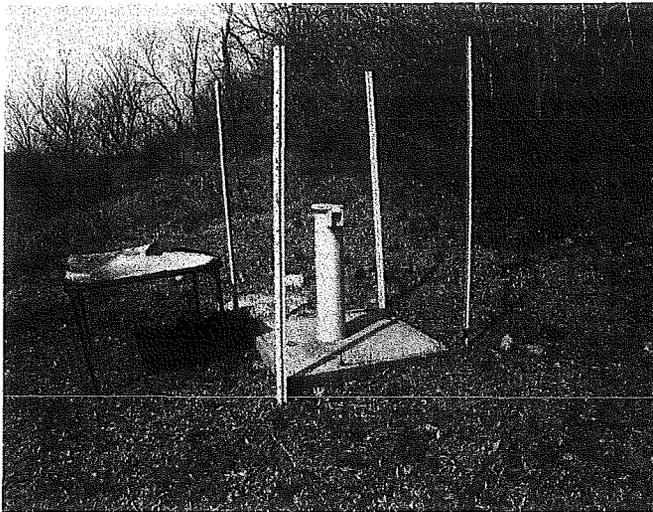


Figure 23. Parcel IB Well 0443, Locked, Labeled, and in Good Repair



Figure 24. Parcel IB Groundwater Seep 0617

There were several observations of areas of dirt disturbance, but no evidence of dirt being removed from the site in Parcel IB. The water diversion project, which extended into the west corner near magazines (Figure 25), diverts water from Parcel IB through a pipe under Parcel 9 into the Miami Conservancy District ditch west of OU-1. Another project to improve drainage in the west of PerkinElmer building was conducted after the pond was removed in Parcel 9 (Figure 26).

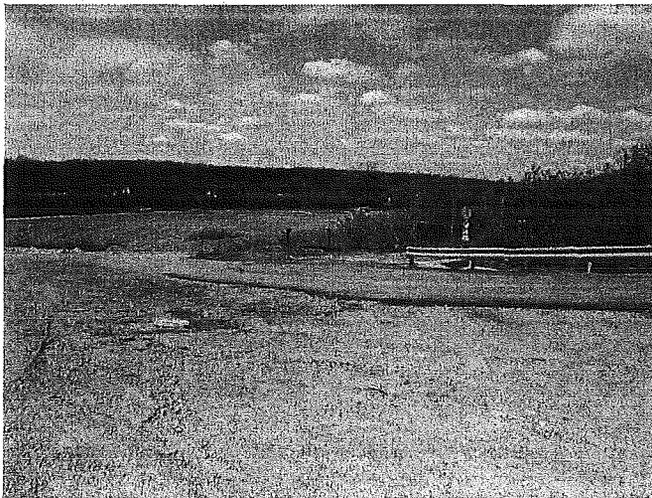


Figure 25. Parcel IB Water Diversion Project



Figure 26. Parcel IB Drainage Improvements

Well 0445 (Figure 27) in Parcel IC was locked, labeled, and in good repair. Wells 0400 (Figure 28) and 0319 (Figure 29) were locked, labeled, and in good repair.

Well P033 (Figure 30) was in good repair and had a permanent identification marker (Figure 31).

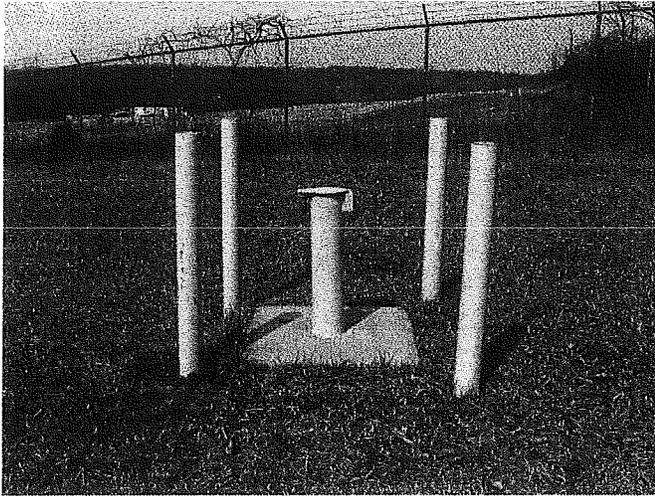


Figure 27. Parcel IC Well 0445, Locked, Labeled, and in Good Repair

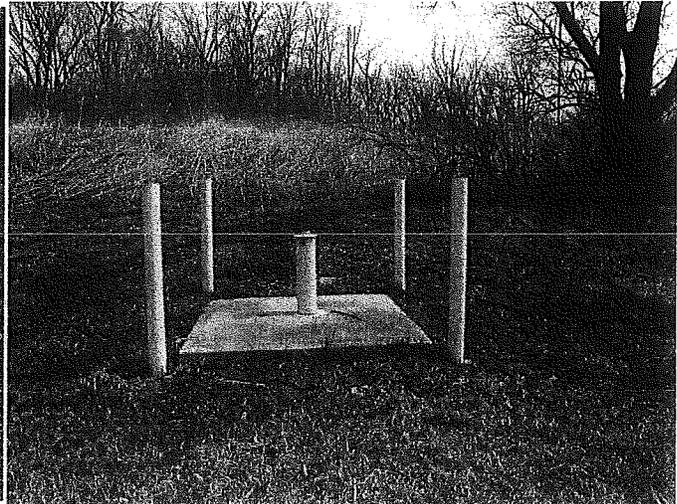


Figure 28. Parcel IC Well 0400, Locked, Labeled, and in Good Repair



Figure 29. Parcel IC Well 0319, Locked, Labeled, and in Good Repair

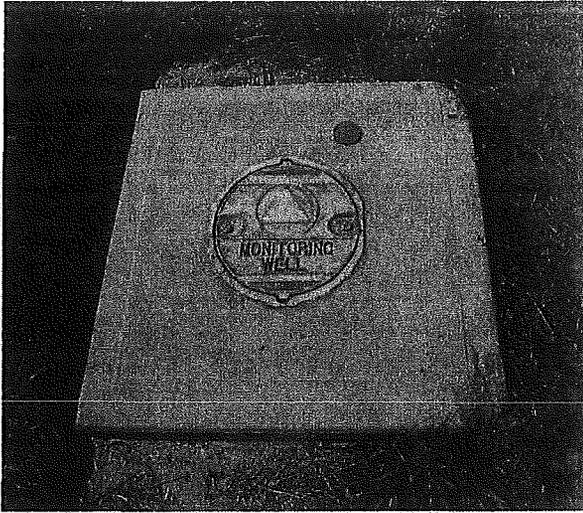


Figure 30. Parcel IC Well P033, in Good Repair and with a Permanent Identification Marker

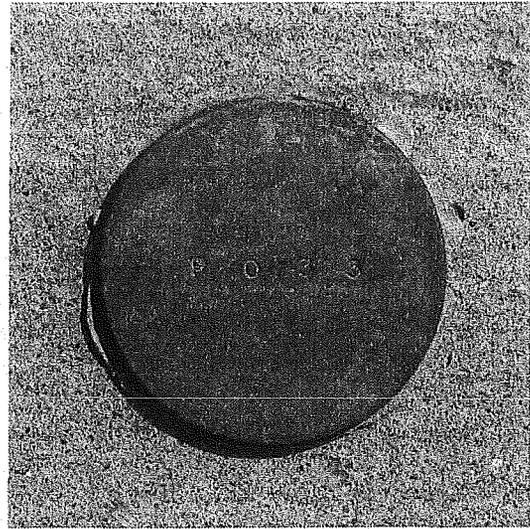


Figure 31. Parcel IC—Marker for P033

Monitoring wells 0353 (Figure 32) and 0402 (Figure 34) for the *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Plan* are in Parcel 9. These wells were locked and in good repair. Well 0353 has a drainage problem causing a wet area as shown in Figure 33.

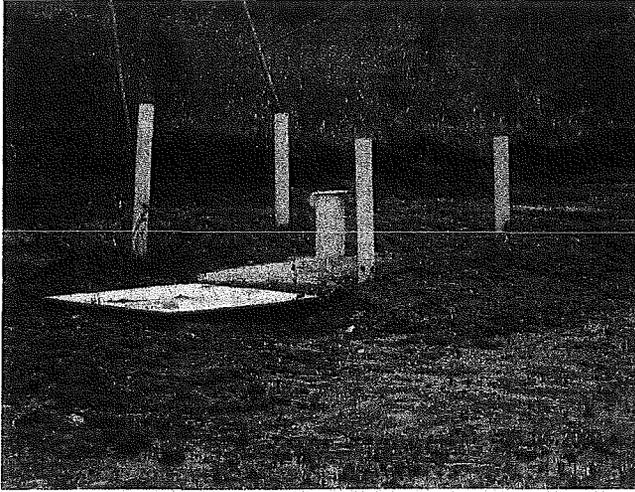


Figure 32. Parcel 9 MNA Well 0353, Locked, Labeled, and in Good Repair



Figure 33. Parcel 9 MNA Well 0353 Showing Drainage Problem North of Well

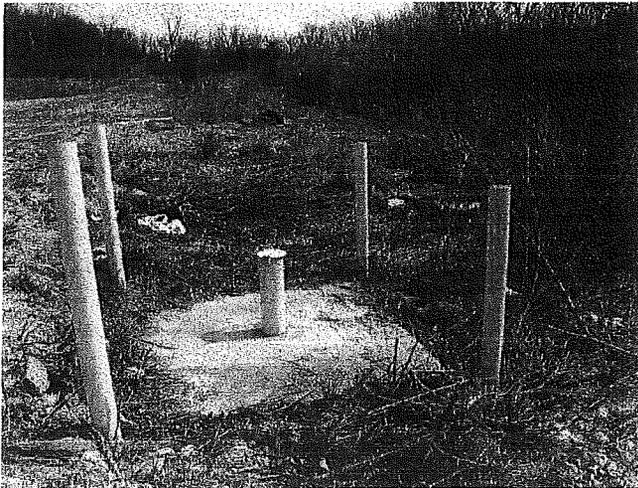


Figure 34. Parcel 9 MNA Well 0402, Locked, Labeled, and in Good Repair

8.0 Interviews and Records Reviews

8.1 Interviews with City Personnel and Review of City or MMCIC Records

In addition to the physical inspections for the annual assessment, DOE reviews documents from local governments to assure that ICs are being followed. These may include construction, street opening, occupancy, or other permits; zoning modification requests; planning commission requests; and well logs issued for land parcels that have completed the CERCLA 120[h] process

for property transfer. Documents may be located at the City of Miamisburg, at Miami Township, at Montgomery County, or in ODNR's well log files.

LM and Stoller personnel visited the City of Miamisburg Engineering and City Planning departments on March 24, 2009, and reviewed permits maintained by those departments for work performed by MMCIC, and its tenants or subcontractors, in Parcels D, H, 4, and 3 and the Phase I land parcel.

The following tables do not repeat information on permits included in previous years' DOE assessment reports on the effectiveness of the site-wide ICs. Furthermore, each year's report does not necessarily list permits filed by MMCIC or its tenants or subcontractors for work performed on DOE-owned, MMCIC-leased property. Instead, the following tables are typically limited to permits filed after a ROD has been executed for a particular parcel, since DOE is responsible for the O&M of the site-wide ICs remedy (regardless of whether DOE has conveyed title of that parcel, in whole or in part, to MMCIC).

Although the property is not subject to City of Miamisburg permitting requirements until DOE conveys the land parcel to MMCIC, the City-permitting process familiarizes the City with the properties that will eventually belong to MMCIC. This can reduce the time it takes for MMCIC to receive City approval (e.g., for a building occupancy permit) in the future. City files are maintained by street address. DOE has performed spot-checks of permits in the City Engineering files since May 2001 to confirm that the permits are maintained under configuration control. The City of Miamisburg does not maintain files on buildings that MMCIC plans to demolish. City files do exist on buildings that have been demolished; however, those files are now considered obsolete.

Table 2 shows the DOE building identification and the Miamisburg street addresses for each building. Seven buildings (3, 87, 100, 102, 105, Flex, and GH), four magazines (81 through 84), and a salt storage shed are in land parcels transferred to MMCIC. Figure 35 shows the location of site buildings.

Since City permits are filed by address, MMCIC must inform DOE of changes to the street names or building addresses.

Table 2. Crosswalk of Street Addresses to DOE Building Identifications

DOE Building ID	Former Address	Current Miamisburg Street Address	Parcel
2		To be demolished	7
28		925 Capstone Drive	6
45		930 Capstone Drive	6
61		885 Mound Road	7
63		1070 Vanguard Boulevard	7
87 and 3		1100 Vanguard Boulevard	IB ^a
100		790 Enterprise Court	D ^a
102		1075 Mound Road	IA ^a
105		1195 Mound Road	D ^a
126		955 Mound Road	6A
COS		965 Capstone Drive	8
GH	500 Capstone Circle	500 Vantage Point	3 ^a
OSE	480 Capstone Circle	480 Vantage Point	6
OSW	460 Capstone Circle	460 Vantage Point	8
T		945 Capstone Drive	8
Magazines 81-84	None	None	IB ^a
(new) Flex Building		1390 Vanguard Boulevard	4 ^a

^aParcel has been transferred to MMCIC.

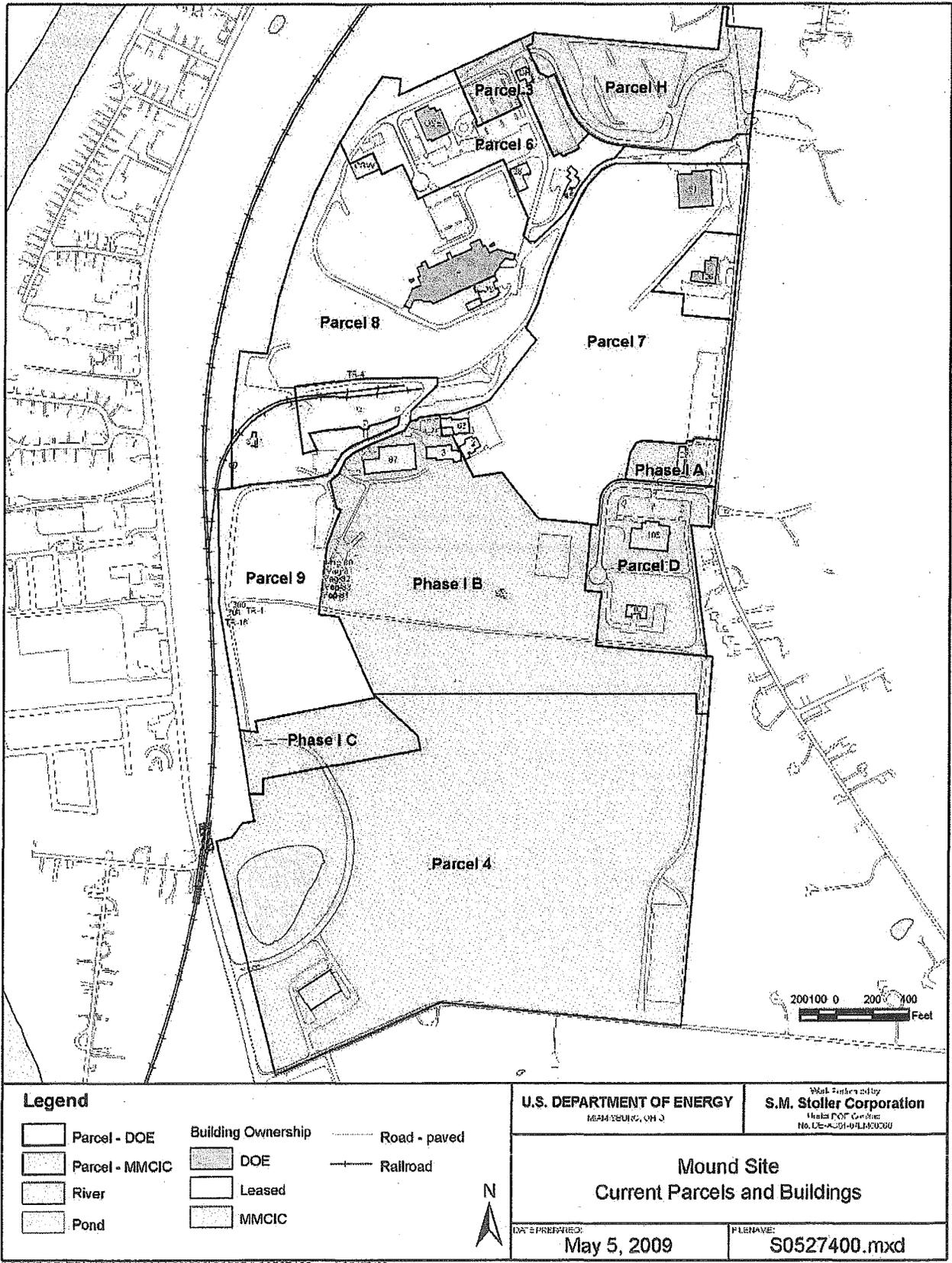


Figure 35. Mound Site Buildings and Parcels

None of the permits reviewed pertained to work that was performed on or could have impacted transferred parcels since DOE's last assessment. All permits on file for the site are detailed in Table 3. Jane Hansel, City of Miamisburg Building Inspection Department, provided the records for review on March 24, 2009.

Table 3. City of Miamisburg Permit Files on Mound Site (April 8, 2008, to March 24, 2009)

Location of Work	Permit Number	Date of Permit Application	Submitted By	Nature of Work	Work Performed By
COS 965 Capstone Drive	2008 0059B	4/22/08	Not on record	Fire alarms	A1 Systems Integration
OSW 460 Vantage Point	2008 0093B	6/3/08	MMCIC	Building alteration	To be determined
OSW 460 Vantage Point	2008 0076H	6/3/08	MMCIC	HVAC	To be determined
OSW 460 Vantage Point	2008 0077E	6/3/08	MMCIC	Electrical	Key Electric
OSW 460 Vantage Point	2008 0180B	9/5/08	Not on record	Antenna	Phecors
OSW 460 Vantage Point	2008 0181B	9/11/08	MMCIC	Fire suppression	Dayton Fire Protection
OSW 460 Vantage Point	2008 0184E	11/26/08	MMCIC	Generator, Uninterruptable Power Supply system	Chappel Electric
OSW 460 Vantage Point	2008 0202H	12/15/08	Not on record	Heating, ventilation, and air-conditioning	Rieck Services

Table 4 lists work requests that did not require a City permit but did require review by the City Planning Commission. These requests included excavation or paving activities.

Table 4. City of Miamisburg Files—Planning Commission Reviews

Location of Work	ID Number	Date of Application	Submitted By	Nature of Work	Parcel/ Building	Status
No Commission reviews were performed during this period.						

All work that was performed by MMCIC or other parties (e.g., contractors to MMCIC) on the former DOE Mound Site Property, which Art Kleinrath (LM) and Frank Bullock (MMCIC) were aware of during the 12-month reporting period, appeared to be adequately covered by permits submitted to, and approved by, the City of Miamisburg.

As noted in previous annual reports on the effectiveness of site-wide ICs, the City of Miamisburg implemented an electronic permits database in 2003, which allows permits to be queried via keyword search (e.g., permit number, date, location, nature of work). Permits issued by the City prior to the implementation of the City's new database (i.e., permits documented in DOE's annual reports dating back to 2001) may not be in the City's database. However, the City retains paper copies of all permits in accordance with a records-retention plan that meets all State of Ohio requirements.

Permits filed with the City of Miamisburg do not have an expiration date. Therefore, DOE and the property owner (at present, MMCIC) should remain knowledgeable of permits filed with the City of Miamisburg, where work covered by that permit may have been postponed. This will provide a checks-and-balances system to ensure that work requiring a permit and performed since the last DOE annual assessment is approved by the appropriate City officials.

In general, the permit-review process demonstrated that the City of Miamisburg's recordkeeping system is adequate.

8.2 Records, Other Than Permits, Issued by the City of Miamisburg

MMCIC and all future property owners must comply with the ICs associated with the former DOE Mound Site Property to maintain the CERCLA remedy. MMCIC currently ensures that contractors performing work for MMCIC (e.g., landscaping, utility work involving excavation, construction) are aware of and comply with the ICs. MMCIC embeds the following language in the "Technical Requirements" section of its requests for proposal and subsequent work orders:

Excavated soils must be managed and remain on MMCIC property. Soils from excavation shall be placed at an on-site location, as directed by MMCIC.

The MMCIC project manager, who oversees site work, monitors the vendor's work and conformance to technical requirements in the work order. MMCIC provides the vendor with a real estate easement in addition to the technical requirements. This easement is recorded with Montgomery County as a matter of public record. An example of a real estate easement used for utility work on MMCIC property is included as Appendix B. Note that Section 2 of the easement gives the utility provider/vendor detailed information on the ICs associated with MMCIC's property. This requires compliance with restrictions, which are the ICs.

Continuing public education is an important component of DOE's post-closure responsibilities. Appendix C is an EPA document with information concerning ICs. Educating all future property owners on their responsibility to comply with the ICs will be an important element of DOE's public-education campaign. It is also important to educate the general public on the importance of adhering to the site-wide ICs. Therefore, postings (such as warning signs near the MMCIC pond, which state that recreational use is prohibited) are an important part of educating the public about complying with ICs.

Prior to initiating construction on any land parcel, MMCIC will provide the builder with a pre-construction package that includes a description of the ICs associated with that particular parcel. This is how MMCIC ensures that the builder is aware of applicable ICs. In a new-construction scenario, probably the most important IC to educate builders about is the prohibition against removing any soils from the original boundaries of the approximately 306 acres that constitute the former DOE Mound Site Property.

As recommended in the 2008 annual assessment, DOE will examine these documents during the annual IC assessments after the site has been transferred. This will ensure that the necessary wording continues to be included in contracts or easements after site transfer.

MMCIC's *Comprehensive Reuse Plan Update, December 31, 2003* (CRP) identifies each building at the Mound Advanced Technology Center with its own lot. A copy of the CRP is available in the CERCLA Reading Room.

Eventually, MMCIC plans to plat the entire former DOE Mound Site Property. In order to receive financing (i.e., for new construction) on land parcels that make up the original DOE Mound Site Property, MMCIC will record a lot-split with the Montgomery County Recorder's Office. If MMCIC does not require financing for property improvements within a parcel, MMCIC does not have to immediately record a Miamisburg Planning Commission-approved lot-split with the County. However, if MMCIC decides to sell the property, MMCIC has to record the lot-split with the County at that time. The recorded real estate documentation would include the original quitclaim deed that DOE issued to MMCIC for the parcel, as a whole, as well as the CERCLA 120(h) *Summary Notice of Hazardous Substances* associated with the original parcel. This will ensure that future property owners of individual lot-splits know of the site-wide ICs imposed on acreage that lies within the boundaries of the parcels as originally conveyed by DOE to MMCIC.

The property owner's adherence to the ICs imposed on a land parcel is vital to the effective maintenance of those ICs. MMCIC currently coordinates the movement of soil and site grading, as DOE oversees completion of the OU-1 Project in Parcel 9. After DOE's environmental management mission is complete, managing the movement of soil throughout the site should be an effective way for the property owners to ensure that soil is not being removed from the site as a whole. To accomplish this task, MMCIC's CRP establishes locations where future construction/property improvements will occur on the former DOE Mound Site Property. The CRP also includes a site-wide soil-grading plan. The CRP was adopted by the City of Miamisburg, and it was incorporated into the City's comprehensive plan. The City's comprehensive plan is the basis for the zoning of properties that fall within the city limits. If MMCIC subdivides the former DOE Mound Site Property and sells portions (or all) of the property, the new property owners would be required to comply with the CRP and the City's comprehensive plan.

9.0 Conclusions

The ICs for Parcels D, H, 3, and 4 and the Phase I land parcel continue to function as designed. Adequate oversight mechanisms appear to be in place to identify possible violations of ICs, and adequate resources are available to correct or mitigate any problems if violations occur.

10.0 Recommendations

Table 5 and Table 6 list previous inspections' recommendations for improving ICs, the status of those recommendations, and new recommendations from this year's inspection.

Table 5. Recommendations from Previous Inspections of ICs

	Origin	Issue/ Recommendation	Status 2008 Report	Corrected?	Current Status 2009 Report
1	2007 Annual	Determine when OEPA removes air monitoring station in Parcel H.	OEPA was working with DOE-EM to dispose of their air monitoring stations on site.	Yes	Removed on May 28, 2009
2	2008 Annual	DOE-LM contractor will add label to well P033.	New	Yes	Complete
3	2008 Annual	Landowner or management organization will notify DOE-LM when there are changes of address or street names on site. Building permits are filed by street addresses.	New	No	In process
4	2008 Annual	Add landowner or management organization (MMCIC) contracts and easement documents to those reviewed for the annual IC assessment.	New	Yes	Paul Lucas or LM contractor (Stoller) currently reviews all MMCIC contracts. LM will review these documents during annual IC assessments after site transfers.

Table 6. Recommendations from 2009 Annual Inspection for ICs

Number	Issue/ Recommendation	Responsible
1	Confirm that the aRc well was abandoned correctly and removed from the ODNR website.	Stoller
2	Improve drainage in the area north of Well 0353	Stoller

11.0 For Further Information

For further information on the content of this annual report or the former DOE Mound Site Property in general, contact either:

Mr. Paul Lucas
 Remedial Project Manager
 DOE Office of Environmental Management
 955 Mound Road
 Miamisburg, Ohio 45342
 (937) 847-8350 ext. 301

or

Mr. Art Kleinrath
 Site Manager
 DOE Office of Legacy Management
 955 Mound Road
 Miamisburg, Ohio 45342
 (937) 847-8350 ext. 318

For further information on the regulatory guidelines governing the CERCLA 120(h) process for property transfer at the former DOE Mound Site Property, contact:

Mr. Tim Fischer
Remedial Project Manager
U.S. Environmental Protection Agency
77 W. Jackson Blvd.
Chicago, Illinois 60604-3590
(312) 886-7058

or

Mr. Brian Nickel
Remedial Project Manager
Ohio Environmental Protection Agency
401 E. Fifth St.
Dayton, Ohio 45402-2911
(937) 285-6468

12.0 References

- DOE (U.S. Department of Energy), 1999a. *Record of Decision for Release Block D*, Final, February.
- DOE (U.S. Department of Energy), 1999b. *Record of Decision for Release Block H*, Final, June.
- DOE (U.S. Department of Energy), 2001a. *Parcel 3 Record of Decision*, Final, August.
- DOE (U.S. Department of Energy), 2001b. *Parcel 4 Record of Decision*, Final, February.
- DOE (U.S. Department of Energy), 2003. *Phase I Record of Decision*, Final, July.
- DOE (U.S. Department of Energy), 2004a. *Operation and Maintenance (O&M) Plan for the Implementation of Institutional Controls at the 1998 Mound Plant Property, Phase I Parcel*, update, Rev. 1, February.
- DOE (U.S. Department of Energy), 2004b. *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Plan*, Final, September.
- DOE (U.S. Department of Energy), 2006. *Second Five-Year Review for the Mound, Ohio, Site, Miamisburg, Ohio*, September.
- DOE (U.S. Department of Energy), 2008a. *Annual Assessment of the Effectiveness of Site-Wide Institutional Controls Applied to the Former Mound Site Property*, June.
- DOE (U.S. Department of Energy), 2008b. *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Annual Report*, March.
- DOE (U.S. Department of Energy), 2008c. *Sales Contract by and between the United States Department of Energy and the Miamisburg Mound Community Improvement Corporation, August 28, 2008*, August.
- MMCIC (Miamisburg Mound Community Improvement Corporation), 2003. *Comprehensive Reuse Plan Update*, December.

Appendix A

**Annual Assessment Checklists For
Parcels D, H, 4, and 3 and Phase I Land Parcel
(Physical Walkover Conducted on April 14, 2009)**

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CHECKLIST WORKSHEET – COMBINED – ALL PARCELS
Review of Effectiveness of Institutional Controls

Parcels reviewed: D, H, 3, 4, Phase I (A, B and C)

Date(s) Performed: March 23, March 24 and April 8

Review led by: Art Kleinrath, DOE LM **Phone #:** 937-847-8350 X318

Participants in Physical Inspection Walk Around on April 14, 2009:

Tjm Fischer, U.S. EPA; Brian Nickel and Anthony Campbell, Ohio EPA; Joe Crombie, ODH; Ellen Stanifer, City of Miamisburg; Frank Bullock, MMCIC; Art Kleinrath, DOE LM; Paul Lucas, DOE EM; Joyce Massie and Gary Weidenbach, S.M. Stoller

Summary of property improvements since DOE's sale of parcel or since the previous Review (whichever is most recent). For example, have buildings been demolished or erected? Has surface water flow been modified? Has landscaping been done?

Parcel D - no evidence of property improvements

Parcel H - no evidence of property improvements

Parcel 3 - no evidence of property improvements

Parcel 4 - no evidence of property improvements

Phase 1A - Grading and grass was sewn behind Building 102

Phase 1B -

New grating had been installed over a section of storm sewer along road southwest of salt shed;

Water diversion project in west corner near magazines which diverted water from pond area through a pipe under Parcel 9 into the Miami Conservancy District ditch west of OU-1;

Drainage improvements were made in the northwest area of I B west of PerkinElmer building. Work was conducted after pond removal was completed in Parcel 9.

Phase 1C no evidence of property improvements

Evidence of Soil removal from the "1998 Mound Plant Property"? Yes () No (X)

Parcel D no evidence of soil removal

Parcel H no evidence of soil removal

Parcel 3 no evidence of soil removal

Parcel 4 no evidence of soil removal

Phase 1A no evidence of soil removal

Phase 1B no evidence of soil removal

Phase 1C no evidence of soil removal

Evidence of (non-DOE) Groundwater use? Yes () No (X)

Parcel D no record of new wells on Ohio Department of Natural Resources (ODNR) website

Parcel H no record of new wells on Ohio Department of Natural Resources (ODNR) website

Parcel 3 no record of new wells on Ohio Department of Natural Resources (ODNR) website

Parcel 4 no record of new wells on Ohio Department of Natural Resources (ODNR) website

Phase 1A no record of new wells on Ohio Department of Natural Resources (ODNR) website

Phase 1B no record of new wells on Ohio Department of Natural Resources (ODNR) website

Phase 1C Well log number 2009362 at upper left corner near road is located in Parcel 9.

Used by aRc during OU-1 excavation for construction use. Well was removed, but it is still listed on the ODNR website.

CHECKLIST WORKSHEET
Review of Effectiveness of Institutional Controls

Evidence of land use other than "Industrial" (e.g., residential)? Yes () No (X)

Parcel D None observed
 Parcel H None observed
 Parcel 3 None observed
 Parcel 4 None observed
 Phase 1A None observed
 Phase 1B None observed
 Phase 1C None observed

Signage/Markers in good repair (if applicable)? Yes (X) No ()

Parcel D N/A. Signage is not an IC for this parcel
 Parcel H N/A. Signage is not an IC for this parcel
 Parcel 3 N/A. Signage is not an IC for this parcel
 Parcel 4
 Signage is a part of the ICs for the retention pond. New signs were observed during the walk down inspection on April 14, 2009.
 Phase 1A N/A. Signage is not an IC for this parcel
 Phase 1B N/A. Signage is not an IC for this parcel
 Phase 1C N/A. Signage is not an IC for this parcel

Fencing in good repair (if applicable)? N/A (X) Yes () No ()

Fencing is not an IC for any parcel covered by this inspection

Groundwater Monitoring Wells maintained properly? Yes (X) No ()

Parcel D N/A. There are no monitoring wells in this parcel,
 Parcel H N/A. There are no monitoring wells in this parcel.
 Parcel 3 N/A. There are no monitoring wells in this parcel
 Parcel 4
 Well 0444 – Well was locked and in good repair. Marker was in place.
 Phase 1A N/A. There are no monitoring wells in this parcel
 Phase 1B
 Well 0411 – Well was locked and in good repair. Marker was in place.
 Well 0442 – Well was locked and in good repair. Marker was in place.
 Well 0443 – Well was locked and in good repair. Marker was in place.
 Seep 0617 – In good condition
 Phase 1C
 P033 – Added a marker per recommendation last year
 Well 0319 – Well was locked and in good repair. Marker was in place.
 Well 0400 – Well was locked and in good repair. Marker was in place.
 Well 0445 – Well was locked and in good repair. Marker was in place.
 Parcel 9 – Wells for Phase I parcel
 Well 0353 - Well was locked and in good repair. Marker was in place
 Well 0402 - Well was locked and in good repair. Marker was in place.

CHECKLIST WORKSHEET – COMBINED – ALL PARCELS
Review of Effectiveness of Institutional Controls

Air Monitoring Stations maintained properly (if applicable)?

Yes (X) No ()

Parcel D N/A Air monitoring is not an IC for this parcel

Parcel H N/A Air monitoring is not an IC for this parcel.

There are two air monitoring stations at the NE corner of the parking lot.

EPA plans to remove its station.

DOE will maintain its station 212 until the NESHAPs monitoring requirements are satisfied following the work in Parcel 9 on OU-1 excavation.

Parcel 3 N/A. Air monitoring is not an IC for this parcel

Parcel 4 N/A. Air monitoring is not an IC for this parcel

Phase 1A N/A.

Air monitoring is not an IC for this parcel.

Air monitor 216 is located in back of Building 102. DOE will maintain this station until the NESHAPs monitoring requirements are satisfied following the work in Parcel 9 on OU-1 excavation.

Phase 1B N/A. Air monitoring is not an IC for this parcel

Phase 1C N/A. Air monitoring is not an IC for this parcel

Containment system(s) in good repair (if applicable)? **N/A (X) Yes () No ()**

Containment systems are not an IC for any parcel covered by this inspection

Site Surveillance equipment in good repair (if applicable?) **N/A (X) Yes () No ()**

Site surveillance equipment is not an IC for any parcel covered by this inspection

Other equipment associated with maintenance of the **N/A (X) Yes () No ()**

Institutional Controls in good repair (if applicable)?

There are no other equipment items associated with maintenance of the ICs for any parcel covered by this inspection.

CHECKLIST WORKSHEET
Review of Effectiveness of Institutional Controls

Summary and status of open issues or recommendations from previous reviews

Dates of previous reviews:

Five-year review (2006) and Annual reports 2007 and 2008

	Origin	Issue/Recommendation	Status 2008 Report	Corrected?	Current status 2009 Report
1	Five-Year	Permanent ID markers are not installed on all long-term groundwater monitoring wells.	Five wells are without permanent markers. All are marked with waterproof ink and are identified on site maps.	Yes	The permanent brass markers were installed in the concrete pads of wells 0442, 0443, 0444, 0445, and P033 (all in Phase I) during 2008. This is documented in the Phase I annual GW report.
2	2007 Annual	Determine when OEPA will remove air monitoring station in Parcel H.	OEPA is working with DOE-EM to dispose of their air monitoring stations on site.	No	There is still an OEPA air monitoring station in Parcel H.
3	2008 Annual	DOE-LM contractor will add label to well P033.	New	Yes	The permanent brass marker is installed in the concrete pad.
4	2008 Annual	Landowner or management organization will notify DOE-LM when there are changes of address or street names on site. Building permits are filed by street addresses.	New		
5	2008 Annual	Add landowner or management organization (MMCIC) contracts and easement documents to those reviewed for the annual IC assessment.	New		Paul Lucas or LM contractor (Stoller) currently reviews all MMCIC contracts.

CHECKLIST WORKSHEET – COMBINED – ALL PARCELS

Review of Effectiveness of Institutional Controls

Personnel interviewed during the physical walk-over of parcel, or during review of documentation associated with the parcel:

Jane Hansel, City of Miamisburg Engineering Department, 937-847-6532, provided access to the City building permits. No permits related to the parcels covered by this IC inspection.
Chris Fine, advised there were no City Planning Commission reviews of any parking lot or landscaping for the Mound Site.

List of Documents reviewed (e.g., street opening permits or construction permits approved by the City of Miamisburg, engineering drawings for improvements to property, aerial photographs, maps, City Planning Commission requests, Ohio Department of Natural Resources well logs):

DOE and Stoller personnel reviewed City of Miamisburg building permits on March 24, 2009. Chris Fine advised on April 7 that there were no City Planning Commission requests for the Mound Site between April 8, 2008, and April 7, 2009.

Reviewed the Ohio Department of Natural Resources well logs on the ODNR website.
The four new OU-1 monitoring wells installed in Parcel 9 were listed.

Based upon the review of the above-listed documents, were property improvements covered by the appropriate approvals (e.g., construction permit approved by City?

Yes (X) No ()

Parcel D No permits filed since last inspection.
Parcel H No permits filed since last inspection.
Parcel 3 No permits filed since last inspection.
Parcel 4 No permits filed since last inspection.
Phase 1A No permits filed since last inspection.
Phase 1B No permits filed since last inspection.
Phase 1C No permits filed since last inspection.

During the walkover, was there physical evidence of movement of soil off site or use of groundwater that was not approved by the regulators? Yes () No (X)

Parcel D No evidence of work performed since last inspection
Parcel H No evidence of work performed since last inspection
Parcel 3 No evidence of work performed since last inspection
Parcel 4 No evidence of work performed since last inspection
Phase 1A Grading behind Bldg 102. No evidence of work performed since last inspection
Phase 1B
The stormwater diversion project required excavation in the southwest area. No soil was removed from the site.
There was a drainage modification in northwest corner adjacent to the Parcel 9 pond removal. No soil was removed from the site.

Phase 1C No evidence of work performed since last inspection.

CHECKLIST WORKSHEET
Review of Effectiveness of Institutional Controls

CHECKLIST WORKSHEET
Review of Effectiveness of Institutional Controls

Miscellaneous items noted during review or physical walkdown:
Parcel D None
Parcel H None
Parcel 3 None
Parcel 4 None
Phase 1A None
Phase 1B None
Phase 1C None
Recommendations from Physical Walkdown:
Parcel D None
Parcel H None
Parcel 3 None
Parcel 4 None
Phase 1A None
Phase 1B None
Phase 1C None
General – Assure that aRc abandoned construction well properly and ODNR removes it from their website.
Conclusion/comments from Physical Walkdown:
Parcel D The ICs continue to function as designed
Parcel H The ICs continue to function as designed
Parcel 3 The ICs continue to function as designed
Parcel 4 The ICs continue to function as designed
Phase 1A The ICs continue to function as designed
Phase 1B The ICs continue to function as designed
Phase 1C The ICs continue to function as designed
Checklist prepared by U.S. Department of Energy
 Art Kleinrath, LM Site Manager
Physical Walkdown Comments submitted by: No comments were submitted by participants
Date: April 14, 2009

Appendix B

**Real Estate Easement for Utility Work
Performed on MMCIC Property**

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NO TRANSFER
08:01aa MARCH 20, 2003
KARL L. KEITH, COUNTY AUDITOR

**SUPPLEMENTARY DECLARATION OF EASEMENT TO
REAL ESTATE EASEMENT NO. 99-OH-00011**

THIS SUPPLEMENTARY DECLARATION OF EASEMENT TO REAL ESTATE EASEMENT NO. 99-OH-00011 ("Supplementary Declaration of Easement") is made on this 18th day of March, 2003, by MIAMISBURG MOUND COMMUNITY IMPROVEMENT CORPORATION, an Ohio non-profit corporation ("Declarant") under the terms and conditions set forth below.

RECITALS:

A. By virtue of Real Estate Easement No. 99-OH-00011 executed on September 22, 1999, and recorded at Microfiche No. 99-0702D99 (the "Original Easement"), The United States of America, acting by and through the Department of Energy ("DOE"), granted to AMERITECH an easement for the installation of communication lines over the area depicted in the Original Easement (the "Original Easement Area"), described in Exhibit A, attached hereto and incorporated herein by reference.

B. By virtue of a Quitclaim Deed dated August 4, 1999, and recorded at Microfiche No. 99-0852B11 of the Montgomery County, Ohio Recorder's office, and by virtue of a Quitclaim Deed dated November 19, 1999, and recorded at Microfiche No. 99-0852B05 of such Recorder's office, The United States of America, acting by and through the Secretary of the DOE, conveyed to Declarant the real property described on Exhibit B, attached hereto and incorporated herein by reference ("Declarant's Property"), which property is burdened by the Original Easement.

C. Declarant now desires to expand the Original Easement Area on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the recitals set forth above and the terms and conditions set forth below, Declarant hereby declares as follows:

1. **Grant.** Declarant hereby grants to AMERITECH, its successors and assigns, a permanent, non-exclusive easement upon, over and under the area of the Declarant's Property described in Exhibit C, attached hereto and incorporated herein by reference ("Expanded Easement Area"). By making use of the Expanded Easement Area, AMERITECH shall be deemed to have agreed to be bound by the terms and conditions of this Declaration.

2. **Compliance With Restrictions.** AMERITECH shall have reviewed the restrictions and covenants set forth in the Deeds by which DOE conveyed to Declarant the Declarant's Property prior to the construction or installation of any of AMERITECH's equipment. AMERITECH agrees that, as set forth in the Deeds, its use of the Expanded Easement Area is subject to the terms thereof, and further agrees to be bound to comply with the restrictions and covenants set forth therein, including without limitation, the following:

2.1 Excepting those soils in an area approximately 40 feet wide and 218.17 feet long, bounded on the east by the centerline of Mound Road as described above, Grantee covenants that any soil from the Premises shall not be placed on any property outside the boundaries of that described in instruments recorded at Deed Book 1214, pages 10, 12, 15, 17 and 248; Deed Book 1215, page 347; Deed Book 1246,

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page 45; Deed Book 1258, pages 56 and 74; Deed, Deed Book 1256, page 179; Micro-Fiche 81-376A01; and Micro-Fiche 81-323A11 of the Deed Records of Montgomery County, Ohio (and as illustrated in the CERCLA 120(h) Summary, Notices of Hazardous Substances Release Block D, Mound Plant, Miamisburg, Ohio dated January, 1999) without prior written approval from the Ohio Department of Health (ODH) or a successor agency. AMERITECH warrants that it will make its officers, agents, contractors, employees, and others for whom it is responsible aware of the restriction on soil removal and contractually obligate agents and contractors to abide by this restriction.

2.2 Each utility provider covenants not to use, or allow the use of, the Declarant's Property for any residential or farming activities, or any other activities that could result in the chronic exposure of children under eighteen years of age to soil or groundwater from the Declarant's Property. Restricted uses shall include, but not be limited to:

- (1) single or multifamily dwellings or rental units;
- (2) day care facilities;
- (3) schools or other educational facilities for children under eighteen years of age; and
- (4) community centers, playgrounds, or other recreational religious facilities for children under eighteen years of age.

Declarant shall be contacted to resolve any questions that may arise as to whether a particular activity would be considered a restricted use.

2.3 AMERITECH covenants not to extract, consume, expose, or use in any way the groundwater underlying the Declarant's Property without the prior written approval of the United States Environmental Protection Agency (Region V) and the OEPA.

If there is any conflict between the terms of the Deeds and this Supplementary Declaration of Easement, the terms of the Deeds shall control.

3. Incorporation of Original Easement. This Supplementary Declaration of Easement incorporates by reference all of the terms, conditions and covenants of the Original Easement Agreement. By its acceptance of the easement granted in this Supplementary Declaration of Easement, AMERITECH hereby covenants to comply with and observe the terms, conditions and covenants of the Original Easement for the benefit of Declarant, its successors and assigns forever, and agrees that Declarant, its successors and assigns forever, shall have the right to enforce such terms, covenants and conditions. As used in the Original Easement, the term "premises" shall mean Declarant's real property, whether or not burdened by the easements granted herein or in the Original Easement, and all surrounding Government-owned real property. All notices required to be provided to the DOE under the Original Easement shall be provided to Declarant at 720 Mound Road, COS Bldg., Suite 480, Miamisburg, Ohio 45342-6714, Attn: Planning Manager, or such other address as provided by Grantor.

4. Reservation. Declarant reserves for itself, its successors and assigns forever, the right to use the Expanded Easement Area for any purpose not inconsistent with the rights conveyed to AMERITECH herein; provided however, that Declarant shall not use the Expanded Easement Area in a manner that will prevent or hinder its use by AMERITECH for the purposes provided herein.

2.

5. Covenants Run with the Land. All covenants, agreements and conditions contained in this Supplementary Declaration of Easement shall be considered as running with the land.

IN WITNESS WHEREOF, the undersigned has executed this Supplementary Declaration of Easement on behalf of Declarant as of the day and year first set forth above.

DECLARANT:

MIAMISBURG MOUND COMMUNITY
IMPROVEMENT CORPORATION

By: Michael J. Grunwald

Printed Name: Michael J. Grunwald

Title: President

STATE OF OHIO, COUNTY OF MONTGOMERY, SS:

The foregoing instrument was acknowledged before me this 18th day of March, 2003, by Michael S. Grunwald the President of MIAMISBURG MOUND COMMUNITY IMPROVEMENT CORPORATION, an Ohio non-profit corporation, on behalf of said corporation.

Jean Wyszog
NOTARY PUBLIC

Jean Wyszog, Notary Public
In and for the State of Ohio
My Commission Expires June 28, 2004

This instrument prepared by:
Shannon L. Costello, Esq.
Cofidgr Wall Wernsley & Lombard Co., L.P.A.
33 W. First Street, Suite 600
Dayton, Ohio 45402

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Appendix C

Institutional Controls: A Citizen's Guide to Understanding Institutional Controls at Superfund, Brownfields, Federal Facilities, Underground Storage Tank, and Resource Conservation and Recovery Act Cleanups

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Institutional Controls:

A Citizen's Guide to Understanding Institutional Controls at Superfund, Brownfields, Federal Facilities, Underground Storage Tank, and Resource Conservation and Recovery Act Cleanups

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Terms that appear in **bold** can be found in a glossary at the end of the document. Many of these terms describe some types of ICs.

PURPOSE

The purpose of this guide is to provide community members with general information about the role of *institutional controls* (ICs) in Superfund, Brownfields, Federal Facilities, Underground Storage Tanks (UST) and Resource Conservation and Recovery Act (RCRA) cleanups occurring in their neighborhoods. This guide will also discuss the community's role in providing input for the selection of ICs and helping to monitor them to ensure that human health and the environment remain protected in the future.

Key Points

- ICs are legal and administrative tools used to maintain protection of human health and the environment at sites.
- ICs are often an important part of the overall cleanup at a site.
- ICs can be used for many reasons and come in different types. These include restricting site use, modifying behavior, and providing information to people.
- There are 4 general types of ICs: *governmental, proprietary, enforcement, and informational.*

- ICs are designed to lower the potential for people and the environment to be exposed to contamination.
- ICs are usually most effective when layered and used in series to improve protectiveness.
- ICs should fit the needs of the specific site and community.
- The community can play an important role in identifying potential future uses of the site.
- A cooperative relationship should be established early between government, the entity doing the cleanup and the community.
- Seeking community input and involvement can maximize the effectiveness of ICs.
- Communities can play a vital role as “eyes and ears” for monitoring ICs.
- Federal, state, tribal, and local governments and parties responsible for the cleanup should keep the public informed of cleanup decisions that may affect them.

What Are Institutional Controls?

ICs are generally administrative and legal tools that do not involve construction or physically changing the site. ICs are generally divided into four categories:

1) **Government Controls**- include local laws or permits (e.g., county zoning, building permits, and Base Master Plans at military facilities);

2) **Proprietary Controls**- include property use restrictions based on private property law (e.g., *easements* and covenants);

3) **Enforcement Tools**- include documents that require individuals or companies to conduct or prohibit specific actions (e.g., environmental cleanup *consent decrees, unilateral orders*, or permits); and,

4) **Informational Devices**- include *deed notices* or public advisories that alert and educate people about a site.

In many site cleanups, ICs help reduce the possibility that people will come in contact with contamination and may also protect expensive cleanup equipment from damage. The use of ICs is not a way “around” treatment, but rather part of a balanced, practical approach to site cleanup that relies on both engineered and non-engineered remedies.

When Are ICs Used?

ICs are normally used when waste is left onsite and when there is a limit to the activities that can safely take place at the site (i.e., the site cannot support unlimited use and unrestricted exposure) and/or when cleanup equipment remains onsite. ICs are often used throughout a site cleanup, including when:

- contamination is first discovered (i.e., to protect people from coming in contact with potentially harmful materials while the contamination is being investigated)
- cleanup work is ongoing (in some cases it may take many years to complete cleanup)
- some amount of contamination remains on-site as part of a cleanup remedy.

ICs can play an important role when a cleanup is conducted and when it is too difficult or too costly

to remove all contamination from a site. ICs are rarely used alone to deal with contamination at a site. Typically, ICs are part of a larger cleanup solution and serve as a non-engineered layer of protection. ICs are designed to keep people from using the site in a way that is not safe and/or from doing things that could damage the cleanup equipment, thus, potentially jeopardizing protection of people and the environment. For example, an IC may be necessary at a former landfill to notify the community and guard against excavators digging through a clay barrier that is meant to stop rain water from entering the landfill.

It is also important to remember that ICs are frequently used to protect cleanup equipment while the cleanup is being conducted. For example, sites may require complex technologies that remove, treat, and discharge groundwater. Operation of these systems may be needed for a long time in order to reach the cleanup goals.

Most cleanups will need to use a combination of engineered remedies and ICs. ICs provide an additional level of safety and help to make sure the remedy remains securely in place. Also, it is important to understand that a cleanup is not finished until all necessary action has been taken to protect people and the environment from contamination at the site.

Why Can't All The Contamination Be Removed?

Removing all traces of contamination from a site is often not possible or practicable because of the types and location of contamination. However, the presence of some residual contamination does not mean that a site can't be used safely.

Use of a site with residual contamination is considered safe if exposure to contamination is prevented. ICs can help a site be reused. A common example of a site reuse is when a surface barrier layer is installed over contaminated soil and the area is used for athletic fields, a golf course, or a park because ICs are in place to prevent disturbance of the barrier layer.

Are ICs Reliable?

All ICs have strengths and weaknesses. With this understanding, it is important to choose the best combination of ICs that will be protective of human health and the environment. One key challenge is that ICs are often implemented, monitored, and enforced by various levels of federal, state, tribal, or local governments. Therefore, it is critical to make sure there are enough IC safeguards and overlaps so no significant risk to human health or the environment or damage to the remedy occur.

EPA guidance encourages the use of ICs in "layers" and/or in "series" to enhance overall protectiveness. Layering ICs means using more than one IC at the same time, all with the same goal (e.g., a consent decree, deed notice, and covenant stopping the use of drinking water wells). Using ICs in series uses different ICs over time when site circumstances or IC processes change. For example, restrictions can gradually be reduced as progress is made toward cleanup goals. Used in such overlapping ways ICs can be more securely relied upon to provide an important measure of safety. Thus, usually more than one kind of IC is put in place at a single site.

How Many ICs Are Required?

The decisions about how many and what types of ICs are needed are usually very site-specific. There are many important factors to consider when deciding how many ICs are required at a site. A few common considerations include:

- the level of experience and resource capacities of the party doing the cleanup
- who the intended ICs will affect and how
- the type of enforcement mechanism used (consent decree, order, permit, ordinance)
- who will enforce the mechanism (i.e., EPA, another federal agency at sites it owns, the State, a local agency)
- the likelihood of future redevelopment and/or reuse of the site
- the degree of cooperation exhibited by the different levels of government and community involved in the cleanup.

Who Is Responsible For Making Sure ICs Work As Intended?

The responsibility for making sure that ICs work depends largely on the type of IC and who is conducting the cleanup. Overlapping responsibilities sometimes make it difficult to identify the person or entity responsible for the IC. For example, zoning is often the responsibility of a local zoning board, easements are based on state law, and permits or orders can occur at the federal, state, tribal and local level. It is also common for several entities to have some overlapping responsibility for an IC. For example, an agency that approves a cleanup frequently has some responsibility for making sure that the ICs work. However, the actual implementation steps may be completed by the cleanup party and/or another agency (i.e., local zoning board). Exceptions are active military facilities; the

authority for regulating and enforcing ICs typically lies with the commanding officer.

Regardless of who is responsible, ICs should be regularly monitored to make sure all the requirements are still in place and the ICs continue to work effectively. Because federal, state, and tribal government officials are not always located in the neighborhood of the site, local governments and community members can contribute to ensure that ICs work properly. One way to improve the use of ICs is to make sure that roles and responsibilities are clearly stated early in the process of choosing the ICs.

Will ICs Hinder The Reuse of the Site?

In many ways, ICs can help return a site to a safe and productive reuse. ICs can identify possible uses for a site and communicate use limitations to present and future users. For example, a site may be fit for industrial reuse, but not for residential development. To determine the appropriate types of ICs, it is important to make sure that the preferred future use of the land is taken into account. It is important to recognize that ICs can affect future development at a site. For this reason, the appropriate mix of ICs is key. The objective is not to have as many ICs as possible, but to strike a balance that gives reasonable assurance that the site remedy will remain protective over time while being consistent with the site's future use. In most cases, the ICs can help shape the reuse of the site to one that is suitable, safe, and positive for the community.

Communities should be proactive in communicating with appropriate decision-makers about the types of land use they think will be best for their community. Because each community has a different history and different development

needs, it is critical that these needs are effectively communicated to elected officials and the cleanup agency so they can be taken into consideration during selection of the cleanup method and reuse plan for the site. Opportunities for involvement include attending public meetings, commenting on documents which state potential cleanup methods, and participating in local groups.

How And When Can The Community Get Involved?

Community input can be essential to selecting, using, and monitoring ICs that are the best fit for the community and the protectiveness of the remedy. The cleanup agency or private party and other stakeholders should develop a working relationship with the community early in the cleanup process. Mutual respect, trust, and open and timely communication can greatly enhance the ability of all involved to ensure that the most effective ICs are used at the site.

The first time the community can get involved is during master planning meetings, zoning hearings, land use planning meetings to name a few. The community can also be involved in the site investigation and remedy selection process. Federal, state, tribal, and local authorities should make information available to the public so community members can provide informed input into the remedy selection process. EPA, States, Tribes, local governments and cleanup parties should evaluate ICs as thoroughly and rigorously as all remedy components. This analysis will help to identify potential strengths and weaknesses and to develop the appropriate balance of ICs and ultimately increase the long-term viability of the remedy. Because ICs are remedy components, they should be presented to the community in documents and at meetings. This is especially

important for ICs that may impose land use restrictions on property(ies) next to the site. The potential impacts of the ICs should be presented in a manner that can be understood by the local community.

The second way in which the community can be of great benefit is in assisting with monitoring ICs. Individual residents and business owners are the eyes and ears of a community. They are often the first to notice uses or excavation that appear inconsistent with the site's future use or remedy restrictions. By contacting the appropriate party, an important series of checks and balances can be developed. Cleanup parties should work with the community to establish an effective and user-friendly system for reporting and monitoring information about the site and ICs.

CONCLUSION

The institutional controls discussed in this guide can be essential components of environmental cleanups. It is important for citizens to understand ICs and have the opportunity to take an active role in their selection, use, and monitoring. Because institutional controls are often in place long after physical cleanup is finished, community knowledge and input can be important in assuring that the ICs remain protective of human health and the environment. Working relationships between governments, stakeholders and communities are vital ingredients in the successful application of cleanups, especially the IC components.

For additional information about ICs, refer to the EPA web page at:

<http://www.epa.gov/superfund/action/ic/index.htm>.

For site specific information contact the Office of Superfund Remediation and Technology Innovation (OSRTI), the Federal Facilities Restoration and Reuse Office (FFRRO), the Office of Solid Waste

(OSW or RCRA), the Office of Brownfields Cleanup and Redevelopment (OBCR), or the Office of Underground Storage Tanks (OUST) and/or the respective state or local agency. Information about EPA program offices can be found online at <http://www.epa.gov/oswer/>.

This document provides guidance to EPA Regions and States involved in Superfund, Brownfields, Federal Facilities, Underground Storage Tanks, and RCRA corrective action cleanups. It also provides guidance to the public and the regulated community on how EPA intends to evaluate and implement ICs as part of a cleanup decision. The guidance is designed to implement national policy on these issues. The document does not, however, substitute for CERCLA, RCRA or EPA's regulations, nor is it a regulation itself. Thus, it does not impose legally-binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA and State decision-makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. Any decisions regarding a particular facility will be made based on the applicable statutes and regulations. Therefore, interested parties are free to raise questions and objections about the appropriateness of the application of this guidance to a particular situation, and EPA will consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation. EPA may change this guidance in the future.

Office of Solid Waste and Emergency Response (5202G)
OSWER 9355.0-98
EPA- 540-R-04-003
<http://www.epa.gov/superfund/action/ic/guide/index.htm>
February 2005

GLOSSARY

Consent Decree: Legal document approved by a judge that formalizes an agreement reached between EPA and companies, governments, or individuals associated with contamination at the sites (potentially responsible parties (PRPs)) through which PRPs will take certain actions to resolve the contamination at a Superfund site.

Deed Notice: Non-enforceable, informational document filed in land records to alert the public to important information pertaining to a land parcel.

Easement: Property right conveyed by the land owner to another party, giving the second party certain rights to the land.

Enforcement Tools: Types of institutional controls that include orders compelling a party to limit certain site activities as well as ensure the performance of affirmative obligations (e.g., consent decree, RCRA permit, unilateral administrative order).

Governmental Controls: Types of institutional controls that impose land or resource restrictions using the authority of an existing unit of government (e.g., state legislation, local ordinance, well drilling permit, etc.).

Informational Devices: Type of institutional controls that provide information or notification to the public of contamination remaining in place.

Institutional Controls: Non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use (e.g., easement, fish advisory, local permit).

Proprietary Control: Type of legal instrument that has its basis in real property law and is unique in that it generally creates legal property interests placed in the chain of title of a site property (e.g., easement, restrictive covenant).

Unilateral Administrative Order: Legal document signed by EPA directing a responsible party to take corrective action or refrain from an activity; it may describe the violations and actions to be taken, and can be enforced in court.

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