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**Citizen Participation Plan  
for  
Con Edison's Former Purdy Street Station**

Site Number - V00557

2155 St. Raymond Avenue  
Bronx, New York, 10462

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July 2012

**Prepared by:**

Consolidated Edison Company of New York

**Approved by:**

New York State Department of Environmental Conservation  
Division of Environmental Remediation

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## 1.0 INTRODUCTION AND OVERVIEW OF THE CITIZEN PARTICIPATION PLAN:

Volunteer: Consolidated Edition of NY (“Volunteer”)  
Site Name: Former Purdy Street Station (“Site”)  
Site Address: 2155 St. Raymond Avenue  
Site County: Bronx County  
Site Number: V00557

Con Edison, in cooperation with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), is committed to informing and involving the public during the investigation and remediation of former Manufactured Gas Plant (MGP) Sites being conducted under the New York State Voluntary Cleanup Program (VCP).

The VCP was developed by the NYSDEC to enhance private sector cleanup of properties. Under the VCP, the volunteer agreed to investigate and remediate a Site to a level that is protective of human health and the environment for the present or intended use of the property. Such investigation and remediation is carried out with NYSDEC and NYSDOH oversight. When the volunteer satisfactorily completes the work, the State provides a release from State liability for the work done, thus providing an incentive to return the Site to productive use. Projects of this type now fall under the purview of the New York State Brownfield Cleanup Program (BCP).

For more information about the Brownfield Cleanup Program, please visit the NYSDEC WebSite at [www.dec.ny.gov/chemical/brownfields.html](http://www.dec.ny.gov/chemical/brownfields.html).

This Citizen Participation Plan (CPP) identifies information that relates to the former **Purdy Street Station** Site. The CPP also describes CP activities to be conducted during the investigation and remediation. The CP activities are designed to achieve the following objectives:

- Help the interested and affected public to understand the contamination problems at this Site, and the nature and progress of Con Edison’s program to investigate and or clean up the Site;
- Ensure open communication between the public and project staff throughout the remedial process; and
- Create opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about the Site’s investigation and cleanup.

## 2.0 MANUFACTURED GAS PLANTS AND HOLDERS SITES:

Manufactured Gas Plants 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. Manufactured gas holders were designed for the storage and distribution of manufactured gas. Residuals from these stations may include tar and oil, which in certain types of storage holders were used to form an airtight seal between the holders’ foundations and upper tank shells. 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 these operations include BTEX compounds, Polycyclic Aromatic Hydrocarbons (PAHs) and metals. BTEX compounds are benzene, toluene, ethylbenzene and xylene. These are volatile hydrocarbon compounds found in MGP byproducts and also found in most petroleum products such as gasoline. PAHs, which are the result of the incomplete combustion of organic materials, are in MGP byproducts and in many petroleum products, such as asphalt.

### **3.0 PROJECT DESCRIPTION:**

On August 15, 2002 NYSDEC and Con Edison executed a Voluntary Cleanup Agreement (VCA) to investigate, test, and remediate enumerated MGP Sites located in New York City and Westchester County.

Because the decommissioning and dismantling of most plants and holder stations occurred over 50 years ago, long before current environmental standards were in place, little information is available on the extent to which the by-products and residuals of the gas making process may remain underground at such Sites. The 2002 VCA formalizes Con Edison's commitment to take action at the Sites of its, and its predecessor companies', former plants and holders. If by-products or residual materials from the operations of those facilities are present in amounts that the NYSDEC or NYSDOH believe pose a threat to health or the environment, Con Edison will implement an appropriate remediation program to address those concerns.

The first phase of the MGP investigation is a Site Characterization Study (SCS). The SCS includes locating the subsurface remnants of MGP structures that might exist on the property, delineating the lateral and vertical extent of potential MGP residuals in the soil, soil vapor, and groundwater and characterizing Site-specific geology and hydrology. If MGP contamination is detected during the SCS, a remedial investigation will likely be conducted to further investigate the nature and extent of the existing contamination at the Site.

The information from these investigations is used by Con Edison to prepare a draft remedial Alternatives Analysis Report (AAR) which would outline various remedial options for the Site and recommend one of the alternatives based on several criteria specified by the NYSDEC. If the NYSDEC (with concurrence from NYSDOH) deems the draft AAR to be approvable, the public will have an opportunity to review and comment on it during a 30-day public comment period. After the public comment period, the NYSDEC will approve the AAR for implementation by Con Edison. Depending on the comments received by NYSDEC, the AAR may have to be revised to reflect the public's input. The NYSDEC will issue a Decision Document which documents the selected remedy.

### **4.0 SITE BACKGROUND:**

The former Purdy Street Station holder Site is approximately 2.5 acres. It is owned by the Roman Catholic Church of Saint Raymond and occupied by the buildings, parking lot, and athletic field of St. Raymond High School for Boys. The area of former MGP operations are currently occupied by a running track, a grass playing field, and a one-story slab-on-grade storage building located on the northeastern portion of the Site. The east-central portion of the property is occupied by an asphalt playground and parking area. The southern and west-central portions of the parcel are occupied by the school buildings. A combination of chain-link fence and wrought iron fence surround the majority of the property.

The former MGP and gas holder station were located on the northern portion of the Site from sometime after 1868 to the mid 1920s. By 1908 the gas manufacturing had ceased at Purdy Street. The Purdy Street Site was used as a holder station up until the mid 1920s. From the mid 1920s to 1960, the entire property was used as a service yard for Con Edison and Con Edison's Predecessor Company, the Bronx Gas and Electric Company. The former service yard was occupied by service buildings and storage areas. Between 1870 and 1926, the two southernmost lots along St. Raymond Avenue were subdivided several times and were occupied by residential and commercial buildings. The Roman Catholic Church of Saint Raymond acquired the Site in 1960. Bronx Buildings Department records indicate that the Saint Raymond Church took out a building permit application in 1961 to conduct alterations to the existing garage/service building (i.e., southernmost building constructed in 1927) to be used as a high school.

Saint Raymond Church received a Certificate of Occupancy for the high school in 1964. The 1966 USGS topographic map shows the southernmost building as a school. The 1970 Sanborn Fire Insurance (Sanborn) map identifies the southernmost building (former garage/service building) as the St. Raymond High School for Boys. The two central buildings, automobile garage and store house are not shown on the 1970 Sanborn map. A one-story addition and gymnasium were constructed on the northern side of the high school building circa 1997. However, in 2010, a portion of this addition was demolished to construct a new building annex for expanded classrooms.

Previous investigation activities at the Site included the collection and compilation of historic information, which is documented in the *Manufactured Gas Plant History Report*. Based on historical information and current conditions at the Site, Con Edison developed a Site Characterization Study (SCS) and then a Remedial Investigation (RI) work plan. The SCS/RI field work was conducted from June through August 2004 and February through March 2006 in accordance with the NYSDEC-approved *Site Characterization Work Plan (SCWP)* (GEI, 2002b) and *Remedial Investigation Work Plan (RIWP)* (GEI, 2005b).

The SCS/RI work included locating the subsurface remnants of MGP structures that might exist on the property, delineating the lateral and vertical extent of potential MGP residuals in the soil, soil vapor, and groundwater and characterizing Site-specific geology and hydrology.

The information from these investigations will be used by Con Edison to prepare a draft remedial Alternatives Analysis Report (AAR) which would outline various remedial options for the Site and recommend one of the alternatives based on several criteria specified by the NYSDEC. If the NYSDEC (with concurrence from NYSDOH) deems the draft AAR to be approvable, the public will have an opportunity to review and comment on it during a 30-day public comment period. After the public comment period, the NYSDEC will approve the AAR for implementation by Con Edison. Depending on the comments received by NYSDEC, the AAR may have to be revised to reflect the public's input. The NYSDEC will issue a Decision Document which documents the selected remedy.

## **5.0 MAJOR ISSUES OF PUBLIC CONCERN**

**Part 1** – List major issues of public concern and information the community wants. Identify individuals, groups, organizations, businesses and/or units of government related to the issue(s) and/or information.

*Concerns have been raised by nearby stakeholders about possible impacts to the water supply and air quality, residual matter underneath the residential buildings, and migration off the MGP property to nearby buildings. In addition, impacts from truck traffic and noise may also be of concern. This Site is located in an Environmental Justice Area and includes a large Spanish-speaking population in the area. Therefore, future fact sheets will be translated into Spanish.*

*The key stakeholders in the community that surround the MGP include a large residential complex (Parkchester Condominiums), two public schools (P.S. 106 & J.H.S. 127), and two private residences (1605 Purdy Street & 1609 Purdy Street). St. Raymond High School is the current occupant of the former MGP property, and they have been consulted since the start of the project.*

**Part 2** – List important information needed **from** the community, if applicable. Identify groups, organizations, businesses and/or units of government related to the needed information. How were these information needs identified?

N/A

**Part 3** – List major issues and information that need to be communicated **to** the community. Identify groups, organizations, businesses and/or units of government related to the issue(s) and/or information. How were these issues and/or information identified?

*Con Edison began to inform the current property owner of the former MGP site about the remedial investigation program as early as 2002. Possible health and environmental impacts were shared with the public. A Fact Sheet was issued in 2004, and communications with area stakeholders, including the parents of students at St. Raymond High School, local elected officials and the community board, took place regarding a Site Characterization Study performed in mid-2004. In 2008 and 2010, Con Edison briefed the surrounding community and schools at key milestones of our ongoing testing and the RI report via scheduled meetings and dissemination of Fact Sheets. On the evening of Thursday, May 27, 2010, Con Edison, together with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), held a public meeting in at the St. Raymond High School for Boys. Con Edison presented the findings from the Remedial Investigation Report (RI) and discussed next steps in the remedial planning process for Purdy Street.*

**Part 4** – Identify the following characteristics of the affected/interested community.

- a. Land use/zoning around site: Residential/Commercial
- b. Residential type around site: Urban
- c. Population density around site: Medium
- d. Community economic status: Medium
- e. Water supply of nearby residences: Public
- f. Other environmental issues significantly impacting affected community? No
- g. Special considerations: Language (See CB 9 Demographics below)

## BRONX COMMUNITY BOARD 9 DEMOGRAPHICS

<b>POPULATION</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>
Total Number	167,627	155,970	167,859
Percent Change	--	-7.0	7.6

<b>VITAL STATISTICS</b>	<b>1990</b>	<b>1999</b>
Births (Number)	3,451	2,714
Births (Rate per 1000)	22.1	17.4
Deaths (Number)	1,502	1,131
Deaths (Rate per 1000)	9.6	7.3
Infant Mortality (Number)	43	17
Infant Mortality (Rate per 1000)	12.5	6.3

<b>INCOME SUPPORT</b>	<b>1994</b>	<b>2000</b>
Public Assistance (AFDC, Home Relief)	38,138	20,485
Supplemental Security Income	9,449	10,261
Medicaid Only	8,284	15,186
Total Persons Assisted	55,871	45,932
Percent of Population Assisted	35.8	27.4

<b>LAND USE, 2000</b>	<b># of Lots</b>	<b>% of Total Lot Area in District</b>
1-2 Family Residential	5,724	20
Multi-family Residential	2,886	29
Mixed Residential & Commercial	299	3
Commercial & Office	261	6
Industrial & Manufacturing	81	4

Transportation & Utility	93	2
Public Facility & Institutional	135	12
Open Space & Outdoor Recreation	27	9
Parking Facilities	195	2
Vacant Land	569	10
Total	10,270	100

Note: Total percentage of lot area may exceed the sum of individual land use categories since lots classified as "other/miscellaneous", such as land under water, are included in the totals but excluded from the categories.

Total Population by Mutually Exclusive Race and Hispanic Origin and Total Housing Units New York City Community Districts, 1990 and 2000						
	1990		2000		Change 1990-2000	
<b>Bronx Community District 9</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<b>Total Population</b>	155,970	100	167,859	100	11,889	7.6
Nonhispanic of Single Race:	-	-	-	-	-	-
White Nonhispanic	14,062	9	7,065	4.2	-6,997	-49.8
Black/African American Nonhispanic	51,564	33.1	55,750	33.2	4,186	8.1
Asian or Pacific Islander Nonhispanic	4,321	2.8	6,151	3.7	1,830	42.4
American Indian and Alaska Native Nonhispanic	537	0.3	538	0.3	1	0.2
Some Other Race Nonhispanic	691	0.4	1,650	1	959	138.8
Nonhispanic of Two or More Races	-	-	3,971	2.4	-	-
Hispanic Origin	84,795	54.4	92,734	55.2	7,939	9.4
<b>Population Under 18 Years</b>	43,718	100	51,072	100	7,354	16.8
Nonhispanic of Single Race:	-	-	-	-	-	-
White Nonhispanic	1,463	3.3	937	1.8	-526	-36
Black/African American Nonhispanic	14,623	33.4	16,832	33	2,209	15.1
Asian or Pacific Islander	1,231	2.8	1,655	3.2	424	34.4



Nonhispanic						
American Indian and Alaska Native Nonhispanic	173	0.4	193	0.4	20	11.6
Some Other Race Nonhispanic	297	0.7	495	1	198	66.7
Nonhispanic of Two or More Races	-	-	1,163	2.3	-	-
Hispanic Origin	25,931	59.3	29,797	58.3	3,866	14.9
<b>Population 18 Years and Over</b>	112,252	100	116,787	100	4,535	4
Nonhispanic of Single Race:	-	-	-	-	-	-
White Nonhispanic	12,599	11.2	6,128	5.2	-6,471	-51.4
Black/African American Nonhispanic	36,941	32.9	38,918	33.3	1,977	5.4
Asian or Pacific Islander Nonhispanic	3,090	2.8	4,496	3.8	1,406	45.5
American Indian and Alaska Native Nonhispanic	364	0.3	345	0.3	-19	-5.2
Some Other Race Nonhispanic	394	0.4	1,155	1	761	193.1
Nonhispanic of Two or More Races	-	-	2,808	2.4	-	-
Hispanic Origin	58,864	52.4	62,937	53.9	4,073	6.9
<b>Total Population</b>	155,970	100	167,859	100	11,889	7.6
Under 18 Years	43,718	28	51,072	30.4	7,354	16.8
18 Years and Over	112,252	72	116,787	69.6	4,535	4
<b>Total Housing Units</b>	58,115	-	63,459	-	5,344	9.2

Sources of data:

Population: US Census Bureau

Vital Statistics: NYC Department of Health

Income Support: NYC Human Resources Administration

Land Use: NYC Department of Finance's Real Property File

Note: condominiums, which have separate tax lots for each unit, are aggregated to a single tax lot per block in determining counts in the appropriate residential, commercial and mixed residential/commercial categories.

## 6.0 CITIZEN PARTICIPATION ACTIVITIES:

This section of the CP Plan describes the CP activities to be conducted during the investigation and remediation of the Con Edison MGP Sites. Project staff will perform these activities to inform and involve the affected and interested community. Although each Site has unique characteristics that may require either additional or consolidated CP efforts, the outline for the outreach process is set forth in **Attachment 3** of this CP Plan.

CP activities for this Site include:

- Identification of the NYSDEC, NYSDOH and Con Edison Project Managers for the project and the ways for the public to contact them. Interested persons are encouraged to contact staff at any time with additional issues or information needs (see **Section 6.0 below**).
- Establishment of Document Repositories (see **Section 7.0 below**).
- Creation of a Site Contact List for the interested public. Individuals and groups included in the Site Contact List (see **Section 8.0 below**) will receive all mailings. The list will be updated as needed.
- Establishment of a 24/7 MGP Hotline, 877-602-6633.
- Establishment of a Con Edison MGP website at: [www.coned.com/mgp](http://www.coned.com/mgp)
- Mailing a Site Characterization Study (SCS) Fact Sheet.
- If further investigation is required, mailing a Fact Sheet concerning the Remedial Investigation Work Plan (RI) and results of SCS.
- If the RI indicated that remedial action is required, a Fact Sheet will be sent advising that a remedial Alternatives Analysis Report (AAR) has been developed, and is available for public review and comment during a 30-day public comment period.
- Holding a public meeting in the community to present the AAR and to solicit public comments. Following the public comment period, the NYSDEC may make revisions to the AAR due to the comments received. The NYSDEC will issue a Decision Document which documents the selected remedy.
- Mailing a Fact Sheet announcing the start of remedial action.
- Mailing a Fact Sheet when the remedial action has been completed.

## **7.0 PROJECT CONTACTS:**

For additional information about the program to investigate/remediate this Site, the public is encouraged to contact any of the following project staff:

### **New York State Department of Environmental Conservation (NYSDEC)**

#### The Environmental Investigation:

Douglas MacNeal  
Project Manager  
Division of Environmental Remediation  
NYSDEC  
625 Broadway  
Albany, NY 12233  
Tel: (518) 402-9564  
Email: dkmacnea@gw.dec.state.ny.us

#### Regional Citizen Participation Specialist:

Thomas V. Panzone  
NYSDEC – Region 2  
Division of Public Affairs and Education  
1 Hunters Point Plaza  
47-40 21<sup>st</sup> Street  
Long Island City, NY 11101  
Tel: (718)-482-4958

### **New York State Department of Health (NYSDOH)**

Chris Doroski  
Project Manager  
NYSDOH  
547 River Street  
Troy, NY 12180  
Tel: (800) 458-1158 ext. 2-7880  
Email: beei@health.state.ny.us

### **Con Edison**

Eric Soto  
Director, Bronx Public Affairs  
Con Edison  
511 Theodore Fremd Avenue  
Rye, NY 10580  
Toll Free (877) 602-6633  
Email: sotoe@coned.com

## **8.0 DOCUMENT REPOSITORIES:**

Document repositories have been established to provide the public with convenient access to important project documents and other information. In addition to the VCA signed on August 15, 2002, the repositories will include reports, data and other information developed during the course of the investigation and remediation.

Documents can be found on: [www.coned.com/mgp](http://www.coned.com/mgp)

Westchester Square Branch  
New York Public Library  
2521 Glebe Avenue  
Bronx, NY 10461  
Tel: (718) 863-0436  
Email: [westchester\\_square@nypl.org](mailto:westchester_square@nypl.org)  
Hours: Monday & Wednesday 10-6; Tuesday & Thursday 11-7;  
Friday & Saturday 10-5 (closed Sunday)

NYSDEC Region 2 Office  
1 Hunters Point Plaza  
47-40 21<sup>st</sup> Street  
Long Island City, NY 11101  
Tel: (718)-482-4900  
Hours: Mon.- Fri. 9am-4pm

Hon. Ruben Diaz, Jr.  
Office of Bronx Borough President  
851 Grand Concourse, 3<sup>rd</sup> Floor  
Bronx, NY 10451  
Tel: (718) 590-3500

## **9.0 INTERESTED PUBLIC (SITE CONTACT LIST):**

A Site Contact List has been developed and is included as **Attachment 1** to help keep the community informed about and involved in the investigation and remediation process for this MGP Site. The Site Contact list is developed with input from the NYSDEC Citizen Participation Specialist. The list includes adjacent property owners; local, regional and state officials; local media; civic, environmental organizations and others. The contact list will be reviewed periodically and updated as appropriate. The Site Contact List will receive all fact sheets and meeting notices updating the public on the progress of the investigation.

If you know of anyone who would like to be added to this list, please contact the Con Edison or NYSDEC Project Manager listed in **Section 6** (above).

PLEASE NOTE: The adjacent/affected property owners and resident portion of the list is maintained confidentially in project files, not in a CP Plan or repositories.

Glossary and Acronyms

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GLOSSARY OF KEY CITIZEN PARTICIPATION TERMS

<b>Availability Session</b>	A meeting with the community with no formal agenda, which may or may not include staff from NYSDEC/NYSDOH. See public meeting.
<b>Background</b>	Refers to the concentrations of contaminants (compounds) existing in various media (soil, groundwater, sediment) that originated from either natural sources (non man-made) or resulting from normal off-site activities of the population and commercial/industrial activity in the vicinity of the site not specifically related to site process operations. Also included in this category are parent or breakdown constituents of these compounds.
<b>Benzene</b>	A common organic chemical compound made up of six carbon atoms arranged in a hexagonal ring, with hydrogen atoms attached to each corner. Benzene is a widely used chemical in industry, and is often found in gasoline.
<b>Brownfield Cleanup Program</b>	The Brownfield Cleanup Program addresses the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. Under the BCP, a volunteer can enter into an agreement with the NYSDEC to investigate a site, remediate a site, or investigate and remediate a site. The volunteer agrees to remediate the site to a level which is protective of public health and the environment for the present or intended use of the property. Investigation and remediation is carried out under the oversight of NYSDEC and the New York State Department of Health. The volunteer pays a portion of the State's oversight costs. When the volunteer completes the remedial work, or if no remediation is necessary, the NYSDEC provides a release from liability for the work performed and the contaminants addressed, with standard reservations.
<b>BTEX</b>	An abbreviation for a group of chemical compounds: Benzene, Toluene, Ethylbenzene, and Xylene. Commonly found in MGP wastes and are also used as antiknock compounds in gasoline.
<b>Carbureted Water Gas</b>	Refers to a more sophisticated process for producing a higher quality gas. Either coke or coal was heated in a retort into which

steam was injected. A chemical reaction took place that produced a flammable gas mixture. Petroleum products or oils were then sprayed into this hot gas mixture creating another chemical reaction to form methane, which increased the heating and lighting value of the gas.

**Citizen Participation**

A program of planning and activities to encourage communication among people affected by or interested in hazardous waste sites and the government agencies responsible for investigating and remediating them.

**Citizen Participation Plan (CPP)**

A document that describes the project-specific citizen participation and outreach activities that will take place alongside the technical components of the remedial program. The CPP also provides project information, citizen participation goals and objectives, and lists of contact persons and document repositories.

**Citizen Participation Specialist**

An NYSDEC staff member whose duty it is to provide guidance and assistance in carrying out the CPP. The Citizen Participation Specialist is the key contact for public inquiries about the project and the remedial activities.

**Coal Carbonization**

Refers to the oldest and simplest process used for manufactured gas production. Coal was heated in closed ovens, or retorts, with no source of air. Volatile constituents of the coal were driven off as a gas. This low quality gas was collected, cooled and purified prior to being directed into a distribution system.

**Coal Tar**

A very viscous oily liquid that is one of the by-products of the manufactured gas process during production, purification and distribution.

**Contact List**

A list in the CPP (Appendix C) containing names and addresses of individuals, groups, organizations, news media and public representatives interested and/or affected by the project. The contact list is used to distribute important information and notices about the project and the remedial program.

**Division of Environmental Remediation**

Formerly the Division of Hazardous Waste Remediation, a major program unit within the New York State Department of Environmental Conservation created to manage the hazardous waste site remedial program from site discovery through Operation and Maintenance activities. Staff include: engineers, geologists, chemists, attorneys, citizen participation specialists, environmental program specialists and support staff.

**DNAPL**

Refers to Dense Non-Aqueous Phase Liquid. A DNAPL is a

liquid that is immiscible and remains as a separate phase or layer in the environment and is heavier than water, thus making it sink through the groundwater.

<b>Document Repository</b>	Project documents and other information are placed in the Document Repository to facilitate convenient public access to these materials. The file generally is maintained in a public building near the MGP or gas holder site to provide access at a location and times convenient to the public. Refer to Section 8 for more information about the Document Repository location.
<b>Engineering Controls (EC)</b>	Engineering Control shall mean any physical barrier or method employed to actively or passively contain, stabilize or monitor hazardous waste or petroleum.
<b>Fact Sheet</b>	A written discussion about part or all of a site's investigation, prepared by Con Edison and reviewed by DEC and provided to the public. A fact sheet may focus on: a particular element of the site's investigation; opportunities for public involvement; availability of a report or other information, or announcement of a public meeting or comment period.
<b>Feasibility Study (FS)</b>	Based on information gathered during the Remedial Investigation (RI), the FS is a process for developing, evaluating and selecting appropriate Remedial Action (RAs) for limiting or eliminating the potential human and environmental hazards of a site. The FS sets out the goals of the remedial actions to be taken, evaluates the most appropriate alternatives and selects the best alternative based on several criteria. The selected remedy is then recommended for implementation in the Proposed Remedial Design Plan, which is subject to public review and comment.
<b>Gas Holder</b>	(Also known as a gasometer) is a large, expandable tank used to store gas at an MGP.
<b>Groundwater</b>	Refers to water below the land surface in a saturated zone of soil or rock. This includes perched water separated from the main body of groundwater in an unsaturated zone.
<b>Holder Station</b>	Gas holders were large storage tanks, either above or below ground that were used to maintain a supply of pressurized manufactured gas for introduction into the distribution system. The MGP would produce and purify the gas, and in some cases, because of the size of the distribution system or the area available for the plant, gas holders were located off the main plant site at other locations. Those places where just a gas holder was located

are called holder stations.

<b>Inorganic</b>	Substances that do not contain carbon. Metals such as zinc and lead are inorganic substances.
<b>Interim Remedial Measure (IRM)</b>	A discrete action which can be conducted at a site relatively quickly to reduce the risk to people's health and the environment from a well defined waste problem. An IRM can involve cutting and plugging waste conduits, removing contaminated soil and securing a site.
<b>Institutional Controls (IC)</b>	Institutional control shall mean any non-physical means of enforcing a restriction on the use of real property that limits human or environmental exposure.
<b>LNAPL</b>	Refers to Light Non-Aqueous Phase Liquid. A LNAPL is a liquid that is immiscible and remains as a separate phase or layer in the environment and is lighter than water, thus making it float or reside near the top of the groundwater.
<b>Mailing List</b>	Names, addresses and/or telephone numbers of individuals, groups, organizations, government officials and media affected by or interested in a particular hazardous waste site. The size of a mailing list and the categories included are influenced by population density, degree of interest in a site, the stage of the remedial process and other factors.
<b>MGP</b>	Refers to a Manufactured Gas Plant. This was an industrial facility at which gas was produced from coal, oil and other feedstock. The gas was used for heating and lighting.
<b>Monitoring Well</b>	A hole drilled into the soil or bedrock which enables officials to collect samples of groundwater at a specific horizontal and vertical location. The samples can then be tested to look for contaminants. Also use monitoring wells to gather water elevation data to generate ground water flow maps.
<b>NAPL</b>	Refers to Non-Aqueous Phase Liquid. A NAPL is an immiscible liquid that remains as a separate phase or layer in the environment (see LNAPL and DNAPL)
<b>Natural Attenuation</b>	A variety of natural processes by which contaminant concentrations decrease in soil or groundwater. For example, some bacteria break down contaminants into non-toxic substances like water and carbon dioxide.



**New York State  
Department of Health**

Agency within the executive branch of New York State government which works closely with DEC to evaluate potential health impacts and human exposures, reviews all site investigations, conducts health-related community outreach around sites, and reviews remedial actions to assure that public health concerns are adequately addressed.

**Operable Unit (OU)**

An administrative term used to identify a discrete portion of a site that can be addressed by a distinct investigation and/or cleanup approach. For example, groundwater contamination at a site may be considered as one operable unit, and soil contamination at the same site may be dealt with as a second operable unit.

**Operation,  
Maintenance and  
Monitoring**

A period in which remedial action may be conducted following construction at a site (for example, operation of a “pump and treat” system), or which is performed after a remedial action to assure its continued effectiveness and protection of people’s health and the environment (for example site inspections, well monitoring and other sampling).

**Permeability**

The extent to which a liquid or gas can move through a substance. For example, different types of soil have different permeabilities: water moves easily through predominantly sandy soils (a high permeability soil) and slowly through predominantly clay soils (a low permeability soil).

**Plume**

An area of chemicals moving away from its source in a feather-like (hence the name, plume) shape. For example, a plume can be a column of smoke drifting away from a chimney or an area where dissolved chemicals are moving with groundwater.

**Polycyclic Aromatic  
Hydrocarbons (PAHs)**

Contaminants typically found at power generation sites and associated with incomplete fossil fuel combustion.

**Poly-Chlorinated  
Biphenyls (PCBs)**

Contaminants typically found at electric power generation/substation sites.

**PPB/PPM**

The concentration of a substance in air, water, or soil. The abbreviations stand for part per billion (ppb) and part per million (ppm). One ppb means there is one part of a substance for every billion parts of the air, water or soil in which it is measured. One ppb is 1,000 times less than 1 ppm.

**Public Meeting**

A scheduled gathering of agency staff and the public to give and receive information, ask questions and discuss concerns about a site’s investigation. Staff from other NYSDEC divisions, legal

and health staff, and staff from consultants and a responsible party often attend. A public meeting, unlike an availability session, generally features a formal presentation and a detailed agenda.

**Purifier Waste**

(Also known as box waste) is a solid MGP waste that was produced during purification of the manufactured gas. It is typically found as a dark mixture of wood chips with a very strong, unpleasant burnt odor.

**Receptor**

Means any humans or biota that are, or may be expected to be, or have been, exposed to or affected by a contaminant from a site.

**Remedial Action**

Refers to those actions taken at or near a site as may be required by the NYSDEC, including without limitation, removal, treatment, containment, transportation, securing, or other engineering or institutional controls, whether of a permanent nature or otherwise, designed to ensure that any discharged contamination is remediated in compliance with applicable New York State standards, criteria, and guidelines.

**Remedial Construction**

The implementation of the remedial alternative selected to remediate (clean up) a site. A soil removal, installation of a groundwater treatment system, or installation of a landfill cap are all examples of remedial construction. Construction follows the Remedial Design stage of a site's remedial program.

**Remedial Design (RD)**

This report will include a detailed description of the remedial objectives and the means by which each essential element of the selected remedial alternative will be implemented to achieve those objectives. It incorporates the findings of the FS Report to provide a remedial design which will be implemented during the performance of the cleanup activities at the site.

**Remedial Investigation (RI)**

A process to determine the nature and extent of contamination at a site by analyzing data collected from sampling (e.g., water, soil, air, etc.) at a site. Information gathered throughout the RI is then used to conduct a Feasibility Study (FS), which proposes and evaluates various remedial alternatives for the site.

**Responsible Party**

An individual or business who: currently owns or operates a former MGP or gas holder site; or historically owned or operated this type of site when waste was disposed; or generated waste at a site; or transported hazardous waste to a site.

**Responsiveness Summary**

The Responsiveness Summary is prepared by the NYSDEC to address public comments, questions and concerns regarding the proposed remedial action (PRAP) to be taken at a site. The

Responsiveness Summary is issued as part of the Remedial Action Program.

**Sediment**

Refers to soils or organic material in water, as found in lakes, rivers, streams, and other water bodies and in or close proximity to wetland areas. Material found in enclosed sumps, sewers, or piping systems not accessible to fish and wildlife and not forming any benthic or aquatic habitat are not considered sediments for the purpose of comparison to New York State requirements for sediment.

**Semi-Volatile Organic Compounds**

A group of chemicals similar to Volatile Organic Compounds that do not evaporate as easily.

**Site Characterization**

Generally refers to the first or initial phase or stage of the process of identifying potential areas of concern at a site. This is not as detailed or encompassing as a remedial investigation that may be conducted at a site.

**Site Contact List**

Names, addresses and/or telephone numbers of individuals, groups, organizations, government officials and media affected by or interested in a particular hazardous waste site. The size of a mailing list and the categories included are influenced by population density, degree of interest in a site, the stage of the remedial process and other factors.

**Soil Boring**

A circular hole made in the ground by a drill to collect soil samples deep in the ground. Samples are collected for testing to see if the subsurface soil has been contaminated. Sometimes these borings are converted into groundwater monitoring wells.

**Soil Gas**

Refers to the air and other gases found in the pore spaces of soils above the water table. (Below the water table, these pore spaces are filled with water)

**Soil Gas Survey**

A method for investigating the underground distribution of volatile organic compounds by looking for their vapors in the soil gas (air present in the gap between soil particles). In a soil gas survey, a small amount of soil gas is collected from various locations and tested for the presence of contaminants.

**Tar Well**

Refers to any subsurface tank or vessel used to accumulate or store tar. It is common to find these structures, partially or totally full of tar, during MGP investigations.

**Volatile Organic Compounds (VOCs)**

Carbon-containing chemicals that readily evaporate, such as some cleaning solvents and chemicals in gasoline.

## **Voluntary Cleanup Agreement**

New York State's Voluntary Cleanup Program is a cooperative approach between NYSDEC, property owners, and responsible parties to investigate and/or remediate contaminated sites. Under the Voluntary Cleanup Program, a volunteer enters into an agreement and performs investigation and/or remedial activities pursuant to NYSDEC approved work plans. Investigation and/or remediation are carried out under the oversight of NYSDEC and the NYSDOH and the volunteer pays the State's oversight costs.

## **ACRONYMS**

AAR	Alternatives Analysis Report
BCP	Brownfield Cleanup Program
BCA	Brownfield Cleanup Agreement
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
C & D	Construction and Demolition Debris
CP	Citizen Participation
DEC	Department of Environmental Conservation (New York State)
DER	Division of Environmental Remediation, formerly the Division of Hazardous Waste Remediation (NYSDEC)
DNAPL	Dense Non-Aqueous Phase Liquids
DOH	Department of Health (New York State)
DOW	Division of Water (NYSDEC)
EC	Environmental Control
ENB	Environmental Notice Bulletin
EPA	United States Environmental Protection Agency
F & W	Division of Fish and Wildlife (NYSDEC)
FOIL	Freedom of Information Law
FS	Feasibility Study
GPM	Gallons Per Minute
HeLP	Health Liaison Program (NYSDOH)
IC	Institutional Control
IRM	Interim Remedial Measure
MGP	Manufactured Gas Plants
mg/kg	milligrams per kilogram (PPM)
NAPL	Non-Aqueous Phase Liquid
ND	Non-Detect
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM & M	Operation, Maintenance and Monitoring

OU	Operable Unit
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Poly-Chlorinated Biphenyl
POTW	Publicly Owned Treatment Works (sewage treatment plant)
ppm/ppb/ppt	parts per million/parts per billion/parts per trillion
QA/QC	Quality Assurance/Quality Control
RA	Remedial Action
RAS	Remedial Action Selection Report
RCRA	Resource Conservation and Recovery Act (Federal Law)
RD	Remedial Design
RHWRE	Regional Hazardous Waste Remediation Engineer
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RP	Responsible Party
SCGs	Standards, Criteria and Guidance Values
SVOCs	Semi-Volatile Organic Compounds
TAGM	Technical and Administrative Guidance Memorandum
TSCA	Toxic Substances Control Act
TSDF	Treatment, Storage and Disposal Facility
ug/l	micrograms per liter (PPB)
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program