

Glen Isle

GLEN COVE, NASSAU COUNTY, NEW YORK

Draft Site Management Plan

NYSDEC Number: XXXX

Prepared for:

City of Glen Cove Industrial Development Agency

Prepared by:

TBD

MAY 2009

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LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
AST	Aboveground Storage Tank
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
bgs	below ground surface
CAMP	Community Air Monitoring Plan
C&D	Construction & Demolition Materials
COC	Contaminant of Concern
COPEC	Constituents of Potential Ecological Concern
cy	cubic yard
DER	Division of Environmental Remediation
DER-10	NYSDEC Technical Guidance for Site Investigation & Remediation
DUSR	Data Usability Summary Report
ECs	Engineering Controls
ECL	Environmental Conservation Law
ESA	Environmental Site Assessment
FER	Final Engineering Report
FWRIA	Fish and Wildlife Resources Impact Analysis
gpm	gallons per minute
HHEA	Human Health Exposure Assessment
ICs	Institutional Controls
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
PCB	Polychlorinated Biphenyls
PID	Photoionization Detector
ppm	parts per million
QAPP	Quality Assurance Project Plan

Acronym	Definition
RA	Remedial Action
RASR	Remedial Action Selection Report
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RDD	Remedial Design Document
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
SCG	Standards, Criteria, and Guidance
SCOs	Soil Cleanup Objectives
SESI	SESI Consulting Engineers, PC
SMP	Site Management Plan
SSDS	Sub-Slab Depressurization System
SVOCs	Semi-Volatile Organic Compounds
S&W	S&W Redevelopment of North America, LLC.
TAGM	Technical and Administrative Guidance Memorandum
TAL	Target Analyte List
TOGS	Technical and Operations Guidance Series
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

DRAFT SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF A SITE MANAGEMENT PLAN

1.1 INTRODUCTION

The State has requested a Site Management Plan (SMP) to manage residual soils meeting the restricted residential numeric levels in Part 375 §6.8(b) that may be encountered during site construction activities at the Captains Cove and Li Tungsten portions of Glen Isle (the Property), located at XXXX, City of Glen Cove, NY (hereafter referred to as the "Site"). An Environmental Easement (EE) has been recorded and will run with the land requiring all future owners and operators to comply with the terms in this SMP and the EE. This SMP has been prepared for all current and future owners and operators of the Site to manage residual contamination at the Site in perpetuity or until extinguishment of the EE in accordance with Article 71 Title 36 of the Environmental Conservation Law and applicable regulations in 6 NYCRR Part 375.

The Site boundary which is subject to the requirements in the EE is shown in Figure 3.

The contaminated parcels were remediated under various state and federal programs depending on the parcel's classification:

- The Captains Cove municipal landfill was a NYS Inactive Hazardous Waste site cleaned up under a Consent Order signed by the City of Glen Cove Industrial Development Agency (IDA) and NYSDEC on 1999; and
- The Li Tungsten Superfund site is under the auspices of the United States Environmental Protection Agency (USEPA).

The SMP addresses soil management during and after construction, and operations, maintenance and reporting of any mitigation and monitoring systems. Known or unknown areas of contamination that still require remediation as defined herein will not be managed through this SMP, but rather will be addressed as described in a Memorandum of Understanding ("MOU") with EPA and DEC.

1.1.1 General

The Glen Cove Industrial Development Agency (IDA) took over ownership of most of the land located between the Captains Cove landfill and the Li Tungsten property in the 1990's. In 1998 a development plan was adopted for a predominantly

retail use of the Site. Remedial Investigation (RI) and Remedial Actions (RA) were implemented as mentioned above by EPA and a number of site responsible parties (PRPs) to address on-Site contamination at LI Tungsten. The City implemented remediation of a portion of Captains Cove with EPA being responsible for the remainder, as explained ahead. Both DEC and EPA agree the Site has been remediated to allow for restricted residential use.

This SMP is therefore solely intended to manage soil required to be excavated during construction and to implement and maintain required long-term institutional (ICs) and engineering controls (ECs) to make the Site safe for reuse. As a result of the long term implementation of this SMP as well as the environmental easement (EE) that will run with the land, the Site has been reclassified as a Class 4 Site under the New York State (NYS) Superfund Program administered by New York State Department of Environmental Conservation (NYSDEC). The federal Li Tungsten NPL site, consists of operable unit 1 (“OU-1”), the LI Tungsten industrial property, further consisting of Parcels A, B, Upper C, Lower C and C Prime, and the radioactive contaminated portions of the Captain’s Cove site known as operable unit 2 (“OU-2”), further consisting of Area A, and Area A Prime and Area G and Area G Prime.

The federal government and City were responsible for the cleanup of their respective individual parcels. In 2003 Glen Isle entered into a purchase agreement with the City with the objective of creating a multiuse development at the Site consisting of predominantly residential with hotel, convention, restaurant, office, recreational, marine, and entertainment facilities. Figure 2 is the approved development plan.

The chemicals of concern are arsenic, lead, radium 226, thorium 232, and semi-volatile chemicals (SVOCs) in the soil. Groundwater in certain parts of the Site contains volatile organic chemicals (VOCs) predominantly perchloroethylene (PCE) at the Li Tungsten part of the Site and minor amounts of ethylbenzene, chlorobenzene, 1,4-dichlorobenzene, and xylenes at the Captain Cove landfill and some intervening parcels.

This SMP was prepared by XXX Engineers, P.C. (), on behalf of the City, in accordance with the requirements in NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated December 2002, and the applicable BCP statutory and regulatory requirements and the guidelines provided by NYSDEC. This SMP addresses the means for implementing Institutional Controls (ICs) and Engineering Controls (ECs) on a long term basis, which are required by the EE.

1.1.2 Excluded Areas of Known and Unknown Contamination

As noted above, since the Site has been remediated to the satisfaction of the EPA and DEC, this SMP is not intended to require the any future owners and operators of the site to perform additional remediation activities of unknown areas of contamination or even areas of known contamination, which consist of the following:

1.1.2.1 Known Areas of Contamination

- Radioactive hotspots and heavy metals in Glen Cove Creek in and around, but not limited to, areas along the bulkhead at a depth of 11-ft below mean low water;
- Heavy metals present on the west side of the Dickson Warehouse in a utility trench, where arsenic is known to exceed both the EPA and NYSDEC residential cleanup levels;
- Residual groundwater contamination above standards throughout the Site;
- Off-site groundwater plumes migrating onto the Site from upgradient properties that flow onto the Site. [NOTE: The contaminated groundwater from offsite sources has the potential of producing soil vapors that could enter buildings constructed over the general aerial extent of the plumes. Although the soil vapor mitigation measures are incorporated into this SMP, which should effectively eliminate the concern for soil vapor intrusion from the offsite plumes, this SMP does not include the obligation to remediate these plumes and/or to maintain any systems which are directly related to the remediation of these plumes. The cleanup of these upgradient sources is the responsibility of other parties];
- PCB contamination under 2 foot cap on one portion of Parcel B. These known areas of contamination shall be addressed as described in the Memorandum of Understanding (MOU) with EPA and DEC;
- Residual contamination above New York State's cleanup standards compared to the federal cleanup standards.

1.1.2.2 Unknown Areas of Contamination:

In addition to the known areas of contamination mentioned above, there may be unknown, limited pockets of tungsten ore or slag or hazardous substances that exceed the State unrestricted SCOs requiring additional remediation that were inadvertently missed during the Site remediation by EPA and the PRPs. These unknown areas of contamination shall be addressed as described in the MOU.

1.1.3 Purpose

The Site contains residual contamination left after completion of the Remedial Action performed at the Site. The EE requires strict adherence to all ECs and ICs placed on this Site by NYSDEC by the grantor of the EE and any and all successors and assigns of the grantor. ICs provide restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP includes all methods necessary to ensure compliance with all ECs and ICs required by the EE for residual contamination at the Site. The SMP has been approved by the NYSDEC, and compliance with this Plan is required by the grantor of the EE and the grantor's successors and assigns. This plan is subject to change by NYSDEC in the event site conditions change.

Long term site management is the last phase of the remedial process and is triggered by the approval of the Remedial Action Completion Report and issuance of the Closure letter by NYSDEC. The SMP continues in perpetuity or until extinguished in accordance with [Article 71 Title 36 of the Environmental Conservation Law and applicable regulations in 6 NYCRR Part 375](#) until the Track 1 unrestricted SCOs in 6 NYCRR Part 375-6.8(a) are met. It is the responsibility of the EE grantor, and its successors and assigns, to ensure that all Site Management responsibilities under this plan continue to be performed to ensure the continued safe use of the Site until the Track 1 SOCs are achieved. A thorough review of this SMP will make it clear that compliance will not be difficult but is extremely important.

The SMP provides a detailed description of all procedures required to manage residual contamination at the Site following the completion of construction. This includes: (1) Engineering Controls (ECs) and Institutional Controls (ICs) Plan to operate, manage, and maintain all the ECs and ICs identified in the Environmental Easement attached hereto in Appendix B, including a Soils Management Plan in the event soils are excavated on the Site; (2) a Monitoring Plan for groundwater quality wells and other ECs and ICs; (3) submittal of an annual, engineer-certified inspection report certifying the ECs and ICs are in place, the monitoring of the wells is being performed by the

owner and/or operator of the Site; and (4) defining criteria for termination of the environmental easement once Track 1 cleanup objectives are achieved.

The following ECs and ICs have been implemented at the Site:

ICs:

1. Groundwater will not be used for any purpose.

ECs:

1. Clean fill will cover all uncapped soil: Any soil not capped by roads, parking lots, foundations, sidewalks, or other structural covering as shown in the final approved site plan, shall be covered with 2-ft of clean fill that meets the requirements of Part 375 Track 1, unrestricted use standards. Landscaped areas shall have a minimum of 2-ft of clean fill between the surface and underlying soil.
2. Clean fill will insulate building foundations from adjacent soil: All building slabs and foundation walls will have a minimum of 1-ft of soil in the space between the foundation wall and excavation.
3. A demarcation membrane will be placed between the clean fill and underlying soil.
4. Soil vapor intrusion (SVI) mitigation will be installed in buildings subject to SVI of objectionable species and concentrations of volatile organic chemicals (VOCs): and
5. Additional EC's will be added/removed/modified during negotiations after the MOU is executed.

Site Management activities, reporting, and EC/IC certification will be scheduled on an annual certification period basis.

Important notes regarding this SMP are as follows:

- This SMP defines Site-specific implementation procedures as required by the Environmental Easement. The penalty for failure to implement the SMP is a determination of the Site not being suitable for its intended use as defined in the LDXXXX;
- The XXX EE for the Site requires conformance with this SMP, and therefore, serves as a contractual binding authority under which this SMP is to be implemented. The XXX law itself also requires the preparation of a SMP

(formerly known as an Operation, Maintenance and Monitoring Plan) in ECL 27-1415 and 27-1419. Therefore, the EE is a binding contract, and the XXX law is statutory authority under which this SMP is required to be implemented.

- At the time this report was prepared, the SMP and all Site documents related to Remedial Investigation and Remedial Action are maintained at the XXXX. At the time of SMP submission XXX 2009, the Site documents can also be found in the repositories established for this project, including:

Glen Cove Public Library

4 Glen Cove Avenue, Glen Cove, New York 11542

516-676-2130

Mon. – Thurs. 9:00 A.M. – 9:00 P.M.

Fri. – Sat. 9:00 A.M. – 5:30 P.M.

Sunday Noon – 5:00 P.M.

NYSDEC

XXX Office

XXX

Phone #

Mon. – Fri. 9:00 A.M. – 4:00 P.M.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located in the County of Nassau, New York and is identified as Section XXX, Block XXX and Lots XXX on the City of Glen Cove Tax Map. The Site is an approximately 45-acre area. The boundary of the Site is more fully described in Appendix 1 – Metes and Bounds.

1.2.2 Site History, Summary of Investigations, Remediation Activities, Environmental Status, and Current Conditions

The Site history, investigation activities and findings, remediation activities, environmental status and current conditions as contained in the 2009 P.W. Grosser Environmental Summary Report, in Appendix XXX.

1.2.3 Management of Residual Contamination Through Engineering and Institutional Controls in the Environmental Easement

The EE, (will be attached in Appendix B once MOU is executed and negotiations are completed), lists the ECs and ICs required by DEC to manage the residual contamination present at this Site to protect public health and the environment in the future and keep the Site safe for reuse. The ECs and ICs are discussed earlier in this document.

2.0 SOIL/MATERIALS MANAGEMENT PLAN

The Site has been fully remediated for a restricted residential use, which allows for safe residential occupancy in all floors. Any future intrusive work that will disturb the residual contamination and modifications or repairs to the existing composite cover system will be performed in compliance with the Soil Management Plan (SoMP), which is included in this SMP. Intrusive construction work must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. The Soil Management Plan is presented in Appendix 3 and the CAMP is presented in Appendix 5 of the SMP. The HASP is the responsibility of the property owner and the contractor doing the work. The HASP should be in compliance with DER-10 Technical Guide and 29 CFR 1910 and 1926, and all other applicable Federal, State and local regulations. Any intrusive construction work must be certified as compliant with the SMP and included in the annual inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

2.1 SOIL SCREENING METHODS

Visual, olfactory and PID soil screening and assessment will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (Residual Contamination Zone). Soil

screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Screening will be performed by qualified environmental professionals. Resumes will be provided in the Annual Site Management Report for all personnel conducting invasive work field screening (i.e. those representing the Remedial Engineer) for known and unknown contaminant sources during remediation and development work.

2.2 STOCKPILE METHODS

The erosion and sedimentation controls will be in accordance with the NYSDEC approved Storm Water Pollution Prevention Plan (submitted as a part of the Remedial Design Document). Stockpiles will be inspected at a minimum once each week and after every storm event greater than 1/2-inch in 24 hours. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Soil stockpiles will be continuously encircled with silt fences. Haybales will be used as needed near catch basins, surface waters and other discharge points.

A water truck will be available, as needed, for dust control.

2.3 MATERIALS EXCAVATION AND LOAD OUT

An Engineer or a qualified environmental professional under his/her supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the Site and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site will be investigated. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

If off-Site disposal of impacted soil is required, loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in

accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash, as needed, will be operated on-Site. The Engineer will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the construction is complete.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site sediment tracking.

The Engineer will be responsible for ensuring that all egress points for truck and equipment transport from the Site will be clean of dirt and other materials derived from the Site during development. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

The Applicant and associated parties preparing the documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings).

If any new hotspots are found their removal will be addressed under a separate remedial workplan prepared under the New York State Brownfield Cleanup Program (BCP) or another remediation regulation that will be identified after the MOU is executed and subsequent negotiations are completed.

2.4 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Proposed in-bound and out-bound truck routes to the Site are shown in Figure XXX. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport;

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site development.

Queuing of trucks will be performed on-Site in order to minimize off-Site disturbance. Off-Site queuing will be prohibited.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

2.5 MATERIALS DISPOSAL OFF-SITE

The disposal locations will be identified and reported to NYSDEC in the Annual Site Management Report.

For large projects, the total quantity of material expected to be disposed off-Site will be reported to NYSDEC prior to performance of work. This will include quantity, breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc.

All soil/fill/solid waste excavated and removed from the Site will be disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to NYSDEC's Project Manager. Unregulated off-Site management of materials from this Site will not be carried out without formal NYSDEC approval.

Material that does not meet Track 1 unrestricted SCOs will not be taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

The following documentation will be obtained and reported by the Engineer for each disposal location used in this project to fully demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws: (1) a letter from the Engineer or BCP Applicant to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter will state that material to be disposed is contaminated material generated at Class 4 site in New York State. The letter will provide the project identity and the name and phone number of the Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported; and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material.

Non-hazardous historic fill and contaminated soils taken off-Site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2

Historical fill and contaminated soils from the Site are prohibited from being disposed at Part 360-16 Registration Facilities (also known as Soil Recycling Facilities).

Soils that are contaminated but non-hazardous and are being removed from the Site are considered by the Division of Solid & Hazardous Materials (DSHM) in NYSDEC to be Construction and Demolition (C/D) materials with contamination not typical of virgin soils. These soils may be sent to a permitted Part 360 landfill. They may be sent to a permitted C/D processing facility without permit modifications only upon prior notification of NYSDEC DSHM. This material is prohibited from being sent or redirected to a Part 360-16 Registration Facility. In this case, as dictated by DSHM, special procedures will include, at a minimum, a letter to the C/D facility that provides a detailed explanation that the material is derived from a DER remediation Site, that the soil material is contaminated and that it must not be redirected to on- Site or off- Site Soil Recycling Facilities. The letter will provide the project identity and the name and phone number of the Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported.

The Annual Site Management Report will include an accounting of the destination of all material removed from the Site during work performed under this plan, including excavated soil, contaminated soil, historic fill, solid waste, and hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. This information will also be presented in a tabular form in the Annual Site Management Report.

Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the Annual Site Management Report.

Hazardous wastes derived from on-Site will be stored, transported, and disposed of in full compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site and will be in full compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal in a manner suitable to the receiving facility and in conformance with applicable permits. Sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the Annual Site Management Report. All data available for soil/material to be

disposed at a given facility will be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

2.6 MATERIALS REUSE ON-SITE

Chemical criteria for on-Site reuse of material has been approved by NYSDEC (after MOU is signed). The approval allows reusing soil that meets the conditions in XXX.

Contaminated on-Site material, including historic fill and contaminated soil, removed for grading or other purposes will not be reused within a cover soil layer, within landscaping berms.

2.7 FLUIDS MANAGEMENT

All liquids to be removed from the Site, including dewatering fluids, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Liquids discharged into the sewer system will be addressed through approval by the utility authority associated with the sewer system.

Water generated during remedial construction will not be discharged to surface waters (i.e. a local pond, stream or river) without a SPDES permit.

2.8 DEMARCATION

After the completion of soil removal and any other invasive remedial activities and prior to backfilling, as necessary, a land survey will be performed by a New York State licensed surveyor. The survey will define the top elevation of residual contaminated soils. A physical demarcation layer, consisting of geotextile from Carthage Mills FX-35//45, or equivalent, will be placed on this surface to provide a visual reference. This demarcation layer will constitute the top of the 'Residuals Management Zone', the zone that requires adherence to special conditions for disturbance of contaminated residual soils defined in this SMP. The survey will measure the grade covered by the demarcation layer before the placement of cover soils, pavement and sub-soils, structures, or other materials. This survey and the demarcation layer placed on this grade surface will constitute a modification of the physical and written record of the upper surface of the 'Residuals Management Zone' in the SMP. A map showing the

survey results will be included in the Annual Site Management Report and updates to the SMP.

2.9 BACKFILL FROM OFF-SITE SOURCES

Management of soil imported for use as capping material will be in accordance with proposed modifications to DER-10.

The soil sampling frequency will be in accordance with prevailing guidance. The soil samples will be analyzed for constituents agreed to after MOU execution.

When the volume of the soil to be imported exceeds 1,000 cubic yards the sampling will be in accordance with a site-specific sampling plan to be determined. The site specific sampling plan will entail collection of samples from the first 1,000 cubic yards in accordance with the 'Compliance for Soil Imported to a Site' i.e., 7 grab samples analyzed for VOCs and 2 grab samples analyzed for SVOCs, Pesticides, PCBs, TAL metals, cyanide and hexavalent chromium. After the 1,000 cubic yards of material are obtained from a given off-site source area and all the samples of the first 1,000 cubic yards meet site-specific brownfield SCOs (i.e., the more stringent of the restricted Commercial or Protection of Groundwater SCOs), the sample collection frequency will be reduced to one (1) grab sample every 2,500 cubic yards of additional soils from the same source. However, if any of the samples from the first 1,000 cubic yards do not meet site-specific brownfield SCOs, the sample collection frequency will be increased to one (1) grab sample for every 1,000 cubic yards of additional soil from the same source.

All materials proposed for import onto the Site will be approved by the Engineer and will be in compliance with provisions in this SMP prior to receipt at the Site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site.

All imported soils will meet NYSDEC approved backfill or cover soil quality objectives for this Site. Non-compliant soils will not be imported onto the Site without prior approval by NYSDEC. Nothing in the approved SMP or its approval by NYSDEC will be construed as an approval for this purpose.

Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers.

2.10 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the remedial construction area.

2.11 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during on-Site remedial excavation or development related construction, sampling will be performed on product, sediment and surrounding soils, etc. Chemical analytical work will be for full scan parameters (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs). These analyses will not be limited to STARS parameters where tanks are identified without prior approval by NYSDEC. Analyses will not be otherwise limited without NYSDEC approval.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. These findings will be also included in daily and periodic electronic media reports.

2.12 COMMUNITY AIR MONITORING PLAN

In accordance with the CAMP, previously approved by the NYSDEC, air monitoring will be carried out, at locations between the work area and receptors on-site or site perimeter (in the downwind direction), when conducting intrusive subsurface field work. The objective of the monitoring is to prevent potential human exposure downwind of the Site.

Specifically, the CAMP includes monitoring with a photoionization detector and a dust monitor. The background levels will be established at the beginning of the workday. The action levels associated with PID readings are 5 ppm and 25 ppm. A combination of temporary work stoppage and source control measures will be required when the PID readings exceeded 5 ppm at the downwind Site perimeter. When PID readings exceeded 25 ppm, the CAMP requires that work has to be shutdown and resumed only following appropriate source abatement and consultation with NYSDEC.

Action levels associated with the dust monitor are 100 $\mu\text{g}/\text{m}^3$ and 150 $\mu\text{g}/\text{m}^3$. Dust suppression measures (e.g. spraying water on dry soil etc.) will be required when dust levels are 100 $\mu\text{g}/\text{m}^3$ more than the background levels. Activities resulting in dust concentration exceeding 150 $\mu\text{g}/\text{m}^3$ will be stopped.

A map showing the location of fixed and mobile sampling stations is shown in Figure XXX.

Exceedances observed in the CAMP will be reported to NYSDEC Project Managers.

2.12.1 Odor, Dust and Nuisance Control Plan

2.12.2 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-Site and on-Site. If nuisance odors are identified, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of all other complaints about the project. Implementation of all odor controls, including the halt of work, will be the responsibility of the Controlled Property owner's Remediation Engineer, who is responsible for certifying the Annual Site Management Report.

All necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils; If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

Where odor nuisances have developed during remedial work and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

2.12.3 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-Site work, will include, as needed, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a water truck for road wetting, if required. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-Site roads will be limited in total area to minimize the area required for water truck sprinkling.

2.12.4 Other Nuisances

A plan for rodent control will be developed and utilized by the contractor prior to and during Site clearing and Site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work and will conform, at a minimum, to City of Glen Cove noise control standards.

2.13 INSPECTIONS AND NOTIFICATIONS

2.13.1 Inspections

Inspections of all systems installed on-Site will be conducted at the frequency specified in SMP Monitoring Plan schedule. A comprehensive Site-wide inspection will be conducted annually. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If Site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section XX). The reporting requirements are outlined in the Site Management Reporting Plan (Section XX).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

2.13.2 Notifications

2.13.2.1 NYSDEC-acceptable Electronic Database

The following information is presented in Appendix XXX in an electronic database format:

- A Site summary;
- The name of the current Site owner and/or the remedial party implementing the SMP for the Site;
- The location of the Site;
- The current status of Site remedial activity;

- A copy of the Environmental Easement; and
- A contact name and phone number of a person knowledgeable about the Environmental Easement's requirements, in order for NYSDEC to obtain additional information, as necessary.

This information should be: 1) modified as conditions change; (2) revised in Appendix _ of this document; and, (3) submitted to NYSDEC in the Annual Site Monitoring Report. Should the Environmental Easement be modified or terminated, the copy of the revised Environmental Easement will also be updated in this manner.

2.13.2.2 Non-routine Notifications

Non-routine notifications are to be submitted by the property owner(s) to the NYSDEC on an as-needed basis for the following reasons:

- 10-day advance notice of any proposed ground-intrusive activities.
- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action taken to mitigate the damage or defect.
- Notice within 48-hours of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the Site, including a summary of action taken and the impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

3.0 MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the implemented ECs in reducing or mitigating contamination at the Site. ECs at the Site include: SVI mitigation systems, groundwater and air monitoring. This Monitoring Plan is subject to revision by NYSDEC.

3.1.2 Purpose

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of appropriate media (e.g., groundwater, indoor air, soil vapor);
- Evaluating Site information periodically to confirm that the remedy continues to be effective as per the design; and
- Preparing the necessary reports for the various monitoring activities.
- Assessing compliance with NYSDEC groundwater standards;
- Assessing achievement of the remedial performance criteria.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and certification.

Annual monitoring of the performance of the remedy and overall reduction in contamination on-Site will be conducted indefinitely. Trends in contaminant levels in air,

soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in Table XX and outlined in detail in Sections 3.2 through 3.8, below.

3.2 ENGINEERING CONTROL SYSTEM MONITORING

3.2.1 Composite Cover System

The Composite Cover System (CCS) is comprised of asphalt covered roads, concrete covered sidewalks and a “clean soil cover/cap” in landscaped areas. The CCS has been installed to mitigate potential exposure to humans and potential off-Site migration (mobilized by precipitation run-off and infiltration) of subsurface impacts. System designs are described in the Engineering and Institutional Control Plan, and as-built drawings are located in Appendix XXX.

3.2.1.1 Monitoring Schedule

The CCS will be inspected upon completion of the construction activities and annually thereafter. Inspection frequency is subject to change by NYSDEC and NYSDOH. Unscheduled inspections and/or sampling may take place when a suspected failure of the CCS has been reported or an emergency occurs that is deemed likely to affect the operation of the system. Monitoring deliverables for the CCS are specified later in this Plan.

3.2.1.2 General Equipment Monitoring

A visual inspection of the complete system will be conducted during the monitoring event. CCS components to be monitored include, but are not limited to, the following:

- integrity of asphalt covered roads
- integrity of sidewalks
- integrity of concrete building slabs
- integrity of “clean soil cover/cap”

A complete list of components to be checked is provided in the Inspection Checklist, presented in Appendix 11. If any of the components of the CCS are not functioning as designed, maintenance and repair as per the Operation and Maintenance Plan are required immediately, and the integrity of the CCS restored

Operational problems will be noted in the Annual Site Management Report.

3.2.2 Sub-Slab Venting/Depressurization (SSD) System

SSD systems have been installed to mitigate possible soil vapor intrusion into occupied Buildings. System designs are described in the Engineering and Institutional Control Plan, and as-built drawings are located in Appendix XXX.

3.2.2.1 Monitoring Schedule

Installation of this system has not been completed, as the planned construction of the on-Site structures has not started. These systems will be installed when the construction of the proposed structures begins.

Upon completion of the SSD installations, the SSD system will be monitored daily during the first week and weekly thereafter for the first month. The monitoring frequency after the first month will be decreased to once every quarter during the first year of operation and annually thereafter.

Inspection frequency is subject to change by NYSDEC and NYSDOH. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. Monitoring deliverables for the SSD system are specified later in this Plan.

3.2.2.2 General Equipment Monitoring

A visual inspection of the complete system will be conducted during the monitoring event. SSD system components to be monitored include, but are not limited to, the following:

- Vacuum blower;
- General system piping;
- Warning device or indicator;
- Labeling on systems; and
- Integrity of the concrete slab.

A complete list of components to be checked is provided in the Inspection Checklist, presented in Appendix 11. If any equipment readings are not within their

typical range, any equipment is observed to be malfunctioning, or the system is not performing within specifications, maintenance and repair as per the Operation and Maintenance Plan are required immediately, and the SSD system restarted.

3.2.2.3 System Monitoring Devices and Alarms

The SSD system will have a warning device to indicate that the system is not operating properly. In the event that the warning device is activated, applicable maintenance and repairs will be conducted, as specified in the Operation and Maintenance Plan, and the SSD system restarted. Operational problems will be noted in the Annual Site Management Report.

3.2.2.4 Sampling Event Protocol

The samples will be collected in accordance with the requirements outlined in the Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006. Indoor and ambient air samples will be collected no sooner than 30 days after installing the SSD system. The samples will preferably be collected during the heating season and from the basements when present. The samples will be collected in evacuated stainless steel canisters equipped with flow regulators over a 24-hour period. The air samples will be analyzed, by a NYSDOH certified laboratory, for volatile organic compounds in accordance with USEPA Method TO-15.

Prior to sampling a NYSDOH Indoor Air Quality Questionnaire and Building Inventory will be completed to evaluate potential presence of confounding sources that may interfere with evaluation of the analytical results.

3.3 GROUNDWATER MONITORING PROGRAM

Groundwater monitoring will be performed on an annual basis to assess the performance of the remedy.

3.3.1 Monitoring System Design

The network of monitoring wells is designed to monitor both groundwater conditions at the Site.

3.3.2 Groundwater Monitoring Well Construction

To be determined after the MOU is executed.

3.3.3 Monitoring Schedule

The monitoring wells will be sampled annually until such time as NYSDEC/NYSDOH concur that groundwater monitoring is no longer required or an alternative monitoring frequency is approved

The sampling frequency may be modified by NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC.

Deliverables for the groundwater-monitoring program are specified below.

3.3.4 Sampling Event Protocol

All well sampling activities will be recorded in a field book and a groundwater-sampling log presented in the Annual Site Management Report. Other observations (e.g., well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network.

3.4 WELL REPLACEMENT/REPAIRS AND DECOMMISSIONING

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance. Well decommissioning, for the purpose of replacement, will be reported to NYSDEC prior to performance and in the annual report. Well decommissioning without replacement will be with prior approval from NYSDEC. Well abandonment will be performed in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC and NYSDOH.

3.5 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after all severe weather conditions that may affect Engineering Controls or monitoring devices. During these

inspections, an inspection form will be completed (Appendix XXX). The form will compile sufficient information to assess the following:

- Compliance with all ICs;
- An evaluation of the condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- The Site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that Site records are up to date.

3.6 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site (Appendix XXX). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement;
- Sampling Program:
 - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
 - Sample holding times will be in accordance with the NYSDEC ASP requirements.
 - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Chain of Custody;
- Calibration Procedures:
 - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.

- The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- Data Reduction and Validation:
 - Data validation will be performed in accordance with the USEPA validation guidelines for organic and inorganic data review. Validation will include the following:
 - Verification of 100% of all QC sample results (both qualitative and quantitative);
 - Verification of the identification of 100% of all sample results (both positive hits and non-detects);
 - Recalculation of 10% of all investigative sample results; and
 - A Data Usability Summary Report (DUSR) which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.
- Internal QC and Checks;
- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules;
- Corrective Action Measures.

3.7 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-Site. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Annual Site Management Report, as specified in the Reporting Plan of the SMP.

All monitoring results will be reported to NYSDEC on an Annual basis in the Site Management Report. A report or letter will be prepared for submission, subsequent to each sampling event. The report (or letter) will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (also to be submitted electronically in the NYSDEC-identified format);
- A copy of the laboratory certification;
- Any observations, conclusions, or recommendations; and
- A determination as to whether plume conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in Table XXX.

3.8 CERTIFICATIONS

Site inspections and sampling activities will take place as outlined above. Frequency of inspection is subject to change by NYSDEC. Inspection certification for all ICs and ECs will be submitted to NYSDEC on a calendar year basis and will be submitted by March 1st of the following year. A qualified environmental professional, as determined by NYSDEC, will perform inspection and certification. Further information on the certification requirements are outlined in the Reporting Plan of the SMP.

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

The Operation and Maintenance Plan describes the measures necessary to operate and maintain any mechanical components of the remedy selected for the Site (i.e., SSD systems). This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the SSD system;
- Includes an operation and maintenance contingency plan; and,
- Will be updated periodically to reflect changes in Site conditions or the manner in which the SSD system is operated and maintained.

Information on non-mechanical Engineering Controls (i.e. composite cover) can be found in Section 3 - Engineering and Institutional Control Plan. A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the Site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP. The Operation and Management Plan is subject to NYSDEC revision.

4.2 ENGINEERING CONTROL SYSTEM OPERATION AND MAINTENANCE

4.2.1 Sub-slab Depressurization Monitoring

Installation of the sub-slab venting/depressurization system will be completed as the Site is developed. The system operation and maintenance discussed here will be updated, as needed, upon completion of the system installation. The details of the system design information and the as-built drawings are included in Appendix XXX.

4.2.1.1 Scope

The SSD system will be operated and maintained so as to attain a vacuum head at least XXX" of water below the concrete slab where it is installed.

4.2.1.2 System Start-Up and Testing

In accordance with the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006, the effectiveness and proper functioning of the SSD will be confirmed following the system installation. This entails the following:

- Any leaks associated with cracks in the concrete slab and around utilities entering through the slab will be sealed. The integrity of the seals will be checked with smoke tubes.
- Appliances within the building, which vent to the atmosphere, will be checked to see if operation of the SSD will result in a backdraft.
- A check to ensure that a vacuum head of XXX” of water is attained at all locations beneath the targeted extent of the concrete slab. This will include drilling small holes and 3/8” in diameter and checking with smoke tubes, micromanometers, etc., presence of a draft into the hole or a negative vacuum head, respectively.
- A test to confirm that the alarm associated with the SSD is functioning.
- Compliance with the system Manual included as Appendix 8.

The system testing described above will be conducted if, in the course of the SSD system lifetime, significant changes are made to the system, and the system restarted.

4.2.1.3 System Operation: Routine Operation Procedures

Routine maintenance activities associated with the SSD system include the following:

- Inspection of the concrete slabs and cleanouts linking the sub-slab drainage pipe to the footing drains to ensure they are removing any water that may seep below the slab.
- Measure sub-slab vacuum heads to check the targeted sub-slab extent is attaining the minimum vacuum head of 0.2” of water column.
- Measure the vacuum/pressure head and flow rate at the blower.

4.2.1.4 System Operation: Routine Equipment Maintenance

Routine maintenance activities associated with the SSD system include the following:

- Inspection of the SSD system visually for any damages.
- Test for presence of leaks with smoke detector tubes and fix any seal and leaks identified.

- Check to ensure air intakes are not located close to the SSD exhaust.

4.2.1.5 System Operation: Non-Routine Equipment Maintenance

Non-Routine maintenance activities associated with the SSD system include the following:

- Replace the blowers and other parts, as needed, based on their life expectancy.
- If monitoring indicates that system is not functioning as the design intended, the system may have to be redesigned, modified and restarted.

4.3 GROUNDWATER MONITORING WELL MAINTENANCE

If biofouling or silt accumulation has occurred in the on-Site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced (as per the Monitoring Plan), if an event renders the wells unusable.

4.4 MAINTENANCE REPORTING REQUIREMENTS

Maintenance reports and any other information generated during regular operations at the Site will be kept on-file on-Site. All reports, forms, and other relevant information generated will be available upon request to the NYSDEC and submitted as part of the Annual Site Management Report, as specified in the Section 5 of this SMP.

4.4.1 Routine Maintenance Reports

Checklists or forms (see Appendix XXX) will be completed during each routine maintenance event. Checklists/forms will include, but not be limited to the following information:

- Date;
- Name, company, and position of person(s) conducting maintenance activities;
- Maintenance activities conducted;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,

- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

4.4.2 Non-Routine Maintenance Reports

During each non-routine maintenance event, a form will be completed which will include, but not be limited to, the following information:

- Date;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Presence of leaks;
- Date of leak repair;
- Other repairs or adjustments made to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and,
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

4.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

4.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to XXX (Environmental Professional). These emergency contact lists must be maintained in an easily accessible location at the Site.

4.5.2 Map and Directions to Nearest Health Facility

To be added

4.5.3 Response Procedures

4.5.3.1 Emergency Contacts/Notification System

As appropriate, the fire department and other emergency response groups will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 11). The list is also posted prominently at the Site and made readily available to all personnel at all times.

When a spill occurs, the following actions (these are not comprehensive guidelines are intended only as general guidelines) are recommended:

- If the materials spilled are hazardous (check Material Safety Data Sheets associated with the spilled material, etc.), the health and safety of the responders and people potentially affected by the release should be addressed.
- Measures to contain the spill should be undertaken (absorbent booms, etc.).
- The Fire Department and/or Hazmat team should be notified as soon as possible.
- NYSDEC Spill Hotline (1-800-457-7362) should be notified as soon as possible.

5. SITE MANAGEMENT REPORTING PLAN

5.1 INTRODUCTION

An Annual Site Management Report will be submitted to NYSDEC following the 2009 reporting period, by March 1st. The Site Management Report will be prepared in accordance with NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation requirements. This Site Management Reporting Plan and its requirements are subject to revision by NYSDEC.

This report will include the following:

- Identification of all required EC/ICs required by the Remedial Action Work Plan for the Site;
- An evaluation of the Engineering and Institutional Control Plan and the Monitoring Plan for adequacy in meeting remedial goals;
- Assessment of the continued effectiveness of all Institutional and Engineering Controls for the Site;
- Certification of the EC/ICs;
- Results of the required periodic Site Inspections; and
- All deliverables generated during the reporting period, as specified in Section 2 EC/IC Plan, Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan.

The Site Management Reporting Plan is subject to NYSDEC revision.

5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

Information of EC/ICs can be found in the Engineering and Institutional Control Plan portion of the SMP. Inspection of the EC/ICs will occur at a frequency described in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan. After the last inspection of the reporting period, a qualified environmental professional will sign and certify the document. The document will likely certify that:

- On-Site ECs/ICs are unchanged from the previous certification;
- They remain in-place and effective;
- The systems are performing as designed;
- Nothing has occurred that would impair the ability of the controls to protect the public health and environment;

- Nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls;
- Access is available to the Site by NYSDEC and NYSDOH to evaluate continued maintenance of such controls; and
- Site usage is compliant with the environmental easement.

The signed certification will be included in the Annual Site Management Report (see Section 5.3).

5.3 SITE INSPECTIONS

5.3.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section XXX Monitoring Plan and Section XXX Operation and Maintenance Plan of this SMP. At a minimum, a Site-wide inspection will be conducted:

- Annually;
- When a breakdown of the treatment systems has occurred; and
- Whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.3.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms for their respective system (refer to Appendix 11). Additionally, a general Site-wide inspection form will be completed during the Site-wide inspection (see Appendix 11). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records (including all sampling data of any media at the Site and system maintenance reports) generated for the Site during the calendar year will be included in the Annual Site Management Report.

5.3.3 Evaluation of Records and Reporting

The results of the inspection and Site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;

- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly; and, based on the above items,
- The Site remedy continues to be protective of public health and the environment and is performing as designed.

5.4 SITE MANAGEMENT REPORT

The Site Management Report will be submitted annually and will be submitted by March 1 of the calendar year following the reporting period. Other activities such as groundwater and soil vapor monitoring reports will also be submitted annually, with those results also incorporated into the Annual Site Management Report. The report will include:

- EC/IC certification;
- All applicable inspection forms and other records generated for the Site during the reporting period;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Cumulative data summary tables and/or graphical representations of contaminants of concern by media (groundwater, soil vapor and indoor air as appropriate), which include a listing of all compounds analyzed along with the applicable standards, with all exceedances highlighted;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables required for all points sampled during the calendar year (also to be submitted electronically in the NYSDEC-specified format);
- A performance summary for all treatment systems at the Site during the calendar year, including information such as:
 - The number of days the system was run for the reporting period;
 - The contaminant mass removed;
 - A description of breakdowns and/or repairs along with an explanation for any significant downtime;
 - A summary of the performance and/or effectiveness monitoring;

- Comments, conclusions, and recommendations based on data evaluation; and
 - Description of the resolution of performance problems.
- A Site evaluation, which will address the following:
 - The compliance of the remedy with the requirements of the agreements made after the MOU is executed;
 - The performance and effectiveness of the remedy;
 - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored; and
 - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan.
- A figure showing sampling and well locations, and significant analytical values at sampling locations; and
- Comments, conclusions, and recommendations, based on an evaluation of the information included in the report, regarding EC/ICs at the Site.

The Site Management Report will be submitted, in hard-copy format, to the NYSDEC offices, located in Albany, New York, and in electronic format to NYSDOH.

APPENDIX 1 – METES AND BOUNDS

APPENDIX 2 – ENVIRONMENTAL EASEMENT

APPENDIX 3 – SOIL MANAGEMENT PLAN

APPENDIX 4 – EC SYSTEM COMPONENT DOCUMENTATION

**APPENDIX 5 – HEALTH AND SAFETY PLAN AND
COMMUNITY AIR MONITTING PLAN**

APPENDIX 6 – STORM WATER POLLUTION PREVENTION PLAN

APPENDIX 7 – EC SYSTEM TEST RESULTS

APPENDIX 8 – EC TROUBLE SHOOTING GUIDE

APPENDIX 9 – EC MAINTENANCE SCHEDULES

APPENDIX 10 – WELL BORING/SAMPLING LOGS

APPENDIX 11 – INSPECTION CHECKLIST

APPENDIX 12 – QUALITY ASSURANCE PROJECT PLAN