

**APPENDIX J**  
**CASE 10-T-0139**  
**SOIL AND MATERIALS MANAGEMENT PLAN**  
**ASTORIA HVDC CONVERTER STATION - SEGMENT 22**

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## **1.0 INTRODUCTION**

This Soil and Materials Management Plan (Plan) has been developed as an Appendix to the Environmental Management and Construction Plan (EM&CP) which was developed by the Certificate Holders for the Champlain Hudson Power Express (CHPE) Project (Project). Section 1.0 of the EM&CP summarizes the EM&CP's purpose and intent. The objective of this Soil and Materials Management Plan is to set guidelines for the management of excess excavated soil and other materials generated by construction associated activities with the construction of the Astoria Converter Station

## **2.0 SOIL FILL MATERIAL GENERATION**

The material is generated by construction activities for work associated with the Converter Station, the complete construction sequence is outlined in Section 4.0 of the EM&CP, and other land disturbance activities associated with the construction of the CHPE Astoria Converter Station Project.

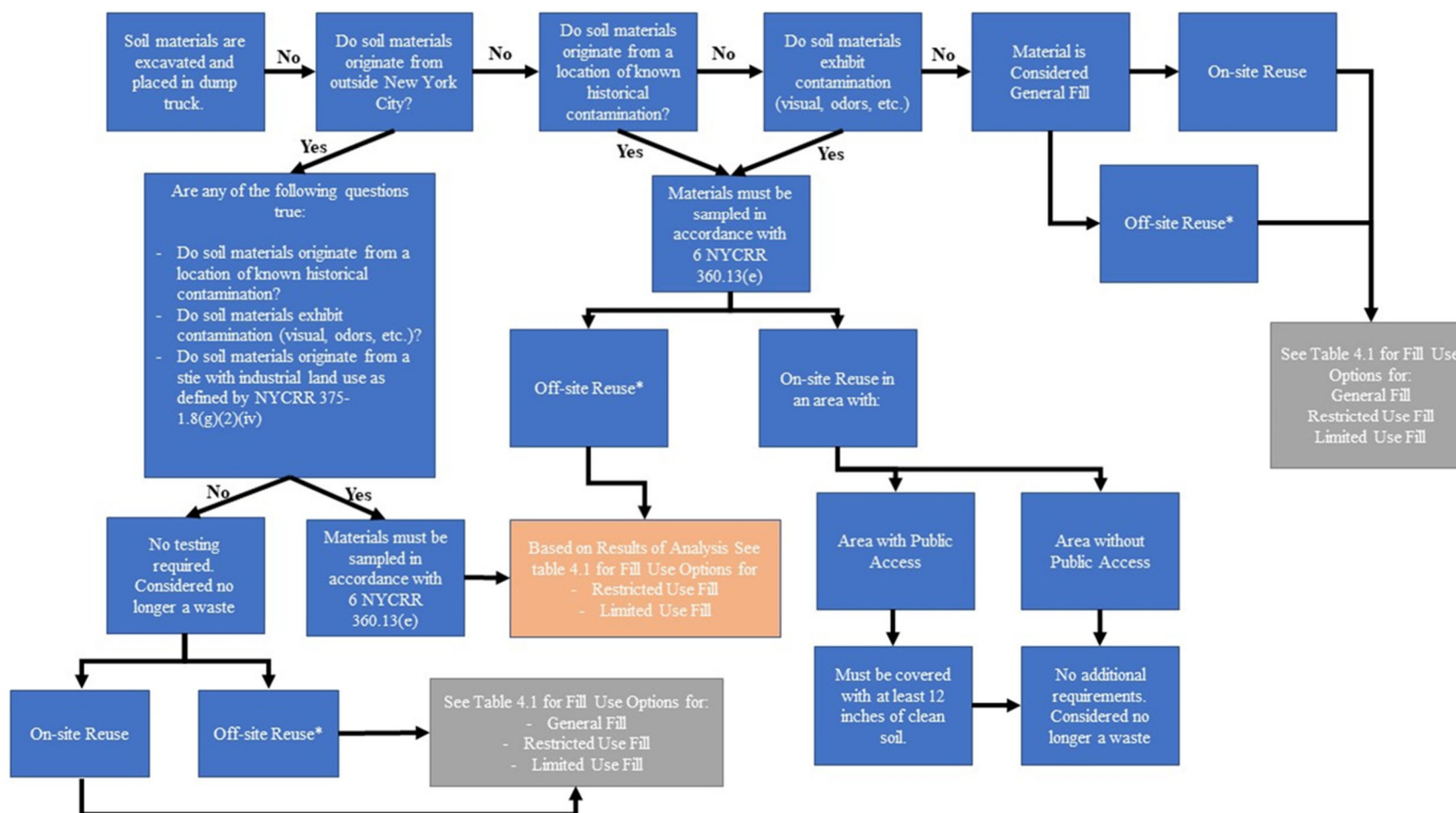
## **3.0 CLASSIFYING SOIL FILL MATERIAL**

According to Title 6 of the New York Codes, Rules, and Regulations (NYCRR) 360.2(107) fill material is soil and similar material excavated for the purpose of construction or maintenance. This material will be generated from activities associated with the laydown yard and converter station construction sequence located in section 4.0 of the EM&CP. The material would be considered general fill as long as there is no evidence of historical impacts such as reported spill events, or visual or other indication (odors, etc.) of chemical or physical contamination as identified in section 360.12(c)(1)(ii) of Title 6. Soil/fill observations will be documented by the Environmental Inspector or designated construction personnel who will maintain a record to be submitted to the Certificate Holders on a regular basis determined by the Environmental Inspector. This record will be submitted to Department of Public Service (DPS) Staff upon request or as needed.

## **4.0 MANAGING FILL MATERIAL FROM CONSTRUCTION ACTIVITIES AS BENEFICIAL REUSE**

Figure 4.1 and Table 4.1 provide a summary of NYSDEC regulations regarding the beneficial reuse of fill material.

**Figure 4-1. Beneficial Reuse Decision Tree**



\*Offsite reuse must be in accordance with all NYDEC regulations. For instance, the offsite reuse cannot impact a wetland.

**Table 4-1. Acceptable Fill Material Uses (6 NYCRR 360.13(f))**

Fill Material Type	Fill Material End Use	Physical Criteria	Maximum Concentration Levels
General Fill	<i>Any setting</i> where the fill material meets the engineering criteria for use, except: 1. Undeveloped land; 2. Agricultural crop land.	Only soil, sand, gravel or rock; no non-soil constituents.	Lower of Protection of Public Health-Residential Land Use and Protection of Groundwater in section 375-6.8(b) of Title 6.
Restricted-Use Fill	Engineered use for 1. embankments 2. subgrade in transportation corridors, 3. on sites where in-situ materials exceed Restricted-Use Fill or Limited-Use Fill criteria. Must be placed above the seasonal high water table.	Up to 40 percent by volume inert, non-putrescible non-soil constituents.	General Fill criteria except that up to 3 mg/kg (dry weight) total benzo(a)pyrene (BAP) equivalent. No detectable asbestos. In Nassau or Suffolk County – BAP equivalent does not apply. Polycyclic aromatic hydrocarbons must not exceed Protection of Groundwater Soil Cleanup Objectives in section 375-6.8(b) of this Title.
Limited-Use Fill	Engineered use for under foundations and pavements above the seasonal high water table.	No volume limit for inert, non-putrescible non-soil constituents.	General Fill criteria, except up to Protection of Public Health-Commercial SCOs for metals; up to 3 mg/kg (dry weight) benzo(a)pyrene equivalent is allowed. No detectable asbestos.

For Maximum Concentration Levels for each Fill Material Type, see 6 NYCRR 360.13(f).

#### 4.1 REQUIRED NOTIFICATIONS

Per Section 360.13(g)(3) of Title 6 of the NYCRR, for restricted use fill and limited use fill material, the NYSDEC must be notified at least five days before delivery of greater than ten cubic yards of fill material. Notification must be made on forms or in a manner acceptable to the NYSDEC and must include any analytical data required by Section 360.13(e) of Title 6 of the NYCRR. The NYSDEC may request to inspect any site receiving fill material.

#### 5.0 SOIL MATERIALS TRANSPORT OFF-SITE

If any excavated soil exhibits evidence of contamination as described in Section 3.0, it will be sampled as described in Section 3.0 and 8.0. In general, all excess excavated soil, that exhibits no historical, visual, or olfactory evidence of contamination will be immediately placed into dump trucks or similar vehicles after excavation for transport off-site.

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If beneficial reuse is not feasible, off-site disposal locations will be identified for each type of potential construction derived waste (soil, vegetation, asbestos, spill cleanup, etc.) These locations will be identified and will be submitted to DPS for approval prior to construction and update as needed during the regular construction progress meetings. Erosion and sediment controls for temporary stockpiles are described in the Stormwater Pollution Prevention Plan (SWPPP) and the Erosion and Sediment Control Plans (Appendix F of the EM&CP)

All transport of excess excavated soil will be performed by licensed haulers in accordance with appropriate local, state, and federal regulations. Haulers/Transporters will be appropriately licensed and loaded vehicles leaving the active work area will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with local, state, and federal requirements (and all other applicable transportation requirements). If the material is determined to be restricted or limited use fill, the fill transporter must complete “Notification of Fill Material Transport” form.

Trucks transporting excess and excavated soil will be secured with tight fitting covers when needed to prevent excess debris and dust around and near the active work area.

If contaminated soil is encountered during any construction activities, every effort will be made to keep trucks from coming into contact with contaminated or potentially contaminated soils. If needed, a truck wash/decontamination pad will be operated at the appropriate work/excavation area.

## **6.0 CONSTRUCTION DERIVED WASTE MATERIALS DISPOSAL OFF-SITE AT APPROVED DISPOSAL FACILITY**

For materials that are not managed as “beneficial reuse” fill disposal locations will be selected from the list of NYSDEC approved disposal locations.<sup>1</sup>

Excess excavated soil that is not managed as beneficial use of fill material will be disposed of at an approved disposal facility or an approved beneficial reuse in accordance with all local, state,

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<sup>1</sup> [https://www.dec.ny.gov/docs/materials\\_minerals\\_pdf/listregcdprocess.pdf](https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf)

and federal regulations. This includes all applicable sections of NYCRR Part 360. Actual disposal quantities and associated documentation will be reported as required by NYCRR Part 360. This documentation may include waste profiles, test results, facility acceptance letters, manifests/bills of lading and facility receipts/weight tickets. At minimum NYCRR Part 360 Series Waste Tracking Documents for Construction and Demolition Debris will be completed and submitted to the appropriate NYSDEC department and DPS Staff.

## 7.0 DISPOSAL OF WASTE MATERIALS LOCATIONS – BY TYPE

The following is an example of the disposal location plan that will be utilized for the Project, the final disposal locations will be provided to DPS Staff and NYSDEC prior to the start of construction related activities. Project wide information is presented in the following tables. Segment Specific information is included in Appendix 1 of this appendix.

**Table 7-1. Acceptable Disposal Locations**

Segment	Disposal Location	Max Quantity Capacity	Anticipated Quantity Capacity
1 & 2	<a href="https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf">https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf</a>		
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\*\*Disposal Locations are subject to change.

\*\*\*Certificate Holders will notify DEC on all material that exceeds the beneficial use determination by filing all proper permitting.

## 8.0 CONTAMINATION AND WASTE CHARACTERIZATION

In the event that field evidence of contamination is identified, potentially contaminated soils will

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be segregated and stockpiled on polyethylene sheeting and covered in a pre-determined staging area. The potentially impacted, stockpiled soils will then be sampled as described in Section 3.0. The contaminated soil will be properly characterized and disposed of at an off-site NYSDEC permitted facility. The excavation will be backfilled with clean, imported fill.

In the event that contamination in the ground is detected during construction and such contamination is of the kind that will lead to volatilization or off-gassing of such contamination/chemical constituents, the Certificate Holders will contact the New York State Department of Health (NYSDOH) and DPS Staff prior to further disturbance (CC64).

If any water from the construction site (i.e., trench water) exhibits visual or olfactory evidence of contamination, it will be sampled and stored in a frac or similar container, removed off-site or treated on site in accordance with applicable environmental regulations, and disposed of in one of the approved NYSDEC locations. If evidence of a release or spill are found in the soil during construction, as a result of the Project's activities, construction activities will be immediately halted in the area, and the Environmental Inspector will be notified. All field screening of soil and water and air particulate monitoring will be performed in accordance with applicable environmental regulations including the NYSDEC Division of Environmental Remediation DER-10 Technical Guidance for Site Investigation and Remediation and the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) (CC64). All results from field screening will be documented by the Environmental Inspector, in coordination with NYSDEC and DPS Staff. All necessary laboratory analysis will be performed by a laboratory with all applicable and required certifications.

If any excavated soils are found to exhibit visual or olfactory evidence of impact or contamination construction activities in the vicinity will be halted, and the Environmental Inspector will be notified. The procedures that will be followed in the event of a release or spill are described in the EM&CP Spill Prevention Control Plan in Appendix I of the EM&CP. Any excavated soils that are found to contain hazardous substances will be analyzed and disposed of in accordance with the applicable solid waste and environmental regulations. These may include but are not limited to 6 NYCRR 360.13(d), (e), and (f). Any contaminated soils removed from the Project area may not be used as unrestricted fill.

The Environmental Inspector will report the unanticipated encounter of contaminants to the Certificate Holders, who will notify the NYSDEC, DPS Staff, and any applicable landowners. Construction will not be resumed until the contaminants of concern have been properly removed



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and approval to continue construction activities in the area of concern has been granted by the Environmental Inspector. All future construction activities at the referenced area of concern will be conducted in accordance with all applicable environmental regulations and procedures of this EM&CP as well as all technical specifications provided on the Plan and Profile Drawings in Appendix C.

The identification, handling, storage, testing and disposal of excess materials will be conducted in accordance with the procedures outlined in this section of the EM&CP as well as applicable local, state, and federal safety and environmental regulations, requirements, and guidelines. If supplemental field screening or laboratory analysis of excess material not already identified in this soil management plan is required or necessary due to a change in field conditions, subcontractors will submit a proposal for sampling needs to the Certificate Holders and Contractors as needed.

## **8.1 SOIL SAMPLING PROCEDURES**

Surficial soil sampling is generally conducted in potentially contaminated areas of concern, whether relating to former or current uses of the site, to determine whether contaminants are present above applicable standards. Sample locations will be biased to suspected areas of greatest contamination including stressed vegetation, soil discoloration, odor, etc. Sample locations are also chosen based on area specific requirements. This includes sampling in locations that includes past or present usage or hazardous substances or wastes, discharge points of past or present processes, and former and current containers that may contain or previously contained hazardous substances or waste. In general, the first 0-6 inches depth of soil is collected, however if evidence of contamination (staining, odors, etc.) persist additional sampling at deeper depths will be performed. For sampling performed on soil material originating in railbeds that may contain gravel, to the greatest extent possible the gravel should be removed from the sample.

Surficial soil sampling will generally be in accordance with the following procedures.

1. Use a shovel to clear any surface debris from the sampling location, including grasses or other vegetation.
2. If appropriate to the investigation, screen the soil with a Photo Ionization Detector (PID) or Flame Ionization Detector (FID) and record the results on a Field Log.
3. Sampling Procedure: Discrete Sample Collection:
  - a. Collect the sample from 0-6 inches depth (or as specified by the Environmental Inspector). In instances where a soil is collected for Volatile Organic Compounds

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- (VOC) analysis as well as other non-VOC parameters, the soil for VOC analysis must be collected first to minimize volatilization and biodegradation.
- b. When analyzing for VOCs, the soil sample must be collected directly from the soil sample location into the sample container without disturbing the matrix structure.
  - c. Once VOC soil sampling is complete, the remaining soil to be analyzed for non-VOC parameters such as Semivolatile Organic Compounds (SVOC), pesticides, Polychlorinated Biphenyls (PCB), metals, or cyanide will be homogenized to create a representative sample. Prior to homogenization, twigs, roots, leaves, rocks, and miscellaneous debris will be removed from the sample using the decontaminated stainless-steel spoon or spatula. The soil will be mixed, quartered (divided into 4), and mixed again until a consistent physical appearance over the homogenized soil has been obtained. The soil will be transferred into the appropriate sample container using a decontaminated stainless-steel spoon or spatula.

Composite Sampling:

- a. For Composite Sampling (applicable to non-VOC's only) where several discrete samples (of equal volume) are mixed together, collect the sample from 0-6 inches depth (or as specified by the Environmental Inspector) from the first composite point. Cover the stainless-steel bowl with aluminum foil and proceed to the next sampling point. Repeat between locations. If VOC samples are also being collected at each discrete point, the stainless-steel spoon/trowel will be decontaminated between locations (Refer to Step 7). Once equal volumes of soil have been collected from each point which will make up the composite sample, the soil will be homogenized to create a representative sample. Prior to homogenization, twigs, roots, leaves, rocks, and miscellaneous debris will be removed from the sample using the stainless-steel spoon or spatula. The soil will be mixed, quartered (divided into 4), and mixed again until a consistent physical appearance over the homogenized soil has been obtained. The soil will be transferred into the appropriate sample container using a stainless-steel spoon or spatula.
4. Label the sample bottles (if the bottles are not pre-printed) with the sample location name, collection time, project name, analysis to be performed, and any other field required on the label.
5. Place the properly labeled sample bottles in a cooler with ice and maintain at 4°C for the duration of the sampling and transportation period. Do not allow samples to freeze. Describe and record the following properties of the sample: basic soil type (e.g., sand, gravel, and clay), structure, texture, sorting, grain size, and grain shape, degree of saturation, color, odor, staining, and presence of foreign material.

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6. After sampling is completed, the sampling location will be marked by a wooden stake and flagging and/or wire flag. The station number and date of sampling will be written on the stake using a permanent marker or other waterproof ink. A properly calibrated GPS unit will be used to mark the sample location.
  7. Decontaminate the sampling equipment using a biodegradable detergent or other detergent as approved by the Environmental Inspector and move to the next sampling location. Repeat steps 1 through 7 for subsequent sampling locations.
  8. Soil samples will be packed and shipped to the laboratory with Chain of Custody Documentation for analyses.

## **8.2 COMMUNITY AIR MONITORING PLAN (CAMP)**

As stated above all field screening of soil and water and air particulate monitoring will be performed in accordance with applicable environmental regulations including the NYSDEC Division of Environmental Remediation DER-10 Technical Guidance for Site Investigation and Remediation and the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) (CC64). Per Certificate Condition 64, if contamination in the ground is detected during converter station construction and such contamination is of the kind that will lead to volatilization or off-gassing of such contamination or chemical constituents thereof, the Certificate Holders with the assistance of the Environmental Inspector will implement a Generic CAMP if applicable. All procedures and practices included in the DER-10 Technical Guidance for Site Investigation and Remediation Appendix 1A: NYSDOH Generic Community Air Monitoring Plan will be followed (CC64).

## **9.0 DISPOSAL OF WASTE MATERIALS OTHER THAN SOIL**

Numerous types of materials may be included in the soil material excavated along the project route including asphalt, concrete, rock, rail ballast, etc. In general, all non-soil material that is not going to be reused will be disposed of at approved disposal locations in accordance with all NYSDEC rules and regulations. For non-soil excavated material being considered for reuse, the following restrictions and regulations apply.

For material excavated from work areas consisting of recognizable, uncontaminated concrete and concrete products, asphalt pavement, rock, brick and soil (“RU-CARBS”), sampling/testing is not

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required under NYCRR Part 360. Per Section 363.2.1(h) of Title 6, mixed RU-CARBS can be used in highway ROWS with no volume limitations. Additionally, up to 5,000 cubic yards of Mixed RU-CARBS can be used in residential developments and under pavement. For material excavated from work areas consisting of mixed soil and unrecognizable excavated material including concrete, asphalt, ash, slag, etc., sampling/testing is required in accordance with Section 360.13(e)(3) of Title 6 of the NYCRR. If analysis indicates the mixed soil and unrecognizable excavated material meets the limited-use fill criteria as described in Table 4.1, this material can be used under pavement.

## 9.1 Solid Waste Streams

Common solid waste streams include:

- General trash
- Wood scrap
- Scrap metal

Other non-hazardous solid wastes requiring special attention include:

- Used oil
- Used antifreeze
- Used oil filters
- Oily rags
- Oil/water mixture
- Concrete sealer/form oil/ water mixture
- Spill debris (sorbent pads, contaminated soil, PPE, etc.)

These waste streams will be managed as indicated below.

**General Trash.** This stream includes construction waste and office trash. Trash cans, hoppers and roll-off boxes will be located throughout the site for collecting general trash. Trash cans must have a lid. All general trash containers must be labeled “TRASH”. Trash containers will be dumped regularly and will not be overfilled. Trash will be disposed of at a landfill that has been reviewed and approved by the NYSDPS and NYSDEC.

**Wood Scrap.** Wood pallets, wire spools, concrete forms and other wood scrap will be collected separately in designated roll-off boxes. Wood scrap containers will be labeled “WOOD SCRAP”. Wood scrap will be recycled if practical and cost effective to do so. Otherwise, it will be land filled at an NYSDPS and NYSDEC approved facility.

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**Scrap Metal.** Metal scrap will be collected in hoppers and roll-off boxes and recycled. All scrap metal containers will be labeled “SCRAP METAL.”

**Used Oil.** Used oil may not be mixed with any other chemical and must be recycled. Drip pans will be emptied into a sealed container by the end of each shift. Used oil must be stored in drums, totes or tanks. These containers must be closed tightly when not in use and must be clearly labeled “USED OIL”. Used oil will be transported off site within 90 days of initial accumulation for recycling at NYSDEC approved facility.

**Used Antifreeze.** Used antifreeze may not be mixed with any other chemical and must be recycled. Drip pans will be emptied into a sealed container by the end of each shift. Used antifreeze will be stored in 55-gallon drums. These drums must be closed tightly when not in use and must be clearly labeled.

**Used Oil Filters.** Used oil filters must be gravity drained for 24 hours before they can be disposed of. Oil filters will be collected in drums or other specified containers and recycled by an approved vendor. Containers of oil filters must be labeled and closed at all times.

**Oily Rags.** Rags soaked with oil, gasoline, diesel or solvent will be collected in covered containers for disposal by an approved vendor. Containers will be labeled and closed at all times.

**Water/Oil Mixtures & Water/Concrete Sealer/Form Oil Mixtures.** If water is allowed to collect in secondary containment, it may become contaminated with spillage from products such as oil, form oil or concrete sealer. Drums must be sealed and labeled at all times and transported off-site for disposal at an NYSDPS and NYSDEC approved facility as soon as practicable.

## **9.2 ASBESTOS**

Asbestos is made up of natural fibers of hydrated silicate minerals and was sometimes used in buildings because of its thermal and electrical insulation properties. Asbestos may be found in cement, plaster, floor tiles, insulation and spray materials (used on ducts, beams, etc.). If encountered, asbestos will be disposed of at an NYSDPS and NYSDEC approved facility and managed in accordance with 56-2.1(w)iii of 12 NYCRR 56.

## **9.3 POLYCHLORINATED BIPHENYLS (PCBS)**

Capacitors and ballasts must be handled as PCB unless labels indicate there is no PCBs. Non-PCB

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equipment will normally be stamped or labeled with the words “non-PCB” or “does not contain PCBs.”

#### **9.4 LEAD PAINT**

Residential, commercial, and industrial buildings constructed prior to 1978 are likely to contain lead-based paint (LBP). If any work involving the disturbance of LBP is performed on pre-1978 structures, the Certificate Holders will ensure that all applicable project staff will be trained in lead-safe work practices. The United States Environmental Protection Agency requires that if you disturb more than six (6) square feet of interior surface or twenty (20) square feet of exterior service, the construction team must be certified under the 2008 Renovation, Repair, and Painting (RRP) Rule. If encountered, LBP and materials containing LBP will be disposed of at an NYSDPS and NYSDEC approved facility and managed in accordance with the USEPA’s RRP Rule.

#### **9.5 UNEXPECTED MATERIAL**

If unknown/unexpected materials are encountered that are suspected as being hazardous, toxic, contaminated, radioactive, harmful, etc., immediately:

- Stop work in the affected area, as needed.
- Secure and make the area safe for Company personnel, public and the environment
- Report the condition in writing and verbally to the Certificate Holders
- Report the condition to the Environmental Inspector
- Determine the type of waste and dispose at a NYSDPS and NYSDEC approved disposal facility.