**NEW YORK STATE DEPARTMENT OF**

**ENVIRONMENTAL CONSERVATION**

# Record of Decision

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**LILCO - Rockaway Park MGP Site**
Site #2-41-029
October 2004

# FACT SHEET

## Notice of Record of Decision
## LILCO - Rockaway Park MGP Site

The New York State Department of Environmental Conservation (NYSDEC), in cooperation with the New York State Department of Health (NYSDOH) and KeySpan Corporation, have finalized the Record of Decision (ROD) for the LILCO - Rockaway Park MGP Site and are making it available to the public. The site is located in Rockaway Park, along Beach Channel Drive, between Beach 108th Street and Rockaway Freeway.

***Background:*** Gas production began at the site in the 1880's and continued until the mid-1950's. During its life, the manufactured gas plant (MGP) expanded several times to increase its production and storage capacities. Most of these expansions were onto land created with fill dredged from Jamaica Bay. During the life of the plant, it was owned by three companies. The final owner of the MGP, while it was still producing gas, was the Long Island Lighting Company (LILCO). The property remained LILCO's until they merged with Brooklyn Union Gas Company in 1998 to form KeySpan Energy Corporation (KeySpan).

***Remedial Investigation:*** From 1999 through 2002, field work was performed to define the nature and extent of the contamination at the Rockaway Park MGP site. This work included the collection of surface and subsurface soil, groundwater, soil vapor, and ambient air samples for analysis. The samples were taken from locations over the entire site as well as beyond the perimeter of the site. Off-site samples were located along Beach Channel Drive, Beach 108th Street, Rockaway Freeway, and in the area between Rockaway Beach Boulevard and the Metropolitan Transit Authority Right of Way, as well as adjacent to Jamaica Bay along the bulkhead to the north of the site.

The chemicals of concern at this site are residues of the former MGP process and include volatile organic compounds, semi-volatile organic compounds, and cyanide. The volatile organic ompounds of concern are benzene, toluene, ethylbenzene, and xylene. Together they are known as BTEX. The semi-volatile organics of concern are polycyclic aromatic hydrocarbons (PAHs). BTEX and PAHs are the primary constituents of MGP tar which was the main by-product of gas production.

The two main contaminants at MGP plants are MGP tar and purifier waste. MGP tar is a thick black substance which was a by-product of the gas production process. The MGP tar was removed from the gas before it was sent to homes. The MGP tar typically appears as a Dense Non-aqueous Phase Liquid (DNAPL) which is a flowable product which does not mix with water and is denser than water. Purifier waste was produced when the gas was passed through purifiers to remove certain chemical impurities. The main chemical of concern of purifier waste is cyanide. Both MGP tar and purifier waste are subsurface soil contaminants and are sources of groundwater contamination.

Evidence of both MGP tar and purifier waste were found at the Rockaway Park site. The MGP tar is found in several locations in the subsurface of the site, typically associated with historic MGP structures. The MGP tar has migrated vertically from just below the surface to as deep as 110 feet below the surface and appears to be migrating northward. It has been found on the north side of Beach Channel Drive at depths between 7 and 57 feet below the surface. Evidence of purifier waste has been found up to 6 feet below the surface in several isolated locations on the site and in the bulkhead area. The groundwater contamination from the tar is made up primarily of BTEX compounds with some PAHs and it is moving north by northeast. Evidence of this groundwater contamination has been found on the east side of

Beach 108th Street and on the north side of Beach Channel Drive. No major impacts to Jamaica Bay have been observed. The purifier waste is in such small quantities that it does not meaningfully contribute to the groundwater contamination plume.

The detailed results of the analytical work are in two Remedial Investigation Reports which are available at the document repositories listed below.

***Health Exposure Assessment:*** Direct contact human exposures to contaminated soil at this site are unlikely due to fencing and gates, which restrict access to the site. Groundwater in the vicinity of the site is not used as a source of drinking water, therefore human exposure through groundwater is not expected. The proposed remedy will minimize future potential human exposures by performing shallow source excavation of contaminated soil, installing a soil cover, and implementing institutional controls to restrict ground-intrusive work below the soil cover. In addition, potential human exposures to contaminated soil gas through soil vapor intrusion will be minimized by installing a remediation/mitigation system beneath any existing and new on-site buildings.

***Feasibility Study (FS):*** A Feasibility Study was developed, based on the results of the Remedial Investigation, to evaluate potential remedial action alternatives. The report titled "Feasibility Study Rockaway Park Former MGP Site, Rockaway Park, NY", dated July, 2004, compares remedial alternatives using the following criteria:

1. Whether each alternative protects human health and the environment;
2. Short and long term effectiveness and permanence of the alternative;
3. How each alternative reduces the toxicity, amount, and mobility (ability to move away from the site) of the hazardous waste;
4. How difficult each alternative is to implement;
5. Whether each alternative will result in compliance with cleanup standards; and
6. Cost effectiveness.

***Remedy:*** Based on the evaluation of various alternatives and the comments received during the comment period, the NYSDEC has decided to use a combination of remedial techniques to address the contaminated materials found at this site as described below. The remedy includes:

- Excavation of visible MGP tar to eight feet below ground surface (bgs).
- Installation of on-site and off-site non-aqueous phase liquid (NAPL) migration barriers set at various depths.
- Installation of passive dense non-aqueous phase liquid (DNAPL) recovery systems.
- Installation of soil gas vapor control methods under any existing or new structures constructed on the site.
- Covering all vegetated areas with clean soil and all non-vegetated areas with either concrete or a paving system.
- Development of a site management plan to address residual contamination and any use restrictions.
- Imposition of an environmental easement.
- Annual certification of the institutional and engineering controls.

A more detailed description of the site history, existing conditions, and the proposed alternative, as well as other alternatives evaluated by the NYSDEC, can be found in the ROD at the document repositories listed below.

***Document Repositories:*** The ROD and other site-related documents are available for review at the following locations:

Queens Borough Public Library
Peninsula Branch
92-25 Rockaway Beach Blvd
Rockaway Beach, NY 11693
(718) 634-1110

Community Board 14
1931 Mott Avenue
Far Rockaway, NY 11694
(718) 471-7300
(by appointment)

New York State DEC
Region 2 Headquarters
1 Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101-5407
(718) 482-4900
(by appointment)

***Your Opportunities to be kept Informed and Involved***: Your understanding and involvement in this project will help to ensure an effective remedial program. You are encouraged to make use of the document repositories and to contact the persons listed below at any time with your questions or concerns.

***For More Information About***
***<u>The Investigation/ROD</u>:***
Douglas MacNeal
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Phone # : (518) 402-9564

***For More Information About***
***<u>Site-Related Health Concerns</u>:***
Stephanie Selmer
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