

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Ironwood Manufactured Gas Plant Site - Removal Polrep
Initial Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #1
Initial
Ironwood Manufactured Gas Plant Site
B5ZC
Ironwood, MI
Latitude: 46.4516240 Longitude: -90.1780130

To:
From: Kathy Halbur & Jacob Hassan, OSC
Date: 8/28/2012
Reporting Period: 8/20/12 - 8/27/12

1. Introduction

1.1 Background

Site Number:	B5ZC	Contract Number:	EP-S5-08-04
D.O. Number:	0051	Action Memo Date:	8/9/2012
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	8/20/2012	Start Date:	8/22/2012
Demob Date:		Completion Date:	
CERCLIS ID:	MIN000510500	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical

1.1.2 Site Description

The Ironwood Manufactured Gas Plant (MGP) Site is the location of a former coal gasification plant. Reportedly, the plant was constructed in 1911 and operated using a carbureted water gas (CWG) process. A review of Sanborn maps indicates that the processes at the Site were consistent with typical CWG processes for the era. These processes generally included a first step in which coke or coal was heated in a closed vessel or retort into which steam was injected. A flammable gas mixture of methane and carbon monoxide was produced. In some cases petroleum products may have been applied to the heated mixture increasing the flammability of the resultant gas mixture. During these processes, a dense, oily liquid known as coal tar would condense out of the gas at various stages during its production, purification and distribution, and the coal tar would need to be either recycled in the process, sold, or otherwise disposed of.

The plant continued operations and distribution of manufactured gas until the late 1950's when natural gas pipelines and service became more readily available in the area. By 1956 the plant was for sale and based on accounts of the Wisconsin Public Service Commission, by 1961 had discontinued service to Hurley, including the removal of meters following abandonment.

Interviews conducted by the Michigan Department of Environmental Quality (MDEQ) with local residents indicate that the buildings at the Site were removed prior to the gasometers (gas storage tanks). Based on the historical accounts, the surface structures at the Site were demolished and removed during the 1970's and the 1980's. Following removal of the surface structures, the Site was reportedly used by the City of Ironwood for the storage of inoperable equipment and debris.

1.1.2.1 Location

The Site does not have a physical address but is located on the northwest corner of Hemlock Street and West Ayer Street in Ironwood, Gogebic County, Michigan

1.1.2.2 Description of Threat

The Site contains MGP waste material, such as coal tar and other process waste, that are the source of

hazardous substances that have migrated and are migrating into soil, groundwater, surface water, and sediments of the Montreal River. Contaminants of concern identified in soil, groundwater, surface water, and sediment include volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polyaromatic hydrocarbons (PAHs) and inorganic contaminants.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

During bridge construction at West Norrie Street in 2010, construction crews identified visually contaminated soils suspected to be from the former Ironwood Manufactured Gas Plant site located approximately 700' upstream. MDEQ developed a Site Inspection Work Plan in 2010 to characterize conditions in the subsurface at the Site as well as in the surface water and sediment in the adjacent Montreal River. The Site Inspection activities performed by the MDEQ were implemented with the intent of evaluating groundwater, surface water, and soil exposure pathways.

The results of the MDEQ's Site Inspection indicated the presence of uncontrolled hazardous substances at the Site. Gross tar and MGP process waste contamination was discovered in the surface and subsurface soil primarily located in the historical operating area of the Site, which contained VOC's, SVOC's, and inorganic contaminant concentrations exceeding the MDEQ Part 201 Residential Direct Contact Criteria (RDCC) and Groundwater Surface-water Interface (GSI). Based on these findings, MDEQ requested assistance from USEPA.

USEPA conducted a site reconnaissance visit on November 19, 2010 to evaluate site conditions and to gather logistical information to assist in the development of a supplement site assessment plan.

A Supplemental Site Assessment was conducted during the week of April 9, 2012. The Supplemental Site Assessment demonstrated that coal tar and other MGP waste remain buried at the Site in a visually discreet layer and that contaminants from this buried waste (volatile and semi-volatile organic compounds and inorganic compounds) are migrating into the groundwater and surface water (Montreal River).

2. Current Activities

2.1 Operations Section

2.1.1 Response Actions to Date

Activities at the Ironwood Manufactured Gas Plant during this reporting period (8/20/12 - 8/27/12):

- USEPA and its START (Weston) and ERRS (LATA-Kemron & CMD) contractors mobilized to the Site and began preparing the Site for the removal of the coal tar and other MGP process wastes. EPA and START began operations on the Site on August 21, 2012 and ERRS began work on August 22, 2012.
- EPA, START, and ERRS conducted the following activities during this reporting period:
 - established an on-site office trailer (with utilities, porta-potties, etc)
 - conducted a site elevation survey
 - collected background air monitoring samples
 - field screened backfill material provided by the City of Ironwood from nearby water/sewer construction project
 - closed the south Hemlock Street all-terrain vehicle (ATV) trail access point
 - began constructing a haul road
 - began clearing and grubbing vegetation from the excavation area
- On August 23, 2012, USEPA held an open house for the communities of Ironwood, MI and Hurley, WI. The meeting was held at the City of Ironwood's Memorial Building located at 213 S. Marquette St. The event was attended by 15 to 20 residents and representatives from the City of Ironwood, Michigan Department of Environmental Quality, Wisconsin Department of Natural Resources, Western Upper Peninsula Health Department, and the Gogebic County Soil and Erosion Control District. USEPA discussed plans for the clean-up.

2.1.2 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The City of Ironwood is the former owner and operator of the Ironwood Gas Works and is the only PRP for this Site. The City does not have the ability to conduct the clean-up, but is assisting by contributing in-kind services.

2.1.3 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

USEPA will hold community office hours every Thursday evening from 5pm to 6 pm in the Engineering Room on the second floor of the City of Ironwood's Memorial Building, 213 S. Marquette Street

USEPA will give a presentation on the removal efforts to the Ironwood Rotary Club August 29, 2012.

2.2.1.1 Planned Response Activities

The following activities are planned for the next reporting period:

- Complete construction of the haul road
- Complete Site fencing
- Continue air monitoring efforts
- Continue vegetation removal efforts
- Install coffer dam in Montreal River near the excavation area
- Begin excavation activities
- Haul contaminated material to the landfill
- Collect and temporarily store wastewater/groundwater generated from the excavation activities

2.2.1.2 Next Steps

- Work with the City of Ironwood and the MDEQ to gain approval to discharge groundwater to sanitary system
- Institute dust control measures
- Develop a final grading and restoration plan

2.2.2 Issues

The future use of the Site and the adjacent property is still under discussion by the respective property owners, MDEQ, and EPA. Uncertainty related to future use has resulted in access restrictions on the neighboring property (340 W. Ayer Street) and delays in restoration planning.

2.3 Logistics Section

The following equipment was used during the reporting period:

- 1 - 1/2 ton pickup truck
- 3 - 3/4 ton pickup trucks
- 2 - excavators
- 1 - Front end loader
- 1 - 12' x 60' office trailer
- 1 - 10' cargo trailer
- 1 - portable satellite unit
- 4 - DataRams with Viper
- 1 - Multi-Rae
- 1 - Summa Canister
- 1 - Gillian Pump

Additional equipment, including a water truck, will be mobilized to the Site during the next reporting period.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Kathy Halbur, OSC
Jacob Hassan, OSC

3. Participating Entities

3.2 Cooperating Agencies

City of Ironwood
Gogebic County Soil and Erosion Control District
Michigan Department of Community Health
Michigan Department of Environmental Quality
Western Upper Peninsula Health Department
Wisconsin Department of Health Services
Wisconsin Department of Natural Resources

4. Personnel On Site

During this reporting period:

U.S. EPA: 4 (Halbur, Hassan, Cooper, Borseth)
START (Weston): 1
ERRS (LATA-Kemron & CMC): 8

5. Definition of Terms

ATV - All terrain vehicle
CWG - carburated water gas
ERRS - Emergency and Rapid Response Services
GSI - groundwater surface-water interface
MDEQ - Michigan Department of Environmental Quality
MDNR - Michigan Department of Natural Resources

MGP - Manufactured Gas Plant
 OSC - On Scene Coordinator
 PAH - polyaromatic hydrocarbons
 PRP - Potentially Responsible Party
 RDCC - Residential Direct Contact Criteria
 START - Superfund Technical Assessment and Response Team
 SVOC - semivolatile organic compounds
 USCG - United States Coast Guard
 USEPA - United States Environmental Protection Agency
 VOC - volatile organic compounds
 WDNR - Wisconsin Department of Natural Resources
 WUPHD - Western Upper Peninsula Health Department

6. Additional sources of information

6.1 Internet location of additional information/report

Please see the following websites for project updates:

www.epa.gov/region5/cleanup/ironwood

www.epaosc.org/ironwoodmgp

6.2 Reporting Schedule

Please see the following websites for project updates:

www.epa.gov/region5/cleanup/ironwood

www.epaosc.org/ironwoodmgp

Progress Polreps will be issued as significant activities occur.

7. Situational Reference Materials

R5 Priorities Summary		
This is an Integrated River Assessment. The numbers should overlap.	Miles of river systems cleaned and/or restored	<1
	Cubic yards of contaminated sediments removed and/or capped	TBD
	Gallons of oil/water recovered	0
	Acres of soil/sediment cleaned up in floodplains and riverbanks	2
Stand Alone Assessment	Acres Protected	4
	Number of contaminated residential yards cleaned up	0
	Human Health Exposures Avoided	100
	Number of workers on site	11
Contaminant(s) of Concern		
Contaminant(s) of Concern	Coal tar, VOCs, SVOCs, inorganic materials, PM	