

APPENDIX A – EXCAVATION WORK PLAN (EWP)

Since the Remedial Action has not yet been required or completed, this ISMP will be implemented to address any intrusive activities prior to the remedy, if required. If a remedy is determined to be necessary to address sources of non-MGP-related impacts, if any, present at the Site, this will be evaluated separately for further action. Any necessary remediation will be completed prior to, or in association with, redevelopment.

A-1 NOTIFICATION

Prior to the start of any intrusive project at the Site, National Grid SIR and National Grid Damage Prevention must be notified. SIR will then notify NYSDEC at t least 7 days prior to the start of any activity that is anticipated to encounter MGP-related impacts, if any, on the Site. Table 1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of Site-related contact information is provided in Appendix A.

Table 1: Notifications*

Name	Contact Information
Greta White NYSDEC Project Manager	greta.white@dec.ny.gov (518) 402-2029
Paul John NYSDEC Regional HW Engineer	(718) 482-4931 paul.john@dec.ny.gov
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* Note: Notifications are subject to change and will be updated as necessary.

All intrusive activities must be approved by NYSDEC. Sufficient notification must be made to NYSDEC so they can make the decision on the type of reporting. Typically, the type of notification and reporting requirements depend on the scope of work. Large scale intrusive work, if required, may require a detailed work plan, such as a Remedial

Action Work Plan while smaller scale intrusive activities may require a Notice of Intrusion letter or a simple letter work plan.

Operational maintenance and capital improvement programs conducted at the Site will require a Notice of Intrusive Activity (NOIA), as NYSDEC is aware that these programs are ongoing. Due to the amount of routine work anticipated under these programs, one comprehensive NOIA will be submitted. Notifications for individual projects will be done via email.

A-2 UTILITY CLEARANCE PROCEDURES

The contractor performing the intrusive work will be responsible for contacting New York 811 to request that all utilities on the adjacent public rights-of-way be located and marked. A geophysical investigation including the use of ground-penetrating radar must be performed in the work area to confirm the location of on-Site utilities prior to the start of intrusive activities. Available maps of on-Site utilities should also be reviewed prior to the start of intrusive work.

Preclearance must be performed to a depth of five (5) feet using manual or vacuum excavation techniques for all borings or well installation. For larger excavations preclearance must be performed in the vicinity of marked utilities.

A-3 SOIL SCREENING METHODS

Soil and groundwater contamination at the Site vary for the areas investigated as documented in the Remedial Investigation Report. Prior to the start of a specific intrusive activity, the available information for the work area will be reviewed.

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional contracted by National Grid during all excavations into known or potential-MGP-related impacts, if any. Soil screening will be performed when 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 Certificate of Completion (COC).

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on- Site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Sections 6/7 and 8, respectively of this Appendix.

A-4 SOIL STAGING METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

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.

A-5 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional contracted by National Grid or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

National Grid is 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 by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this ISMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State and local requirements (and all other applicable transportation requirements).

A truck wash will be operated on-Site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

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

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

A-6 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.

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.

Truck transport routes are as follows: southward along Maspeth Avenue and westward along Vandervoort Avenue to the entrance of the Brooklyn-Queens Expressway. All trucks loaded with Site materials will exit the vicinity of the Site using only these approved truck routes. 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 are 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.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited. Queuing trucks shall not idle for more than three minutes, following New York City Administrative Code, Title 24, Section 24-163”.

A-7 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request will be made in advance to the NYSDEC. Unregulated off-site management of materials from this Site is not anticipated and will not occur without formal NYSDEC approval.

Impacted soils, if any, will be stockpiled on poly sheeting and covered, segregated and transported to an approved thermal desorption disposal facility. Soils from the Site will be transported to a National Grid approved facility. Disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

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. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

A-8 MATERIALS REUSE ON-SITE

Excluding Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS), material that meets the Commercial or Industrial Use SCOs as listed in DER 10: Appendix 5 - Allowable Constituent Levels for Imported Fill or Soil, Subdivision 5.4(e) (DER-10 App. 5) has no restrictions as to use and disposition at the Site. Samples will be collected for reuse accordance with the analytical sampling requirements of DER-10 and the frequency requirements in NYSDEC's Soil Cleanup Guidance, CP-51 (CP-51) Table 4. If PFOA or PFOS is detected in any sample at or above 1 part-per-billion (ppb), then a soil sample must be tested by the Synthetic Precipitation Leaching Procedure (SPLP) and the leachate analyzed. If the SPLP results exceed 70 parts-per-trillion (ppt) combined PFOA/S, then the source of backfill must be rejected.

Soil in excess of the Commercial or Industrial Use SCOs may be used as fill on site with NYSDEC approval (see below) with the addition of an engineered cap of gravel/shot rock/crushed concrete, or certified clean fill, a minimum of 1-foot thick; concrete or asphalt may also be used for the cap, the thickness a function of the design purpose. A Request to Reuse Fill or Soil form (Appendix G), will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review. Prior to reuse, samples will be collected and analyzed by an Environmental Laboratory Approval Program (ELAP)-certified laboratory for:

- VOCs by the USEPA method 8260C,
- SVOCs by USEPA method 8270D,
- TAL metals by USEPA method 6000/ 7000 series,
- PCBs by USEPA method 8082,
- Cyanide by USEPA method 9016,
- Hexavalent chromium by USEPA method 3060A/7196,
- per- and polyfluoroalkyl substances (PFAS) by USEPA method 537.1 (and as noted above if results exceed 1 ppb); and
- 1,4-dioxane by USEPA method 8270

The qualified environmental professional will ensure that procedures defined for materials reuse in this ISMP are followed and that unacceptable material does not remain on- Site. Impacted on- site material, including historic fill and MGP related impacts, if any that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on- site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on- site will not be performed without prior NYSDEC approval.

A-9 FLUIDS MANAGEMENT

All impacted liquids, if any, to be removed from the Site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge

and development waters, will be handled, containerized, transported and disposed in accordance with applicable local, State, and Federal regulations. Large volumes of dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) is not permitted.

A-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the Site will be approved by the qualified environmental professional and will be in compliance with provisions in this ISMP prior to receipt at the Site. A Request to Import/Reuse Fill or Soil form (Appendix F), which can be found at <http://www.dec.ny.gov/regulations/67386.html>, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review. This will include analytical sampling of the borrow source or existing documentation of agency approvals of the source (i.e. New York State Department of Transportation [NYSDOT] virgin source certification and latest analytical sampling results). NYSDEC approval must be received before material is imported to 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 the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are the Industrial Use SCOs listed in Table 375-6.8(b) of 6 NYCRR Part 375. 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.

Samples will be collected from imported fill in accordance with the analytical sampling requirements of DER-10 and the frequency requirements in Table 4 of CP-51. At a minimum, samples will be analyzed for Inorganics, Pesticides, PCBs, VOCs, SVOCs, PFAS, and 1,4-dioxane. Excluding PFAS, the analytes will be compared to the

Commercial or Industrial Use SCOs as listed in DER 10: App 5. If PFOA or PFOS is detected in any sample at or above 1 part-per-billion (ppb), then a soil sample must be tested by the SPLP and the leachate analyzed. If the SPLP results exceed 10 ppt (individually), then the source of backfill must be rejected unless a site-specific exemption is provided by NYSDEC. The frequency and type of the sampling (i.e. discrete or composite) will be based on the quantity of material imported in accordance with Table 4 of CP-51.

The sampling frequency for larger projects may be reduced following the initial source sampling, with approval from NYSDEC.

Prior to the use of imported soil or reuse soils meeting the 6NYCRR 375 criteria noted above as backfill, a demarcation layer will be placed at the base of excavations to be backfilled.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

A-11 STORMWATER POLLUTION PREVENTION

For excavations less than 1 acre that are not part of a larger disturbance, the following stormwater management practices will be completed in accordance with the requirements in the New York State Stormwater Management Design Manual, latest revision.

Silt fencing and/or hay bale checks will be installed around the entire perimeter of the construction area and will be 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 the 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 ISMP 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.

A-12 EXCAVATION CONTINGENCY PLAN

Identification of unknown or unexpected impacted media, if any, identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline.

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition, as follows.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs). Sampling to date at the Site has included analysis for metals, cyanide, volatiles, and semi-volatiles, pesticides, PCBs and herbicides. In the event that future sampling results provide a sufficient justification to limit the list of analytes, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

In the event that potential MGP-related impacts, if any, are encountered at unexpected depth or locations, Site activities will be suspended. National Grid may determine that laboratory testing is required to evaluate the observed impacts for chemical concentrations and characteristics. If the encountered materials are determined to be associated with MGP impacted materials, then the materials will be segregated and stockpiled on, and covered with poly sheeting for disposal.

A-13 COMMUNITY AIR MONITORING PLAN

Continuous monitoring will be required for all ground intrusive activities and during the demolition of impacted or potentially impacted structures, if any. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate and throughout the day as deemed necessary. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less – but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

- All 15-minute readings must be recorded. Instantaneous readings, if any, used for decision purposes, should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.
- All readings must be recorded and be available for State (NYSDEC and NYSDOH) and County Health personnel to review.

The location of air sampling stations will be based on generally prevailing wind conditions and will be task-specific. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least one downwind monitoring stations. Additional downwind stations will be added as necessary based on the size of the project.

All CAMP data must be provided to NYSDEC and NYSDOH on a weekly basis, at a minimum. Exceedances of action levels listed in the CAMP will be reported to

NYSDEC and NYSDOH Project Managers within 24 hours of the exceedance and corrective measure taken.

A-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. If nuisance odors are identified at the Site boundary, or if odor complaints are received, 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 any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in future Periodic Review Reports.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (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.

Odor suppressant systems consisting of chemical foam (e.g., Rusmar foam, Biosolve®) or other approved methods may be provided to prevent odors, if necessary. Keep sufficient odor suppressant on-site to manage the odors generated from the excavated materials, including, but not limited to open excavations, limited stockpiles, or materials loaded into trucks for transportation and disposal. The odor suppressant system will be stored near the excavation and will be easily mobile. Open excavations will be backfilled or covered at the end of each working day to suppress odors, if necessary.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

A-15 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 through the use of a dedicated on-site water truck for road wetting. 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.

A-16 OTHER NUISANCES

A plan for rodent control may 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 to ensure compliance with local noise control ordinances as required by NYCDEP Title 15 Rules of the City of New York - RCNY Chapter 28, if applicable.