

# DRAFT VOLUNTARY CLEANUP PROGRAM DECISION DOCUMENT

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## CE-West 18<sup>th</sup> Street MGP Site Manhattan, New York Site No. V00530 Operable Unit 4

### Statement of Purpose and Basis

This Voluntary Cleanup Program (VCP) Draft Decision Document presents the remedy approved by the Department of Environmental Conservation (Department) for Operable Unit #4 (OU4) of the ConEdison West 18<sup>th</sup> Street MGP site.

**Description of the Site** The site is located in Manhattan, and is comprised of numerous properties bounded by the Hudson River to the west, 16<sup>th</sup> Street to the south, 20<sup>th</sup> Street to the north and Tenth Avenue to the east. One additional parcel is located on 18th Street, east of Tenth Avenue.

OU4 is defined as the lot bounded by 17<sup>th</sup> Street to the south, 18<sup>th</sup> street to the north, Tenth Avenue to the east and the West Side Highway (aka 11<sup>th</sup> Avenue or Route 9A). The Highline, a former elevated railroad which is being converted into an elevated green way/park, crosses above the eastern portion of the site. This property originally housed the retorts used to generate the gas from coal, as well as scrubbers and purifiers used purify the gas prior to distribution.

### Nature and Extent of Contamination

Contamination was identified by the Remedial Investigation (RI) of this site, which represents a threat to public health and the environment, requiring a remedial program to address the contamination identified on Figure 7-1 and below.

Nature of contamination: The RI identified the presence of coal tar in the subsurface soil. Contaminants of concerns in the tar include polycyclic aromatic hydrocarbons (PAHs) and the volatile compounds benzene, toluene, ethylbenzene and xylene (BTEX).

Extent of contamination: Significant amounts of coal tar, a non-aqueous phase liquid (NAPL), is present in the subsurface of the OU4 property in the area of the former retorts (the western half of the property). Some coal tar also extends south of the retorts. Another small area of coal tar contamination was identified under the Highline.

Groundwater sampling identified groundwater contamination in close proximity to the coal tar. Groundwater impacts beyond the OU4 property will be as part of the overall West 18<sup>th</sup> Street MGP site remediation.

### **Description of Selected Remedy**

Based on the results of the Alternatives Analysis and the criteria identified for evaluation of alternatives, the NYSDEC has selected a remedy for this VCP site. The components of the remedy set forth in the Remedial Work Plan and shown on the attached Figure 7-1, are as follows:

1. The western third of this property was historically part of the Hudson River and was filled using “cribbing,” cages made from large timbers filled with rock and debris. Experience at nearby sites has shown this material to be very difficult to work through. In this area, a containment wall will be constructed to prevent migration of and exposure to the contamination in this area. The wall will have a low permeability, similar to a liner at a landfill).
2. Within the containment area, coal tar will be extracted to the extent possible by a series of active NAPL collection wells.
3. Coal tar impacted materials east of the cribbing and west of the highline will be treated/contained using in-situ solidification (ISS). This will create a low permeability cement monolith which will effectively isolate the MGP contamination from human contact and the environment, eliminating potential exposure pathways. Implementing ISS at this site requires conducting a treatability study, and pre-ISS excavation to clear obstructions and to allow for soil expansion. The Remedial Design will identify appropriate Construction Quality Assurance Protocols for the planned ISS activities, including mix design and testing.
4. The coal tar identified under the Highline appears to extend over a small area. This is being confirmed with additional investigation work. If additional NAPL impacted soils are encountered in this area, the information will be provided to NYC Parks Department, for use in their elevator pit design and construction planning. The SMP will also include this information for future excavation work (if any) in this area and will require appropriate handling and disposal of any material encountered. Contamination in this area is isolated; exposure to the contamination would be unlikely and any effective remediation will be difficult to implement. It is a minimum of 12 feet below grade and largely underneath piers supporting the Highline. There is no evidence of groundwater contamination from this contamination migrating off-site. No active remediation of this area is proposed, but institutional controls will be required to manage the contamination as described below.
5. Following remediation and prior to redevelopment, the entire site will be covered with a minimum of 18 inches of clean fill and 6 inches of cement-bentonite material (or a similar low-permeability layer). A demarcation layer will be provided between the cover and the underlying material.
6. Sub-slab depressurization systems will be installed for any buildings constructed during the development of the site.
7. Off-site groundwater or soil gas contamination will be addressed as part of the overall remedy for the larger West 18<sup>th</sup> Street MGP site.

8. Since the remedy results in contamination above unrestricted levels remaining at the site, an institutional control in the form of an environmental easement will be required for the site. The environmental easement will:
  - (a) restrict the use of the site to restricted residential use, which will also allow commercial or industrial use. Any specific future use of the site must comply with local laws and regulations;
  - (b) restrict the use of groundwater at the site;
  - (c) require the management of the site in accordance with the provisions of the site management plan, to be approved by the Department; and
  - (d) require the property owner complete and submit to the Department a periodic certification.
  
9. A site management plan (SMP) will be developed and implemented. The SMP will identify the institutional controls and engineering controls (IC/ECs) required for the remedial action plan (RAP) and detail their implementation. The SMP for the RAP will include:
  - (a) an IC/EC control plan to establish the controls and procedures necessary to; (i) manage remaining contaminated soils that may be excavated from the site during future activities, including procedures for soil characterization, handling, health and safety of workers and the community as well as, disposal/reuse in accordance with applicable NYSDEC regulations and procedures; (ii) evaluate the potential for vapor intrusion for any buildings developed on the site, including mitigation of any impacts identified; (iii) maintain use restrictions regarding site development or groundwater use identified in the environmental easement; and (iv) require the property owner to provide the Department an institutional control/engineering control (IC/EC) certification on a periodic basis;
  - (b) a monitoring plan to monitor the effectiveness of the ISS as well as the trend of contaminants concentrations in the groundwater; and
  - (c) an operation and maintenance plan to provide the detailed procedures necessary to operate and maintain the remedy, including coal tar recovery system. The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.
  
10. The property owner will provide a periodic certification of institutional and engineering controls, prepared and submitted by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submission will:
  - (a) contain certification that the institutional controls and engineering controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications;
  - (b) allow the Department access to the site; and
  - (c) state that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure

## **Public Review and Comment**

This Draft Decision Document and the Alternatives Analysis for the site will be provided to the public for review and comment for a 30 day period, through May 2, 2008.

### **For More Information:**

Site documents, including the Remedial Investigation Reports, Remedial Action Work Plans, and related Fact Sheets can be reviewed at the following locations:

#### **Manhattan Borough President Scott Stringer's Office,**

1 Centre Street, 19th Floor,  
New York, NY 10007;  
212-669-8300,  
Hours: M-F 9am-5pm;

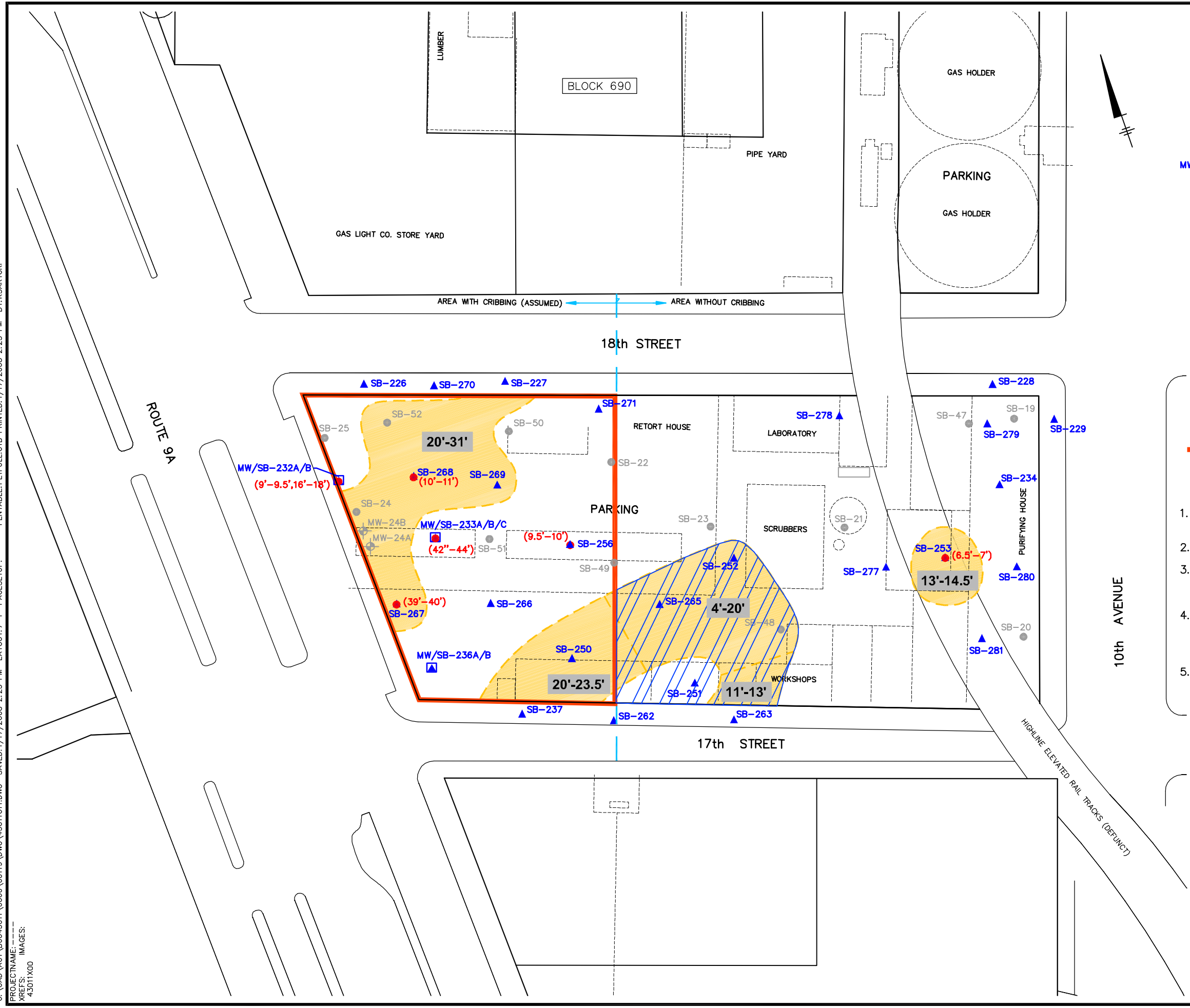
#### **Muhlenberg Branch, The New York Public Library,**

209 West 23rd Street,  
New York, NY 10011;  
(212) 924-1585.  
Hours of Operation:  
Mon 12-6, Tues/Wed 10-6, Thurs 12-8, Sat 1-5 (closed Fri/Sun).

#### **NYSDEC Central Office,**

Attn: William Ottaway,  
625 Broadway,  
Albany, NY 12233-7014,  
(518) 402-9564,  
wsottawa@gw.dec.state.ny.us.

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- LEGEND:**
- (6.5'-7') ● SAMPLE LOCATION OUTSIDE NAPL-IMPACTED AREA WITH PAHs > 500PPM (SAMPLE DEPTH)
  - SB-222 ▲ LOCATION AND DESIGNATION OF COMPLETED RI SOIL BORING LOCATION
  - MW/SB-232A/B ▲ LOCATION AND DESIGNATION OF COMPLETED RI MONITORING WELL LOCATION
  - SB-50 ● LOCATION AND DESIGNATION OF SCS SOIL BORING LOCATION
  - MW-24B ◻ LOCATION AND DESIGNATION OF SCS MONITORING WELL LOCATION
  - APPROXIMATE LOCATION AND CONFIGURATION OF FORMER STRUCTURES
  - NAPL NON-AQUEOUS PHASE LIQUID
  - APPROXIMATE EXTENT OF NAPL-IMPACTED SOIL ON PROPERTY (DASHED WHERE INFERRED)
  - ▨ IN SITU STABILIZATION (ISS)
  - 20'-31' APPROXIMATE DEPTH TO TOP AND BOTTOM OF NAPL-IMPACTED SOIL (BASED ON VISUAL SOIL CHARACTERIZATION)
  - CONTAINMENT

- NOTES:**
1. BASE MAP FROM TRC'S JANUARY 2006 SITE CHARACTERIZATION STUDY (SCS).
  2. ALL LOCATIONS ARE APPROXIMATE.
  3. A, B, C DESIGNATION ON MONITORING WELLS INDICATE SHALLOW (A), DEEP (B), AND INTERMEDIATE (C) DEPTH SCREENED INTERVALS.
  4. THE APPROXIMATE EXTENT OF NAPL IS BASED ON TAR-LIKE MATERIAL VISUALLY OBSERVED BY ARCADIS BBL AND/OR TRC DURING SOIL BORING INVESTIGATION ACTIVITIES.
  5. THIS ALTERNATIVE INCLUDES INSTALLATION OF A CAP OVER THE ENTIRE SITE. CAP INSTALLATION WILL INCLUDE EXCAVATION OF 3 - 4 FEET OF SOIL. SEE SECTION 6 OF THE ALTERNATIVE ANALYSIS REPORT FOR ADDITIONAL DETAIL.



CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
 WEST 18TH STREET FORMER GAS WORKS  
 ALTERNATIVES ANALYSIS REPORT BLOCK 689, LOT 17

**PROPERTY - WIDE ALTERNATIVE VIII**

