Chapter 11:

Hazardous Materials

A. INTRODUCTION

The hazardous materials remediation identified in the FGEIS has been and is currently being undertaken pursuant to a New York State Department of Environmental Conservation (NYSDEC) order on consent under the auspices of NYSDEC's Voluntary Cleanup Program (VCO) and was not the subject of the FGEIS proposed action (the disposition of the parcels). Remediation of the parcels pursuant to the VCO has been completed on the development parcels at 616, 685 and 708 First Avenue, and is occurring and 700 First Avenue independently of the Proposed Actions being considered in this SEIS. Remediation at 700 First Avenue will be completed prior to redevelopment of the development parcels. The VCO requires that each development parcel be remediated for unrestricted residential use without posing any risks to the environment or future occupants or visitors, and NYSDEC has determined that such has been achieved at 616, 685 and 708 First Avenue. The VCO specifies that further activities at the site (e.g., health and safety during construction, handling and disposal of any additional soil/groundwater disturbed during construction and requirements for clean fill placed in landscaped areas) will be governed by Site Management Plans (SMPs) for each development parcel to be approved by NYSDEC. NYSDEC has approved SMPs for the parcels on which remediation has been completed. The applicant has also executed Restrictive declarations for each parcel which require that the applicant implement any additional testing, remediation, and other protective measures deemed necessary by the New York City Department of Environmental Protection (NYCDEP) to prevent any potential impacts related to hazardous materials. These measures, implemented pursuant to NYCDEP-approved remedial action plans and construction health and safety plans, along with the completed remediation of the parcels pursuant to the VCO and ongoing protective measures that will be subject to NYSDEC's approval, would ensure that no significant adverse impacts related to hazardous materials would result from construction activities on the development parcels and that following construction, there would be no potential for significant adverse impacts. Therefore, there is no potential for significant adverse impacts associated with the Proposed Actions. This chapter presents, by parcel, a summary of the information contained in the FGEIS, updates the status of remediation activities on the development parcels, and describes further measures that will be taken in the future to avoid any potential significant adverse impacts related to hazardous materials.

B. BACKGROUND

As discussed in the FGEIS, soil and groundwater sampling identified hazardous materials (including some combination of petroleum products, volatile and semi-volatile organic compounds, metals, and PCBs) on each of the parcels. Lead paint and asbestos containing materials were identified in various previously existing site structures. In 2000, Con Edison engaged TRC Companies, Inc. (TRC), an environmental remediation firm, to undertake investigation and remedial activities and associated demolition activities under the direction of NYSDEC.

C. SUMMARY OF REMEDIATION ACTIVITIES

685 FIRST AVENUE

This parcel included a Con Edison gasoline fueling facility with underground storage tanks (USTs). The pump island, tanks, and associated piping were removed in 1998. During excavation, evidence of releases was observed and a spill was reported to the NYSDEC (NYSDEC Spill #98-09889). Additional petroleum contaminated soils were removed in 1999 and the area was backfilled following approval by the NYSDEC. However, post-excavation soil sampling indicated that some residual volatile organic compound (VOC) concentrations remained above NYSDEC guidance criteria. A groundwater investigation was conducted in 2000 and measurable separate-phase hydrocarbons (SPH) were encountered in one bedrock well in the southeast corner of the site. Passive recovery through bailing was implemented to reduce the SPH thickness. Separate phase product was extracted from the well periodically and groundwater continues to be monitored; however, product is no longer detected in site wells. In 2001, work conducted included further sampling and subsequent excavation of weathered bedrock containing gasoline constituents. In 2002, work included additional sampling and additional remediation of petroleum-contaminated soil and weathered bedrock, and application of Oxygen Release Compound (ORC) to enhance natural attenuation of residually contaminated bedrock groundwater. Due to the presence of minor offsite residual petroleum-contaminated soils at the southeast corner of the site, a reinforced concrete barrier wall was constructed in 2003. The Spill was "closed" by NYSDEC in March 2003. A Final Report documenting soil remediation sufficient to make the site acceptable for unrestricted residential use was submitted for NYSDEC approval in the Fall of 2003, and revised and finalized in July 2004. The Final Report provides for an ongoing Operation Maintenance and Monitoring (OM&M) Work Plan including quarterly groundwater monitoring and treatment with ORC. The OM&M Plan is designed to protect the public from exposure to hazardous materials as a result of future activities on the parcel by precluding use of groundwater for drinking purposes and requiring that any further excavation be undertaken pursuant to a Health and Safety Plan, that will in turn require characterization sampling and proper disposal of any excavated material. The Final Report and OM&M Plan were approved by NYSDEC in November 2004 upon the agency's finding that the remediation was sufficient for unrestricted residential use of the site. The approved OM&M plan will serve the same function as the Site Management Plans applicable to the other parcels, as described below.

616 FIRST AVENUE

This parcel was Con Edison's Kips Bay Fuel Terminal and historically included a steam plant. All surface and subsurface structures (including the basement floor slab from the former steam plant; a pump house that housed a 255,000-gallon fuel oil UST; transformers; underground pipelines; utilities; and a fueling island) were demolished/removed by 2004. Demolition included cleaning and removal of PCB-contaminated liquids, sludge, and debris. The environmental concerns identified for this parcel were:

• *Pipeline No. 5/Northwest Corner*—Soil and groundwater were impacted by historical petroleum releases. Following initial Con Edison remediation, separate-phase hydrocarbon (SPH, i.e., floating oil) thicknesses within groundwater monitoring wells were monitored since 2000, and showed declining product thickness. This area was fully remediated in 2004, with no evidence of residual contamination at the groundwater table.

- *Pipeline No.* 6—A soil and groundwater investigation found no evidence of contamination and the pipeline was removed in 2004.
- *Off-Site Discharge*—A No. 6 oil release was discovered on the south side of 35th Street in August 1997. Investigation determined the release to be associated with a tank spill from a neighboring apartment building. TRC concluded that these petroleum releases had caused no adverse impacts to the 616 First Avenue development parcel.
- *Fuel Oil UST*—Petroleum product and soil/sand were previously removed by Con Edison. Groundwater monitoring wells identified SPH in three wells near the UST. SPH thickness within these wells was monitored since 2000, and showed declining thickness. The UST and surrounding soil were removed in 2004, with no evidence of residual SPH or other contamination at the groundwater table.
- *Transformer Area*—A small PCB-oil spill was reported by Con Edison in 1991. Impacted soils were removed, but an additional "hot spot" of PCB-contaminated soil was subsequently identified. PCB-contaminated soil was fully removed from this area in 2004.
- *Former Steam Plant Operations Area*—The presence of polycyclic aromatic hydrocarbons (PAHs) in this area appears to be associated with historic fill rather than discharges from previous operations. An area identified as an underground concrete-lined ash pit had elevated levels of metals and visible staining. The ash pit and surrounding soil were fully removed in 2004, with no evidence of residual product contamination at the groundwater table.
- *Soil*—Soil with elevated PAHs was identified across the site. All site soil was removed down to bedrock or the groundwater table in 2004.
 - Post-remediation groundwater monitoring was conducted and detected only trace concentrations of a few compounds. A Final Report documenting completion of all soil remediation was submitted to NYSDEC in March 2006 and approved in June 2006. An OM+M/Site Management Plan (SMP) for site maintenance during future redevelopment was submitted to NYSDEC in August 2006 and is described further below. <u>In</u> <u>November 2007, NYSDEC approved the SMP and determined that the remediation</u> <u>required under the VCO (i.e., for unrestricted residential use) was complete, conditioned</u> <u>on the implementation of the SMP</u>.

708 FIRST AVENUE

This parcel originally operated as a manufactured gas plant (MGP) and included aboveground storage tanks, coal houses, crude oil tanks, naphtha tanks and an iron storage building. Subsequently, a gasoline filling station with four gasoline USTs was located near the FDR Drive. Other USTs were located elsewhere on the property. Some of the equipment was filled with oil that may have contained PCBs. In 1999, sampling identified exceedances of NYSDEC TAGM 4046 guidance criteria for soil and NYSDEC GA Groundwater standards/guidance values. Subsequent sampling resulted in the preparation of a 2002 Remediation Work Plan (RWP) that proposed additional investigation of soil and groundwater and excavation of soils with elevated levels of VOCs. By 2003, all structures had been demolished and all USTs removed. Soil remediation was initiated in 2003 and completed in 2004, and all soil was removed to the depth of bedrock, groundwater, or 16 feet (whichever was greater on a particular area of the site). A Final Report documenting completion of all soil remediation was submitted to NYSDEC in July 2004. A groundwater monitoring OM+M Plan was approved by NYSDEC in January 2006 and approved in

March 2006. The OM+M plan included post-remediation quarterly groundwater monitoring, application of ORC, and maintenance of groundwater control via a hydraulic barrier/slurry wall. A revised Final Report was submitted to NYSDEC in April 2006. In November 2007, NYSDEC approved an SMP for the parcel and determined that the remediation required under the VCO (i.e., for unrestricted residential use) was complete, conditioned on the implementation of the SMP.

700 FIRST AVENUE (WATERSIDE STATION)

The Waterside Generating Station used boilers fired by fuel oil or natural gas and steam-driven turbine generators to generate steam and electricity. Three discharge tunnels discharged to the East River. An underground fuel oil pipeline connected to the Kips Bay Fuel Oil Terminal. The property formerly included a coal yard, a storage yard, and a manufactured gas plant (with purifying house, condenser house, and generating house). Numerous aboveground storage tanks (ASTs) were present at the site as were a variety of oil-filled electrical equipment, some containing PCBs at levels greater than the regulatory threshold of 50 parts per million (ppm). PCBs were detected at various locations in soils, contaminated water and sludges. Some exceedances of other soil criteria (e.g., PAHs, arsenic and mercury) were also found, but these were attributable to historic fill materials.

The chemical decommissioning of Waterside has been completed, including the cleaning and removal of all asbestos containing materials, tanks, pipelines, cable bays, sumps/pits, and oil/water separators. Demolition of the Waterside Generating Station is currently ongoing and is scheduled to be fully completed <u>by March 2008</u>. Remediation of the First Avenue vault area was completed in 2005. The discharge tunnels ceased to be used in 2005. Removal of all soil and subsurface structures down to bedrock or the groundwater table was completed by April 2007. A Final Report documenting completion of all soil remediation to these levels will be submitted to NYSDEC <u>in early 2008</u>. Any further activities on the parcel will be undertaken in accordance with a Site Management Plan to be reviewed and approved by NYSDEC, as described below.

D. SITE MANAGEMENT PLANS

Site Management Plans (SMPs) for each parcel <u>have been approved by NYSDEC or, in the case</u> <u>of 700 First Avenue,</u> will be prepared for submission to and approval by NYSDEC prior to construction. These SMPs <u>are</u> designed to protect the public from exposure to hazardous materials as a result of future activities on the parcel. They establish procedures for the following activities:

- 1) Erosion and dust control during construction;
- Soil disturbance beyond that undertaken for the remediation activities (including notification to NYSDEC, restriction of access to site, and characterization and disposal of excavated material);
- 3) Groundwater dewatering and treatment;
- 4) Placement and maintenance of cover over the entire parcel (in the form of at least two feet of clean fill soil, building structures, and/or paving);
- 5) Management of new imported fill material;
- 6) Implementation of site-specific health and safety requirements during construction activities (including a Community Air Monitoring Plan);

- 7) Notification of NYSDEC prior to transferring ownership of the site; and
- 8) Submission of annual reports to NYSDEC certifying compliance with the SMP and describing in detail any soil or groundwater disturbance undertaken during the reporting period and the source of backfill.

E. RESTRICTIVE DECLARATION

In addition to the remediation <u>of the development parcels for unrestricted residential use through</u> <u>the extensive removal of soil and groundwater monitoring already approved or being supervised</u> by NYSDEC, as well as the implementation of NYSDEC-approved SMPs, the applicant <u>will</u> <u>execute</u> restrictive declarations for each development parcel requiring that it implement any additional testing, remediation, and other protective measures deemed necessary by NYCDEP to prevent any potential impacts related to hazardous materials. These measures would be implemented pursuant to NYCDEP-approved remedial action plan<u>s</u> (RAP<u>s</u>) and construction health and safety plan<u>s</u> (CHASP<u>s</u>).

To the extent NYCDEP deems necessary measures beyond those included in the NYSDECapproved SMPs, the CHASPs would contain: (1) procedures to identify sampling and analytical requirements for contaminated materials (soil, groundwater, drums, USTs, asbestos, etc.) encountered during construction; (2) requirements for handling, management, treatment, and disposal of contaminated materials encountered during construction; (3) containment, treatment, and discharge options for dewatered groundwater; and (4) an air monitoring program for particulates (dust) and VOCs to protect both the construction crew and the community (per New York State Department of Health Community Air Monitoring guidelines). The RAPs would include any remedial or control measures beyond those already completed or included in the SMPs that NYCDEP may deem necessary to protect future users of the development parcels, which could include the installation of barriers to prevent interior intrusion of potential soil vapors.

F. CONCLUSIONS

Hazardous materials remediation <u>has been completed or</u> is nearing completion pursuant to NYSDEC requirements for unrestricted residential development and will be completed prior to construction on <u>all of</u> the development parcels. Further activities during and following construction at the sites (e.g., health and safety during construction, handling and disposal of any additional soil/groundwater disturbed during construction and requirements for clean fill placed in landscaped areas) will be governed by SMPs approved by NYSDEC. In addition, the applicant <u>will execute</u> restrictive declarations <u>for each development parcel</u> which require implementation of any additional testing, remediation, and other protective measures deemed necessary by NYCDEP to prevent any potential impacts related to hazardous materials. These measures, implemented pursuant to NYCDEP-approved remedial action plans and construction health and safety plans, would ensure that no significant adverse impacts related to hazardous materials would result from construction activities on the development parcels and that following construction, there would be no further potential for significant adverse impacts. Therefore, there is no potential for significant adverse impacts associated with the Proposed Actions.