



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

June 2008



U.S. Department of Energy

Office of Legacy Management

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Acronyms

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

End of current text

1.0 Introduction

This report documents the U.S. Department of Energy (DOE) Office of Legacy Management (LM) 2008 annual assessment of the effectiveness of site-wide institutional controls (ICs) for the Mound Site in Miamisburg, Ohio. This 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. 0.(O&M Plan)

This 2008 annual assessment, which covers the period from March 20, 2007, to April 14, 2008, includes the ICs for Parcels D, H, 3, and 4 and the Phase I land parcel (A, B, and C) of the Mound Site Property. The Miamisburg Mound Community Improvement Corporation (MMCIC) owns Parcels D, H, 3, and 4, and DOE still owns the Phase I land parcel. Section 2 describes the parcel transfer process. 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 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

DOE executed a sales agreement in January 1998 with a DOE-designated community reuse organization. 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 following properties covered by this 2008 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 that parcel.
- August 2002—Parcel 3, containing approximately 5 acres of land and Buildings GH and GP-1.

The following property has an approved ROD and has been offered to MMCIC:

- December 2003—Phase I (A, B, and C), containing approximately 52 acres of land and several buildings. The ROD was executed, EPA approved the transfer, and DOE has made an offer for conveyance via quitclaim deed to MMCIC.

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 transferred to MMCIC. Therefore, 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 still subject to completion of CERCLA 120(h) requirements has been divided into five parcels (Parcels 6, 6A, 7, 8, and 9). DOE is completing the CERCLA 120(h) requirements for Parcels 6, 6A, 7, 8, and 9.

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

- Parcels D, H, 3, and 4 have completed the CERCLA 120(h) process and been transferred to MMCIC.
- The Phase I (A, B, and C) land parcel has completed the CERCLA 120(h) process and has been offered to MMCIC, but it has not been transferred.
- Parcels 6, 6A, 7, 8, and 9 have not completed the CERCLA 120(h) process.

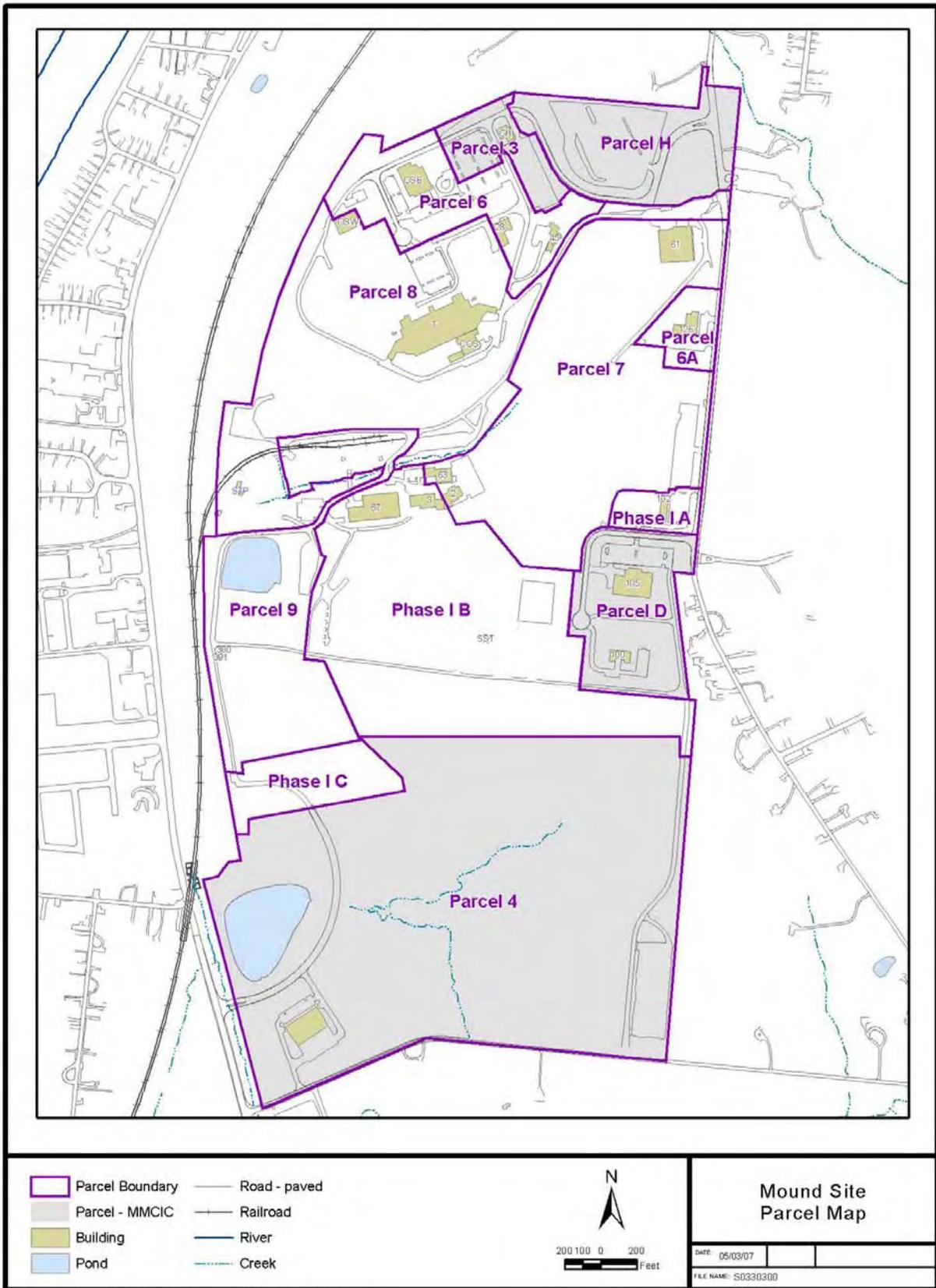


Figure 1. Parcel Map of the Former DOE Mound Site Property, Miamisburg, Ohio

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. The ICs 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 Exhibit 2, "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.")

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, all future property owners will be knowledgeable of the deed restrictions 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 documents are also available electronically by request at 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 March 20, 2007, to April 14, 2008.

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. 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, US Survey Feet, and State Plane – Ohio South Zone.

6.0 Summary of Previous Year’s Annual Assessment

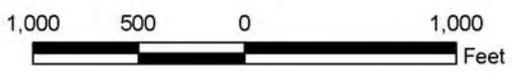
The 2007 annual assessment concluded that the ICs functioned as designed, adequate oversight mechanisms appeared to be in place to identify possible violations, and adequate resources were available to correct or mitigate any problems if a violation were to occur.

The *2007 Annual Assessment Report* made three new recommendations:

1. Add City Planning Commission requests to the list of documents examined for annual assessments.
2. Add Ohio Department of Natural Resources (ODNR) well logs to the list of documents examined for annual assessments.
3. Determine when OEPA will remove the air monitoring station in Parcel H.

See Section 10 for the list of the previous annual and five-year inspection recommendations that were still open in last year’s annual assessment report.

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U.S. DEPARTMENT OF ENERGY MIAMISBURG, OHIO	Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AC01-07LM00060
Mound Site - Parcel Map 2006 Aerial View	
DATE PREPARED: February 28, 2008	FILENAME: S0403100

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

7.0 Summary of Physical Inspections Performed

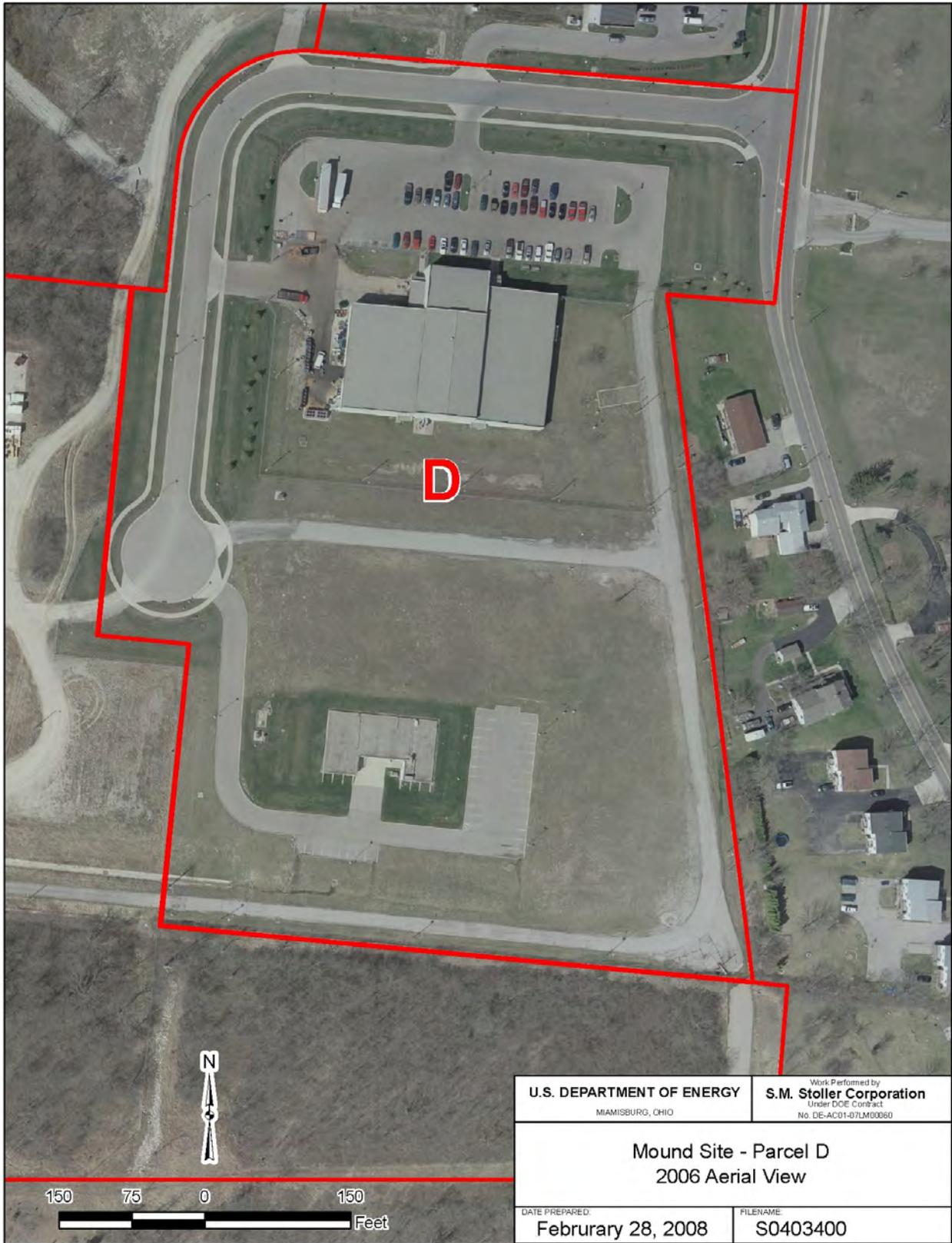
DOE conducted the physical inspections in stages during April 2008. Art Kleinrath, DOE-LM Site Manager, and Stoller personnel conducted preliminary physical inspections of all areas, observed changes, and took photos.

Art Kleinrath also led the annual physical inspection walkdown of Parcels D, H, 3, and 4 and the Phase I land parcel on April 14, 2008. Participants included 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; and Becky Cato, Gary Weidenbach, and Joyce Massie, S.M. 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, 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).



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Figure 3. Parcel D 2006 Aerial View

7.2 Parcel H

In Parcel H (Figure 5), 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 4).



Figure 4. Parcel H Northeast Hillside

Air monitoring is not part of the CERCLA remedy for Parcel H. However, there are DOE and OEPA air monitoring stations located on the northeast corner of Parcel H (Figure 5). OEPA plans to abandon its air monitoring stations, which are not operational. DOE-EM is assisting OEPA with disposing of the stations.

The DOE air monitoring stations for the Mound Site will remain operational until National Emission Standards for Hazardous Air Pollutants (NESHAPs) requirements are met after Operable Unit (OU)-1 work is completed.



Figure 5. Parcel H 2006 Aerial View

7.3 Parcel 3

In Parcel 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 8). There are no groundwater monitoring wells located on Parcel 3.



Figure 6. Parcel 3 View from Parking Lot North toward Mound Museum Building – Art Kleinrath is shown in photo.



Figure 7. Parcel 3 View from Parking Lot NW toward OSE Building



Figure 8. Parcel 3 2006 Aerial View

7.4 Parcel 4

In Parcel 4 (Figure 9), 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.

Well 0158, located near the intersection of Benner Road and Old State Route 25, was confirmed to be abandoned since last year's inspection. It was cut off 3 feet below surface and sealed with cement and bentonite.

The Flex Building in the southwest corner of Parcel 4 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 (Figure 9).



Figure 9. Parcel 4 MMCIC Flex Building in Southwest Corner of Parcel 4 (Near Benner Road and Old 25)

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 11).



Figure 10. Parcel 4 2006 Aerial View



Figure 11. Parcel 4 Locked Gate, Facing South on Old Construction Road

There is a pond for retaining and detaining stormwater run-off on Parcel 4 (Figure 12). There are four new signs, stating, “Recreational Use Prohibited”; they are located around the perimeter of the lake.



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

Well 0444, the only active groundwater monitoring well on Parcel 4, is located on the northern boundary of Parcel 4, south of the Phase IB land parcel. Well 0444 was padlocked and in good repair. It does not have a permanent identification marker, but it is marked with black marker.



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



Figure 14. Well 0444 Identification Markings

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



Figure 15. Parcel 4 Fallen Log Lying across Fence

7.5 Phase I Parcel

The Phase I land parcel consists of three noncontiguous sub-parcels (A, B, and C), which have not been transferred to MMCIC. 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 land parcel, 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. The construction well drilled by the OU-1

excavation contractor in Parcel 9 near the northwest boundary of Parcel 1C is still in place. This well was not used for water consumption but was used for used dust suppression. The well log was located during the document search on the ODNR website.

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	1B	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		Well 0411			X		
	X	Well 0442			X		
X	X	Well 0443			X		
X		Well 0444	X				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 land 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 land parcel. All of the monitoring wells shown are in operable condition. The *Phase I Remedy MNA Groundwater Monitoring Annual Report* can be found in the CERCLA Public Reading Room at 955 Mound Road, Miamisburg, OH 45342.

The 2006 annual IC assessment recommended the abandonment of well 0445 located in Phase IC. However, after the data from well 0445 were evaluated, the *Phase I Groundwater Monitoring Report Calendar Year 2007* recommended to continue monitoring TCE, radium, and barium semiannually.

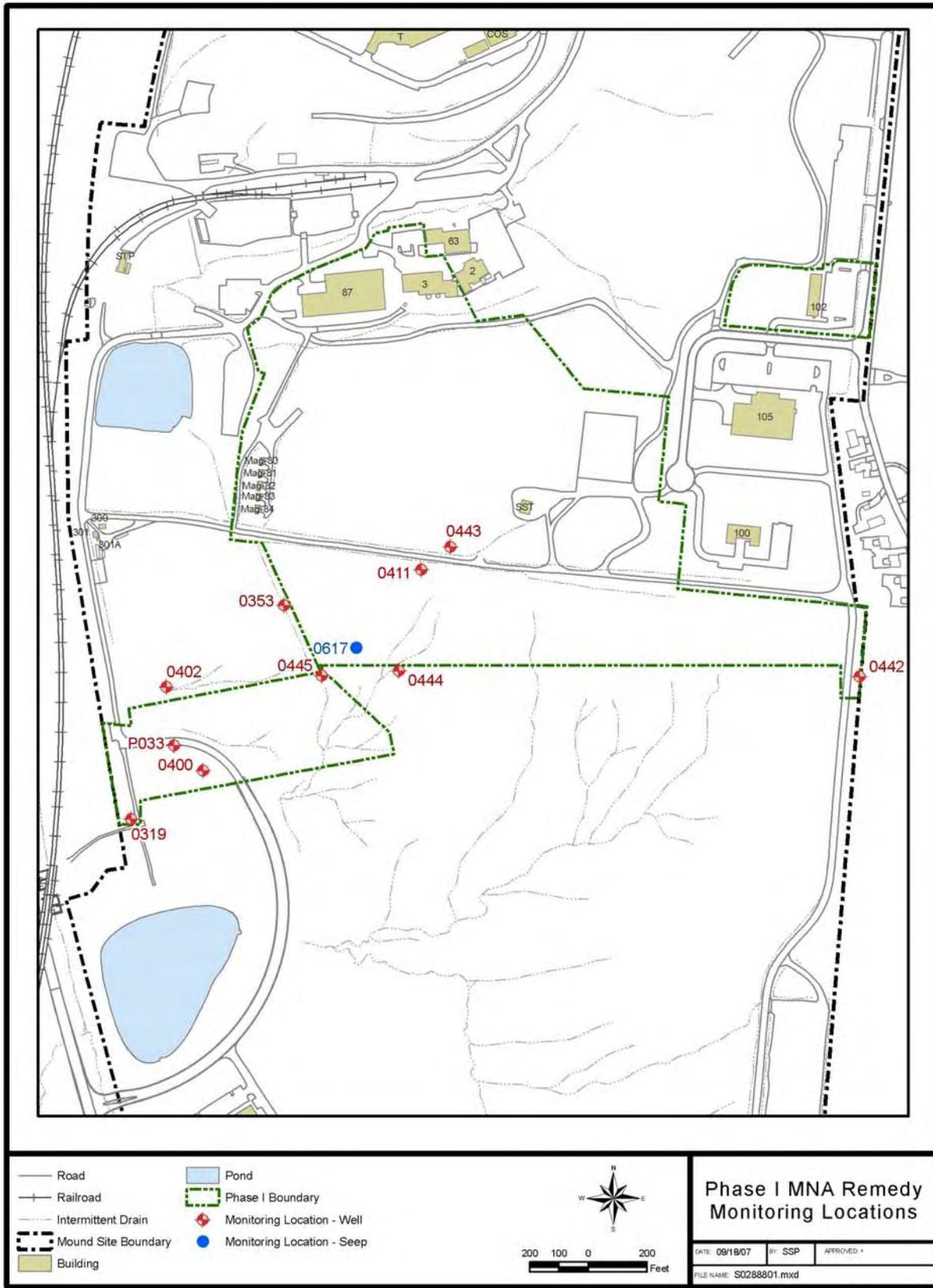


Figure 16. Phase I MNA Remedy Monitoring Locations

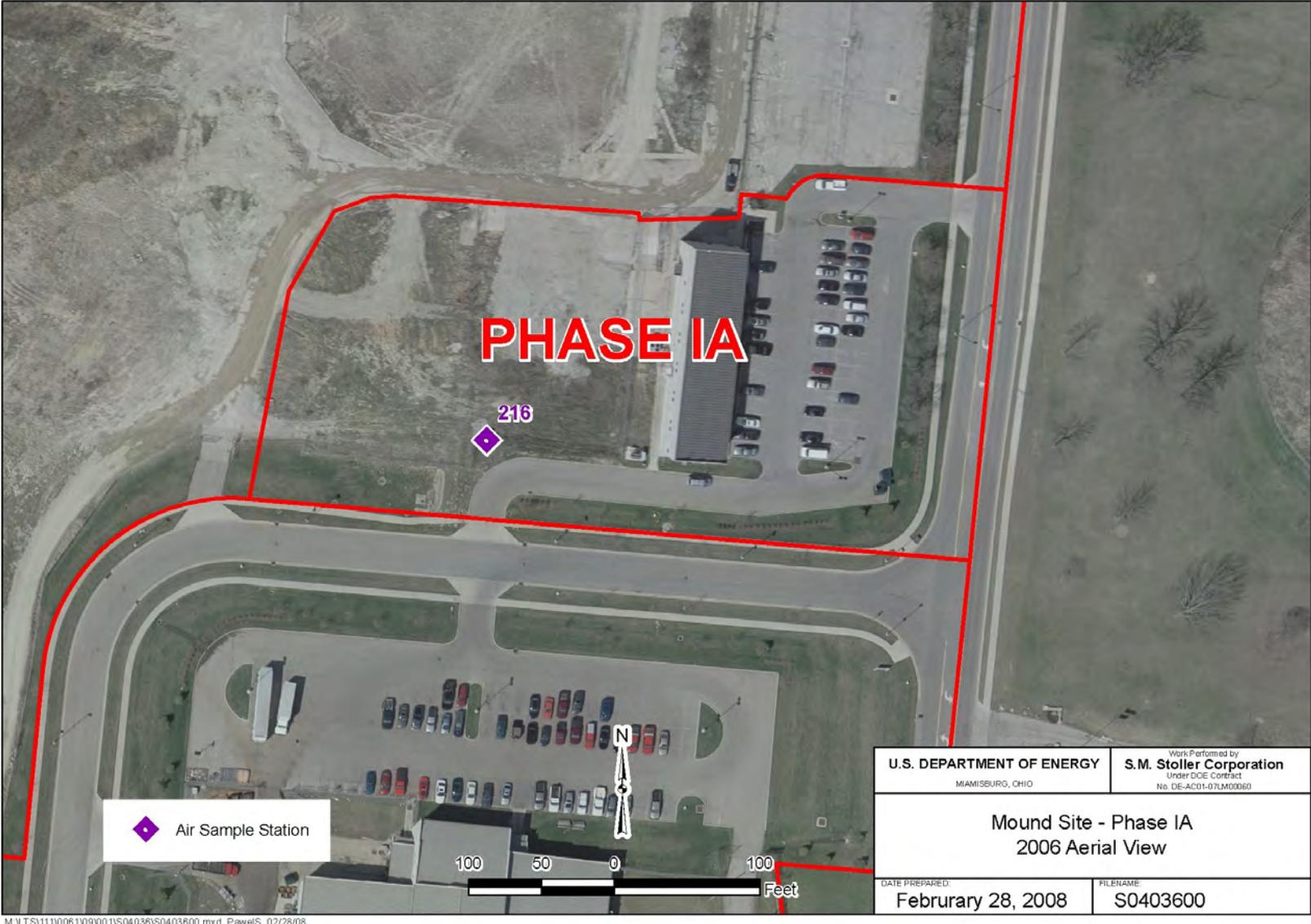


Figure 17. Parcel Phase IA 2006 Aerial View



Figure 18. Parcel Phase IB 2006 Aerial View

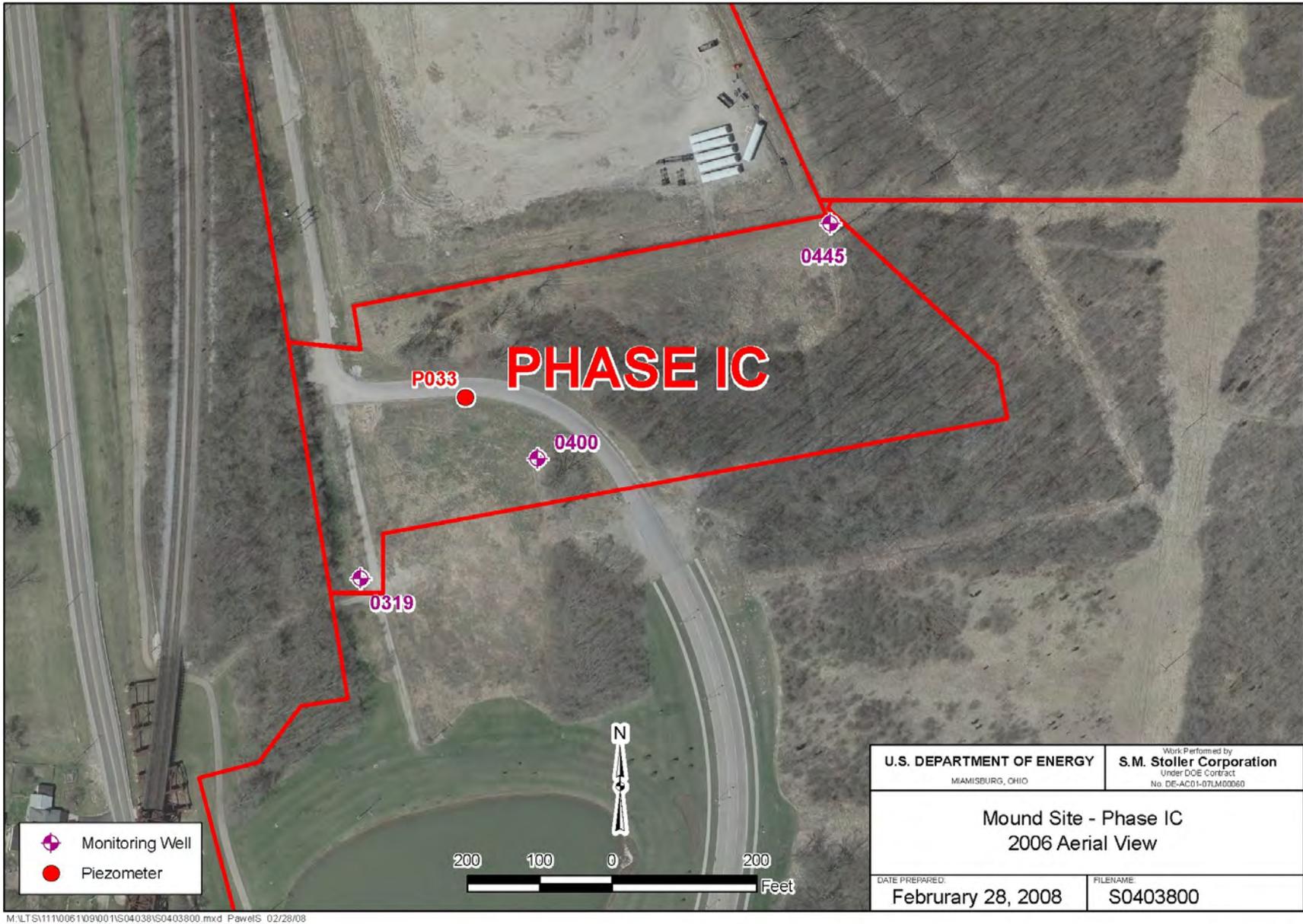


Figure 19. Parcel Phase IC 2006 Aerial View

The salt storage shed and concrete pad in Parcel 1B remain empty, as shown in Figure 20.



Figure 20. Phase 1B Empty Salt Storage Shed

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



Figure 21. Phase 1B Well 0411, Locked, Labeled, and in Good Repair



Figure 22. Parcel 1B Well 0442, Locked, Labeled, and in Good Repair. Art Kleinrath in photo.



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



Figure 24. Parcel IB Groundwater Seep 0617 in Good Repair



Figure 25. Parcel IC Well 0445, Locked, Labeled, and in Good Repair. Art Kleinrath in photo

Well 0445 was locked, labeled, and in good repair (Figure 25).

Wells 0400 and 0319 were locked, labeled, and in good repair (Figure 26 and Figure 27). Well 0344, which was adjacent to Well 0319, was confirmed as abandoned on September 17, 2007. It was cut off 3 feet below the surface and sealed with cement and bentonite.

P033 was in good repair, but it did not have a permanent identification marker (Figure 28).



Figure 26. Parcel IC Well 0400, Locked, Labeled, and in Good Repair



Figure 27. Parcel IC Well 0319, Locked, Labeled, and in Good Repair



Figure 28. Parcel IC Well P033, in Good Repair but without Permanent Identification Marker

Monitoring wells 0353 and 0402 for the *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Plan* are located in Parcel 9. These wells were locked and in good repair. Drainage around well 0353 will be corrected after the adjacent stockpile is removed.



Figure 29. Parcel 9 MNA Well 0353, Locked, Labeled, and in Good Repair



Figure 30. 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, at a minimum, 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.

Stoller personnel visited the City of Miamisburg Engineering and City Planning Departments on April 8, 2008, and reviewed permits maintained by those departments for all work performed by MMCIC, and its tenants or subcontractors, on 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 will 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).

Until DOE conveys a land parcel to MMCIC, in whole or in part, the property is not subject to City of Miamisburg permitting requirements. MMCIC has proactively used the City-permitting process in order to familiarize the City with the properties that will eventually belong to MMCIC. This familiarity can greatly reduce the amount of time it takes for MMCIC to receive City approval (e.g., for a building occupancy permit), once MMCIC acquires title of that property from DOE. Since DOE first began performing annual assessments of City records in

May 2001, DOE has performed spot-checks of all permits located within a particular City file (City files are maintained by street address) in order to confirm that the entire set of permits is maintained in chronological order (with the most recent permit at the front of the file). These spot-checks have consistently shown that the City maintains its permit files under configuration control.

Table 2 provides the DOE building identification and the Miamisburg street addresses for each building. Only four buildings reside in land parcels that DOE has conveyed in whole or in part to MMCIC via quitclaim deed. The City of Miamisburg does not maintain files on buildings that MMCIC plans to demolish. City files do exist on buildings that have already been demolished; however, those files are now considered obsolete.

During the review of files at the City of Miamisburg, it was discovered that the two street names had been changed by MMCIC in March 2008. DOE was not advised of this change. It is important to keep DOE informed of changes to the street names or addresses of buildings, since City permits are filed by address.

Table 2. Crosswalk of Street Addresses to DOE Building Identifications

DOE Building ID	Miamisburg Street Address	Revised Address 2008	Parcel
2	To be demolished		7
28	925 Capstone Drive		6
45	930 Capstone Drive		6
61	885 Mound Road		7
63	1070 Vanguard Blvd.		7
87 and 3	1100 Vanguard Blvd.		IB
100*	790 Enterprise Court		D
102	1075 Mound Road		IA
105*	1195 Mound Road		D
126	955 Mound Road		6A
COS	965 Capstone Drive		8
GH*	500 Capstone Circle	500 Vantage Point	3
OSE	480 Capstone Circle	480 Vantage Point	6
OSW	460 Capstone Circle	460 Vantage Point	8
T	945 Capstone Drive		8
None Flex Building ^a	1390 Vanguard Blvd.		4

^aCovered by ICs

Figure 31 also shows the location of site buildings and indicates those owned by MMCIC and included in this IC assessment.

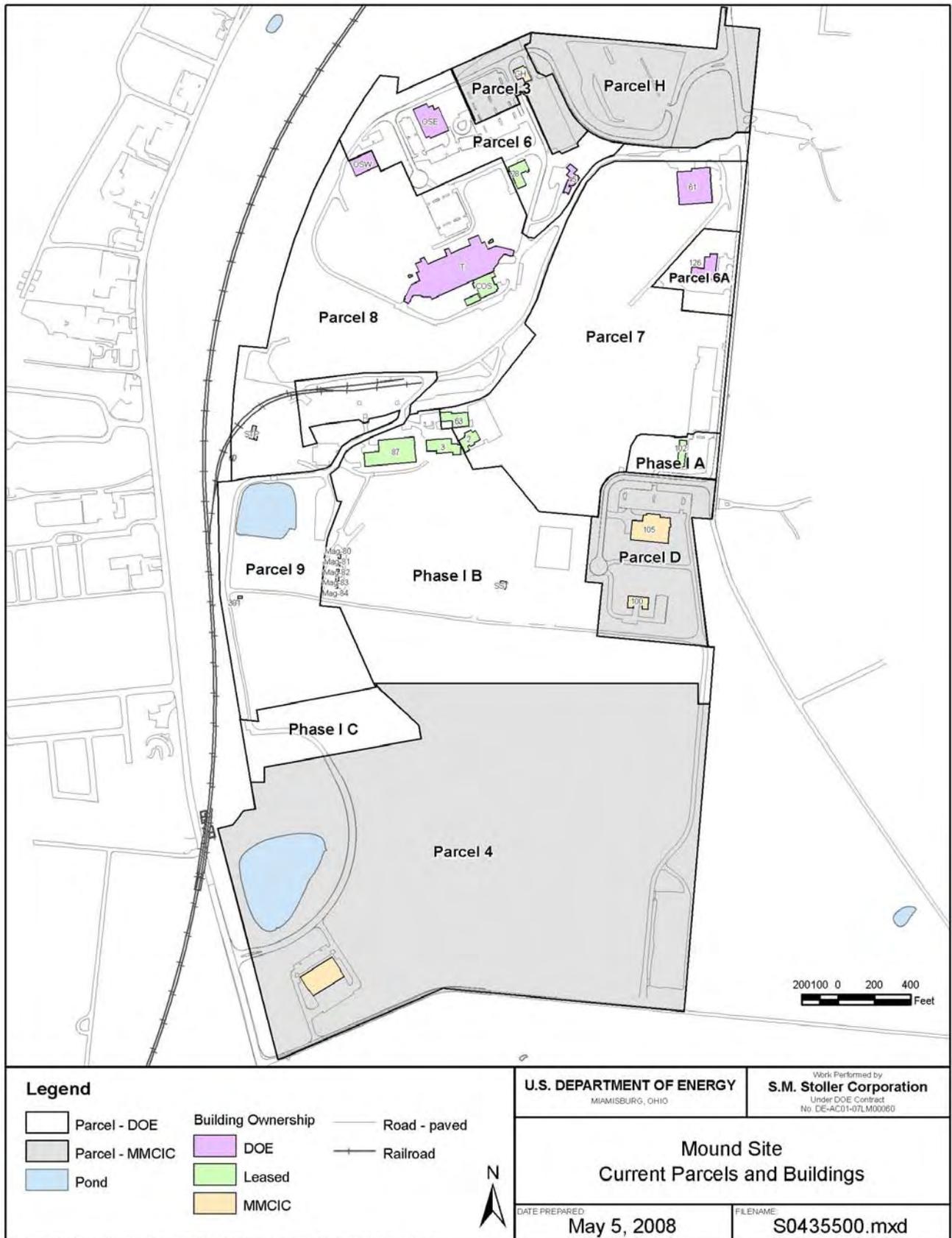


Figure 31. Mound Site Buildings and Parcels

None of the permits reviewed pertained to work that was performed on or could have impacted transferred parcels since the date of DOE's last assessment. All permits on file for the site are detailed in Table 3. Elise Hafenbrack, Building Inspection Department with the City of Miamisburg, provided the records for review on April 8, 2008.

Table 3. City of Miamisburg Permit Files on Mound Site

Location of Work	Permit Number	Date of Permit Application	Submitted by	Nature of Work	Work Performed by
OSW	20070110B	6/19/07	MMCIC	Windows, facade, new foyer	TBD
OSW	20070110H	8/13/07	Advanced Mechanical	Heating	Advance Mechanical
OSW	20070162E	9/07/07	Chappell	Electrical – exterior	Chappell Electric
OSW	20070192H	10/26/07	Advance Mechanical	Reroute gas piping	Advance Mechanical
OSW	20070162E	12/12/07	Chappell Electric	Electrical	Chappell Electric
45	20080015B	2/11/08	MMCIC	Add loading ramp	Wenco
COS	20080026E	3/18/08	Alan Scheer Assoc	Lab/office renovation Phase A	TPSG Const
COS	20080027B	3/18/08	Alan Scheer Assoc	Lab/office renovation Phase B	TBD
COS	20080027E	3/18/08	Alan Scheer Assoc	Electrical	Reddy Electric
COS	20080028E	3/18/08	Alan Scheer Assoc	Electrical	TBD

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 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
OSW	SP-04-07	6/4/07	MMCIC	Parking lot, landscaping		

All work that was performed by MMCIC or other parties (e.g., contractors to MMCIC) on the former DOE Mound Site Property, that Art Kleinrath and Frank Bullock 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 (e.g., permits documented in DOE's annual reports dating back to 2001) may not be input in the City's database. However, paper copies of all permits are retained by the City in accordance with a records-retention plan that meets all State of Ohio requirements.

Given that permits filed with the City of Miamisburg do not have an expiration date, 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 for performance at a later date. Maintaining this knowledge will provide a checks-and-balances system to ensure that work requiring a permit and performed since the date of the last DOE annual assessment was, indeed, 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

The property owner's adherence to the site-wide ICs imposed on a land parcel is critical to DOE's effective maintenance of the CERCLA remedy. MMCIC, including all future property owners, is required to comply with the ICs associated with parcels at the former DOE Mound Site Property. To facilitate compliance, MMCIC ensures that all parties performing work on behalf of MMCIC (e.g., landscaping, utility work involving excavation, construction) are aware of, and subject to compliance with, the ICs. MMCIC accomplishes this by consistently embedding the following language in the "Technical Requirements" section of all 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 work performed on site also monitors the vendor's work and conformance to all technical requirements in the work order. MMCIC provides, in addition to the technical requirement that mandates compliance with the ICs, a real estate easement to the vendor. This easement is recorded with Montgomery County as a matter of public record. A copy of the real estate easement used for utility work on MMCIC property is included as Exhibit 1. Note that Section 2 of the easement provides the utility provider/vendor with 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. Exhibit 2 is a document produced by EPA to give citizens 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 more difficult, for DOE and the property owner (currently, MMCIC), 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 properly educating the public about complying with ICs.

Prior to initiating construction on any land parcel, MMCIC provides 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.

To assure that the necessary wording continues to be included in MMCIC contracts or easements after site transfer, DOE will add these documents to those examined during the annual IC assessment. See Section 10, Recommendations.

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 for MMCIC to receive financing (e.g., for new construction) on land parcels that make up the original DOE Mound Site Property, MMCIC records a lot-split with the Montgomery County Recorder's Office. If MMCIC does not require financing for property improvements it conducts 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, remain aware 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. Once DOE's EM 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 decides to subdivide the property and sell portions (or all) of the former DOE Mound Site Property, the new property owners would be required to comply with the requirements stipulated in 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 those controls, and adequate resources are available to correct or mitigate any problems in the event that violations occurred.

10.0 Recommendations

The following tables list recommendations and status from previous inspections and new recommendations from this year's annual inspection for ICs.

Table 5. Recommendations from Previous Inspections of ICs

	Origin	Issue/ Recommendation	Status 2007 Report	Corrected?	Current Status 2008 Report
1	2006 Annual	Abandon Well 0445 in Parcel I	Will include with other wells abandoned in post-OU-1-work monitoring plan.	ISSUE CLOSED	Will continue to monitor semiannually. Revisit in next annual <i>Phase I Groundwater Monitoring Report</i> (April 2009).
2	Five-Year	Ineffective signage at the Parcel 4 retention basin has resulted in violation of the ICs in the past (land use inconsistent with industrial/commercial land use).	Signs have not been changed in accordance with the five-year review's recommendations. No indications of recreational use have been observed.	ISSUE CLOSED	MMCIC has installed four new signs stating, "Recreational Use Prohibited," around the pond.
3	Five-Year	Permanent ID markers are not installed on all long-term groundwater monitoring wells.	Determine which wells will be included in post-OU-1-work monitoring plan. Install permanent ID markers on those wells.	IN PROCESS	Five wells are without permanent markers. All are marked with waterproof ink and are identified on site maps.
4	Five-Year	Protective casings of the long-term groundwater monitoring locations are in general disrepair.	Determine which wells will be included in post-OU-1-work monitoring plan.	ISSUE CLOSED	All wells covered in annual IC inspection were in good repair. Bollards are present around wells near vehicular traffic.
5	Five-Year	Adequate protection from vehicular traffic is not present for long-term groundwater monitoring wells.	Identify remaining wells included in post-OU-1-work monitoring plan. Protect at that time.	ISSUE CLOSED	All wells covered in annual IC inspection were in good repair.
6	Five-Year	Excessive vegetation is present around the long-term groundwater monitoring locations.	Has improved. Include wells in post-OU-1-work monitoring plan.	ISSUE CLOSED	All wells covered in annual IC inspection were in good repair.
7	Five-Year	Excessive vegetation is present around the OU-1 facility and structures and on the landfill surface.	OU-1 area being excavated. Will review issue after work is completed.	ISSUE CLOSED	OU-1 work continues. Will review after completion.
8	Five-Year	Inadequate stormwater control is maintained on the southwestern corner of the landfill.	OU-1 area being excavated. Will review issue after work is completed.	ISSUE CLOSED	OU-1 work continues. Steps were taken to control runoff. Stormwater control is incorporated into final configuration of OU-1 after excavation is complete.
9	Five-Year	Inadequate documentation and interpretation of operational and monitoring data for the OU-1 remedy is maintained.	Gradient info now included in Environmental Restoration monthly reports.	ISSUE CLOSED	Gradient info, including diagram, is included in Environmental Restoration monthly reports.
10	2007 Annual	Add City Planning Commission requests to list of documents examined for annual assessments.	New in 2007.	ISSUE CLOSED	Added City Planning Commission requests.
11	2007 Annual	Add ODNR well logs to list of documents examined for annual assessments.	New in 2007.	ISSUE CLOSED	Added ODNR well logs.
12	2007 Annual	Determine when OEPA removes air monitoring station in Parcel H.	New in 2007.	IN PROCESS	OEPA is working with DOE-EM to dispose of their air monitoring stations on site.

Table 6. Recommendations from 2008 Annual Inspection for ICs

Origin	Issue/ Recommendation	Status/Disposition
1	DOE-LM contractor will add label to well P033.	New
2	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
3	Add landowner or management organization (MMCIC) contracts and easement documents to those reviewed for the annual IC assessment.	New

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, OH 45342
(937) 847-8350 X301

or

Mr. Art Kleinrath
Site Manager
DOE Office of Legacy Management
955 Mound Road
Miamisburg, Ohio 45342
(937) 847-8350 X318

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, IL 60604-3590
(312) 886-7058

or

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

12.0 References

DOE (U.S. Department of Energy), 1999. *Record of Decision for Release Block D*, Final, February.

DOE (U.S. Department of Energy), 1999. *Record of Decision for Release Block H*, Final, June.

DOE (U.S. Department of Energy), 2001. *Parcel 3 Record of Decision*, Final, August.

DOE (U.S. Department of Energy), 2001. *Parcel 4 Record of Decision*, Final, February.

DOE (U.S. Department of Energy), 2003. *Operation and Maintenance (O&M) Plan for the Implementation of Institutional Controls at the 1998 Mound Plant Property, Phase I Parcel*, update, Rev. 0.

DOE (U.S. Department of Energy), 2003. *Phase I Record of Decision*, Final, July.

DOE (U.S. Department of Energy), 2004. *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Plan*, Final, September.

DOE (U.S. Department of Energy), 2006. *Annual Assessment of the Effectiveness of Site-Wide Institutional Controls Applied to the Former Mound Site Property*, Final, August.

DOE (U.S. Department of Energy), 2006. *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Annual Report*, June.

DOE (U.S. Department of Energy), 2006. *Second Five-Year Review for the Mound, Ohio, Site, Miamisburg, Ohio*, September.

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, 2008)**

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CHECKLIST WORKSHEET
Review of Effectiveness of Institutional Controls

Evidence of land use other than industrial (e.g., residential)?	Yes () No (x)
Parcel D: No	
Parcel H: No	
Parcel 3: No	
Parcel 4: No	
Phase 1A: No	
Phase 1B: No	
Phase 1C: No	
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 4/7: Signage is a part of the ICs for the retention pond. One sign present (by tree). 4/14: Four new signs placed around the pond.	
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 ()
Some fencing had been removed from the site boundaries.	
Parcel D: N/A. Fencing is not an IC for this parcel.	
Parcel H: N/A. Fencing is not an IC for this parcel.	
Parcel 3: N/A. Fencing is not an IC for this parcel.	
Parcel 4: N/A. Fencing is not an IC for this parcel.	
Phase 1A: N/A. Fencing is not an IC for this parcel.	
Phase 1B: N/A. Fencing is not an IC for this parcel.	
Phase 1C: N/A. Fencing is not an IC for this parcel.	
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: Locked and in good repair. Well 0158 (near intersection of Benner Road and Old State Route 25): Abandoned 9/19/07; cut off 3 ft. below surface and sealed with cement/bentonite.	
Phase IA: N/A. There are no monitoring wells in this parcel.	
Phase IB Well 0411: Locked, labeled, and in good repair. Well 0442: Locked, labeled, and in good repair. Well 0443: Locked, labeled, and in good repair. Seep 0617: In good repair.	

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

Phase IC	P033: Locked and in good repair. Not labeled. Well 0319: Locked, labeled, and in good repair. Well 0344: Was adjacent to well 0319. Abandoned 9/17/07; cut off 3 ft. below surface and sealed with cement/bentonite. Well 0400: Locked, labeled, and in good repair. Well 0445: Locked, labeled, and in good repair.
Air monitoring stations maintained properly (if applicable)? N/A (<input checked="" type="checkbox"/>) Yes () 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. However, there are two air monitoring stations located in the parcel at the northeast corner of the parking lot. EPA plans to remove its station. DOE will maintain its station 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 IA:	N/A. Air monitoring is not an IC for this parcel.
Phase IB:	N/A. Air monitoring is not an IC for this parcel.
Phase IC:	N/A. Air monitoring is not an IC for this parcel.
Containment systems in good repair (if applicable)? N/A (<input checked="" type="checkbox"/>) Yes () No ()	
Parcel D:	N/A
Parcel H:	N/A
Parcel 3:	N/A
Parcel 4:	N/A
Phase IA:	N/A
Phase IB:	N/A
Phase IC:	N/A
Site surveillance equipment in good repair (if applicable)? N/A (<input checked="" type="checkbox"/>) Yes () No ()	
Parcel D:	N/A
Parcel H:	N/A
Parcel 3:	N/A
Parcel 4:	N/A
Phase IA:	N/A
Phase IB:	N/A
Phase IC:	N/A
Other equipment associated with maintenance of the Institutional Controls in good repair (if applicable)? N/A (<input checked="" type="checkbox"/>) Yes () No ()	
Parcel D:	N/A
Parcel H:	N/A
Parcel 3:	N/A
Parcel 4:	N/A
Phase IA:	N/A
Phase IB:	N/A
Phase IC:	N/A

CHECKLIST WORKSHEET
Review of Effectiveness of Institutional Controls

Summary of items discovered during previous reviews (and disposition of same)—
Dates of previous reviews: annual report (August 2006), five-year review (2006), annual report (June 2007)

	Origin	Issue/Recommendation	Status 2007 Report	Corrected?	Current status 2008 Report
1	2006 Annual	Abandon Well 0445 in Parcel I.	Will include with other wells abandoned in post-OU-1-work monitoring plan.	ISSUE CLOSED	Will continue to monitor semiannually. Revisit in next annual <i>Phase I Groundwater Monitoring Report</i> (April 2009).
2	Five-Year	Ineffective signage at the Parcel 4 retention basin has resulted in violation of the ICs in the past (land use inconsistent with industrial/commercial land use).	Signs have not been changed in accordance with the five-year review recommendations. No indication of recreational use has been observed.	ISSUE CLOSED	MMCIC has installed four new signs stating, "Recreational Use Prohibited," around the pond.
3	Five-Year	Permanent ID markers are not installed on all long-term groundwater monitoring wells.	Determine which wells will be included in post-OU-1-work monitoring plan. Install permanent ID markers on those wells.	IN PROCESS	Five wells are without permanent markers. All are marked with waterproof ink and are identified on site maps.
4	Five-Year	Protective casings of the long-term groundwater monitoring locations are in general disrepair.	Determine which wells will be included in post-OU-1-work monitoring plan.	ISSUE CLOSED	All wells covered in annual IC inspection were in good repair. Bollards are present around wells near vehicular traffic.
5	Five-Year	Adequate protection from vehicular traffic is not present for long-term groundwater monitoring wells.	Identify remaining wells included in post-OU-1-work monitoring plan. Protect at that time.	ISSUE CLOSED	All wells covered in annual IC inspection were in good repair.
6	Five-Year	Excessive vegetation is present around the long-term groundwater monitoring locations.	Has improved. Include wells in post-OU-1-work monitoring plan.	ISSUE CLOSED	All wells covered in annual IC inspection were in good repair.
7	Five-Year	Excessive vegetation is present around the OU-1 facility and structures and on the landfill surface.	OU-1 area being excavated. Will review issue after work is completed.	ISSUE CLOSED	OU-1 work continues. Will review after completion.
8	Five-Year	Inadequate stormwater control is maintained on the southwestern corner of the landfill.	OU-1 area being excavated. Will review issue after work is completed.	ISSUE CLOSED	OU-1 work continues. Steps were taken to control runoff. Stormwater control is incorporated into final configuration of OU-1 after excavation is complete.
9	Five-Year	Inadequate documentation and interpretation of operational and monitoring data for the OU-1 remedy is maintained.	Gradient info now included in Environmental Restoration monthly reports.	ISSUE CLOSED	Gradient info, including diagram, is included in Environmental Restoration monthly reports.
10	2007 Annual	Add City Planning Commission requests to list of documents examined for annual assessments.		ISSUE CLOSED	Added
11	2007 Annual	Add ODNR well logs to list of documents examined or annual assessments.		ISSUE CLOSED	Added
12	2007 Annual	Determine when OEPA will remove air monitoring station in Parcel H.		IN PROCESS	OEPA is working with DOE-EM to dispose of their air monitoring stations on site.

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

Personnel interviewed during the physical walkover of parcel, or during review of documentation associated with the parcel:

Elise Hafenbrack, City of Miamisburg Engineering Department

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, ODNR well logs):

DOE and Stoller personnel reviewed City of Miamisburg building permits and City Planning Commission requests on April 8, 2008. Staff reviewed the ODNR well logs and located the log for the aRc well near OU-1's southwest corner and the northwest corner of Parcel 1C. This well was used for work at OU-1 and has not been closed yet. There were permits for work in parcels that are not covered by this annual IC inspection.

Based upon the review of the above-listed documents, were property improvements covered by the appropriate approvals (e.g., construction permit approved by City, movement of soil or use of groundwater approved by the regulators)? Yes () No (x)

Parcel D

No permits filed since last inspection. No evidence of work performed since last inspection.

Parcel H

No permits filed since last inspection. No evidence of work performed since last inspection.

Parcel 3

No permits filed since last inspection. No evidence of work performed since last inspection.

Parcel 4

No permits filed since last inspection. No evidence of work performed since last inspection.

Phase IA

No permits filed since last inspection. No evidence of work performed since last inspection.

Phase IB

No permits filed since last inspection. No evidence of work performed since last inspection.

Phase IC

No permits filed since last inspection. No evidence of work performed since last inspection.

Miscellaneous items noted during review:

Parcel D

Parcel H

Parcel 3

Parcel 4

Phase IA

Phase IB

Phase IC

Water well was installed in January 2007 in Parcel 9 at edge of northwest boundary of Parcel IC. The well log was located on the ODNR website. This seems to confirm that this is a valid method to check for drilled wells on the property in the future.

CHECKLIST WORKSHEET
Review of Effectiveness of Institutional Controls

Recommendations as a result of 2008 IC inspection:	
Parcel D	
Parcel H	
Parcel 3	
Notify DOE when street names are changed	
Parcel 4	
Phase IA	
Phase IB	
Phase IC	
Label well P033.	
Conclusion:	
Parcel D	The ICs for Parcel D remain protective. There was no evidence of noncompliance.
Parcel H	The ICs for Parcel D remain protective. There was no evidence of noncompliance.
Parcel 3	The ICs for Parcel D remain protective. There was no evidence of noncompliance.
Parcel 4	The ICs for Parcel D remain protective. There was no evidence of noncompliance.
Phase 1A	The ICs for Parcel D remain protective. There was no evidence of noncompliance.
Phase 1B	The ICs for Parcel D remain protective. There was no evidence of noncompliance.
Phase 1C	The ICs for Parcel D remain protective. There was no evidence of noncompliance.
Checklist prepared by: <u>Art Kleinrath</u>	Date: <u>May 22 2008</u>
Art Kleinrath, Site Manager Office of Legacy Management U.S. Department of Energy	

Exhibit 1

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

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**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. 99-0702D09 (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,

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.

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. Grawielman

Printed Name: Michael J. Grawielman

Title: President

STATE OF OHIO, COUNTY OF MONTGOMERY, SS:

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

Joan Wysong
NOTARY PUBLIC

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

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Exhibit 2

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.*

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- 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.
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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>
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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.