



June 27, 2006

Mr. David Rubin
Consolidated Edison Company of New York, Inc.
31-01 20th Avenue, Bldg. 136, 2nd floor
Long Island City, NY 11105

**Re: Site Investigation Workplan Addendum
Former Con Edison Generating Station
500 Kent Avenue
Brooklyn, New York**

Dear Mr. Rubin:

Shaw Environmental, Inc. (Shaw) is currently engaged in the performance of a subsurface investigation at the site of the former Con Edison Kent Avenue Generating Station at 500 Kent Avenue, Brooklyn, New York. The area of investigation is a vacant lot, but was formerly a New York City Transit Authority electric generating station. The work is being performed in accordance with the Site Investigation Workplan: Former Kent Avenue Generating Station, prepared by Shaw and approved by Con Edison in May 2006. The workplan proposes the collection of soil samples from soil borings advanced to the depth of the water table, and the extension of the borings to a depth of 7.5 feet below the water table at four locations, with the completion of these borings as 2-inch permanent monitoring wells.

Summary of Work Performed to Date

A geophysical survey was performed on May 1 and 2, 2006. All geophysical anomalies and positively identified subsurface structures or objects were identified by the marking of the surface trace of the feature with spray paint and with marker flags. In addition, the mapped survey results were included in the report titled "Results of a Geophysical Survey", NAEVA Geophysics, May 2006, submitted to Shaw on or about May 8, 2006. Opening of boreholes at the proposed soil boring and monitoring well locations was performed by vacuum-powered soil removal from May 11 through 18, 2006. Removal of the upper five feet of soil was attempted at all soil boring locations. Soil removal to five feet below ground surface (bgs) was

completed at PBL-5, PBL-6, PBL-7, PBL-9, PBL-10, PBL-11, PMW-2, and PMW-4. However, considerable building demolition rubble is present at many of these locations, and surrounds or lines the boreholes. The rubble is composed mainly of bricks, concrete, and wood. Soil removal to five feet bgs was unsuccessful at locations PBL-1, PBL-2, PBL-3, PBL-4, PBL-8, PMW-1, and PMW-3; these attempts were inhibited by the presence of rubble immediately below ground surface or at various depths to five feet. The unsuccessfully cleared boreholes currently have termination depths from 0 feet bgs to four feet bgs.

Impediments to Further Subsurface Investigation

The corporate safety protocols of both Con Edison and Shaw require that the upper five feet of any boreholes to be drilled as soil borings or monitoring wells be advanced by non-aggressive techniques such as air-knifing, vacuum-knifing, or hand digging. The work to date has demonstrated that this goal cannot be accomplished in the onsite borings where building rubble is present in considerable quantities at depths shallower than five feet. Eight of the borings were successfully cleared to the five-foot depth, and although it is permissible to begin hollow-stem auger drilling at this depth, it is likely that demolition rubble is present at depths deeper than five feet bgs at these locations. If drilling were to proceed, rubble may conceal the presence of utilities buried at deeper depths, thereby presenting a safety hazard. Con Edison, in verbal communications with Shaw, has indicated that the basement of the former power plant building may not have been demolished, and the demolition rubble having so far been encountered may be resting on top of basement structures, including a floor slab of the former basement.

If a basement floor slab is present, this raises an issue concerning the collection of soil and groundwater samples as outlined in the [Site Investigation Workplan \(Workplan\)](#). A review by Shaw of structural drawings of the remaining portion of the buildings onsite indicates the presence of a basement floor parallel to Kent Avenue at a depth of approximately 13 feet bgs. At this depth, the floor would be at a depth approximately level with or possibly below the water table. If this scenario is accurate, then the collection of representative samples of soil from the unsaturated zone may not be possible. In addition, if monitoring wells are to be advanced below the slab, the depth to the slab, slab thickness, and the nature of its construction will be important factors to consider as the investigation progresses.

Action Proposed to Investigate Impediments

Shaw proposes to perform an exploratory investigation with the following goals:

- define the extent, distribution and depth of the buried rubble;

- verify the composition of the rubble at various locations in the work area;
- determine the presence of the basement of the former building; and
- determine the presence of a basement floor slab

A rubber-tired backhoe, a Case Model 580 or equivalent, will be used to break up the rubble where it will not interfere with underground utilities, and where it is otherwise practical to do so. A “hoe-ram” hammer attachment will be stored onsite during the investigation, and will be attached to the backhoe bucket when needed to enhance the penetration and breakup of the rubble. The excavation of test pits in areas adjacent to, and nearby the boreholes, will be performed, as needed, to assist in determining the areal extent of the rubble.

At each excavation location, when the rubble has been sufficiently broken up, the debris will be removed from the ground, and excavation will proceed to deeper depths. Material that does not display evidence of contamination will be returned to the excavation. Any materials exhibiting visual or olfactory evidence of contamination, or elevated responses during photoionization (PID) screening, will be staged on polyethylene sheeting, and drummed or placed in roll-off containers for disposal. The goal of the continued excavation is to determine if a basement floor slab, (a remnant of the former building), is present.

If evidence of a slab is encountered, any overburden on top of the slab will be removed, and the suspect surface will be probed or scraped with the backhoe bucket for verification of a composition, shape, and density consistent with that of a concrete floor slab. The excavation of test pits in areas adjacent to, and nearby the boreholes will be performed as needed (space and utility clearance permitting), to assist in determining the areal extent of the slab, if it is determined that one is present.

Material will be excavated in two-foot lifts in areas of “no hindrance”. “No hindrance” is defined as an area that is devoid of utilities or geophysical anomalies, as determined by a two-foot distance of separation from such conditions. All excavation will be closely observed by a dedicated “spotter”. In areas where hindrance is present or suspected, based on geophysical survey results or spotter observations, or, where geophysical survey results may be ambiguous, then excavation will be restricted to the performance of six-inch lifts.

If apparent native soils are present in the vicinity of the proposed boring and monitoring well locations, these will be excavated in 2-foot lifts, and each lift will be staged in a separate pile on polyethylene sheeting, space limitations and utility clearance permitting. Should visual, olfactory, or PID response evidence of contamination be present in any of these soils, the suspect contaminated material will be sampled and then staged separately from the remaining excavated soils. Samples will be collected directly from the backhoe bucket and will be

preserved for laboratory analysis (please see the following page for a list of sample analytes). The suspect contaminated material will then be drummed or placed in roll-off containers for disposal as Investigation Derived Waste (IDW). When the excavation has reached termination depth, the lifts of uncontaminated soils will be returned to the excavation in the same order as removed, to enable any future sampling of these soils in soil borings as “undisturbed” material.

In the event that no evidence of a slab is found, excavations will be terminated at 14 feet bgs. Any excavation exceeding five (5) feet bgs will be sloped for safety purposes, in accordance with the Site Specific Health and Safety Plan (HASP) Amendment of June 7, 2006, and OSHA 1910.120(b)(1)(iii).

Oversight of all test pit and rubble removal activities will be provided by a Shaw Project Scientist and a representative of the Con Edison Construction Maintenance division. The Con Edison representative will, when the situation arises, will provide expertise that Shaw will consider in deciding whether excavation can safely proceed in the event obstructions are present. The Project Scientist will document all activities with comprehensive notes and photographs. Shaw has already obtained and reviewed water supply and sewer maps from the City of New York, as well as electrical utility plates and numerous site drawings supplied by Con Edison. A “Code 753” markout request was made to the New York City One Call Center on May 5, 2006; a request for an updated markout will be called in to the Center between two and ten working days prior to the beginning of field work. The Project Scientist will maintain onsite a copy of the mapped results of the geophysical survey, since it is likely that many of the paint markings have worn away since they were applied.

As previously indicated, representative samples of material (building demolition rubble or soil) determined in the field to be contaminated will **be collected** and submitted for laboratory analysis. Samples will be analyzed for:

- VOCs by EPA Method 8260B;
- SVOCs by EPA Method 8270 (acid extractables and base neutrals);
- Polychlorinated biphenyls (PCBs) by EPA Method 8082 (PCBs);
- Total Petroleum Hydrocarbons by EPA Method 8015M (with fingerprint analysis performed on detectable concentrations) ; **and**
- Target Analyte List (TAL Metals) by EPA Methods 6010B/7471.

All suspect contaminated material will be containerized in 55-gallon USDOT-approved steel drums, or roll-off containers, should significant quantities of such material be present . A

representative sample of each group of drums or each roll-off containing similar material will be collected and analyzed for standard waste characterization analytes. These are:

- RCRA Volatile and Semi-Volatile Organic Compounds by the Toxicity Characteristic Leaching Procedure (TCLP);
- Ignitability;
- Corrosivity;
- Reactivity; and
- RCRA metals by TCLP.

All drums will be stored on the decontamination pad in the southeastern portion of the work area, pending disposal to a Con-Edison approved disposal facility. All drums will be handled, labeled, and stored in accordance with the Site Investigation Workplan, **Section 5.0, "Waste Containment, Characterization, and Disposal"**.

Contamination-prevention procedures will be followed as described in the Site Specific Health and Safety Plan of April 2006. Polyethylene sheeting will be placed underneath the backhoe and hoe-ram attachment whenever this equipment is parked overnight. The HASP Amendment for this proposed scope of work is currently under revision to address comments by Con Edison.

The scope of work proposed in this Addendum is anticipated to take five (5) working days. The actual number of days will depend on field conditions.

Upon completion of this investigation, Shaw will review all collected data, and in consultation with Con Edison, will propose a future course of action regarding plans to complete borings/monitoring wells at test pit and previously cleared locations.

Your comments and ultimate approval of this Addendum are requested. We look forward to providing continued service to Con Edison on this important project.

Very truly yours,

Saul Ash, C.P.G.
Project Manager

C: John Wilpert
 August Arrigo
 Project File