

Manufactured Gas Plant Fact Sheet

Portland, Maine - March 2011

This fact sheet has been prepared for the public by Unutil to present the status of the investigation and clean-up by us of the former manufactured gas plant (MGP) known as the Portland Gas Works (PGW) located on West Commercial Street in Portland, Maine.

Introduction

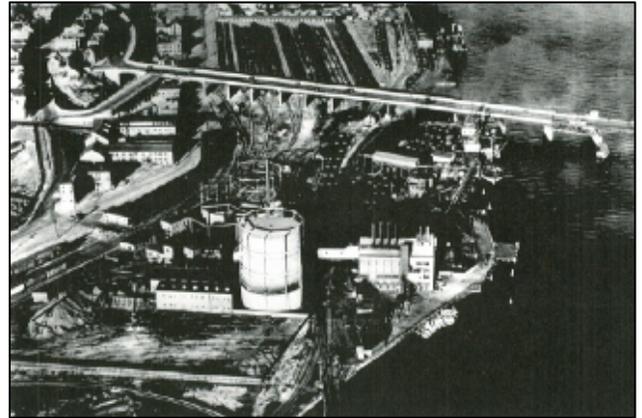
The former PGW is located in the City's West End and is situated along the north shoreline of the Fore River. The project site was operated by the Portland Gas Light Company (Portland Gas) between 1852 and 1965 and provided the City and surrounding communities with manufactured gas. Once the interstate natural gas pipeline arrived in 1965, Portland Gas ceased operations and the plant was decommissioned. In 1966, Portland Gas merged with the Lewiston Gas Light Company to form the Northern Utilities, Inc. In 2008, the company was acquired by Unutil.

Site Layout

For discussion purposes, the project site has been divided into two areas referred to as the 'inland parcel' and the 'shoreline parcel'.

The inland parcel is comprised of approximately four acres. This parcel is currently operated as a propane distribution facility under a lease arrangement to EnergyUSA Propane. Unutil also maintains a natural gas regulator house on the parcel for the City's distribution system. The shoreline parcel is located south of the inland parcel directly along the Fore River and is comprised of approximately five acres.

The northern, eastern, and western property boundaries of the project site border land owned by Guilford Transportation Inc. (Guilford, a subsidiary of Pan Am). A tract of land owned by Guilford separates the inland parcel from the shoreline parcel with Unutil possessing an easement connecting its two parcels.



Portland Gas Works circa 1930

Environmental Investigations

MGP-related constituents were found at the PGW site that included both organic and inorganic compounds. The organic compounds detected in soils and groundwaters include coal tar-related chemicals; most notably volatile compounds and polycyclic aromatic hydrocarbons (PAHs). Several inorganic compounds, including cyanide, lead, and arsenic, were also identified in soil and groundwater sampled at the site.

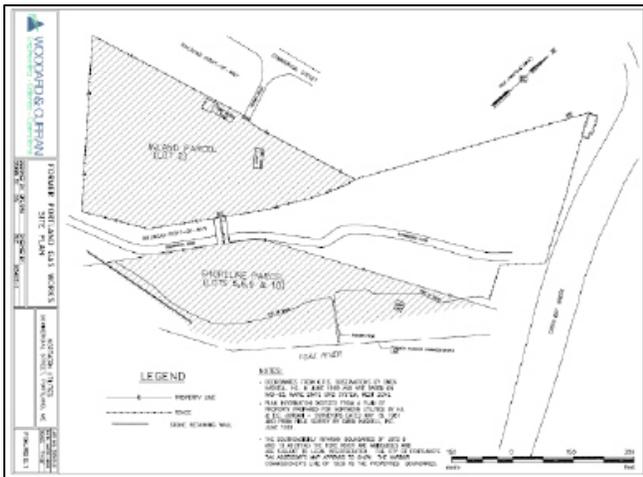
The project Site Investigation Report, prepared on behalf of Northern Utilities by Woodard & Curran and submitted to the Maine Department of Environmental Protection (ME DEP) in June 2003, established that the primary sources of MGP-related material at the site included solid process waste (including coke, ash, clinkers, and purifier wastes) and liquid process waste (including coal tar) that were spilled or leaked during operation or decommissioning of the former MGP.

The report also concluded that the primary source areas at the former MGP site included the following:

- Former gas holder base/tar well
- Former tar processing area
- Gravel mound/tar area
- Subsurface liquid coal tar areas

- Shoreline tar scabs
- Intermittent Fore River seep area

The intermittent seep into the Fore River is located at the southwestern corner of the shoreline parcel in the inter-tidal zone. The seep is believed to result from the migration of separate-phase tar from the site along the underlying clay layer. The seep is visible only at low tide when the separate-phase tar is exposed to the surface. A boom has been installed and is maintained in the Fore River within this seep area to contain further migration of the material to the river.



Current Site Layout

Regulatory Oversight

The United States Environmental Protection Agency (US EPA) became involved with the former PGW site in 1987 when it conducted a preliminary site inspection and site ranking, which resulted in the issuance of a no further remedial action planned (NFRAP) letter in 1995. In 1996, the National Oceanic and Atmospheric Administration (NOAA) identified an intermittent oil seep from the southwestern corner of the former PGW site to the Fore River.

Following the NOAA investigations, the US Coast Guard, NOAA, US EPA, and the ME DEP agreed that closure of the site under Maine’s Voluntary Response Action Plan (VRAP) program would meet closure and cleanup objectives, and that no further federal actions were warranted. In November 1998, Northern Utilities filed a VRAP application with the ME DEP for the PGW site.

Continuing Remediation

A separate focused engineering feasibility study was developed for the gravel mound area and submitted to the ME DEP and Maine Public Utilities Commission (ME PUC) in March 2004. The soil mound was removed for recycling during the following summer.

In July 2004, the primary engineering feasibility study (with the Remedial Action Plan) was submitted to the ME DEP and ME PUC for review and approval. The recommended remedial actions included removal and recovery of the gas holder, tar processing area, shoreline tar scabs, and non-aqueous phase liquid (NAPL) during fall/winter 2006–2007 and extended into 2008. This included the installation of buried cap and replacement of the rip rap along most of the Fore River.

Since 2007, a groundwater remediation system operates at the project site, removing dense NAPL in the area of the intermittent seep. A containment boom also has been maintained in this area to limit the migration of any surface contaminants. Lastly, tar scabs (hard plaques of tar that rise to the surface with warm temperatures and then harden) have been periodically removed from the former tar processing area.

Starting sometime in 2012, remediation will include extending the groundwater remediation system to the former tar processing area and installing a bulkhead along the shoreline to permanently contain the seep area. An impervious cap (asphalt parking area) will also cover a portion of the former tar well.

Contacts

If you have any questions or concerns, please contact Tom Murphy, Manager, Environmental Compliance: 603-379-3829 or murphyt@unitil.com

Unitil is committed to keeping you informed during every step of the MGP assessment and clean-up process. If you have any questions or concerns, please contact us.