

Collaborative remedial action plan and remediation of historical contamination results in downtown property ready for redevelopment

(Portland, ME) October 6, 2017 – Haley & Aldrich, Inc., a geotechnical engineering and environmental consulting firm, has completed remediation of a former manufactured gas plant (MGP) site in Belfast, Maine on behalf of Central Maine Power Company (CMP). Manufactured gas was important for residential, commercial, and industrial lighting, heating, and cooking purposes throughout most of the 19th century and the first half of the 20th century and was considered a significant industrial innovation of its time. The process to create the manufactured gas which occurred at the Belfast MGP Site from 1858 to about 1921 consisted of the gasification of coal as the combustible material. The coal was heated to high temperatures in enclosed ovens having an oxygen-poor atmosphere. The resulting gas was collected and stored in structures called gas holders for distribution.

Coal gas contains significant quantities of unwanted and non-combustible impurities so the manufactured gases had to be purified before use. In addition, coal tar, ash and cinders were generated as the result of cooking the coal. Many residuals remain at former MGP Sites, usually in remnant subsurface structures and mixed with site soil. Soil impacted by MGP residuals contains oil-like material (OLM), tar-like material (TLM), and/or purifier wastes and can be identified by visible black coal-tar staining and/or by a strong naphthalene (“mothball”) odor.

The overall remedy for the MGP impacts to the property included demolition and removal of remnant MGP structures (both above and below grade) and excavation and off-site disposal of soil impacted by MGP residuals. Impacted soil was present at the site and beneath the adjacent Washington Street. The design resulted from an open and collaborative effort by CMP and its consultant Haley & Aldrich, the City of Belfast, the property owner, and their engineering consultants, and the Maine Department of Environmental Protection.

Remediation construction began in August 2016 and was completed in December 2016. Approximately 7,300 tons of impacted soils were transported off-site for disposal in about 350 truckloads and about the same amount of clean soils were transported to the site for backfill. Approximately 110,000 gallons of water pumped from the excavation were transported for off-site treatment and disposal in 6,000-gallon tanker trucks. Construction was generally performed 6 days per week with City permission to accelerate completion. Washington Street was reopened before winter and the final grading was placed to accommodate the property owner's plan to begin redevelopment in early 2017.

About Haley & Aldrich: Haley & Aldrich, Inc. is committed to delivering the value our clients need from their capital, operations, and environmental projects. Our one-team approach allows us to draw from our 700 engineers, scientists, and constructors in nationwide offices for creative collaboration and expert perspectives. Since our founding in 1957, we have one goal in all we do: deliver long-term value efficiently, no matter how straightforward or complex the challenge.

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