Voluntary Cleanup Program Draft Decision Document

Site Name: Little Falls Former MGP site
Site Number: V00470-6
Municipality: Little Falls
County: Herkimer

Description of the Site: The Little Falls former manufactured gas plant (MGP) site is located on the western portion of an approximately 6.5-acre property currently owned by Feldmeier Equipment, Inc. The site is located on the south side of East Mill Street (see Figure 1), and is bordered by East Mill Street to the north, George Lumber and Building Materials Company to the west, the Mohawk River to the south, and Feldmeier Equipment's tank manufacturing building to the east. Adjacent and surrounding properties are used for industrial and commercial purposes.

Site History/Use: Historic MGP operations at the site were primarily located within a small (approximately 0.56-acre) area on the western portion of the Feldmeier property from about 1853 to 1907. Buildings and structures associated with the former MGP operation included a coal storage shed, horizontal retorts, gas purifiers, maintenance shops, a warehouse, and several smaller buildings/structures. These buildings and structures were primarily located within the western portion of the footprint of the current tank manufacturing building. A 50,000-cubic-foot gas holder (the former onsite gas holder) was located adjacent to the Mohawk River, south of the gas works. Approximately 60% of the former onsite gas holder is located beneath the southwest corner of the current tank manufacturing building. A second gas holder (the former offsite gas holder) was constructed between 1884 and 1891 in the southeast corner of the current George Lumber Property.

Current and Anticipated Site Use:
The site is located on a portion of the property currently owned and operated by Feldmeier Equipment, with the off-site holder located on a portion of the George Lumber and Building Materials Company. Industrial and commercial operations at the site are anticipated to continue for the forseeable future..

Remedial History: In January 2002, Niagara Mohawk Power Corporation, currently a subsidiary of National Grid, entered into an Order on Consent with the NYSDEC to investigate and remediate 25 former MGP sites which it formerly owned and/or operated.

Nature and Extent of Contamination:

Significant geological/hydrogeological features: Fill material at the site ranges from 2.3 feet to 26 feet below grade and consists of a mixture of sand, silt, gravel, and debris (e.g., brick, concrete, glass, cinders, wood and slag). In general, the fill unit increases in thickness from north to south across the site. The groundwater table beneath the site was encountered at depths ranging from 7.5 to 20 feet below grade. Groundwater was generally encountered within the fill unit and generally flows in a south-southeast direction and discharges to the Mohawk River.

Nature of contamination: The MGP-related contaminants present in site media (subsurface soils and groundwater) are benzene, toluene, ethylbenzene, and xylenes (BTEX), and polynuclear aromatic hydrocarbons (PAHs):

acenaphthene acenaphthylene anthracene

benzo(a)anthracene	benzo(a)pyrene	benzo(b)fluoranthene
benzo(g,h,i)perylene	benzo(k)fluoranthene	chrysene
dibenzo(a,h)anthracene	fluoranthene	fluorene
indeno(1,2,3-cd)pyrene	2-methylnaphthalene	naphthalene
phenanthrene	pyrene	

These contaminants appear to be localized to the vicinity of the former onsite gas holder and the area immediately south and west of the tank manufacturing building.

Extent of contamination: - Visible MGP impacts, (i.e. staining, tar-saturated soils, and sheens) were encountered in subsurface soil in the vicinity of the former onsite gas holder in a narrow strip of land between the Feldmeier building and the Mohawk River. (see Figure 1). No visual impacts were observed in the off-site holder area.

MGP Tars - A measurable thickness of dense non-aqueous phase liquid (DNAPL) was encountered in one bedrock monitoring well, MW-101R . Other indications of DNAPL in soil were found within or adjacent to the onsite holder. MGP tars were not identified in samples collected within or adjacent to the offsite holder.

Surface soil - The majority of the site is covered by an asphalt parking lot and a large building. There is a relatively narrow strip of vegetated soil located along the southern boundary of the site, adjacent to the Mohawk River. Concentrations of BTEX and PAHs detected in the surface soil samples were below Part 375 Soil Cleanup Objectives for unrestricted use.

Subsurface soil - The highest concentrations of BTEX and PAHs were detected in soil samples collected in the vicinity of the former onsite gas holder. Elevated BTEX and PAH concentrations (above Part 375 Soil Cleanup Objectives for unrestricted use) have also been identified in soil borings completed within and immediately west of the tank manufacturing building. PAH soil concentrations in and near the off-site holder were similar to site background, and are not considered to be related to historic MGP operations.

Groundwater - The highest concentrations of BTEX and PAHs were detected in groundwater samples collected in the vicinity of the former onsite gas holder and in bedrock monitoring wells installed south to southwest of the onsite holder. Several chlorinated volatile organic compounds (chlorinated VOCs), which are not believed to be related to historical MGP operations at the site, were also identified in groundwater samples collected from bedrock monitoring wells. Groundwater in the vicinity of the off-site holder only slightly exceeded the applicable standard for benzene.

Sediment - Minimal impacts to the Mohawk River were found. PAHs were detected in sediments at concentrations which slightly exceeded NYSDEC sediment screening levels, however due to the lack of sediment deposits in this portion of the river, no remediation is warranted.

Description of proposed remedy:

Because most of the former gas holder is located beneath the Feldmeier building, and because there is limited space available between the Feldmeier building and the Mohawk River, excavation of MGP-contaminated soils is not feasible at this site. Only the former MGP pipe gallery area is accessible for excavation. Therefore the Department proposes a remedy that relies on in-situ stabilization for soils that cannot be excavated, as outlined below:

1. Impacted subsurface soils located between the Feldmeier Building and the Mohawk river would be treated by in-situ soil stabilization (ISS). Portland cement and additional additives or reagent materials may be used during the in-situ mixing activities, as determined by a bench scale test performed during the remedial design phase. Jet grouting, or other appropriate methods, would also be used to treat soil located immediately adjacent to subsurface structures and underground utilities. The approximate ISS treatment area would encompass approximately 600 cubic yards of soil at depths ranging from approximately 13 to 26.5 feet, including accessible areas inside the former gas holder structure (see Figure 1). ISS treatment would be performed in a manner that avoids potential damage to the integrity of the existing building, and other critical infrastructure, such as the sanitary sewer that crosses the treatment area. The solidified area would be covered by a minimum 12-inch layer of clean soil capable of supporting vegetation. The soil cover would be underlain by an indicator such as orange plastic snow fence to demarcate the cover soil from the solidified area.

2. The former MGP pipe gallery would be excavated, along with grossly contaminated soil, if any, in close proximity to these pipes. Excavated soil would be transported off-site and treated or disposed in accordance with applicable regulations.

3. Passive recovery wells would be installed upgradient and downgradient of the ISS treatment area to recover DNAPL downgradient of the former onsite gas holder. The recovery wells would be constructed in the area south of the former onsite gas holder where DNAPL was previously observed near the bedrock interface and in upper bedrock fractures during (i.e., near monitoring well MW-101R). The recovery well locations may be adjusted in the field, as necessary, based on site conditions encountered during the remediation activities. DNAPL would be periodically measured in and removed from these wells until recovery is no longer feasible.

4. An environmental easement would be implemented that would (a) limit the use and development of site property to commercial and industrial use; (b) require compliance with an approved site management plan; (c) restrict the use of groundwater as a source of drinking water or industrial supply without necessary water quality treatment as determined by the Herkimer County Health Department; (d) require National Grid to prepare and submit to the NYSDEC a periodic certification of institutional and engineering controls.

5. A site management plan would be developed which would include the following institutional and engineering controls: (a) management of the final cover system to restrict excavation below the soil cover, pavement, or buildings. Excavated soil would be tested, properly handled to protect the health and safety of workers and the nearby community, and would be properly managed in a manner acceptable to the Department; (b) continued evaluation of the potential for vapor intrusion for any buildings developed on the site, including provision for mitigation of any impacts identified; (c) NAPL recovery and groundwater monitoring; (d) identification of any use restrictions on the site; and (e) provisions for the continued proper operation and maintenance of the components of the remedy.

The proposed remedy is described in more detail in the Draft Remedial Action Work Plan (RAWP) which is available for review at the document repositories listed below.

FOR MORE INFORMATION:

Document repositories have been established at the following locations to help the public to review important project documents. These documents include the Remedial Investigation (RI) Work Plan, RI Report, and Draft RAWP.

DOCUMENT REPOSITORIES

Little Falls Public Library
706 East Main Street
Little Falls, NY 13676
Hours: M-Th 10-8, F-Sa 10-5
Phone: (315) 823-1542

NYSDEC
625 Broadway, 11"' Floor
Albany, New York 12233-7014.
Hours: M-F 8:30 - 4 (by appointment)
Phone: (518) 402-9662

Who to Contact:
Comments and questions about the site should be directed to the following people:

Environmental Concerns:
Bernard Franklin
Project Manager
Division of Environmental Remediation
Department of Environmental Conservation
625 Broadway, 11"' Floor
Albany, New York 12233-7014.
Phone: (518) 402-9662

Site-Related Health Concerns:
Tamara S. Girard, MPH
Public Health Specialist II
Bureau of Environmental Exposure Investigation
New York State Department of Health
547 River Street, Room 300
Troy, New York 12180-2216
Phone: (518) 402-7870

Public Comments About the Draft Remedial Action Work Plan
NYSDEC is accepting written public comments about the draft RAWP for 30 days, from January 30, 2008 until February 29, 2008. The draft RAWP is available for public review at the document repositories listed on this fact sheet.

Written comments should be submitted to:
Bernard Franklin
New York State Department of Environmental Conservation
625 Broadway, 11"' Floor
Albany, New York 12233-7014

Next Steps
NYSDEC will consider public comments when it completes its review of the draft RAWP and provides comments to National Grid. The NYSDOH must concur with the approval of the RAWP. The approved RAWP will be placed in the document repositories, after which National Grid may proceed with the remediation of the site. It is estimated that the remediation will take about 1 year to design and perform.

EAST MILL STREET

FORMERLY PARCEL 1512
ABANDONED CANAL LANDS

APPROXIMATE
LOCATION OF FORMER
MGP FACILITY

FELDMEIER BUILDING
(TANK MANUFACTURING BUILDING)

GEORGE
LUMBER
BUILDING

SANITARY MAN HOLE
BLACKTOPPED OVER

FORMER MGP PIPING
(PIPE GALLERY)

FORMER OFFSITE
GAS HOLDER

FORMER ONSITE
GAS HOLDER

SANITARY SEWER LINE

78" ELLIPTICAL RCP

8" HDPE

36-INCH RCP SANITARY

1' WIDE
HEADWALL

CONC.
PAD

GABION WALL

FLOW

MOHAWK RIVER

LEGEND:

- PROPERTY LINE
- BUILDING
- EDGE OF WATER
- SANITARY SEWER
- SMH — SANITARY MANHOLE
- STORM SEWER
- APPROXIMATE LOCATION OF HISTORICAL MGP STRUCTURES
- LINE OF DEMARCATION
- -----352----- CONTOUR ELEVATION
- RW-1 — PROPOSED DNAPL RECOVERY WELL
- SB 102 — RI SOIL BORING LOCATION
- MW 102R — RI MONITORING WELL LOCATION
- TP 101 — RI TEST PIT SAMPLE LOCATION
- VP102 — RI SOIL/GAS MONITORING LOCATION
- SS 103 — RI SURFACE SOIL SAMPLE LOCATION
- PZ-104 — RI PIEZOMETER LOCATION
- D-SB-01 — PREVIOUS SOIL BORING LOCATION
- TP — PREVIOUS TEST PIT SAMPLE LOCATION
- F-TP-03 — PREVIOUS TEST PIT LOCATION – NO SAMPLE COLLECTED
- SB-18 — PREVIOUS MONITORING WELL LOCATION
- HE — PREVIOUS BACKGROUND SOIL SAMPLE LOCATION
- D — DELTA ENVIRONMENTAL CONSULTANTS SAMPLE LOCATION
- B — BUCK ENGINEERING, LLC SAMPLE LOCATION
- F — FOSTER WHEELER SAMPLE LOCATION
- APPROXIMATE LOCATION OF MGP PIPING TO BE REMOVED
- APPROXIMATE EXTENT OF ISS TREATMENT
- 10' — APPROXIMATE MAXIMUM DEPTH OF ISS TREATMENT

NOTES:

1. BASE MAP INFORMATION TAKEN FROM A DRAWING TITLED SOIL BORING AND MONITORING WELL LOCATIONS BY C.T.MALE ASSOCIATES P.C. DATED 2/8/05.
2. APPROXIMATE LINE OF DEMARCATION BASED ON HISTORIC TAX LOTS AND CURRENT FEATURES LITTLE FALLS (MILL ST.) SITE, FIGURE 1 (FOSTER WHEELER, JULY 2003).
3. LINE OF DEMARCATION SEPARATES THE MGP (VCO) PORTION OF THE PROPERTY FROM THE NON-MGP (VCA) PORTION OF THE PROPERTY.
4. LOCATION OF HISTORICAL MGP STRUCTURES ARE BASED ON HISTORICAL SANBORN MAPS AND ARE APPROXIMATE.
5. APPROXIMATE LOCATION OF THE PIPE GALLERY IS BASED ON PREVIOUS INVESTIGATIONS AND TEST PITTING ACTIVITIES CONDUCTED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION.
6. RI SAMPLE LOCATIONS BASED ON SURVEY PERFORMED BY C.T. MAL ASSOCIATES, P.C. (DATED 2/8/05) AND SURVEY PERFORMED BY BLASLAND, BOUCK & LEE, INC. IN 11/2004 AND 4/2005.

0 20' 40'
GRAPHIC SCALE

NATIONAL GRID
LITTLE FALLS (MILL STREET) NON-OWNED FORMER MGP SITE
REMEDIAL ACTION WORK PLAN

APPROXIMATE EXTENT OF REMEDIAL ACTIVITIES

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
1

SYR-85-NES KEW LJP LAYER: ON=*; OFF=*REF*
G:\CAD\ACTIVE_DWG\ACT_36673001\36673001.DWG SAVED:12/13/2007 8:16 AM LAYOUT:8 PAGESETUP:DL2B-PDF PENTABLE:PLTULL.CTB PRINTED:12/13/2007 8:16 AM BY:GSTOWELL
PROJECTNAME: ----
XREFS: IMAGES:
36673X02
36673X00