



Mound, Ohio, Site

A CERCLA/RCRA SITE

This fact sheet provides information about the **Mound, Ohio, Site**. Long-term stewardship responsibilities for this site are managed by the **U.S. Department of Energy Office of Legacy Management** under the **Comprehensive Environmental Response, Compensation, and Liability Act** and the **Resource Conservation and Recovery Act**.

Site Information and History

The Mound site in Miamisburg, Ohio, named for a nearby Native American burial ground, is located approximately 10 miles southwest of Dayton, Ohio. The Great Miami River flows southwest through the city of Miamisburg and dominates the geography of the region surrounding the site. The region is a mix of farmland, residential areas, small communities, and light industry. Downtown Miamisburg and many neighborhoods, schools, and city parks are located within a mile of the site.

The Mound site, which operated from 1948 to 2003 as part of the U.S. Atomic Energy Commission and later the U.S. Department of Energy (DOE), was built to continue Dayton, Ohio, Manhattan Project work on polonium-beryllium initiators used in early atomic weapons. The site later expanded into an integrated research, development, and production facility supporting weapons, energy, and space missions. Weapons and energy operations included separation and sale of stable isotopes, calorimetry, and neutron radiography; plastics, ceramics, and metallurgy; explosives and pyrotechnics; cable assemblies, detonators, and electronic firing sets; recovery of tritium for reuse; and research on fossil fuels. Space mission support included invention and development of radioisotopic

thermoelectric generators that provided electrical power for National Aeronautics and Space Administration space exploration programs, including Voyager I and II, Galileo, and many others.

At its peak, the Mound facility encompassed 116 buildings and employed more than 2,500 highly skilled workers.

Regulatory Setting

DOE established the Environmental Restoration Program at the site in 1984. The program collected and assessed environmental data to evaluate the nature and extent of contamination resulting from site operations, identified potential exposure pathways, and identified potential human and environmental receptors. Comprehensive chemical and radionuclide characterizations identified contamination in soil, groundwater, surface water, and buildings at the site. Most of the contamination was identified as low-level radioactivity in the soil and volatile organic compounds in the groundwater.

In 1989, the site was placed on the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL) because volatile organic compounds were discovered in groundwater that underlies the site and because of the site's proximity to a sole-source aquifer. NPL is a list of

top-priority hazardous waste sites eligible for cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund. DOE, EPA, and Ohio EPA signed a Federal Facilities Agreement in 1993 that provided a procedural framework, which remains in effect, for accomplishing site cleanup.

In 1995, DOE and its regulators developed the Mound 2000 process to expedite the cleanup while satisfying CERCLA requirements. The Core Team (DOE, EPA, and Ohio EPA) used the Mound 2000 process to review historical and current assessment data for each building and over 400 potential release sites and to determine a path forward for each. The Core Team oversaw all remediation activities and continues to oversee postclosure activities at the site.

To support the transfer to private use, the DOE Office of Environmental Management divided the site into discrete land parcels, which were remediated to an industrial/commercial use end state in accordance with CERCLA regulations.

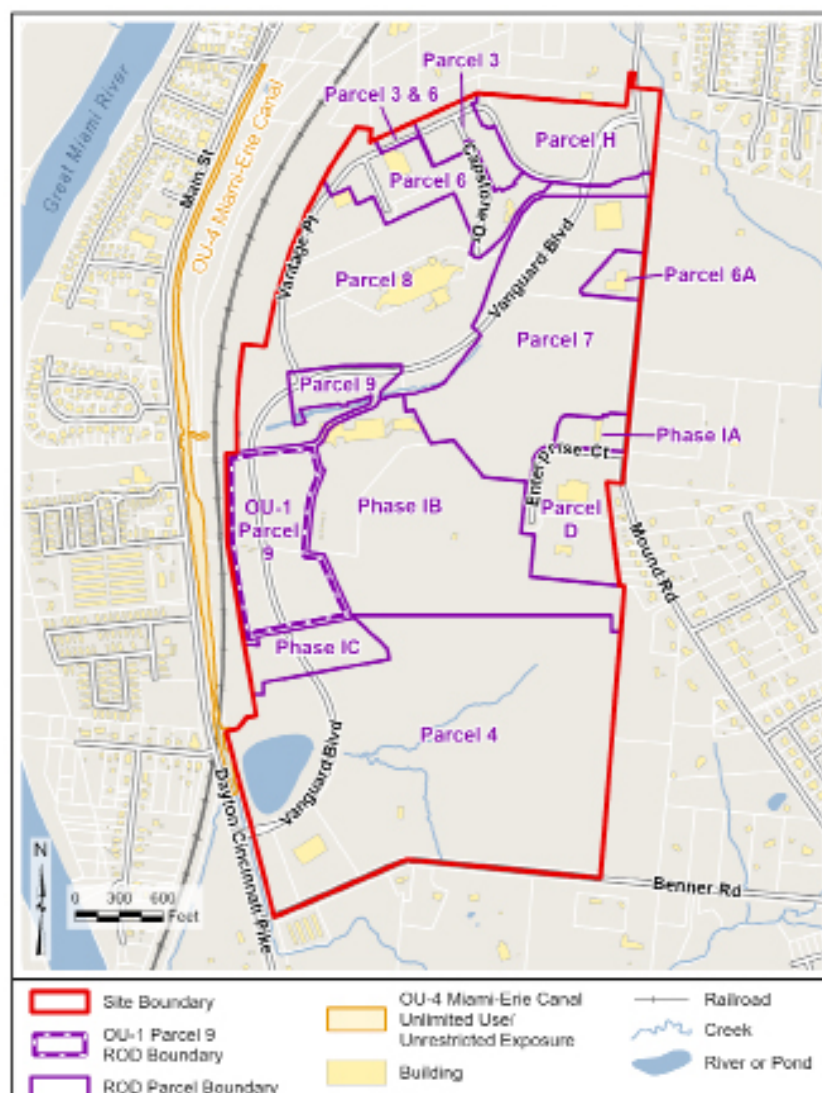
Records

of Decision (RODs) for these parcels defined the environmental remedies.

Mound Development Corporation

The city of Miamisburg chartered the Mound Development Corporation (MDC), formerly the Miamisburg Mound Community Improvement Corporation, to transition the site for reuse as the Mound Business Park. During site cleanup, DOE worked closely with MDC and the city of Miamisburg to achieve an optimum end state for the site while complying with CERCLA regulations. During this development period, DOE supported MDC economic development efforts with grants and matching funds.

DOE conveyed discrete parcels to MDC after completion of CERCLA requirements for property transfer. Land use restrictions in the form of institutional controls (ICs) were conveyed with the property in quitclaim deeds and environmental covenants.



ROD parcels at the Mound site.

Current Site Conditions 🌲

At the Mound site, cleanup was planned and developed to aid in future economic redevelopment of the plant property into an industrial or commercial site. DOE completed CERCLA soil and building remediation, demolished or transferred buildings and infrastructure, and implemented the remedies in the RODs. All waste was shipped off-site and disposed of in accordance with applicable regulatory requirements.

CERCLA remedies detailed in the site's RODs include sitewide ICs that prevent unacceptable risk by restricting the use of the Mound site. Three areas of the site address groundwater contamination through long-term monitoring and monitored natural attenuation, allowing naturally occurring processes to reduce contaminant concentrations in the groundwater over time.

ICs are nonengineered instruments, such as administrative and legal controls, that help in preventing or limiting exposures to residual contamination and protect the integrity of environmental remedies. The Mound site ICs run with the land in the form of restrictions and covenants in the quitclaim deeds or activity and use limitations in the environmental covenants.

These legal documents are filed with Montgomery County, Ohio, so that all future property owners will know about the restrictions.

Mound site ICs restrict land use at the Mound site to industrial or commercial and prohibit residential and agricultural uses. Exposure pathways to remaining residual contamination are being controlled through ICs that prevent the use of groundwater and removal of residual contaminated soil from the property boundary. Additional ICs are in place to mitigate possible exposure through vapor intrusion in the former Operable Unit 1 landfill area and prevent potential radiological exposure in several rooms in the former Technical Building.

Roles and Responsibilities

The DOE Office of Legacy Management (LM) is responsible for long-term surveillance and maintenance activities to ensure that the selected CERCLA remedies remain functional and effective and that conditions at the site remain protective of human health and the environment.

The MDC manages the Mound Business Park for industrial/commercial use. All property owners are legally responsible for adhering to the ICs and activity and use limitations in the quitclaim deeds and environmental covenants. Property owners must further impose those requirements on lessees.

Legacy Management Activities

LM is responsible for the long-term surveillance and maintenance of all DOE remedial action sites, disposal sites, and other sites as assigned that have no ongoing DOE mission and are not part of a larger DOE facility.

At the Mound site, LM monitors site groundwater, conducts periodic IC assessments, and prepares regulatory reports. LM follows site documents that describe the activities required to maintain the CERCLA remedies and controls. These are the Operations and Maintenance Plan, the Institutional Controls Implementation and Assurance Plan, the Long-Term Surveillance and Maintenance Plan, and the Community Involvement Plan. These and other site documents are available electronically at [Impublicsearch.lm.doe.gov/SitePages/default.aspx?sitename=Mound](https://lm.doe.gov/SitePages/default.aspx?sitename=Mound).

Administrative Record documents for CERCLA and other LM sites across the nation are available on the LM website at [Impublicsearch.lm.doe.gov/SitePages/CERCLA.aspx?sitename=Mound](https://lm.doe.gov/SitePages/CERCLA.aspx?sitename=Mound).

Contact Information

In case of an emergency at the site contact 911.

LM toll-free emergency hotline: (877) 695-5322

Site-specific documents related to the Mound, Ohio, Site are available on the LM website at www.energy.gov/lm/mound-ohio-site.

To access the Mound groundwater monitoring data set, please visit <https://gems.lm.doe.gov/>.

For more information about LM activities at the Mound, Ohio, Site, contact:

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