
EXECUTIVE SUMMARY

ENSR International (ENSR) was retained by Consolidated Edison (Con Edison) Company of New York, Inc. (Con Edison) on March 11, 2002, to conduct Site History Research for the former Manufactured Gas Holder known as the E 108th Street Station. The former gas holder site was located approximately 190 feet east of First Avenue along the north side of 108th Street (E 108th Street formerly extended east of First Avenue but currently is occupied by a residential cooperative high-rise building development). The property currently exists as a portion of a large city block which currently extends from 107th Street to 110th Street and from First Avenue to FDR Drive, consisting primarily of a residential housing complex on land in which cross streets 107th, 108th and 109th Streets previously existed east of First Avenue. The large city block is identified by a New York City Tax Map as Block 1701 Lot 1. However, for the purpose of this report the former gas holder property will be considered as the area 190 feet east of First Avenue and approximately 250 feet west of FDR Drive and between 108th Street and approximately 100 to 150 feet north of 108th Street (area where it formerly existed approximately 0.5 acres). The property previously contained a 500,000 cubic foot gas holder. Figure 1 provides a Site Location Map showing the site location, local topography, and surrounding areas. Figure 2 provides a site plan depicting current site layout with property boundaries. Figure 3 provides a Historic Use Composite Map depicting the current and former structures. ENSR did not observe any remnants of former gas holder structures on the subject property during the site visit performed on April 30, 2002. The location of the former gasholder site and its extent were determined through review of Sanborn Insurance Maps.

Based on ENSR's historical research, the site was operated as gasholder from sometime after 1890 to approximately 1921.

The Sanborn Insurance maps depict coal yards and coal pockets to be located north of the gasholder in 1911. Coal pockets were also depicted on the 1939 Sanborn Maps north of the gasholder. Upon retirement and demolition of the gasholder (sometime between 1911 and 1939) the subject property was occupied with structures associated with a dairy operation, east of which was an ice storage house beyond which was a garage. In 1939, coal yards and coal pockets existed to the north of the former gasholder. In 1951, property was utilized for commercial use (dairy, garages, stoneyards). The coal yards and pockets were not present. In 1980, the subject property was utilized as a high rise housing complex as was observed during ENSR's 2002 site visit.

Operations at the subject property consist primarily of residential apartments. During ENSR's site reconnaissance, ENSR observed a parking deck located underneath the apartment complex buildings occupying an area between 110th Street and 108th Street (ENSR did not enter the underground parking level and only observed entrances at 109th and First Avenue, and at 108th and First Avenue). In addition, ENSR observed a daycare center at the area where the 1911 Sanborn Insurance maps depict the location of the former gas holder to have been located. However, based on a review of this

map, ENSR determined that the northwest corner of the daycare center overlaps only a small portion of the former gas holder footprint.

Harlem River (classified by NYSDEC as saline surface water) is located east of the former gas holder site. ENSR found no evidence of wells located on or within the immediate vicinity of the subject property. Groundwater is classified as a GA classification according to NYSDEC indicating fresh groundwater. However, EDR lists a well located approximately 1 mile west of the subject property. According to EDR, a church owns the well.

There are several potential sensitive receptors within the immediate area of the site. A residential high-rise complex containing apartment dwellings, stores, and a daycare center. However, based on a review of the 1911 Sanborn Insurance map, ENSR determined that the northwest corner of the daycare center overlaps only a small portion of the former gas holder footprint. Abutting the complex to the south is the Anna Short School and New York City Park beyond which is 106th Street. Residential apartments abut the complex to the west beyond First Avenue. In addition, beyond the complex to the north is Thomas Jefferson Park (not considered an abutter since the high rise apartment complex is an actual abutter of the former gas holder). The Harlem River is located to the east of the complex, beyond FDR Drive (approximately 150 feet from the site). No evidence of contamination or seepage of contamination with regard to former gas holder operations were observed on site. On-site buildings contain a parking garage located underneath the residential high-rise complex.

According to the New York City Department of Education website, the following schools are located within approximately 1/4 miles of the subject property: Bilingual Bicultural School and Munoz Luis River School both located at 219 East 109th Street; Anna Short School P.S. located at 421 East 106th Street; Park East High School located at 230-234 East 105th Street; PS 072 located at 139 East 104th Street; PS 038 located at 232 East 103rd Street; Angelo Del Toro School located at 1615 Madison Avenue; and The Heritage School located at 1680 Lexington Avenue.

According to the 2000 United States Census for New York City, the area of the subject property consisted of a demography as follows: 60% Hispanic, 30% Black Non-Hispanic, 6% White Non-Hispanic, and 4% Asian Non-Hispanic. Population breakdown for District 11 (which contains subject property) in New York City by age is as follows: 7% of the population is under 5 years of age; 8.3 % is between ages 5 and 9; 7.8% is between ages 10 and 14; 7.5% is between ages 15 and 19; 8.3% is between ages 20 and 24; 30.8% is between ages 25 and 44; 18.9% is between ages 45 and 64; and 11.4% of the population is over the age of 65.

1.0 INTRODUCTION

1.1 Preface

ENSR International (ENSR) was retained by Consolidated Edison (Con Edison) Company of New York, Inc. (Con Edison) on March 11, 2002, to conduct Site History Research for the former Manufactured Gas Holder known as the E 108th Street Station. The former gas holder site was located approximately 190 feet east of First Avenue along the north side of 108th Street (E 108th Street formerly extended east of First Avenue but currently is occupied by a residential cooperative high-rise building development). Figure 1 provides a Site Location Map showing the site location, local topography, and surrounding areas. Figure 2 provides a site plan depicting current site layout with property boundaries. Figure 3 provides a Historic Use Composite Map depicting the current and former structures.

Objective and Scope of Work

The objective of the MGP Site History Research was to gather historical information on the former MGP site operated by Con Edison and/or its predecessor companies, and to assess any potential impacts associated with these properties. The MGP History Research was designed to provide information to allow Con Edison to rank the former MGP sites in order of investigative or remedial priority based on actual and perceived risk and other relevant factors. In order to achieve this objective, the following activities were performed in accordance with ENSR's proposal dated August 20, 2001 and Con Edison's final scope of work:

1. Reviewed Brown's Directories of North American and International Gas Companies (Brown's Directories) for statistical information from MGP companies. Where available, data gathered included the following: plant ownership and management, size of gas plant, amount of gas manufactured and sold, number and size of gas holders, tar production and sales, and type of gas manufacturing process.
2. Reviewed Public Service Commission Reports, Statistics of Public Service Corporations, subsequently known as Statistics of Gas and Electric Companies and Statistics of Light, Heat and Power Companies.
3. Reviewed Sanborn Insurance Maps. Information gathered from the Sanborn Insurance Maps were superimposed on the current site plans for this project.
4. Reviewed Chain-of-title reports. Chain-of-title reports for all of the sites were ordered through Con Edison's vendor as requested by Con Edison.

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5. Reviewed appropriate and readily available documents at Federal, State and Local governmental agencies and departments as necessary, including United States Environmental Protection Agency (USEPA), New York State Department of Environmental Protection (NYSDEC), Clerk's Office, Building Department, Engineering Department, Tax Assessor's Office, Health Department and Fire Department. Where available, site information relative to the following was obtained: historical ownership, property usage, environmental permits, hazardous waste generator status, violations, underground storage tanks, hazardous material or petroleum spills, and soil and groundwater sampling data. Building Department records were also evaluated to determine whether significant MGP contamination may have been encountered or removed during any site redevelopment.

Relative to the USEPA and NYSDEC document review, ENSR submitted a Freedom of Information Act (FOIA) request to both agencies for the above-mentioned information. ENSR requested a copy of the USEPA's files, however, according to the USEPA, the agency does not contain files for properties prior to 1970, thus the agency has no files for the subject property. If NYSDEC files are reviewed, ENSR will include information in the final report.

6. Conducted searches for relevant site information at the following locations as necessary: Westchester County Public Library, the New York Public Library, and local historical societies. Reviewed other potentially relevant information sources such as National Wetlands Inventory maps, USGS topographic maps, Cole's Cross Reference Directories and aerial photographs.
7. At Con Edison's request, ENSR reviewed Con Edison's files for the subject property in the Property Department and Real Estate Department located at Con Edison, 4 Irving Place, New York, NY.
8. Based on information collected in the above tasks, identified former non-MGP related site operations, along with potentially associated waste streams and contaminants. The following information with regard to historical site activities was noted: types of operations, and locations of associated structures, equipment and processes.
9. Inferred the types of hazardous materials that potentially could have been stored, used or disposed at the site based on each identified historical operation.
10. Provided a detailed review of regional and site-specific geology and hydrogeology, including information on wetlands, local drinking water supply, aquifers, depth to bedrock and general stratigraphy.
11. Based on research information collected, described the type and general layout(s) of the MGP operations and potential MGP wastes associated with these types of facilities using GRI's '*Management of Manufactured Gas Plant Sites*' (1996), Utility Solid Waste Activities Group and Edison Electric Institute's '*Handbook on Manufactured Gas Plant Sites*' (1984) (prepared by ERT,

ENSR's predecessor name), and other relevant EPRI, GRI, and other commercially available publications.

12. Conduct a visual inspection of each of the MGP properties in order to identify current conditions, with particular regards to potential present contributing sources of contamination; identification of locations, if any, of regulated material storage and underground storage tanks.

1.2 Significant Assumptions

No assumptions.

2.0 PROPERTY DESCRIPTION

2.1 Property Description

The former gas holder site was located approximately 190 feet east of First Avenue along the north side of 108th Street (E 108th Street formerly existed east of First Avenue but currently is occupied by a residential cooperative high-rise building development). The property currently exists as a portion of a large city block which currently extends from 107th Street to 110th Street and from First Avenue to the East River Drive, consisting primarily of a residential housing complex on land in which cross streets 107th, 108th and 109th Streets no longer exists east of First Avenue. The large city block is identified by a New York City Tax Map as Block 1701 Lot 1. However, for the purpose of this report the former gas holder property will be considered as the area 190 feet east of First Avenue and approximately 250 feet west of FDR Drive and between 108th Street and approximately 100 to 150 feet north of 108th Street. The subject property contains approximately 0.5 acres. The property previously contained a 500,000 cubic foot gas holder. Figure 1 provides a Site Location Map showing the site location, local topography, and surrounding areas. Figure 2 provides a site plan depicting current site layout with property boundaries. Figure 3 provides a Historic Use Composite Map depicting the current and former structures. ENSR did not observe any remnants of former gas holder structures on the subject property during the site visit performed on April 30, 2002. The location of the former MGP site and its extent were determined through review of Sanborn Insurance Maps.

2.2 Adjoining Property Description and Usage

The surrounding properties consist of residential apartments complex to north, south, east and west. During ENSR's site reconnaissance, ENSR observed a parking garage located underneath the apartment complex buildings occupying an area between 110th Street and 108th Street. Furthermore, ENSR observed a daycare center at the area where the 1911 Sanborn Insurance maps depict the location of the former gas holder to have been located. However, based on a review of this map, ENSR determined that the northwest corner of the daycare center overlaps a small portion of the former gas holder footprint.

3.0 CURRENT SITE OPERATIONS AND OWNERSHIP

3.1 Site Ownership

The subject property lies within a high rise apartment complex identified by a New York City Tax Map as Block 1701 Lot 1. According to the 1999 Sanborn directory of New York City Tax maps, Block 1701 Lot 1 is owned by the 1199 Housing Corporation. However, according to NYC Department of Real Estate Tax web page, NYC Development Corporation currently owns the site. According to the title search from Commonwealth (title search company), in 1971, a deed was granted from the City of New York to 1199 Housing Corporation after which no further deeds were identified through April 2002. As a result, ENSR concludes the subject property to be owned by 1199 Housing Corporation. During the site reconnaissance, ENSR did not observe any indications of additional development or indication of a possible change in current site use.

3.2 Site Operations

The subject property is currently used as residential apartments with underground parking.

3.3 Site Reconnaissance and Areas of Potential Concern

During ENSR's site reconnaissance on April 30, 2002, no evidence of gasholder remnants at the site was observed. ENSR observed a parking deck located underneath the apartment complex buildings occupying an area between 110th Street and 108th Street (ENSR did not enter the underground parking level, but only observed entrances at 109th and First Avenue and at 108th and First Avenue). Furthermore, ENSR observed a daycare center at the area where the 1911 Sanborn Insurance maps depict the location of the former gas holder to have been located. However, based on a review of this map, ENSR determined that the northwest corner of the daycare center overlaps only a small portion of the former gas holder footprint. During the site reconnaissance, ENSR observed no evidence of Underground Storage Tanks (USTs) at the subject property.

4.0 SITE SETTING

4.1 Topography

The site is relatively flat with a slight pitch to the east towards the Harlem River. The site is at an elevation of approximately 10 to 20 feet above mean sea level. According to the New York City Zoning Department, Block 1701 Lot 1 of the subject property is zoned as "R7-2", Zoning for medium residential and community.

4.2 Demography

According to the 2000 United States Census for New York City, the area of the subject property consisted of a demography as follows: 60% Hispanic, 30% Black Non-Hispanic, 6% White Non-Hispanic, and 4% Asian Non-Hispanic. Population breakdown for District 11 (which contains subject property) in New York City by age is as follows: 7% of the population is under 5 years of age; 8.3 % is between ages 5 and 9; 7.8% is between ages 10 and 14; 7.5% is between ages 15 and 19; 8.3% is between ages 20 and 24; 30.8% is between ages 25 and 44; 18.9% is between ages 45 and 64; and 11.4% of the population is over the age of 65. According to the Census information, population density for the area is 121.87 people per acre, which results in a total of 15,314 people within a one-quarter mile radius of the site.

4.3 Surface Water and Drainage

The nearest surface water is the Harlem River, which is located approximately 150 feet to the east. The subject property contains both vegetated land (grass) and asphalt in which runoff is inferred to run off-site through ground penetration and via overland flow into storm drains located on the streets. Surface water runoff enters storm drains in the area, which discharge into the Harlem River.

4.4 Geology

According to a Bedrock Geologic Map of the New York Metropolitan area, the subject property consists of Early Paleozoic material (mostly metamorphic). According to the Environmental Data Resources Inc. (EDR) report, the bedrock unit lies within the Paleozoic Era and part of the Ordovician system (middle Ordovician Series). According to EDR, native bedrock is greater than ten inches below the ground surface. Due to the urban development of the land and presence of the Harlem River to the east, depth to bedrock is inferred to be greater than 50 feet below the surface. Based on topographic maps and the EDR report, depth to groundwater is estimated to be six feet below ground surface. ENSR obtained boring logs from work performed on a neighboring site which stated that 0 to 14 feet

consisted of fill material; 30 to 40 feet consisted of sand, trace silt and gravel; and 40 feet to 50 feet consisted of sandy silt (no information from 15 to 29 feet).

4.5 Hydrogeology

Due to Manhattan's heavy metamorphic bedrock, aquifers are less abundant. The surficial upper glacial aquifer is generally of poor permeability and is underlain by bedrock. As a result, groundwater is not used as a potable water source in Manhattan. Instead, New York City obtains its water from the Catskill Mountains of New York. Based on topographic maps and the EDR report, depth to groundwater is estimated to be six feet below ground surface.

5.0 PAST OWNERSHIP

The names and dates of past ownership are summarized in the ownership table below based on the deed chain obtained from the title search report prepared by Commonwealth Land Title Search Company. Table 5-1 presents a summary of site ownership history. Appendix B provides the chain of Title Report.

Ownership Information Table 5-1			
Source	Area of 108th Street Station	Year	Owner
Chain of Title (Commonwealth)	E 108 th Street Station	< 1890	Alfred and Julliette Murray
Chain of Title (Commonwealth)	E 108 th Street Station	1890	Standard Gas Company
Chain of Title (Commonwealth)	E 108 th Street Station	11/16/1921	Albert and Sophie Keller
Chain of Title (Commonwealth)	E 108 th Street Station	12/12/1921	The Harlem Independent Hygeia Ice Company
Chain of Title (Commonwealth)	E 108 th Street Station	1928	Knickerbocker Ice Company
Chain of Title (Commonwealth)	E 108 th Street Station	1938	American Ice Company
Chain of Title (Commonwealth)	E 108 th Street Station	1944	409 East 108 th Street Corporation
Chain of Title (Commonwealth)	E 108 th Street Station	1968	City of New York
Chain of Title (Commonwealth)	E 108 th Street Station	1971	1199 Housing Corporation
New York City Tax Maps and ownership information.	E 108 th Street Station	1999	1199 Housing Corporation

6.0 PAST SITE OPERATIONS

6.1 Site Operations

Based on Sanborn Insurance Maps, and additional historical information obtained from the New York City libraries and Con Edison archives, ENSR compiled the following historical summary of the subject property. According to information provided by Con Edison, the E 108th Street gas holder was constructed in 1890 by Standard Light and Gas. Sanborn Maps and title search information reviewed by ENSR indicate that the property was present as gas holder site from sometime after 1890 to approximately 1921. The Sanborn maps depict coal yards and coal pockets to be located north of the gas holder in 1911. Coal pockets were also depicted on the 1939 Sanborn Maps north of the gas holder. Upon retirement and demolition of the gas holder, in approximately 1921, the subject property was occupied with structures associated with dairy operation, east of which was an ice storage house beyond which was a garage. In 1939, coal yards and coal pockets existed to the north of the former gas holder. In 1951, property was utilized for commercial use (dairy operations, garages and stoneyards). The coal yards and coal pockets were not present at that time. In 1980, the subject property was utilized as a high rise housing complex as was observed during ENSR's 2002 site reconnaissance.

6.1.1 Sanborn Insurance Maps

ENSR was provided with Sanborn Insurance Maps for the subject property dated 1911, 1939, 1951, 1969, 1980, 1986, 1991, 1994 and 1996. Appendix C provides copies of representative Sanborn Insurance Maps obtained for the subject property.

- 1911 -** The property is operated by Standard Gas Light Company. The site consists of an area of the 108th Street city block which extends south to north from 108th Street to approximately 100'-150' north and from east to west from 250 feet west of Pleasant Avenue to approximately 190 feet east of First Avenue. The property contained a 500,000 cu ft. holder tank located on the north side of 108th Street. Abutting the gas holder to the north is a coal yard and a structure labeled as coal pockets. An ice plant is located east of the gas holder site and a cut stone yard is located north of the site.
- 1939 -** The property is occupied by structures associated with the dairy industry as well as an ice storage house located east of the dairy facility. A coal yard and a structure associated with coal pockets is located to the north of the former holder site. An ice plant is located east of the former gas holder site, 108th Street is located to the south and a cut stone yard is located west of the site.

- 1951** - The property is occupied by structures associated with the dairy industry as well as a garage located east of the dairy facility. An area labeled STGE yard as well as a vacant area is located to the north of the former holder site. An auto renting facility is located east of the former gas holder site and a bus garage (built in 1947) is located west of the site. The area where an ice storage house was depicted in the 1939 Sanborn map is now labeled as a garage. 108th Street is located to the south of the site.
- 1969** - Building formerly labeled as "dairy" in the 1951 Sanborn is no longer labeled dairy. The property is occupied by an unlabeled structure and a garage located east of the former dairy facility. A truck parking area is located to the north of the former holder site. A garage and repair facility is located east of the former gas holder site and a Department of Street Cleaning Garage (built in 1947) is located west of the site. 108th Street is located to the south of the site.
- 1980** The subject property and area surrounding consists of a high rise apartment complex which occupied three city blocks from 107th Street north to 110th Street and east to west from FDR Drive to First Avenue. 108th, 109th and a portion of 110th Street are not present between FDR Drive and First Avenue. A daycare center located within the complex is located on the southern portion of the former holder site and is depicted as overlapping a small portion of the former gas holder footprint.
- 1986, 1991, 1994 and 1996** Sanborn Insurance Maps depict the site similar to the 1980 Sanborn Insurance Maps.

6.1.2 Brown's Directories

A review of available Brown's Directories did not reveal information on the E 108th Street Site.

6.1.3 Public Service Commission Reports

Public Service Commission reports reviewed by ENSR at the Library of Albany, NY did not contain information on the E 108th Street site.

6.1.4 Chain-of-Title Reports

ENSR received a title search report from Commonwealth (title search company). See table 5-1 and Appendix B for details.

6.1.5 Additional Historical Sources

New York City Department of Building records indicate that at Block 1701 Lot 1 contained a high-rise apartment complex in 1982 in which brick work was being performed at the address known as 1199 Plaza (address Con Edison indicated as property which previously contained the E 108th Street Gas Holder).

7.0 SITE REGULATORY INFORMATION

7.1 Federal and State Database Review

As part of ENSR's investigation of the subject property, a search of various governmental databases was conducted by Environmental Data Resources Inc. (EDR) of Southport, Connecticut, and reviewed by ENSR. Appendix D provides a copy of the EDR database report. ENSR was instructed by Consolidated Edison to use the EDR report obtained for the E 111th Street Works site which is located approximately 500 feet north of the subject property. The results presented below are indicative of the E 111th Street works EDR Report.

The following federal and state contamination related databases were searched for the area surrounding the subject property; the various search distances used are noted in parenthesis:

- NPL: for existing Superfund sites on the National Priorities List (1.0 mile of the subject property).
- Proposed NPL: for proposed Superfund sites on the National Priorities List (1.0 mile of the subject property).
- CERCLIS: for abandoned, uncontrolled or inactive hazardous waste sites reported to the U.S. EPA (0.5 mile).
- CERC-NFRAP: for CERCLIS sites that have been designated "No further Remedial Action Planned" and have been removed from CERCLIS (0.25 mile).
- CORRACTS: for hazardous waste handlers with RCRA corrective action activity (1.0 mile).
- RCRIS/TSD: reported sites that treat, store and/or dispose of hazardous waste and subject to the federal RCRA regulations (0.5 mile).
- RCRIS/LG: for reported large quantity generators of hazardous waste (0.25 mile).
- RCRIS/SG: for reported small quantity generators of hazardous waste (0.25 mile).
- ERNS: for sites reporting spills to the U.S. EPA and/or the U.S. Coast Guard under various federal regulations (target property).

- SHWS: for identified hazardous waste sites designated under various state regulations (1.0 mile).
- SWF/LF: for identified solid waste facilities and landfill sites designated under various state regulations (0.5 mile).
- LTANKS: for leaking underground storage tanks reported to the state under various state regulations (0.5 mile).
- UST: for underground storage tanks registered on the property under various state regulations (0.25 mile).
- CBS AST: for facilities storing hazardous substances in above ground tanks with capacities greater than 185 gallons and/or USTs of any size (0.25 mile).
- MOSF AST: facilities with petroleum storage capabilities of 400,000 gallons or greater (0.5 mile).
- VCP: for sites under the State Voluntary Cleanup Program (0.5-mile).
- SWTIRE: for sites on the State Registered Waste Tire & Facility List (0.5 mile).
- SWRCY: for sites on the Registered Recycling Facility List (0.5-mile).
- FINDS: for sites that are regulated or tracked by the EPA for a variety of programs (target property).
- Coal Gas for existence and location of former manufactured gas sites (1.0 mile).

Subject Property

EDR lists the area between First Avenue and FDR Drive as a Coal Gas site under the name Standard Gas Co, 2100 First Avenue. The site was on the south side of 108th Street when the street historically continued to the east. The address was 413 East 108th Street and was a gas holder (Sanborn Insurance Maps depict the gas holder on the north side of 108th Street).

Surrounding Properties

Several area properties are listed as a Coal Gas site under the name Consolidated Gas Co. and Standard Gas Light Co. EDR lists the area within four separate listings as well as a neighboring site consisting of the following areas:

- area west of First Avenue between 109th Street and 111th Street (Consolidated Gas Co.);
- the area between 110th Street and 112th Street between First Avenue and FDR Drive (Consolidated Gas Co.);
- and the area between Pleasant Avenue and FDR Drive, encompassing the entire block between 116th Street and 114th Street (Standard Gas Light Co.).

No indication of private party investigation or remediation was identified in the EDR report with regard to MGP clean up.

In addition to the above information, a spill site is listed on the former 111th Street Works located at First Avenue between 110th Street and 111th Street (listed as the E 110th Street Service Center) in which approximately five gallons of antifreeze was spilled in 2001 at the Con Edison Facility. According to EDR, the antifreeze was cleaned-up. The same area is listed as a RCRIS LQG in which no violations were found. According to the EDR report, the subject property is not listed on any other state or federal lists.

EDR lists Con Edison's Northside Operations Center located at the above address (mentioned for having an antifreeze spill) as having five USTs removed as follows:

- Two 4,000-gallon unleaded gasoline tanks were closed and removed in 1998
- One 4,000-gallon diesel fuel tank was closed and removed in 1998
- Two 70-gallon used waste oil USTs closed and removed in 1998

No additional information was provided.

No NPL, CERCLIS, CORRACTS, SHWS, or VCP sites were identified within their respective search distances. Thirty-nine sites were listed on the LTANKS database within 0.5 mile of the (ER 111th Street) subject property. Two of these sites are located within 1,000 feet of the subject property; however, based on the corrective action taken and quantity spilled (0 gallons) it is ENSR's opinion that neither site poses a concern to the subject property. ENSR identified 8 RCRIS sites (5 LQG's and 3 SQG's) none of which appear to pose an immediate concern to the subject property.

7.2 Federal Agency Records

ENSR submitted a Freedom of Information Act (FOIA) request to the US Environmental Protection Agency (USEPA) for the subject property. According to the USEPA, they do not have information for any site that existed prior to 1970. Since the subject property did not carry-out MGP operations in 1970, the EPA does not have any information regarding the former MGP operations.

7.3 State Agency Records

ENSR submitted a FOIA request to the NY State Department of Environmental Conservation (NYSDEC). No response to our request has been received as of this writing. Any relevant information pertaining to the subject property obtained from the NYSDEC will be included in the final report.

7.4 Local Agency Records

ENSR submitted FOIA requests to the NY City Fire Department, New York City Department of Environmental Protection (NYCDEP), New York City Department of Building, and the New York City Environmental Investigations Department (Health Department). ENSR reviewed Building Department files, in which all relevant information is included in Section 6 of this report. Other than Department of Building records, no information has been received with regard to the subject property at this time.

8.0 POTENTIAL RECEPTORS

8.1 Local Groundwater Use and Surface Waters

Harlem River is located east of the former MGP site approximately 150 feet beyond FDR Drive. ENSR found no indication of wells located within the immediate vicinity of the subject property. However, EDR lists a Public Water Supply well located approximately 1 mile west of the subject property. According to EDR, a church owns the well. ENSR observed no monitoring wells on the subject property.

8.2 Other Potential Sensitive Receptors

There are several potential sensitive receptors within the immediate area of the site. A residential high-rise complex containing apartment dwellings, stores, and a daycare center is located within the vicinity of the former gas holder. Based on a review of the 1911 Sanborn Insurance map, ENSR determined that the northwest corner of the daycare center overlaps only a small portion of the former gas holder footprint.

Abutting the complex to the south is a school and New York City Park beyond which is 106th Street. Residential apartments abut the complex to the west beyond First Avenue. In addition, beyond the complex to the north is Thomas Jefferson Park (not considered an abutter (areas of the complex formerly abutted the gas holder site)). The Harlem River is located to the east of the complex. No evidence of contamination or seepage of contamination on any of the abutting sites with regard to former MGP facilities were observed. On-site buildings contain a parking garage located underneath the residential high-rise complex.

According to the New York City Department of Education website, the following schools are located within approximately 1/4 miles of the subject property: Bilingual Bicultural School and Munoz Luis River School both located at 219 East 109th Street; Anna Short School P.S. located at 421 East 106th Street; Park East High School located at 230-234 East 105th Street; PS 072 located at 139 East 104th Street; PS 038 located at 232 East 103rd Street; Angelo Del Toro School located at 1615 Madison Avenue; and The Heritage School located at 1680 Lexington Avenue.

9.0 DISCUSSION AND CONCLUSIONS

ENSR International (ENSR) was retained by Consolidated Edison Company of New York, Inc. (Con Edison) on March 11, 2002, to conduct Site History Research for the former Manufactured Gas Holder site identified as the E 108th Street Station. The objective of the MGP Site History Research was to gather historical information on the former holder site operated by Con Edison and/or its predecessor companies, and to assess any potential impacts associated with these properties.

ENSR's scope of work for this site included the following:

- Review of Con Ed Property and Real Estate Files;
- Review of Sanborn Insurance Maps dated 1911, 1939, 1951, 1969, 1980, 1986, 1991, 1994 and 1996;
- Review of a 112-year Chain-of-Title report (back to 1890);
- Review of records at the NY City Science Industry and Business Library at 34th Street and Madison Avenue in NYC;
- Submittal of FOIA letters to the USEPA Region II and the NYSDEC;
- Review of records at the NYC Department of Building; and
- A site reconnaissance of the subject property.

ENSR received a title search report from Commonwealth (title search company). See Table 5-1 and Appendix B for details.

Based on the scope of work performed, the following conclusions have been made:

- The site was operated as gas holder from sometime after 1890 to approximately 1921.

The Sanborn maps depicts coal yards and coal pockets to be located north of the gas holder in 1911. Coal pockets were also depicted on the 1939 Sanborn Maps north of the gas holder. Upon retirement and demolition of the gas holder (sometime around year 1921) the subject property was occupied with structures associated with a dairy operation, east of which was an ice storage house and beyond which was a garage. In 1939, coal yards and coal pockets existed to the north of the former gas holder. In 1951, property was utilized for commercial use (dairy, garages and stoneyards (coal yards and coal pockets not present). In approximately 1980, the subject property was utilized as a high rise housing complex as was observed during ENSR's 2002 site visit.

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- Operations at the subject property consist primarily of residential apartments. During ENSR's site reconnaissance, ENSR observed a parking garage located underneath the apartment complex buildings occupying an area between 110th Street and 108th Street (ENSR did not enter the underground parking level, but only observed entrances at 109th and First Avenue and at 108th and First Avenue). Furthermore, ENSR observed a daycare center at the area where the 1911 Sanborn Insurance maps depict the location of the former gas holder to have been located. Based on a review of this map, ENSR determined that the northwest corner of the daycare center overlaps a small portion of the former gas holder.

10.0 SUMMARY OF HISTORICAL RESEARCH FINDINGS

For purposes of prioritizing Con Edison's MGP sites through the use of a qualitative ranking system, the following information is listed with regard to key factors dictating potential risk from the former site operations.

- According to the information provided and ENSR's site reconnaissance, Con Edison does not own or control access to the former gas holder.
- Relative size of the former gas holder site consisted of approximately 0.5 acres.
- ENSR did not observe any indication of plans for redevelopment to the subject property (the subject property is currently a residential apartment high-rise complex).
- Potential for direct exposure to impacted soil is low. The portion of the site on which the gas holder was located is currently occupied by concrete, asphalt and a building.
- EDR lists the area between First Avenue and FDR Drive as a Coal Gas site. The site was on the south side of 108th Street when the street historically continued to the east. The address was 413 East 108th Street and was a gas holder (Sanborn Insurance Maps depict the gas holder on the north side of 108th Street). No indication of private party investigation or remediation was identified in the EDR report with regard to MGP clean up.
- The presence of sensitive receptors are as follows:

Groundwater use aquifers	according to EDR a Public water well is located approximately 1 mile west of the subject property
Surface Water Bodies	Harlem River is located to the east of the subject property apartment complex beyond FDR Drive.
Groundwater Seepage areas	No potential sources of groundwater seepage were observed by ENSR.
Playgrounds	A playground exists north and south of the former MGP site.
Schools (1/4 mile)	Bilingual Bicultural School and Munoz Luis River School both located at 219 East 109 th Street; Anna Short School

P.S. located at 421 East 106th Street; Park East High School located at 230-234 East 105th Street; PS 072 located at 139 East 104th Street; PS 038 located at 232 East 103rd

Street; Angelo Del Toro School located at 1615 Madison Avenue; and The Heritage School located at 1680 Lexington Avenue.

Residences Residences are located on-site as well as about the property to the north, west and south.

Gardens ENSR did not observe any gardens as a sensitive receptor

Wetlands According to EDR, there are no delineated wetlands in the proximity of the site.

- Physical factors for the site are as follows:

Topography Flat with a pitch to the east towards the Harlem River. Elevation approximately 10-20 feet above mean sea level.

Soil type Fill, sand, and silt.

Permeability and cover Moderate permeability covered with asphalt, concrete and vegetated fields (Park).

Depth to groundwater Less than 10 feet

Groundwater use Classified by NYSDEC as fresh groundwater

Surface Water proximity and use Harlem River is located to the east and used as a water-way.

- Presence of buildings exist at as a residential high-rise apartment complex. An underground parking area exists underneath the subject property.
- ENSR did not notice any obvious impacts to surface water.

11.0 REFERENCES

Consolidated Edison Archive information obtained at 4 Irving Place New York, NY containing deed notices, maps, historical photographs, and memorandums.

Commonwealth Land Title Search Company, title search information for Blocks 1701 Lot 1.

Environmental Data Resources (EDR) Inc. of Southport CT. Report of E 111th St. Works, E 111th St. / Second Avenue, Manhattan, NY 10029 Inquiry Number 745386.1s March 14, 2002

New York City Zoning Office, New York, NY, Zoning information (212) 720-3291

New York City Department of Building, 60 Hudson Street, site reference information.

1999 Sanborn Book. Contained current owners, block and lot information, and property boundary

Sanborn Insurance Maps supplied by EDR for years 1911, 1939, 1951, 1969, 1980, 1986, 1991, 1994, and 1996.

United States Geological Survey 7.5 Minute Topographic Map, Central Park , NY Quadrangle dated 1966 photorevised 1979.

United States Geological Survey Map, New York City Metropolitan Bedrock Geology Map (no date available).

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