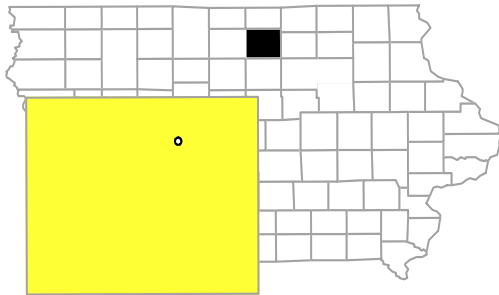


**MASON CITY COAL  
GASIFICATION PLANT  
IOWA  
EPA ID# IAD980969190**

**EPA Region 7  
City: Mason City  
County: Cerro Gordo County  
Other Names: Coal Gasification Plant**

**02/23/2009**



## **SITE DESCRIPTION**

The Mason City Coal Gasification Plant site is located on approximately 2 1/3 acres in a commercial and residential area of central Mason City, a north-central Iowa community of 29,000. Mason City Coal Gasification Plant operated from 1900 to 1951, and was demolished in 1952. An electrical substation and a small storage building are all that remain on the site. During a 1984 sewer installation, oily sludges were discovered in subsurface soil at the site. Investigations by the current site owner, Alliant Energy Corporation (formerly Interstate Power Company), revealed three underground storage tanks containing oily sludge. The tanks and contaminated soil were exhumed and stored on the southeast corner of the site and covered with a membrane cap. Contaminated soil was also present in the north-central portion of the site. The site is situated on fill material consisting of sand, gravel, and construction rubble and debris, and is in direct contact with bedrock. Although the level of the water table fluctuates seasonally, the water table in the fill material is typically present at depths ranging from 8 to 10 feet below the surface. A portion of the ground water flows through the fill and empties into Willow Creek, which is used for public recreational fishing. Eight Mason City municipal drinking water wells are located within 2 miles of the site. Approximately 98 percent of Mason City is supplied by the municipal drinking water supply.

### **Site Responsibility:**

This site is being addressed through Federal and potentially responsible parties' actions.

### **NPL LISTING HISTORY**

**Proposed Date:** 01/18/94

**Final Date:** 12/16/94

**Deleted Date:**

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## THREATS AND CONTAMINANTS



The soil, on-site waste pile, bedrock, and ground water are contaminated with polynuclear aromatic hydrocarbons (PAHs). Soil samples collected indicate that the soil is contaminated to a depth of 13 1/2 feet. A series of investigations between 1986 and 1993 by Interstate Power Company identified high concentrations of PAHs in samples of ground water taken from the uppermost aquifer and in samples of Willow Creek sediment downstream from the site. Ingesting or coming into direct contact with contaminated soil or ground water could pose a public health threat.

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## CLEANUP APPROACH

### Response Action Status

**Initial Actions:** In late-1988, the potentially responsible parties excavated three underground storage tanks and surrounding contaminated soil, moved them to the southeast corner of the site, and covered them with a membrane cap. Excavation and thermal treatment of contaminated soil and the waste pile was completed in November 1996.

**Ground water:** In late-1991, the potentially responsible parties began investigating the nature and extent of site contamination. This study was completed in 1994. Periodic sampling of ground water continued for two years following removal of the contaminated soils and the waste pile. A final cleanup remedy was selected in September 2000, to address ground water contamination. The remedy selected was monitored natural attenuation of ground water with institutional controls.

**Site Facts:** Interstate Power Company signed an Administrative Order on Consent with EPA in October 1991. Under this Order, Interstate Power Company agreed to determine the extent of contamination at the site and assist EPA in evaluating cleanup options. In 1995, Interstate Power Company, Kansas City Power & Light Company, Bob McKiness Grading and Excavating, Inc., and the City of Mason City signed an Administrative Order on Consent with EPA for removal of source materials and post-removal ground water monitoring. Interstate Power and Light Company, Kansas City Power & Light Company, and the City of Mason City, Iowa, entered into a Consent Decree for Remedial Design and Remedial Action on July 29, 2002.

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## **ENVIRONMENTAL PROGRESS**



The removal of contaminated soil and several storage tanks has made the Mason City Coal Gasification Plant safe while ground water remediation and monitoring continues.

The ground water remedy at the site recognizes that natural attenuation of the contamination is occurring and is an acceptable remedy. Ground water monitoring will be conducted for an extended period of time to verify the on-going effectiveness of this remedy.

EPA completed a Five-Year Review for the site in March 2008. The Environmental Covenant for the site will be modified to address possible vapor intrusion concerns in the event a building were constructed on the site in the future. Also, cleanup levels will be implemented for two additional contaminants in ground water, but will not necessitate a change in the remedy. The remedy remains protective in the short-term and will be fully protective once the Covenant is modified and the additional cleanup levels have been implemented.

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## **COMMUNITY INVOLVEMENT**

12/94 - Public availability session for non-time critical removal

7/00 - Fact sheet announcing Proposed Plan and public comment period. Display ad in the Mason City Globe Gazette.

7/31/00 - Public meeting to take public comment on Proposed Plan

10/07 - Fact sheet announcing start of First Five-Year Review

11/07 - Community interviews for Community Involvement Plan

7/08 - Fact Sheet announcing completion of First Five-Year Review

9/08 - Fact Sheet announcing Explanation of Significant Differences

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## SITE REPOSITORY



Mason City Public Library  
225 2nd Street S.E.  
Mason City, IA 50401

Superfund Records Center  
901 N. 5th St.  
Kansas City, KS 66101  
Mail Stop SUPR  
(913)551-7166

## REGIONAL CONTACTS

**SITE MANAGER:**

**E-MAIL ADDRESS:**

**PHONE NUMBER:**

Diana Engeman  
engeman.diana@epa.gov  
(913) 551-7746

**COMMUNITY INVOLVEMENT**

**COORDINATOR:**

**PHONE NUMBER:**

**E-MAIL ADDRESS:**

Beckie Himes  
(913) 551-7253  
himes.beckie@epa.gov

**STATE CONTACT:**

**PHONE NUMBER:**

Dan Cook  
(515) 281-4171

## MISCELLANEOUS INFORMATION

**STATE:**

IA  
076B

**CONGRESSIONAL DISTRICT:**

04

**EPA ORGANIZATION:**

SFD-IANE/SUPR

## MODIFICATIONS

**Created by:** Karla  
Asberry/SUPRFUND/R7/US  
EPA/US

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