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 #2**
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: 9/26/2014
Reporting Period: 8/23/2014 to 9/26/2014

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 9/4/14, 9/11/14 and 9/25/14
Otie (START) on site Wed. thru Friday

Health and Safety

A total of 2,050 man hours have been worked by GSI staff on site since the start of the project through Saturday (9/20). 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, water safety during turbidity barrier installation, equipment inspection, staying out of the swing radius of equipment, and site communication. Work zone PID readings reached a maximum of 3.9 ppm TVOCs during structure demolition and removal, but there were no sustained readings.

Perimeter Air Monitoring

NRT continued two-week intensive air sampling. One SUMMA and one PUF sample have been collected at each of the five perimeter air monitoring stations every day that work has been performed on site since last Monday (9/15). This sampling schedule will continue every day that work is performed on site through the end of this week. Two-day turnaround times have been requested for all air samples collected during the two-week intensive sampling period. NRT expects to continue to receive data this week and will provide updates as data is received. NRT also continued real-time 24-hour perimeter air monitoring. No noticible odors have occurred to date.

Work Progress/Completed

GSI completed demolition and removal of concrete subsurface structures and began trucking and disposal of concrete debris on Monday (9/22). GSI also began removing wood pilings in the ISS Area and plans to complete this task by the end of the week. GSI continued excavation of peat materials in the Excavation Area and ISS Area. GSI completed installation of the turbidity barrier. Subsurface Exploration Services, LLC (SES) abandoned eight monitoring wells within the Removal Action areas and two monitoring wells on the Manitowoc County property to the south of the site. Site well MW605B and both Manitowoc County property wells (MW609A and MW609B) were abandoned by over-drilling. GSI also began to expose portions of the abandoned gas lines that run through the site.

Transportation and Disposal

GSI began trucking and disposal of concrete debris on Monday (9/22) and finished on (9/25). Through Tuesday (9/23), approximately 580 tons of concrete debris have been disposed of off-site. GSI also began trucking and disposal of peat material (9/25).

Environmental Management and Erosion Controls

All erosion controls are in place and functional except for the super-sack sand berm along the river. GSI completed an erosion control inspection on Monday (9/22).

Water Management
No water treatment to date

Construction Quality Assurance

NRT continued two-week intensive daily air sampling and real-time 24-hour perimeter air monitoring.

NRT received 14-day unconfined compressive strength results for all ISS pilot test column samples. NRT also received 14-day hydraulic conductivity results for half of the ISS pilot test column samples and is expecting to received the remaining 14-day hydraulic conductivity data on (9/25). All 14-day pilot test column results received to date have met the project performance goals. NRT will provide more data as it is received from the laboratory.

NRT collected two excavation sidewall samples from the northeastern corner of the Excavation Area limits, adjacent to the site haul road on Thursday (9/18). Final laboratory results are expected were (9/25) and will be compared to the IBS multi-site cleanup standards.

Site Security
No security issues to report

Community Relations

IBS was interviewed about the project by the Manitowoc Herald Times Reporter. The media was mostly curious about the project and did not bring up any issues or concerns. Public meeting was held on 8/6/14, limited attendance, no major issues raised.

Removal Action Quantities Summary

If all pilot test columns meet project performance goals, approximately 650 cubic yards of soil have been treated to date.

Through Tuesday (9/23), approximately 580 tons of concrete debris have been disposed of off-site.

Submittal Status

GSI submitted information regarding miscellaneous materials used for temporary construction last week. GSI is also working on a survey control point submittal.

Request for Information (RFI)

The third RFI regarding hauling concrete debris in trucks without tarps was submitted by GSI and approved by IBS on Thursday (9/18).

The fourth RFI regarding the removal of wooden pilings was submitted by GSI on Friday (9/19) and approved by IBS today (9/25).

GSI continues to work on an RFI regarding the ordinary high water mark.

General/Open Issues

NRT and IBS are working on a submittal to USEPA to obtain permission to abandon monitoring wells located to the south of the site. WDNR will be provided a copy of this submittal.

IBS has been given access to remediate a portion of the adjacent U.S. Oil property. The remediation strategy will consist of ISS.

The purpose of the misting system installed on site is to neutralize odors and the purpose of the foam used on site is to control odor and emissions from source materials. The misting chemicals and foam are non-toxic and copies of the MSDS sheets are available on site.

GSI plans to begin full-scale ISS construction (9/26).

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

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Soil	solid	650 CY		ISS	
Soil Swell	solid	0		ISS	Landfill
Concrete/debris	solid	580 tons			Landfill
Peat	solid	150 tons			Landfill

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 September 29th, 2014:

o Install Asphalt Pad for WTP
o Continue ISS along western wall of excavation area
o Continue Off Site Transportation and Disposal of Peat Soils
o Continue excavation work in peat and excavation areas
o Continue Off Site Transportation and Disposal of Peat Soils

Week of October 6th, 2014:

o Expose US Oil Pipeline for IBS Subcontractor
o Expose and abandon Gas Lines
o Continue ISS along excavation area
o Continue Off Site Transportation and Disposal of Peat Soils
o Continue excavation work in peat and excavation areas

2.2.1.2 Next Steps

Start full scale ISS
Continue perimeter monitoring
Continue off-site disposal of peat

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.