U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Two Rivers Manufactured Gas Plant (MGP) Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #3**
Progress
Two Rivers Manufactured Gas Plant (MGP) Site
B5BU
Two Rivers, WI
Latitude: 44.1526653 Longitude: -87.5653165

To: Naren Prasad, Integrys Business Support
Thomas Wentland, WDNR

From: Bradley Benning, OSC
Date: 10/27/2014
Reporting Period: 9/27/2014 to 10/27/2014

1. Introduction

1.1 Background

Site Number:	B5BU	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	7/28/2014
Response Authority:	CERCLA	**Response Type:**	PRP Oversight
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/18/2014	**Start Date:**	8/18/2014
Demob Date:		**Completion Date:**	
CERCLIS ID:	WIN000509953	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

The WPSC Two Rivers MGP Site is being addressed through potentially responsible party (PRP) actions under state and federal oversight. This Time-critical Removal Action will assist in achieving long-term cleanup goals by mitigating MGP source materials on-site through excavation and off-site disposal and on-site stabilization.

1.1.2 Site Description

The WPSC Two Rivers MGP Site located at 200 21st Street, encompasses approximately 4-acres. Features include historic concrete building foundations. A chain link fence secures the Site perimeter. A wetland exists in the center and western portion of the property (approximately 2 acres). Large portions of the Site east of the wetland are covered in crushed stone and asphalt. The vegetation in the wetland consists of a fringe scrub-shrub on the eastern edge of the wetland dominated by aspen and dogwood. Emergent and wet meadow species such as green bulrush and horsetail are located closer to the bank of the West Twin River.

The Site has elevations ranging from approximately 579 feet (MSL) to 584 feet MSL. Surface water drainage flows overland to the West Twin River. The majority of the Site is within the 100-year flood zone as mapped by Federal Emergency Management Agency (FEMA, 2011).

1.1.2.1 Location

The approximately 4-acre Site is located on vacant land between 22nd Street and School Street in Two Rivers, Manitowoc County, Wisconsin.

- 2022 School Street to the south, owned by Manitowoc County
- School Street right-of-way and the following private properties to the east:
  - 2100 School Street
  - 2104 School Street
  - 2110 School Street
  - 1913 22nd Street
- 1926 22nd Street to the north, owned by the US Oil Company, Inc.

The West Twin River to the west

1.1.2.2 Description of Threat

The high levels of hazardous substances in surface and sub-surface soil at concentrations that exceed U.S. Environmental Protection Agency Removal Management Levels (RMLs) and the Wisconsin Department of Natural Resources (WDNR) Removal Action Levels (RALs), the Site's plans for future construction, the potential of exposure to children trespassers and the industrial/commercial use of nearby property requires that this action be classified as a time-critical removal. Analytical results from historical samples in the proposed removal areas indicate the presence of elevated concentrations of polynuclear aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs) in the DNAPL present in both the surface and subsurface. In particular, this past data indicates the presence of TCLP benzene concentrations exceeding 0.5 mg/l in addition to concentrations exceeding the 340 mg/kg RML. Depth to groundwater in the area varies from 2-5 feet below ground surface. Groundwater flows east toward Lake Michigan and organics contained in the DNAPL, may leach into the groundwater and migrate to Lake Michigan.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Previous actions at the Site include a 1986 Phase 1 Investigation performed by EDI Engineering and Science, Inc. and the 1994 Phase II Investigation performed by NRT. NRT performed the Phase II Addendum Investigation in 1996, a Pre-Remedial Design Site Investigation in 2003, and annual Groundwater Quality Data Transmittals from 2005 through 2013.

Contaminants such as VOCs, specifically benzene, toluene, ethylbenzene, and xylene ('BTEX"), PAHs, metals, and cyanide were detected in sediment, soil and groundwater samples collected in various locations at the WPSC Two Rivers MGP Site as summarized by Natural Resource Technology Inc. ('NRT"), on behalf of WPSC, in the 1994 Phase II Investigation and 1996 Phase II Addendum Investigation. Concentrations ranges are as follows: BETX detected above Wisconsin Action Concentrations ("WAC") NR 720 Residual Contaminant Levels values; total PAHs at surface and subsurface ranging from 0-616 ppm; groundwater samples with BETX, cyanide, cadmium, lead detected in some instances above WAC NR 140 Enforcement Standards.
NRT conducted a pre-remedial design investigation during development of a Remedial Action Options Report in 2003 (NRT, 2003), the RAOR is included as Appendix A. Soil samples collected in August 2003 from test pits in the vicinity of the former MGP structures were generally unsaturated to moist and contained large amounts of fill material (ash/cinders, wood, brick, etc.). Soil samples collected from test pits and soil borings west of the former MGP structures were generally saturated and represent the intervals exhibiting potential MGP impacts based on visual and/or olfactory observations or elevated PID measurements. Emulsified coal tar was observed in soil borings and test pits generally located within and to the west of the wetland area. Beneath a majority of the Site, a clay layer was present between 4 and 7 feet bgs and extends to the bottom of the piezometer borings (25 to 30 feet bgs).
Analytical results of soil sampling indicated the following contaminant distribution trends:

- Off-property soils to the north were not impacted by benzene and naphthalene.
- Analytical results of off-property soils to the south indicated benzene and naphthalene concentrations above the generic groundwater pathway NR720 RCLs, in effect at the time.

Site soils are generally above the NR720 standards for benzene and naphthalene at low levels across the Site. Concentrations are significantly higher at select locations where coal tar was observed to occur within the soil matrix.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The PRP shall implement the EPA approved Removal Action Work Plan for WPSC Site, dated February 24, 2014. The main components of the work plan include the following provisions which require compliance:

a) Preliminary activities such as site security and controls.
b) Site preparation, including clearing and grubbing.
c) Targeted excavation within defined removal areas A, B and C.
d) Transportation and off-site disposal of excavated material from areas A, B and C.
e) In-Situ Solidification/Stabilization construction and operations in area B and C. ISS solidified material will remain on-site until future land use requires removal and disposal.
f) Backfilling with excess swell material and/or clean fill.
g) Compliance with State and Local requirements.
h) Construction Quality Assurance Measures such as
   - Air Monitoring
   - Fugitive Emission Management Plan
   - Health and Safety Plan
   - Sampling and Analysis Plan
   - ISS Construction Quality Assurance Plan
i) Schedule for Completion.
j) Submission of Weekly and Final Reports.
k) Take any other response actions to address any release or threatened release of a hazardous substance, pollutant or contaminant that the EPA OSC determines may pose an imminent and substantial endangerment to public health or the environment.

2.1.2 Response Actions to Date

EPA Site inspections on 10/02/14 and 10/16/14
Otie (START) on site Wed. thru Friday

Health and Safety

A total of 4,439 man hours have been worked by GSI staff on site since the start of the project through Saturday (10/18). There have been no incidents to report. The health and safety focuses over the previous week included safe concrete breaking practices and awareness of potential airborne debris, equipment inspection, trench entry and exit, asabestos awareness, proper asbestos handling, staying out of the swing radius of equipment, and site communication. Work zone PID readings reached a maximum of 3.1 ppm TVOCs during excavation of the asbestos-wrapped abandoned gas pipeline, but there were no sustained readings.

Perimeter Air Monitoring

NRT continued real-time 24-hour perimeter air monitoring. Some instantaneous TVOC and PM10 readings above the action levels have occurred, but there have been no sustained readings above the action levels to date.

NRT continued full-scale air sampling, which includes sampling each of the five air monitoring stations twice per week. Full-scale air samples are being analyzed on two-week turnarounds. The naphthalene concentration of an air sample collected on Tuesday, October 7th exceeded the 10-5 cancer risk. This result is consistent with the real-time air monitoring data collected on this day. NRT observed real-time TVOC spikes in the field on this day and measured TVOCs and benzene using handheld PIDs throughout the day. Some TVOC concentrations above the action level were confirmed with the handheld PID, but benzene was not detected above the action level. Project average concentrations for naphthalene and benzene remain below the 10-6 cancer risk.

Continued implementation of odor control measures, including the operation of a site perimeter misting system and tarping and/or applying Rusmar foam to disturbed soils and stockpiles, have helped to reduce off-site odors.

Work Progress/Completed

GSI continued ISS in the eastern portion of the ISS Area. GSI also continued removal of peat material in the ISS Area and Excavation Area.

GSI continued trucking and disposal of peat material.

GSI assisted Asbestos Removal, Inc. with the removal of the abandoned gas lines wrapped with asbestos-containing materials. GSI also assisted Schroeder Environmental Cleaning Services, Inc. with the removal of the U.S. Oil pipeline. The U.S. Oil pipeline has been completely removed from the treatment areas and the asbestos-wrapped gas lines have been removed to the edge of the West Twin River. The section of the asbestos-wrapped gas line running beneath the river is planned to be grouted. Following this work, the section of pipe that remains in the treatment area will be removed.

Transportation and Disposal

GSI resumed trucking and disposal of peat material last Thursday (10/16) and continued trucking and disposal of peat material last Friday (10/17) and every day this week.

GSI began trucking and disposal of asbestos-wrapped pipe on Tuesday (10/21). The pipe sections were individually wrapped with poly sheeting, tied together, wrapped with an additional layer of poly sheeting, and transported to the landfill in two roll-off containers

Environmental Management and Erosion Controls

GSI completed an erosion control inspection on Wednesday (10/22). Routine maintenance, including stake replacement and fabric stapling, will be performed on

portions of the silt fence.

Water Management

GSI is pumping to one frac tank to manage water that has ponded on site due to heavy rain events last week. A pilot column was drilled using 50% contact water from the frac tank and 50% potable water in the batch plant for grout production. If the results of the pilot column sample meet project performance goals, GSI will continue to use contact water for grout production, as needed. GSI may also drill a pilot column using 100% contact water for grout production.

Construction Quality Assurance

NRT collected seven full-scale ISS CQA samples over the previous week, including one sample from a column drilled with grout produced using 50% contact water and 50% potable water. A total of 20 full-scale ISS CQA samples have been collected to date. Samples collected over the previous week will be sent to the laboratory for 7- and 14-day UCS and hydraulic conductivity testing. Full-scale sample results continue to be reviewed, tabulated, and compared to the project performance goals by GSI and NRT as they become available.

NRT collected two samples from the base of the Excavation Area and will ship them to the laboratory today (10/23) for analysis of BTEX, cadmium, cyanide, and PAHs.

Site Security
No security issues to report

Community Relations
No new community activities reported

Submittal Status

GSI submitted documentation regarding asbestos pipe removal documentation (010), grout used to plug the asbestos pipe at the limits of the treatment areas (011), and the excavation grid and survey points for work in the Excavation Area (012). GSI is also working with vendors to produce a submittal for the geotextile to be placed in the Excavation Area prior to backfilling with stone.

GSI continues to revise their work plan based on comments received from NRT.

Request for Information (RFI)

General/Open Issues

The resident of a property adjacent to the site who previously informed GSI that he and other neighbors were getting headaches from site odors did not discuss this matter any further over the past week. No specific dates or times were previously given for when these headaches occurred. If NRT or GSI receives additional information regarding this matter, dates and times that odor complaints are received will be compared to site perimeter air data collected on these dates and times.

The asbestos-wrapped pipe that was removed and disposed of off-site was an abandoned WPS gas line. The U.S. Oil pipeline that was removed was not wrapped with asbestos-containing materials.

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

An Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") was entered into voluntarily by USEP and the Wisconsin Public Service Corporation ("WPSC") on July 28, 2014.

2.1.4 Progress Metrics
Thru 10/21/14

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*	% Completed
Soil	solid	12,205 CY		ISS		17%
Soil/ISS Swell	solid	0		ISS	Landfill	0%
Asbestos Pipe	solid	13 tons			landfill	64%
Concrete/debris	solid	1,039 tons			Landfill	35%
Peat	solid	4,114 tons			Landfill	34%

2.2 Planning Section

2.2.1 Anticipated Activities

Continue Site operations work and maintain air monitoring activities.

2.2.1.1 Planned Response Activities

Week of 10/27/ 2014:

o Continue ISS in eastern portion of the site.
o Continue Off Site Transportation and Disposal of Peat Soils
o Continue excavation work in peat and excavation areas
o Begin backfill and construction of the drainage area

Week of November 3, 2014:
o Continue ISS
o Continue Off Site Transportation and Disposal of Peat Soils
o Continue excavation work in peat and excavation areas
o Continue backfill and construction of the drainage area

Work Completed to date:

o Approximately 20% of ISS work
o Completed abandonment of ACM Gas Lines
o Completed US Oil pipeline abandonment
o Monitoring well abandonment
o Complete installation of silt curtain
o Demolition of historic concrete structures
Transportation and Disposal of Concrete Debris
o Shakedown Test
o Pilot Test
o Installed access roads, tracking pads, water treatment and batch plant pads
o Received and set up office trailers
o Partially completed batch plant assembly
o Received ISS rig and completed assembly
o Performed initial survey by RLS
o Completed silt fence installation
o Installed sand bag berm along Perimeter
o Received batch plant and ISS equipment

2.2.1.2 Next Steps

Continue full scale ISS
Continue perimeter monitoring
Continue off-site disposal of peat
Comtinue ISS CQA sampling

2.2.2 Issues

None at this time

2.3 Logistics Section

WPSC as PRP is in charge of all logistics.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Aaron Handle will be the GSI Safety Officer, EPA will have overall Safety control.

2.5.2 Liaison Officer

Ken Mika (NRT) Project Manager

2.5.3 Information Officer

Dayna Watson (WPSC)

3. Participating Entities

3.1 Unified Command

EPA
WDNR
WPSC

3.2 Cooperating Agencies

City of Two Rivers
Manitowac County
Wisconsin Department of Helath

4. Personnel On Site

EPA - routine visits
WDNR - routine visits
OTIE - 1
GSI - 7
NRT - 3

5. Definition of Terms

FOSC - Federal On Scene Coordinator
HASP - Health and Safety Plan
mg/kg - milligrams per kilogram
mg/m3 - milligrams per cubic meter
WDNR - Wisconsin Department of Natural Resources
NPL - National Priorities List
ppm - parts per million
START - Superfund Technical Assessment and Response Team
U.S. EPA - United States Environmental Protection Agency
WPSC - Wisconsin Public Service Corporation
NRT - Natural Resource Technology Inc.
GSI - GeoSolutions Inc.
IBS - Integrys Bussiness Support

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/TwoRiversMGP
www.epa.gov/region5/cleanup/tworivers

6.2 Reporting Schedule

Monthly Poleps anticipated

7. Situational Reference Materials

No information available at this time.