4.4.3 *Other Reporting*

Photographs will be taken of all remedial activities. Photos will illustrate all remedial program elements and will be of acceptable quality. Representative photos of the Site prior to final Remedial Actions will be recorded. Representative photos of each contaminant source, source area and Site structures before, during and after remediation will also be recorded. Photos will be made available to the NYSDEC and NYSDOH in digital (JPEG) format. Photos will be submitted to NYSDEC on CD or other acceptable electronic media and will be sent to NYSDEC's Project Manager (2 copies) and to NYSDOH's Project Manager (1 copy). CD's will have a label and a general file inventory structure that separates photos into directories and sub-directories according to logical Remedial Action components. A photo log keyed to photo file ID numbers will be prepared to provide explanation for all representative photos. For larger and longer projects, photos should be submitted on a monthly basis or another agreed upon time interval. Additionally, photos documenting the activities performed under the RAWP will be included in the FER.

Job-site record keeping for all remedial work will be appropriately documented. Upon request, these records will be available for inspection by NYSDEC and NYSDOH staff.

4.4.4 *Complaint Management Plan*

Complaints from the public regarding nuisance or other Site conditions will be handled on an individual basis. Once a complaint is filed with regards to Site remedial action activities, the NYSDEC will be notified and all required steps will be taken to rectify the cause of the complaint.

4.4.5 *Deviations from the Remedial Action Work Plan*

Upon institution of the RAWP, should Site conditions require deviation from the approved RAWP the NYSDEC will be notified in writing once the necessity is evident. A request for a change to the RAWP will be submitted the NYSDEC. The written request will out-

line the effect of the deviations on overall remedy. Upon approval for changes/editions to the RAWP from the NYSDEC, the modifications will be implemented.

5.0 REMEDIAL ACTION: MATERIAL REMOVAL FROM SITE

The material that is anticipated to be removed from the Site as part of the remedial action includes but is not limited to: tanks and surrounding soils in the northeastern portion of the Fyn Paint facility (the location of the four (4) steel 1,100-gallon USTs; and one (1) steel 1,500-gallon UST); the tank and surrounding soils in the adjacent Con Ed parking lot (the 10,000-gallon UST); and, any soils excavated in association with any trenching, drilling or other ground invasive activities. Exact locations as well as vertical and horizontal extents will be determined in the field. The anticipated limiting factor with the excavation activities will be the location of the excavation areas adjacent to building foundation walls.

Soils will be screened in the field to evaluate soil quality. Post-excavation remedial performance sampling will be implemented as described in Section 5.2, below.

The Final Engineering Report will include figures illustrating where all soils/material are were removed (with approximate thickness contours), and where imported soils/material were placed.

Soil generated as the result of drilling activities will be either drummed in 55-gallon steel drums and/or in a lined and covered roll-off container pending waste characterization and off-site disposal.

5.1 SOIL CLEANUP OBJECTIVES

The Soil Cleanup Objectives for this Site are the Track 2 Restricted Use Soil Cleanup Objectives for Restricted Commercial Use. These SCOs are presented on Table 3. The values for the protection of public health are listed in Table 3. Soil and materials management on-Site and off-Site will be conducted in accordance with the Soil and Material Management Plan presented in Section 4.1.4 of this RAWP. UST closures will, at a minimum, conform to criteria defined in DER-10.

5.2 REMEDIAL PERFORMANCE EVALUATION (POST EXCAVATION END POINT SAMPLING)

5.2.1 *End-Point Sampling Frequency*

Excavations will be continually evaluated in the field using a PID to screen VOC concentrations. Based on the field screening, (and if present, approval from a NYSDEC field representative), once the termination of an excavation is reached, endpoint soil samples will be collected. Endpoint sampling for ground invasive activities associated with the implementation of this RAWP will be performed in accordance with Section 5.4 of DER-10. The endpoint sampling frequency for excavation sidewalls will be performed a minimum of every 20 linear feet. Bottom samples will be collected at a rate of one for every 500 square feet.

5.2.2 *Methodology*

Laboratory analysis of soil samples will follow "Test Methods for Evaluation Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions. The analyses performed for soils excavated during this Remedial Action will include analysis for VOCs, SVOCs, pesticides and metals in accordance with USEPA SW-846 Method 8260B, 8270C, 8081, 6010 and 7471. Laboratory analysis for groundwater samples will include VOCs, SVOCs and Metals in accordance with USEPA SW-846 Method 8260B, 8270C, 6010 and 7471. Soil vapor samples will be analyzed for VOCs using EPA method TO-15.

5.2.3 *Reporting of Results*

Field data will be recorded and reported by field personnel using appropriate field data documentation materials such as the field logbook, field management forms and COC forms.

The analytical results of all samples collected, as part of the Remedial Action, will be reported as NYSDOH Category B deliverables. The Category B data deliverables include all backup QA/QC documentation necessary to facilitate a complete validation of the data. The sample tracking forms are specified and supplied by the 2000 NYSDEC Analytical Services Protocol (ASP).

The laboratory report results will be summarized in the FER along with summary tables as well as maps illustrating notable analytical results.

5.2.4 *QA/QC*

Quality Assurance/Quality Control for the endpoint sampling performed in completed excavations will be maintained by following procedures outlined in the QAPP included in Appendix S.

5.2.5 *Reporting of End-Point Data in FER*

The FER will include a table of end point data with highlights or a summary of exceedances of SCOs. A map showing all SCO exceedances will also be presented in the FER.

The laboratory used for all end-point sample analysis and contingency sample analysis will be NYSDOH ELAP certified.

End point sampling, including bottom and side-wall sampling, will be performed in accordance with DER-10 sample frequency requirements unless an alternative sampling frequency is agreed upon by the NYSDEC. Side-wall samples will be collected a minimum of every 20 linear feet. Bottom samples will be collected at a rate of one for every 500 square feet. The FER will provide a tabular and map summary of all end-point sample results and exceedances of SCOs.

5.3 ESTIMATED MATERIAL REMOVAL QUANTITIES

The estimated quantity of soil/fill to be removed from the Site is approximately 500 to 1,000 cubic yards. The estimated quantity of soil to be imported into the Site for backfill and cover soil is also approximately 500 to 1,000 cubic yards. Additionally, an anticipated 50 cubic yards of pea gravel is expected to be imported into the Site for backfill to be used in conjunction with the SSDS. The estimated quantity of soil/fill expected to be reused/relocated on Site is 0.0 cubic yards. A scaled map showing excavation areas and types of materials removed will be provided in the FER.

5.4 SOIL/MATERIALS MANAGEMENT PLAN

All intrusive work associated with the RAWP as well as any future intrusive work that will disturb residual contamination will be performed in accordance with the Soil Management Plan (SoMP), which is detailed in Section 4.1.4. Additionally, activities will be conducted in accordance with the procedures defined in the Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. The HASP and CAMP are presented in Appendix N and Appendix T, respectively.

5.4.1 *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 the remedy and during development phase, such as excavations for foundations and utility work, prior to issuance of the COC.

All primary contaminant sources (including but not limited to tanks and hotspots) identified during Site Characterization, Remedial Investigation, and Remedial Action will be surveyed by a surveyor licensed to practice in the State of New York. This information will be provided on maps in the Final Engineering Report.

Screening will be performed by qualified environmental professionals. Resumes will be provided for all personnel responsible for field screening (i.e. those representing the Remedial Engineer) of invasive work for unknown contaminant sources during remediation and development work.

5.4.2 *Soil Storage Methods*

During excavation activities, it may not be possible to direct-load soils for off-Site disposal. As such, materials will have to be temporarily stored on-Site using drums and/or lined and covered roll-off containers, pending disposal.

If used, roll-off containers will be kept covered at all times with appropriately anchored tarps. Roll-offs will be routinely inspected and damaged tarp covers will be promptly replaced.

5.4.3 *Materials Excavation and Load Out*

The presence of utilities and easements on the Site will be investigated by the Remedial Engineer. It will be determined whether a risk or impediment to the planned work under this RAWP is posed by utilities or easements on the Site. The Volunteer and associated parties preparing the remedial 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) performed under this Plan.

The Remedial 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.

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 will be operated on-Site. The Remedial Engineer or a qualified environmental professional under his/her supervision will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the remedial construction is complete. Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site sediment tracking. The Remedial Engineer or a qualified environmental professional under his/her supervision 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 Site remediation and development. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

Each hotspot and structure to be remediated (USTs, vaults and associated piping, transformers, etc.) will be removed and end-point remedial performance sampling completed before excavations related to Site development commence proximal to the hotspot or structure.

Development-related grading cuts and fills will not be performed without NYSDEC approval and will not interfere with, or otherwise impair or compromise, the performance of remediation required by this plan.

Mechanical processing of historical fill and contaminated soil on-Site is prohibited.

All primary contaminant sources (including but not limited to tanks and hotspots) identified during Site Characterization, Remedial Investigation, and Remedial Action will be surveyed by a surveyor licensed to practice in the State of New York. The survey information will be shown on maps to be reported in the Final Engineering Report.

5.4.4 *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.

Truck transport routes will be determined based on weather and access conditions one week prior to the start up of the work. All trucks loaded with Site materials will exit the vicinity of the Site using only these approved truck routes.

These routes will take 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; [(g) community input [where necessary]].

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 remediation and development. 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.

5.4.5 *Materials Disposal Off-Site*

The disposal locations for all materials removed from the Site for off-Site disposal will be reported to the NYSDEC Project Manager, and will be included in the FER.

The total quantity of material expected to be disposed off-Site will be determined after the USTs are removed. A hazardous waste disposal facility will be selected based on laboratory analysis.

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be disposed in accordance with all local, State (including 6 NYCRR 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 is prohibited without formal NYSDEC approval. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility). A summary table presenting the Track 1 Unrestricted Use Soil Cleanup Objectives is shown on Table 6.

The following documentation will be obtained and reported by the Remedial 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 Remedial 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 an environmental remediation Site in New York State. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported (including Site Characterization data); and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material. These documents will be included in the FER.

Non-hazardous historic fill and contaminated soils taken off-Site will be handled, at minimum, as a Municipal Solid Waste per 6 NYCRR 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 and 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 Region 2 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 Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported.

The Final Engineering 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 tabular form in the FER.

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 Final Engineering 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 quality assurance/quality control (QA/QC) will be reported in the Final Engineering Report. All data available for soil/material to be disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

5.4.6 *Materials Reuse On-Site*

No material will be reused for backfill.

5.4.7 *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 New York City sewer system (the water treated through the groundwater pump and treat system) is being discharged with approval/permit from the NYCDEP. Dewatered fluids will not be recharged back to the land surface or subsurface of the Site. Purge water generated during the quarterly groundwater sampling events will be treated using the existing groundwater pump and treat system.

Discharge of water generated during remedial construction to surface waters (i.e. a local pond, stream or river) is prohibited without a SPDES permit.

5.4.8 *Demarcation*

After the completion of soil removal and any other invasive remedial activities and prior to backfilling 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 orange snow fencing material or equivalent material 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 Site Management Plan. 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 the physical and written record of the upper surface of the "Residuals Management Zone" in the Site Management Plan. A map showing the survey results will be included in the Final Engineering Report and the Site Management Plan.

5.4.9 *Backfill from Off-Site Sources*

For all backfill required for the Site, the backfill material source will be reviewed and approved by the Remedial Engineer. The review will outline the past usage of the backfill source site as well as a chemical analysis of the backfill. All materials proposed for import onto the Site will be approved by the Remedial Engineer and will be in compliance with provisions in this RAWP 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. Additionally, solid waste will not be imported onto 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. Soils that meet "exempt" fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site. Nothing in the approved RAWP or its approval by NYSDEC should be construed as an approval for this purpose. Trucks entering the Site with imported soils will be securely covered with tight fitting covers.

The Final Engineering Report will include the following certification by the Remedial Engineer: "I certify that all import of soils from off-Site, including source evaluation, approval and sampling, has been performed in a manner that is consistent with the methodology defined in the Remedial Action Work Plan".

5.4.10 *Storm Water Pollution Prevention*

A Storm Water Pollution Prevention Plan (SWPPP) that conforms to the requirements of NYSDEC Division of Water guidelines and NYS regulations will be implemented at the Site. The purpose of the SWPPP is to ensure that appropriate steps are taken to keep storm water from picking up pollutants or sediment and creating further problems downstream. As such the SWPPP for the Site:

1. identifies the possible sources of pollutants, including sediment, on the Site;
2. describes how stormwater could transport these materials;
3. describes the control measures taken to keep these materials out of stormwater;
4. sets up a procedure for monitoring the effectiveness of the control measures; and,
5. specifies what steps are to be taken in case problems are discovered.

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 RAWP 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.

5.4.11 *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 performed for full scan parameters (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs).

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 also be included in periodic electronic media reports.

5.4.12 *Community Air Monitoring Plan*

Air monitoring will be performed during the following activities: ground invasive work; handling of free-phase product/NAPL; and, any other activities which may release VOCs into the atmosphere. As such, the monitoring will ensure the prevention of over exposure to workers at the Site and surrounding the Site.

Frequent air monitoring will be conducted at 30-minute intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.

If the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, work activities can resume. If the organic vapor levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area, activities can resume provided the organic vapor level 200 feet downwind of the work area or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety Officer will be implemented to ensure that vapor emission does not impact the nearest

residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work area or half the distance to the nearest residential or commercial property, whichever is less, all work activities will be halted.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the work area, then the air quality will be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If efforts to abate the emission source are unsuccessful and if the following levels persist for more than 30 minutes in the 20 Foot Zone, then the Major Vapor Emission Response Plan shall automatically be placed into effect.

Additionally, the Major Vapor Emission Response Plan shall be immediately placed into effect if organic vapor levels are greater than 10 ppm above background.

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in the Health and Safety Plan of the RAWP will be notified.
2. Frequent air monitoring will be conducted at 30-minute intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.

The location of sampling stations will be variable based on wind direction and will be determined daily by the onsite supervisor (HSO, project manager, etc.)

Exceedances observed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers and included in the Daily Report.

5.4.13 *Odor, Dust and Nuisance Control Plan*

The Final Engineering Report will include the following certification by the Remedial Engineer: "I certify that all invasive work during the remediation and all invasive development work were conducted in accordance with dust and odor suppression methodology defined in the Remedial Action Work Plan."

5.4.13.1 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors on-Site and off-Site. Specific odor control methods to be used on a routine basis will include periodic inspection from personnel not previously present during odor inducing activities. 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 Volunteer's Remedial Engineer, who is responsible for certifying the Final Engineering 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.

5.4.13.2 Dust Control Plan

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

- Dust suppression will be achieved though the use of water misting (provided by onsite municipal water).
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- On-Site roads will be limited in total area to minimize the area required for water spraying.

5.4.13.3 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 NYCDEP noise control standards.

6.0 RESIDUAL CONTAMINATION TO REMAIN ONSITE

Since residual contaminated soil, groundwater and soil vapor will exist beneath the Site after the remedy is complete, Engineering and Institutional Controls (ECs and ICs) are required to protect human health and the environment. These ECs and ICs are described below and detailed descriptions of both the ECs and the ICs are presented in Sections 3.3.2 to 3.3.8. Long-term management of EC/ICs and of residual contamination will be executed under a Site specific Site Management Plan (SMP) that will be developed and included in the FER.

ECs will be implemented to protect public health and the environment by appropriately managing residual contamination. The Site will have 5 primary EC systems. These are: (1) composite cover system; (2) Air Sparging/Soil Vapor Extraction System; (3) the existing IRM system consisting of a groundwater and NAPL extraction and treatment systems; (4) a sub-slab depressurization system; and (5) in-situ chemical oxidation.

ICs will also be implemented to protect public health and the environment by appropriately managing access to residual contamination associated with the Site. The Site will have 2 primary IC systems. These are: (1) recording of an environmental easement; and, (2) implementation of site management plan.

The FER will report residual contamination on the Site in tabular and map form. This will include presentation of exceedances of both TAGM 4046 SCOs and NYS groundwater standards.

7.0 ENGINEERING CONTROLS: COMPOSITE COVER SYSTEM

Exposure to residual contaminated soils will be prevented by an engineered, composite cover system that will be built on the Site. This composite cover system will be comprised of asphalt covered roads, concrete covered sidewalks, and concrete building slabs.

A diagram showing the design detail for the composite cover system to be installed within the Fyn Paint factory (following excavation, backfill and installation of the SSDS) is shown in Figure 13. A map showing the aerial distribution of each of the cover types will be included in the FER.

A Soil/Material Management Plan will be included in the Site Management Plan and will outline the procedures to be followed in the event that the composite cover system and underlying residual contamination are disturbed after the Remedial Action is complete. Maintenance of this composite cover system will also be described in the Site Management Plan.

8.0 ENGINEERING CONTROLS: TREATMENT SYSTEMS

This section presents a detailed description of the methods for implementation for each of the remaining Engineering Controls to be utilized both on-Site and off-Site. The Engineering Controls to be implemented in the remedy include: a sub-slab depressurization system; an air sparging/soil vapor extraction system; groundwater and NAPL extraction and treatment systems; and in-situ chemical oxidation. A description of each EC is presented below.

8.1 SUB-SLAB DEPRESSURIZATION SYSTEM

The SSDS will be installed on the Site as described in Section 3.3.4 above. In addition to acting as an Engineering Control to prevent potential soil vapor intrusion within the Fyn Paint factory, the SSDS will also indirectly remediate the soil by inducing soil vapor circulation throughout the subsurface, removing and treating contaminated soil vapors.

8.1.1 *Criteria for Completion of Remediation/Termination of Remedial System*

The active SSDS will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the active SSDS may be submitted by the property owner based on confirmatory data that justifies such request. Systems will remain in place and operational until permission to discontinue use is granted in writing by NYSDEC and NYSDOH.

8.1.2 *General Operation and Maintenance*

The general operation and maintenance of the SSDS will be twofold: (1) periodic inspection of the mechanical equipment for wear and preventative maintenance; and, (2) monitoring to track the progress of remediation and performance of equipment according to the design parameters.

The operation of the blower and system air emissions will be monitored monthly. The following items will be monitored during each Site visit: (1) weather conditions; (2) equipment operations; (3) system influent and effluent emissions; and, (4) status/condition of extraction points. The weather conditions to be monitored include air temperature, wind direction, cloud cover, barometric pressure and precipitation status. The blower operations will be checked and the vacuum will be measured. The influent (of each independent pipe leg) and effluent air flow rates, PID readings and temperature readings will be measured and recorded.

Upon equipment inspection, gauge readings will be recorded and the system will be temporarily deactivated. During this deactivation period the moisture separator(s) will be drained of any accumulated condensate and air filters will be inspected and replaced, if neces-

sary. The system will then be reactivated and the gauge readings will be recorded again and compared with the pre-shutdown readings to ensure that the system is operating correctly.

The SSDS will be monitored weekly for one month after the start up and monthly for the remainder of operation.

The vapor phase discharge will comply with the NYSDEC Division of Air Resources (DAR) Emissions Rate Potential (ERP) for a facility with an Environmental Rating 'A'. The Environmental Rating is a letter (A, B, C or D) assigned by the Department which considers the potential environmental effects of an air contaminant source on its surroundings. An Environmental Rating of 'A' is considered an air contaminant whose discharge results, or may result, in serious adverse effects on receptors or the environment. The 'A' rating poses the highest risk to human health and the environment and also has the most stringent air cleaning requirement for a given emission rate potential (99% air cleaning or best available technology for any ERP greater than 1 lb/hour).

Upon system start-up and approximately 1 week into system operation the effluent will be sampled and analyzed for VOCs via EPA method TO-15. If necessary, the air discharged from the remediation system will be treated with vapor-phase carbon. During each operation and maintenance visit, the air stream will be sampled for VOCs by EPA Method TO-15 before and after treatment. In addition to the air samples, the air stream will also be monitored with a PID. The vapor-phase carbon will be changed out periodically in order to maintain the proper air emissions.

8.2 AIR SPARGING/SOIL VAPOR EXTRACTION SYSTEM (AS/SVE SYSTEM)

The Air Sparging/Soil Vapor Extraction System will be installed on the Site as described in Section 3.3.2. In addition to actively remediating the soil, groundwater and soil vapor beneath the Site, this system will prevent potential soil vapor intrusion within the Fyn Paint factory, Con Ed property and surrounding properties.

8.2.1 *Criteria for Completion of Remediation/Termination of Remedial System*

The AS/SVE system will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the system may be submitted by the property owner after residual contamination concentrations in groundwater: (1) are cleaned up to levels below NYSDEC standards, (2) have become asymptotic over an extended period of time as mandated by the NYSDEC and the NYSDOH, or (3) if NYSDEC has determined that the AS/SVE system has reached the limit of its effectiveness. This assessment will be based in part on post-remediation contaminant levels in groundwater collected from monitoring wells located throughout the Site. Additionally, soil vapor sampling results will be evaluated to determine if residual soil contamination at the Site persists. Systems will remain in place and operational until permission to discontinue their use is granted in writing by NYSDEC and NYSDOH. These sampling and monitoring activities will adhere to stipulations that will be outlined in the Monitoring Plan section of the SMP.

The criteria used to determine when it is appropriate to discontinue the active soil vapor extraction will be based on the NYSDOH guideline (15 ppb for PCE). Following consultation and approval from NYSDEC, the operation of the system will be discontinued if the influent vapor samples analyses show less than 15 ppb for three months. For three months following system shut-down, monthly confirmatory soil vapor and groundwater samples will be collected and analyzed. If rebound is noted during that time, the system will be re-started. If no rebound is evident, then quarterly monitoring will continue for a period of 8 quarters (2 years) to ensure that the remedial action objectives have been met.

8.2.2 *General Operation and Maintenance*

The general operation and maintenance of the AS/SVE system will be twofold: (1) the inspection of the mechanical equipment for wear and preventative maintenance; and, (2) monitoring the progress of remediation and performance of equipment according to the design parameters.

The operation of the blower and system air emissions will be monitored monthly. The following items will be monitored during each Site visit: (1) weather conditions;

(2) equipment operations; (3) system influent and effluent emissions; and, (4) status/condition of extraction points. The weather conditions to be monitored include air temperature, wind direction, cloud cover, barometric pressure and precipitation status. The blower operations will be checked and the vacuum will be measured. The influent and effluent air flow rates, PID readings and temperature will be measured.

Upon equipment inspection, gauge readings will be recorded and the system will be temporarily deactivated. During this deactivation period the two moisture separators will be drained of any accumulated condensate and air filters will be inspected and replaced, if necessary. The system will then be reactivated and the gauge readings will be recorded again and compared with the pre-shutdown readings to ensure that the system is operating correctly.

As with the SSDS system, the vapor phase discharge will comply with the NYSDEC Division of Air Resources (DAR) Emissions Rate Potential (ERP) for a facility with an Environmental Rating 'A'. The Environmental Rating is a letter (A, B, C or D) assigned by the department which considers the potential environmental effects of an air contaminant source on its surroundings. An Environmental Rating of 'A' is considered an air contaminant whose discharge results, or may result, in serious adverse effects on receptors or the environment. The 'A' rating poses the highest risk to human health and the environment and also has the most stringent air cleaning requirement for a given emission rate potential (99% air cleaning or best available technology for any ERP greater than 1 lb/hour).

Upon system start-up and approximately 1 week into system operation the effluent will be sampled and analyzed for VOCs via EPA method TO-15. If necessary, the air discharged from the remediation system will be treated with vapor-phase carbon. During the operation and maintenance visit, the air stream will be sampled for VOCs by EPA Method TO-15 before and after treatment. In addition to the air samples, the air stream will also be monitored with a PID. The vapor-phase carbon will be changed out periodically in order to maintain the proper air emissions. The AS and SVE system will be monitored weekly for one month after the start up and monthly for the entire period of remediation.

8.3 GROUNDWATER EXTRACTION AND TREATMENT SYSTEM/NAPL RECOVERY

The groundwater extraction and treatment system and NAPL recovery system, previously installed at the Site as part of the IRM, is described in Section 2.11. In addition to actively remediating the dissolved phase VOC contamination and removing NAPL, this system will also act an Engineering Control to prevent off-Site migration of the dissolved phase contamination.

8.3.1 *Criteria for Completion of Remediation/Termination of Remedial System*

The groundwater pump and treat system will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the system may be submitted by the property owner after residual contamination concentrations in groundwater: (1) are cleaned up to levels below NYSDEC standards, (2) have become asymptotic over an extended period of time as mandated by the NYSDEC and the NYSDOH, or (3) if NYSDEC has determined that the groundwater pump and treat system has reached the limit of its effectiveness. This assessment will be based in part on post-remediation contaminant levels in groundwater collected from monitoring wells located throughout the Site. These sampling and monitoring activities will adhere to stipulations that will be outlined in the Monitoring Plan section of the SMP. Systems will remain in place and operational until permission to discontinue their use is granted in writing by NYSDEC and NYSDOH.

8.3.2 *General Operation and Maintenance*

The operation of the pump and treat remediation system will be monitored once per month. The following items will be monitored during each Site visit: (1) weather conditions; (2) equipment operation; and, (3) groundwater flow rate. The weather conditions to be monitored include air temperature, wind direction, cloud cover, barometric pressure and precipitation status. The status of the groundwater depression pump, air stripper, liquid phase carbon and transfer pump will be checked, and appropriate gauges will be read and the results re-

corded. The water level in the recovery well(s) and all adjacent monitoring wells will also be recorded.

Influent, post-stripper and post-carbon water samples will be collected monthly and analyzed by EPA Method 8260. The liquid-phase carbon will be changed out periodically based on lab results in order to maintain effluent VOC concentrations below the appropriate NYSDEC guidance. In addition to the monthly EPA Method 8260 analysis, the post-carbon (effluent) sample will be analyzed quarterly for additional parameters as required by the NYC DEP Bureau of Sewers. The quarterly analysis will be performed utilizing the required analytical methods listed in 40 CFR Part 136. These analytical methods include: 624 for VOCs; 245.1 for mercury; 200.7 for total metals; pH; ignitability; total suspended solids; non-polar material (oil and grease); and, chromium (VI).

As with the SSDS and AS/SVE system, the air stripper effluent air stream sample will be collected at system start-up, one week after start-up, and once per month thereafter and analyzed for VOCs by EPA Method TO-15. As stated in Section 8.1.2 and 8.2.2, the vapor phase discharge will comply with the NYSDEC DAR Emissions Rate Potential for a facility with an Environmental Rating 'A'. The 'A' rating poses the highest risk to human health and the environment and also has the most stringent air cleaning requirement for a given emission rate potential (99% air cleaning or best available technology for any ERP greater than 1 lb/hour). The current ERP for the air stripper effluent air stream is approximately 0.001258383849 lb/hour. As such, the degree of air cleaning required shall be specified by the commissioner. If necessary, the air stripper effluent air stream will be treated with vapor-phase carbon prior to discharging to the atmosphere.

8.4 IN-SITU CHEMICAL OXIDATION

The In-Situ Chemical Oxidation approach will be performed in locations both on-Site and off-Site. This EC works by eliminating dissolved-phase VOC contamination which has migrated off-Site. A detailed description is provided in Section 3.3.5.

8.4.1 *Criteria for Completion of Remediation/Termination of Remedial System*

Groundwater monitoring activities to assess the in-situ chemical oxidation of dissolved phase VOCs will continue until residual groundwater concentrations are found to be below NYSDEC standards or have become asymptotic over an extended period. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC and NYSDOH. Monitoring activities will be outlined in the Monitoring Plan of the SMP.

8.4.2 *General Operation and Maintenance*

The operation and maintenance of this EC consists of continuation of the existing quarterly groundwater monitoring program, which will be employed to evaluate the effectiveness of the in-situ chemical oxidation. Additionally, should the monitoring results indicate that the in-situ chemical oxidation is significantly increasing the remediation of the dissolved phase remediation, additional injection rounds will be performed. The NYSDEC will be consulted and their approval will be received prior to any additional chemical oxidation applications and/or injection rounds.

9.0 INSTITUTIONAL CONTROLS

After the remedy is complete, it is anticipated that the Site will have residual contamination remaining in place. Institutional Controls (ICs) for the residual contamination have been incorporated into the remedy to render the overall Site remedy protective of public health and the environment. Two IC elements are designed to ensure continual and proper management of residual contamination in perpetuity: an Environmental Easement and a Site Management Plan. These elements are described in this Section. A Site-specific Environmental Easement will be recorded with Kings County to provide an enforceable means of ensuring the continual and proper management of residual contamination and protection of public health and the environment in perpetuity or until released in writing by NYSDEC. This Environmental Easement requires that the grantor of the Environmental Easement and the grantor's successors and assigns adhere to all Engineering and Institutional Controls (ECs/ICs) placed on this Site by this NYSDEC-approved remedy. ICs provide restrictions on Site usage and mandate opera-

tion, maintenance, monitoring and reporting measures for all ECs and ICs. The Site Management Plan (SMP) will describe appropriate methods and procedures to ensure compliance with all ECs and ICs that are required by the Environmental Easement. Once the SMP has been approved by the NYSDEC, compliance with the SMP will be required by the grantor of the Environmental Easement and grantor's successors and assigns.

9.1 ENVIRONMENTAL EASEMENT

An Environmental Easement, as defined in Article 71 Title 36 of the Environmental Conservation Law, is required when residual contamination is left on-Site after the Remedial Action is complete. Since the Site will have residual contamination after completion of all Remedial Actions, an Environmental Easement is required. As part of this remedy, an Environmental Easement approved by NYSDEC will be filed and recorded with the Kings County Clerk. The Environmental Easement will be submitted as part of the Final Engineering Report.

The Environmental Easement renders the Site a Controlled Property. The Environmental Easement must be recorded with the Kings County Clerk before the Certificate of Completion can be issued by NYSDEC. A series of Institutional Controls are required under this remedy to implement, maintain and monitor these Engineering Control systems, prevent future exposure to residual contamination by controlling disturbances of the subsurface soil, and restricting the future use of the site to commercial or industrial uses only. These Institutional Controls are requirements or restrictions placed on the Site that are listed in, and required by, the Environmental Easement. Institutional Controls can, generally, be subdivided between controls that support Engineering Controls, and those that place general restrictions on Site usage or other requirements. Institutional Controls in both of these groups are closely integrated with the Site Management Plan, which provides all of the methods and procedures to be followed to comply with this remedy.

The Institutional Controls that support Engineering Controls are:

- compliance with the Environmental Easement by the Grantee and the Grantee's successors and adherence to all elements of the SMP;

- all Engineering Controls must be operated and maintained as defined in the SMP;
- a composite cover system consisting of asphalt covered roads, concrete covered sidewalks, and concrete building slabs must be inspected, certified and maintained as defined in the SMP;
- a soil vapor mitigation system consisting of a sub-slab depressurization system under the first floor of the building must be inspected, certified, operated and maintained as defined in the SMP;
- all Engineering Controls on the Controlled Property must be inspected and certified at a frequency and in a manner defined in the SMP;
- periodic groundwater and soil vapor monitoring must be performed as defined in the SMP;
- data and information pertinent to Site Management for the Controlled Property must be reported at a frequency and in a manner defined in the SMP);
- on-Site environmental monitoring devices, including but not limited to groundwater monitoring wells and soil vapor points must be protected and replaced as necessary to ensure proper functioning in the manner specified in the SMP;
- Engineering Controls may not be discontinued without an amendment or extinguishment of the Environmental Easement.

As a note, Institutional Controls may be modified, added or deleted from this list as warranted by Site conditions and deemed necessary by NYSDEC.

Adherence to these Institutional Controls for the Site is mandated by the Environmental Easement and will be implemented under the Site Management Plan (discussed in the next section). The Controlled Property (Site) will also have a series of Institutional Controls in the form of Site restrictions and requirements. The Site restrictions that apply to the Site are:

- vegetable gardens and farming on the Site are prohibited;
- use of groundwater underlying the Site is prohibited without treatment rendering it safe for intended purpose;

- all future activities on the Site that will disturb residual contaminated material are prohibited unless they are conducted in accordance with the soil management provisions in the Site Management Plan;
- The Site may be used for restricted commercial or industrial use only, provided the long-term Engineering and Institutional Controls included in the Site Management Plan are employed;
- the Site may not be used for a higher level of use, such as restricted residential use without an amendment or extinguishment of this Environmental Easement;
- Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that would constitute a violation or failure to comply with the SMP.

NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

9.2 SITE MANAGEMENT PLAN

Site Management is the last phase of remediation and begins with the approval of the Final Engineering Report and issuance of the Certificate of Completion (COC) for the Remedial Action. The Site Management Plan is submitted as part of the FER but will be written in a manner that allows its removal and use as a complete and independent document. Site Management continues in perpetuity or until released in writing by NYSDEC. The property owner is responsible to ensure that all Site Management responsibilities defined in the Environmental Easement and the Site Management Plan are performed.

The SMP is intended to provide a detailed description of the procedures required to manage residual contamination left in place at the Site following completion of the Remedial

Action in accordance with the VCA with the NYSDEC. This includes: (1) development, implementation, and management of all Engineering and Institutional Controls; (2) development and implementation of monitoring systems and a Monitoring Plan; (3) development of a plan to operate and maintain any treatment, collection, containment, or recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual); (4) submittal of Site Management Reports, performance of inspections and certification of results, and demonstration of proper communication of Site information to NYSDEC; and (5) defining criteria for termination of treatment system operation.

To address these needs, the SMP will include four plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems; and (4) a Site Management Reporting Plan for submittal of data, information, recommendations, and certifications to NYSDEC. The SMP will be prepared in accordance with the requirements in NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, and the guidelines provided by NYSDEC.

Site management activities, reporting, and EC/IC certification will be scheduled on a certification period basis. The certification period will be annually. The Site Management Report will be based on a calendar year and will be due for submission to NYSDEC by April 1 of the year following the reporting period.

The Site Management Plan in the Final Remediation Report will include a monitoring plan for groundwater at the downgradient Site perimeter to evaluate Site-wide performance of the remedy.

No exclusions for handling of residual contaminated soils will be provided in the Site Management Plan (SMP). All handling of residual contaminated material will be subject to provisions contained in the SMP.

10.0 FINAL ENGINEERING REPORT

A Final Engineering Report (FER) and Certificate Of Completion (COC) will be submitted to NYSDEC following implementation of the Remedial Action defined in this RAWP. The FER will provide the documentation that the remedial work required under this RAWP has been completed and has been performed in compliance with this plan. The FER will provide a comprehensive account of the locations and characteristics of all material removed from the Site including the surveyed map(s) of all sources. The Final Engineering Report will include as-built drawings for all constructed elements, certifications, manifests, bills of lading as well as the complete Site Management Plan (formerly the Operation and Maintenance Plan). The FER will provide a description of the changes in the Remedial Action from the elements provided in the RAWP and associated design documents. The FER will provide a tabular summary of all performance evaluation sampling results and all material characterization results and other sampling and chemical analysis performed as part of the Remedial Action. The FER will provide test results demonstrating that all mitigation and remedial systems are functioning properly. The FER will be prepared in conformance with DER-10.

Where determined to be necessary by NYSDEC, a Financial Assurance Plan will be required to ensure the sufficiency of revenue to perform long-term operations, maintenance and monitoring tasks defined in the Site Management Plan and Environmental Easement. This determination will be made by NYSDEC in the context of the Final Engineering Report review.

The Final Engineering Report will include written and photographic documentation of all remedial work performed under this remedy.

The FER will include an itemized tabular description of actual costs incurred during all aspects of the Remedial Action.

The FER will provide a thorough summary of all residual contamination left on the Site after the remedy is complete. Residual contamination includes all contamination that exceeds TAGM 4046 SCOs. A table that shows exceedances from TAGM 4046 SCOs for all soil/fill remaining at the Site after the Remedial Action and a map that shows the location and summarizes exceedances from TAGM 4046 SCOs for all soil/fill remaining at the Site after the Remedial Action will be included in the FER.

The FER will provide a thorough summary of all residual contamination that exceeds the SCOs defined for the Site in the RAWP and must provide an explanation for why the material was not removed as part of the Remedial Action. A table that shows residual contamination in excess of Site SCOs and a map that shows residual contamination in excess of Site SCOs will be included in the FER.

The Final Engineering Report will include an accounting of the destination of all material removed from the Site, including excavated contaminated soil, historic fill, solid waste, 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. It will provide an accounting of the origin and chemical quality of all material imported onto the Site.

Before approval of a FER and issuance of a Certificate of Completion, all project reports must be submitted in digital form on electronic media (PDF).

10.1 CERTIFICATIONS

The following certification will appear in front of the Executive Summary of the Final Engineering Report. The certification will be signed by the Remedial Engineer [William Beckman] who is a Professional Engineer registered in New York State This certification will be appropriately signed and stamped. The certification will include the following statements:

I, William Beckman, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the remedial program for the Fyn Paint Site (NYSDEC VCA Index No. W2-0873-00-10 Site No. V00380).

I certify that the Site description presented in this FER is identical to the Site descriptions presented in the Environmental Easement, the Site Management Plan, and the Voluntary Cleanup Agreement for the Fyn Paint Site and related amendments.

I certify that the Remedial Action Work Plan dated [month day year] and Stipulations [if any] in a letter dated [month day year] and approved by the NYSDEC were implemented and that all requirements in those documents have been substantively complied with.

I certify that the remedial activities were observed by qualified environmental professionals under my supervision and that the remediation requirements set forth in the Remedial Action Work Plan and any other relevant provisions of ECL 27-1419 have been achieved.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and all operation and maintenance requirements applicable to the Site are contained in an Environmental Easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded. A Site Management Plan has been submitted by the Applicant for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by the NYSDEC.

I certify that the export of all contaminated soil, fill, water or other material from the property was performed in accordance with the Remedial Action Work Plan, and were taken to facilities licensed to accept this material in full compliance with all Federal, State and local laws.

I certify that all import of soils from off-Site, including source approval and sampling, has been performed in a manner that is consistent with the methodology defined in the Remedial Action Work Plan.

I certify that all invasive work during the remediation and all invasive development work were conducted in accordance with dust and odor suppression methodology and soil screening methodology defined in the Remedial Action Work Plan.

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

11.0 SCHEDULE

A schedule of Remedial Actions is included below. It subdivides work elements and provides estimated dates for performance of work and deliverables.

The volunteer will implement the Remedial Action activities following NYSDEC approval of the final RAWP. The schedule will follow the general outline below:

- Access Agreement From Con Edison ..... 10 days after RAWP approval
- Installation Of All Necessary Wells And Remedial Equipment..... 60 days after RAWP approval
- Treatment System Pilot Test And Discharge Evaluation..... 90 days after RAWP approval
- Submittal of Remedial Design (RD) documents .....30 days after receipt of validated pilot test data
- Excavation/removal of USTs and source area soil.....30 days after approval of RD
- Installation and operation of SSDS.....30 days after approval of RD
- Installation and operation of AS/SVES.....90 days after approval of RD
- Submittal of Final Engineering Report and Site Management Plan.....60 days after receipt of validated system start-up analytical data
- Site Management..... 60 days immediately upon FER/SMP approval
- Periodic Certification, at frequency to be defined in SMP ..... annually

dmd
October 10, 2008
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