

June 2015

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Below

# FACT SHEET

## Manufactured Gas Plant Program

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Site Name:K - Inwood HolderDEC Site #:130121Address:W. of Sheridan Blvd. & S. of Nassau Ave.<br/>Inwood, NY 11096

### Investigation Completed at the Inwood Gas Holder Site; Results Will Help to Evaluate Ways to Address Contamination

An investigation has been completed for the K - Inwood Holder site ("site") located at the southwest corner of Nassau Avenue and Sheridan Blvd., Inwood, Nassau County. Please see the map for the site location. Documents related to the cleanup of this site can be found at the location(s) identified below under "Where to Find Information." The investigation was conducted by National Grid with oversight provided by New York State Department of Environmental Conservation (NYSDEC).

This property was the site of a large gas storage vessel known as a "gas holder" from the 1920s until it was demolished in 1993. In its early years, the gas stored here was produced at manufactured gas plants located several miles away. The gas manufacturing process produced a black, oily liquid waste known as coal tar. Numerous sites such as this one have been investigated throughout New York State and elsewhere, and many have been found to still contain coal tar wastes in the deep foundations where the gas holders once stood.

NYSDEC has approved a report, called a "Remedial Investigation (RI) Report," that describes the results of the site investigation and recommends development of a remedy to address the contamination that was found.

#### Highlights of the Remedial Investigation Report

Sampling of soil, groundwater, soil vapor, and sediment was conducted during the RI. The sampling has sufficiently defined the nature and extent of contamination.

Based upon investigations conducted to date, the primary contaminants of concern at the site include coal tar and petroleum.

**Soil-** Visibly contaminated soil was found in the central portion of the site, to the south and southwest of the former gas holder. The contamination included both coal tar and petroleum products. It appears that leakage of these products occurred in the vicinity of this gas holder. Coal tar contamination has spread through the subsurface, both laterally and vertically. Visibly contaminated soils have been observed as deep as 35 feet below the ground surface (bgs).

Areas with visible tar or petroleum impacts contain elevated concentrations of volatile and semivolatile chemical contaminants. Total concentrations of benzene, ethylbenzene, toluene, and xylene (collectively known as BTEX compounds) varied from 1820 parts per million at one location to non-detect in other locations. Total concentrations of polycyclic aromatic hydrocarbons (known as PAH compounds) ranged from 3600 parts per million to non-detect. It should be noted that these highly contaminated soils were found at significant depths below the ground surface where contact with humans and wildlife is not likely. Surface soils, which could be contacted by people or wildlife visiting the site contained much lower levels of site contaminants.

**Groundwater-** Groundwater beneath the site has been contaminated by coming into contact with coal tar and petroleum in the subsurface soils. Total BTEX concentrations as high as 63,000 parts per billion have been found in water samples from on-site monitoring wells.

High levels of another groundwater contaminant, not related to the operation of the gas holder, were detected in two wells on the site. Tetrachloroethene (PCE) was detected at concentrations of 12,000 parts per billion and 58,000 parts per billion. These wells are located along the northwesterly site boundary, a considerable distance from the gas holder. It appears that the PCE is from an off-site source unrelated to the former holder.

Groundwater flows generally toward Jamaica Bay and discharges into the bay. No drinking water supplies are located in or near the site.

**Soil Vapor and Indoor Air-** Soil vapor samples have been collected. Possible MGP-related compounds detected above soil gas screening values were 4-Ethyltoluene, ethylbenzene, toluene, and xylenes. Non MGP-related compounds detected above screening values were 1, 1-Dichloroethane, and 2-Butanone. There are no occupied buildings on the site, so soil vapor intrusion is not considered as a route of human exposure.

**Sediments-** Four samples were collected from three locations in a stream drainage channel along the eastern portion of the site, and another sample was collected along the southern shore, abutting Motts Basin.

Low levels of PAHs were detected in three of the 4 samples. Total PAH concentrations ranged from 2.4 parts per million to 4.75 parts per million. These are not at a level of concern that would adversely impact human health or the environment.

#### **Next Steps**

A Feasibility Study will be conducted based on information obtained during the investigation to achieve the following:

- 1) define the objectives of the site cleanup program;
- 2) develop cleanup alternatives; and
- 3) screen and analyze the alternatives.

NYSDEC will then develop a draft cleanup plan, called a "Proposed Remedial Action Plan." This plan describes the remedy preferred by NYSDEC to address contamination related to the site. The draft cleanup plan will explain the decision that led to the preferred remedy by discussing each alternative and the reasons for choosing or rejecting it. The goal of the plan will be to ensure the protection of public health and the environment. NYSDEC will announce the draft cleanup plan in a future fact sheet and present it to the public for its review and comment during a 30-day comment period and at a public meeting.

NYSDEC will keep the public informed throughout the investigation and cleanup of the site.

#### Background

**Location:** The 27-acre Inwood Holder site is located in an urban area. The site is located on the southwest corner of Nassau Avenue and Sheridan Blvd. in Inwood, NY.

**Site Features:** The majority of the site is undeveloped and overgrown with trees and brush. The concrete foundations of the former gas holder, pump house, boiler house and engine room are visible and located in the northeastern area of the parcel. A natural gas metering and regulation station is in operation and located east of the holder foundation and adjacent to Sheridan Blvd. Motts Basin resides on the southern border of the site.

**Current Zoning and Land Use:** The 27-acre site is currently active in the northeast corner, comprising of the natural gas metering and regulation station and the concrete pad of the former gas holder. The concrete pad is used for open-air storage of miscellaneous equipment. Current zoning of the site is commercial. The surrounding parcels are currently used for a combination of commercial and light industrial purposes. The closest residence is located upgradient from the site, one block north of Nassau Ave, along Bayview Ave, approximately 150 feet from the site boundary.

**Past Use of the Site:** The 6-million cubic foot, water-sealed remote gas distribution holder was constructed between 1923 and 1940. The holder was demolished in 1993. During an unknown time period, the central area of the site was used as a fill area for fly ash, drums and construction debris.

**Site Geology and Hydrogeology:** Historic fill covers the majority of the site in a layer typically ranging from 0.5 to 14 feet thick, with the thinnest area in the northwestern portion of the site, and the thickest located in the center of the site. Beneath the fill is a discontinuous layer of peat up to 4.5 feet thick. The peat appears to pinch out along the southern portion of the site. Beneath that is a native sand unit ranging between 20 and 26 feet thick. Beneath the sand is a firm clay/silty clay unit with high plasticity. This unit was generally observed at depths around 36 feet bgs and extended to the deepest boring depths of 50 feet bgs. Groundwater is encountered between 3 - 8 feet bgs. All of the units above the clay/silty clay unit is considered a single aquifer. Groundwater flow is generally to south and southwest across the site, towards Jamaica Bay.

Additional site details, including environmental and health assessment summaries, are available on NYSDEC's website at:

http://www.dec.ny.gov/cfmx/extapps/derexternal/haz/details.cfm?pageid=3&progno=130121

**About the Manufactured Gas Plant Program:** NYSDEC has one of the most aggressive Manufactured Gas Plant (MGP) Programs site investigation and remediation programs in the country. Since the problems associated with the former MGP sites were identified, NYSDEC has been working with all the utilities on a state-wide basis to identify and address the issue of MGP sites for which they may have responsibility. This effort has resulted in approximately 235 sites identified for action by the eight utilities operating in New York State.

Currently we have multi-site orders or agreements with six utilities, including National Grid, and several other individual site volunteers, to address 222 MGP sites in NYS. Multi-site agreements are under negotiation with a seventh utility and several other responsible parties which have newly-identified sites.

NYSDEC continues to seek to identify any other possible MGP sites throughout the State.

For more information about the NYSDEC's MGP program, visit: www.dec.ny.gov/chemical/8430.html

#### FOR MORE INFORMATION

#### Where to Find Information

Project documents are available at the following location(s) to help the public stay informed.

Peninsula Public Library 280 Central Ave Lawrence, NY 11559-1526 phone: (516) 239-3262 ppl@peninsulapublic.org NYSDEC Region 2 1 Hunter's Point Plaza 47-40 21st Street Long Island City, NY 11101-5407 (718) 482-4900

#### Who to Contact

Comments and questions are always welcome and should be directed as follows:

Project Related Questions William Wu Department of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, NY 12233-7014 (518) 402-9662 william.wu@dec.ny.gov <u>Site-Related Health Questions</u> Dawn Hettrick New York State Department of Health Empire State Plaza Corning Tower, Room 1787 Albany, NY 12237 (518) 402-7860 <u>BEEI@health.ny.gov</u>

We encourage you to share this fact sheet with neighbors and tenants, and/or post this fact sheet in a prominent area of your building for others to see.

Receive Site Fact Sheets by Email Have site information such as this fact sheet sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: <u>http://www.dec.ny.gov/chemical/61092.html</u>. It's quick, it's free, and it will help keep you *better informed*.



As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

Note: Please disregard if you already have signed up and received this fact sheet electronically.

