MASON CITY COAL GASIFICATION PLANT SUPERFUND SITE
COMMUNITY INVOLVEMENT PLAN UPDATE

United States Environmental Protection Agency

MAY 2025

The goal of this Community Involvement Plan Update (CIPU) is to encourage and facilitate community engagement throughout the Mason City Coal Gasification Plant Site cleanup. The CIPU includes a site overview, a link to the Site Profile Page, and updates since the last Community Involvement Plan (CIP) was published. EPA defines the "community" as those people and entities who have an interest in or are affected by the site. EPA also recognizes that other stakeholders, including local, state and federal agencies, may have an interest in the site. EPA's community involvement activities are designed to inform the public of all cleanup activities and include the community in the decision-making process. The CIPU is a "living document," meaning that updates may occur over the course of site cleanup to reflect long-term changes in the community.

Community Involvement at the Site

Active and participatory community involvement is an important part of the cleanup process. It is also regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as "Superfund." This CIPU follows community involvement requirements in the Superfund Amendment and Reauthorization Act of 1986 (SARA) section 117 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 Code of Federal Regulations (CFR) section 300.415.

Site Overview

The Mason City Coal Gasification Plant Site operated from 1900 to 1951. The site is in downtown Mason City, Iowa, with streets as boundaries on three sides and Willow Creek forming the fourth boundary. It is the location of a former manufactured gas plant, which generated "town gas" for lighting and heating purposes for the Mason City area, beginning in the early 1900's. The plant was decommissioned and subsequently demolished in 1952, following the availability of natural gas. The contaminants of concern (COCs) are polynuclear aromatic hydrocarbons (PAHs) and a group of four volatile organic compounds (VOCs): benzene, toluene, ethylbenzene, and xylenes (BTEX). Learn about the contaminants on ATSDR's ToxFAQs™ website.

The site contamination was discovered in 1984 when the city was installing a sewer line on the property, and they uncovered oily sludges in subsurface soil. Further investigation by the owner found three underground storage tanks containing the oily sludge. The tanks and stockpiled soil on site were exhumed, stored, and covered with a membrane cap on site.

The contaminated soil and stockpiled soil were later excavated to the bedrock surface, thermally desorbed off-site, and placed back into the excavation during a Non-Time-Critical Removal Action in 1994. The remedy selected in the Record of Decision (ROD) for the site included monitored natural attenuation of groundwater and the implementation of institutional controls. The site was listed on the National Priorities List in 1994.

Presently, an electrical substation and small storage garage are on-site. Environmental covenants place restrictions on the property to address future exposures to vapor intrusion (VI), groundwater, and residual contamination remaining in the subsurface.

The Fourth Five-Year Review was completed in 2023. The remedy is currently protective of human health and the environment. The next Five-Year Review will be completed in 2028.

The most recent Community Involvement Plan (CIP) was published on September 30, 2020. For detailed information about the site's history/address, updates, previous versions of the CIP, cleanup activities, ways to stay involved, and redevelopment plans, and to access all publicly available documents, please visit EPA's Site Profile page.

You can find the site's current Community Involvement Plan online.

What Has Been Done to Clean Up the Site?

Following discovery of the contamination during construction of the sewer line, Interstate Power and Light Company entered into multiple Administrative Orders on Consent with EPA that resulted in the completion of a remedial investigation and feasibility study. They also conducted a removal action to address soil contamination. The removal action was completed in 1996 when over 21,000 tons of contaminated soil were excavated and thermally treated off-site. The treated soil was returned to the site to backfill the area excavated.

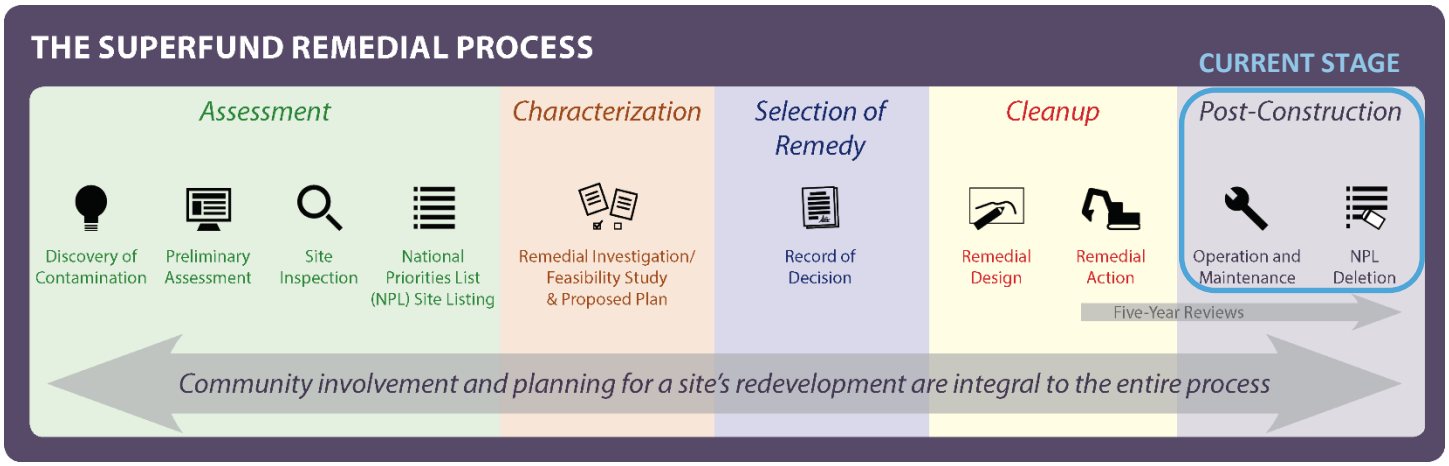
The remedial investigation and feasibility study was concluded in September 2000 when EPA selected a remedy for the site in a Record of Decision (ROD).. The selected remedy is monitored natural attenuation of groundwater with institutional controls. Natural attenuation describes a variety of in-place processes that, under favorable conditions, act without human intervention to reduce the mass, toxicity, mobility, volume or concentration of contaminants in groundwater. A contingency remedy was selected if, at some point in the future, the monitoring data indicate that monitored natural attenuation of groundwater is no longer effective in remediating the groundwater contaminants at the site. The contingency remedy is groundwater pumping and treatment with discharge to the sanitary sewer and implementation of institutional controls.

On September 3, 2008, an Explanation of Significant Differences was signed to update the ROD. The updates included lowering the groundwater action level for dibenz(a,h)anthracene, a cancer-causing chemical formed from burning fuels, from 0.3 micrograms per liter (µg/L) to 0.033 µg/L. The update also added naphthalene (found in products like mothballs) and 2-methylnaphthalene (from coal tar and fuel products) as chemicals of concern in groundwater, with new action levels of 1.4 µg/L for naphthalene and 63 µg/L for 2-methylnaphthalene. Lastly, new restrictions were added to the institutional controls to help prevent people from being exposed to harmful chemical vapors that could move into buildings from underground. Learn about these chemicals on ATSDR's ToxFAQs™ website.

Interstate Power and Light Company, Kansas City Power & Light Company, and the city of Mason City, Iowa, entered into a consent decree on July 29, 2002, to perform the cleanup of the site. The site is being addressed through actions undertaken by Interstate Power under EPA oversight.

Remedial Process

Superfund is responsible for cleaning up some of the nation's most contaminated land and responding to environmental emergencies. To protect public health and the environment, the Superfund program focuses on ensuring that people can live and work in healthy, vibrant places. A remedial action (RA) is a long-term cleanup of a site placed on the National Priorities List (NPL) or managed as an NPL-caliber site. It involves the actual construction or implementation phase of Superfund site cleanup. The RA is based on the specifications described in the Record of Decision (ROD). Removal actions and enforcement actions can take place through the entire remedial process.



What Is the Current Site Status?

Groundwater at the site is tested every year. In 2013, EPA stopped using certain natural breakdown (natural attenuation) tests and modeling because contaminant levels had dropped so low that the models were no longer useful. Instead, we now use different types of trend analysis to track changes in contaminant levels.

In the most recent review (completed in March 2022), results showed that contaminant levels in the shallow (water table) aquifer were either stable or decreasing. However, in the deeper (intermediate) aquifer, levels of benzene and benzo(a)anthracene were going up. To understand this better, new monitoring wells were added. Testing from these wells found dense liquid contamination (DNAPL) and benzene, suggesting that groundwater in the intermediate zone may be flowing differently than was thought.

To address this, EPA installed a pump that runs for one minute per week to remove DNAPL from one of the wells. More testing and well installations are ongoing to map the extent of the contamination. Samples collected from October to December 2021 were included in the annual report submitted in March 2022. Updates about a technical impracticability waiver were also included in the April 2023 Five-Year Review.

The last five-year review found the remedy at the Mason City Coal Gasification site is currently protective of human health and the environment.

Information Repository

EPA keeps project information and reference materials for the Mason City Goal Gasification Plant Superfund Site available to the public on EPA's Site Profile page. If you do not have internet access, these documents can be viewed online at the following location:

Mason City Public Library
225 2nd Street SE
Mason City, IA 50401
641-421-3668
www.mcpl.org

Key Contacts

EPA Contacts

Up-to-date EPA contacts can be found on the Site Profile page.

Shaylee Borcsani
Community Involvement Coordinator
Phone: 913-551-7713
Toll-free: 1-800-223-0425
Email: borcsani.shaylee@epa.gov
U.S. EPA Region 7
11201 Renner Boulevard
Lenexa, KS 66219

Victoria Frank
Remedial Project Manager
Phone: 913-551-7044
Toll-free: 1-800-223-0425
Email: frank.victoria@epa.gov
U.S. EPA Region 7
11201 Renner Boulevard
Lenexa, KS 66219

Elected Officials

For more information on elected officials, please visit: www.usa.gov/elected-officials

- **U.S. House of Representatives:** www.house.gov/representatives/find-your-representative
- **U.S. Senate:** www.senate.gov/senators
- **State House/Assembly:** www.iowa.gov
- **State Senate:** www.iowa.gov
- **Local Mayors and Elected Officials:** www.masoncity.net

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Elected Officials By Name

Federal Elected Officials:

Chuck Grassley
U.S. Senator
202-224-3744

Joni Ernst
U.S. Senator
202-224-3254

Ashley Hinson
U.S. Representative
202-225-2911

State Elected Officials:

Doug Campbell
Iowa State Senator
515-281-3221

Christian Hermanson
Iowa State Representative
515-281-3221