Introduction

Consolidated Edison Company of New York, Inc. (Con Edison), together with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), is providing this update on the site investigation at the former East 11th Street Works, a historic manufactured gas plant (MGP) that was operated between the 1800s and mid-1900s, before the development of natural gas systems, to convert coal and oil into gas for heating, lighting and cooking.

The site consists of the properties of the Jacob Riis Houses north of E. 11th Street, the New York City Department of Environmental Protection (NYCDEP) pumping station, the Haven Plaza North Apartments and St. Emeric Church and school.

Project Status and Schedule

In December 2009, Con Edison conducted indoor air and sump pump water testing in the basement boiler room of PS 34 to determine if any MGP impacts are present. This work was performed because it was determined that MGP impacted groundwater flows under the school building and therefore there is the potential that vapors or impacted groundwater may be entering the basement. In addition, sampling of soil vapor under the sidewalk along E. 12th Street outside the school indicated elevated concentration levels of some potentially MGP-related contaminants.

The results of the sampling indicate that no vapor intrusion from the subsurface is taking place and that groundwater is not entering the building to any great extent. The indoor air sampling indicates that 8 volatile chemicals were found, seven were below NYSDOH normal background. The one volatile chemical that was slightly above background was also found in the outside air at similar concentrations and was not an MGP related chemical. In the sump sampling results only 3 chemicals were found, at very low levels, none of which were MGP related and are probably associated with cleaning fluids.

Previous Site Investigations

A Site Characterization Study (SCS) and Remedial Investigation for Jacob Riis Houses was completed to investigate soil and groundwater, in accordance with a work plan approved by NYSDEC and NYSDOH. Site investigation activities included the collection of soil and groundwater samples.
samples. MGP impacts were found on the property in subsurface soils. Because the impacts are below the surface, they do not pose an exposure risk. There were potential impacts identified in the surface soil in the grassed areas at Jacob Riis that may be related to MGP, but no short-term actions were needed because the area had a protective cover of grass and was not accessible to the public due to fencing.

A Site Characterization Study (SCS) and Remedial Investigation for St. Emeric Church and School was also completed. MGP impacts were found on the property in subsurface soils. Because the impacts are below the surface, they do not pose an exposure risk.

Additional activities at the E. 11th Street site included a study of indoor air at the St. Emeric School and a study of indoor air and soil gas at five apartment buildings located north of E. 11th Street in the Jacob Riis Houses complex. Given the results of these investigations, the NYSDOH has concluded that these buildings do not appear to be impacted by MGP vapors.

**Potential Exposure**

A primary goal of these investigations is to evaluate the potential for exposure to these historical operations. Potential human exposure may come from breathing, ingesting or touching the contaminants. The potential for people to come in contact with contaminants from Riis Houses and St. Emeric has been evaluated as part of the investigation and the potential for exposure to site-related contaminants is minimal. Exposure to contaminated groundwater through ingestion is also unlikely because New York City is served by a municipal water system.

**What are former MGPs?**

Manufactured gas plants (MGP) were operated between the 1800s and mid-1900s, before the development of natural gas systems, to convert coal and oil into gas for heating, lighting and cooking. Byproducts of this early production process included contaminants such as tar and purifier wastes. Tar is a dark, viscous fluid with a distinctive acrid odor. Purifier wastes are materials formed during removal of other unwanted chemicals from the gas before it was sent out to customers.

The substances of concern related to MGP operations include BTEX compounds, polycyclic aromatic hydrocarbons (PAHs), and metals. BTEX compounds are benzene, toluene, ethylbenzene and xylene. These are volatile hydrocarbons found in MGP byproducts and also found in most petroleum products such as gasoline. PAHs are also found in MGP byproducts as well as many petroleum products, such as asphalt.

**Site Background**

The 11th Street Works was located on the lower East Side of Manhattan. The site was located on the north side of East 11th Street and the south side of East 12th Street. The plant grounds extended from the east side of Avenue D to the East River. The plant also extended from Avenue C to the East River on the block bounded by the north side of East 12th Street and the south side of East 13th Street. Today, the buildings located at this site are the Jacob Riis Houses, the Haven Plaza North Co-op Apartments, the NYCDEP pumping station and the grounds of the St. Emeric Roman Catholic Church and School.

Gas manufacturing and gas storage began at the East 11th Street Works prior to 1903 and continued until sometime after 1920. All gas holder and MGP structures were removed from the site by 1944, and subsequently, portions of the property were bought by the current owners.

**Public Involvement**

Public understanding and involvement are an integral part of a successful investigation and remediation program. To provide you with the most up-to-date and accurate information regarding manufactured gas plants, Con Edison has created a series of informational resources including fact sheets, a toll-free hotline, and internet content at www.coned.com/mgp. Information can also be found at the NYSDEC website at www.dec.ny.gov/chemical/8430.html.