**SECTION 02 86 00**

**IDENTIFICATION AND DISPOSAL OF HAZARDOUS WASTE**

**PART 1 - GENERAL**

1. **SCOPE OF WORK**
2. This specification covers the identification and disposal of hazardous waste, and related hazardous materials at **XXX (Name of facility, building ID(s), address, DASNY project name and number).** Products shall be as follows or as directed by the Owner and / or their representative. Demolition and removal of materials shall be as required to support the work.
3. Special Wastes:

Asbestos-Containing Materials (ACM): ACM is regulated by United States Environmental Protection Agency (EPA) Toxic Substances Control Act (TSCA) Rules, NY Code Rule 56 and United State Occupational Safety and Health Administration (OSHA) standards and is not Hazardous Waste. Asbestos-Containing materials are governed under DASNY Specification 028200.

PCB Bulk Waste and non-liquid PCB materials (NLPCB): Interior and exterior caulk / sealant and glazing materials may contain NLPCB; if so, when disposed these materials are EPA-regulated PCB Bulk Waste under TSCA and are NYS hazardous waste. PCB light ballasts are also to be disposed of as NYS Hazardous Waste. PCB caulk/sealant and glazing materials are governed under DASNY Specification 028400.

C: The work shall include but not be limited to the removal of the following.

|  |  |  |
| --- | --- | --- |
| Building & Floor | Description of Material | Approximate Quantity (lbs/units) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | Total Quantity |  |

D. The Contractor shall be aware of all conditions of the Project and is responsible for verifying quantities and locations of all Work to be performed. Failure to do so shall not relieve the Contractor of its obligation to furnish all labor and materials necessary to perform the Work.

E. All Work shall be performed in strict accordance with the Project Documents and all governing codes, rules, and regulations. Where conflicts occur between the Project Documents and applicable codes, rules, and regulations, the more stringent shall apply.

F. Working hours shall be as required and approved by the Owner. Removal activities including, but not limited to, work area preparation, gross removal activities, cleaning activities, waste removal, etc. may need to be performed during ‘off-hours’ (including nights and weekends). In addition, multiple mobilizations may be required to perform the work identified in this project. The Contractor shall coordinate and schedule all Work with the facility and Owner’s representative.

1. **DEFINITIONS**
2. Hazardous waste shall be any materials to be disposed that possess at least one of four characteristics (ignitability, corrosivity, reactivity or toxicity) as defined and regulated by the Resource Conservation and Recovery Act (RCRA) and applicable state and federal regulations, or a material specifically identified as hazardous waste by applicable Federal or State lists, in 40 CFR 261 or 6 NYCRR 371, respectively.
	1. Exception – Hazardous waste metal scrap, lead shielding, and metal with lead-based paint that has been segregated for recycling. Blank c7 NYS DEC notification form included in appendices.
3. A Conditionally Exempt/Very Small Quantity Generator (CESQ/VSQG) of hazardous waste shall be a waste handler who generates no more than 100 kilograms per month of listed and/or characteristic hazardous waste, generates no more than 1 kilogram of acute hazardous waste in any calendar month, and stores no more than 1,000 kilograms of listed and/or characteristic hazardous waste or more than 1 kilogram of acutely hazardous waste.
4. A Small Quantity Generator (SQG) of hazardous waste shall be a waste handler who generates more than 100 kilograms but less than 1,000 kilograms per month of listed and/or characteristic hazardous waste, generates no more than 1 kilogram of acute hazardous waste per month, and stores no more than 6,000 kilograms of listed and/or characteristic hazardous waste or more than 1 kilogram of acutely hazardous waste.
5. Large Quantity Generator (LQG) of hazardous waste shall be a waste handler who generates more than 1,000 kilograms per month of listed and/or characteristic hazardous waste, generates more than 1 kilogram of acute hazardous waste per month, or stores more than 6,000 kilograms of hazardous waste or 1 kilogram of acutely hazardous waste.
6. The Owner’s Environmental Consultant: The Owner shall provide a third-party environmental consultant to provide pre-work assessments, project monitoring assessments for the construction procedures for the work area, surrounding areas waste sampling, and container storage area, submittal review, and inspection and signoff of all hazardous waste shipments as well as final clearance assessments. The Contractor shall be responsible for the worker protection requirements.
7. **SUBMITTALS**
8. Pre-Work Submittals: Within 7 days prior to the pre-construction conference, the Contractor shall submit an electronic copy of the documents listed below directly to the Environmental Consultant and the DASNY Code Compliance Unit for review, comment and approval prior to the commencement of abatement/removal activities:

| **Pre-work Submittals** | **VSQG (CESQG)** | **SQG** | **LQG** |
| --- | --- | --- | --- |
| **Training & Certifications** |  |  |  |
| 1. Certificate of on-site supervisor for completion of the OSHA 40-hour Health and Safety course for handling hazardous waste and spills, including most recent refresher training. | X | X | X |
| 2. OSHA 8-hour supervisor training for hazardous waste. | X | X | X |
| 3. List of the employees scheduled to perform this work and certificates of workers, for successful completion of the OSHA 40-Hour Health and Safety Course for Hazardous Waste and spills, including most recent refresher training. | X | X | X |

|  |  |  |  |
| --- | --- | --- | --- |
| 4. Valid United States Department of Transportation (DOT) training for supervisor and all employees loading waste and maintaining on-site waste storage area. This training shall include: general awareness / familiarization training; function specific training; safety training; security awareness training; and in-depth security training. |  | X | X |
| 5. Annual hazardous waste RCRA training sign-in sheets for all employees and supervisors working on the project.  This training may be either 2 hours, 4 hours or 8 hours. |  | X | X |
| 6. If applicable, Lead Paint certification for each of the employees and supervisors as per EPA. | X | X | X |
| 7. Employees managing Hazardous Waste must also meet the Personnel training requirements in section 6 NYCRR 373-3.2. Provide proof of training for these employees. |  |  | X |
| **Transportation & Disposal** |  |  |  |
| 8. Valid Hazardous Waste Transporter NYS Part 364 permit for all transporters. | X | X | X |
| 9. Valid Hazardous Waste Transport vehicle permit for all transporters for each state the waste is being transported through to reach the Treatment, Storage and Disposal Facility (TSDF). |  | X | X |
| 10. Valid US DOT vehicle permit for Transporters. |  | X | X |
| 11. Transfer Facility Permit (if used) including the name, address and EPA ID No. of the facility, contact person, and acknowledgement letter stating that the facility has the capacity and is permitted to accept the waste from the project site. | X | X | X |
| 12. Final Disposal Facility permit including the name, address and EPA ID No. of the facility, contact person, and acknowledgement letter stating that the facility has the capacity and is permitted to accept the waste from the project site. | X | X | X |
| 13. The TSDF permit(s) must identify the waste material(s) to be received.  | X | X | X |
| 14. Draft Land Disposal Restriction (LDR) form (See Appendix A for PCB LDR). | X | X | X |
| 15. Draft Waste Profile. | X | X | X |
| 16. Draft c7 NYSDEC Notification form for any metals to be recycled (See Appendix B). |  | X | X |
| **Site-specific** |  |  |  |
| 17. Safety Data Sheet (SDS) for all materials to be removed. | X | X | X |
| 18. If the Contractor introduces any chemical into the work environment, a SDS for each chemical must be presented to the Owner's Representative prior to use. | X | X | X |
| **Progress Schedule:** |  |  |  |
| 19. Show the complete sequencing of removal activities and the sequencing of Work within each building, wing or section of building. | X | X | X |
| 20. Show the dates for the beginning and completion of each major element of Work including substantial completion dates for each Work Area, building or phase. |  | X | X |

|  |  |  |  |
| --- | --- | --- | --- |
| **Scope of Work Plan:** |  |  |  |
| 21. Provide a description of the methods, procedures and materials to be used in performing the work and handling all hazardous wastes. The schedules will be utilized to schedule facility and third-party environmental consultant requirements. Provide plans that indicate the following: | X | X | X |
|  a. Include a sketch showing the location, size, and details of each hazardous waste work area, as well as location and details of the decontamination facilities and CSA. All Work Areas/containments shall be numbered sequentially. |  | X | X |
|  b. Waste transport routes to the waste storage container and/or container storage area (CSA). |  | X | X |
|  c. Type of removal activity/technique for each Work Area/containment. |  | X | X |
|  d. The job specific plan for worker protection issues regarding personal protective equipment, the work procedures, and exposure assessment procedures. | X | X | X |
|  e. Collected wastewater disposal/treatment plan. |  | X | X |
|  f. Waste disposal plan (hazardous and non-hazardous waste). |  | X | X |
|  g. Include in the plan, eating, drinking, and sanitary procedures, interface of trades and sequencing of hazardous waste generation. |  | X | X |
|  h. Include site preparation and cleanup procedures. |  | X | X |
|  i. Include plan for hazardous waste segregation and minimization including metal recycling. |  | X | X |
|  j. Include occupational and environmental sampling (if any by the Contractor), frequency and duration of sampling. |  |  | X |
|  k. Proposed location and construction of storage facilities and field office. |  |  | X |
|  l. Health and Safety Plan and Facility Contingency Plan revision information for material handling and emergency procedures. |  |  | X |
|  m. CSA location details and site plan. | X | X | X |
|  n. Contractor waste generation details (amount per day, per week or per quarter) in kgs or tons. |  |  | X |
|  o. Waste types being generated. |  |  | X |
|  p. Waste storage details (drums, containers, or dumpsters, types, with cover?). |  | X | X |
|  q. Waste containment details. How is the waste being stored? (indoors or outdoors, is it being contained to prevent impact to adjoining spaces or environment?). |  | X | X |
|  r. Contractor emergency evacuation plan requirements and evacuation route for the project specific areas. |  |  | X |
|  s. Duration of waste generation and contract. |  |  | X |
|  t. Contractor, DASNY and Project team emergency contact numbers. | X | X | X |
| 22. Do not start work until submittals are returned with the Owner’s Representative stamp indicating that the submittal is approved for unrestricted use. |  | X | X |

 VSQG: <220 lbs.; SQG: 220lbs – 2200lbs (180 Days); LQG - >2,200lbs (90 Day).

1. On-Site and During Construction Submittal Requirements.

| **On-Site & During Construction** | **VSQG (CESQG)** | **SQG** | **LQG** |
| --- | --- | --- | --- |
| The following submittals, documentation, and postings shall be maintained on-site by the Contractor during abatement activities at a location approved by the Environmental Consultant:  |  |  |  |
| 1. Approved pre-work submittals. | X | X | X |
| 2. Project Documents (specifications and drawings). | X | X | X |
| 3. Applicable regulations. | X | X | X |
| 4. Updated licenses/permits and acknowledgement letters for any changes in transporter or disposal site. | X | X | X |
| 5. For each employee, current annual medical respiratory clearance. |  | X | X |
| 6. For each employee, current satisfactory respiratory fit test results. |  | X | X |
| 7. Coordinate with facility for a 30-minute training on the facility contingency plan requirements and contractors emergency action plan. Submit proof of contingency plan training. |  |  | X |
| 8. Contractor shall provide weekly update, including initial container storage dates for each container stored, an approximate estimate of amount of waste being generated during each work-day, week or month that it is stored on-site. The actual weight of the waste, excluding the weight of the dumpster / container, shall be identified.  |  |  | X |
| 9. Toxicity Characteristic Leaching Procedure (TCLP) waste sample results. Contractor shall notify DASNY and Environmental Consultant for waste stream sampling prior to any waste being removed from the site.  | X | X | X |
| 10. Completed Waste Profile form(s). Contractor shall utilize analytical test results from the survey report and / or TCLP results provided by Environmental Consultant, as appropriate, to generate waste profile and LDR form. | X | X | X |
| 11. Completed LDR form.  |  | X | X |
| 12. Completed c7 form.  | X | X | X |
| 13. List of emergency phone numbers. | X | X | X |
| 14. Waste disposal log. |  | X | X |
| 15. Daily Project Log. | X | X | X |
| 16. Copy of Waste manifest for each load of waste that is removed from site. | X | X | X |
| 17. Copy of completed hazardous waste manifest including legible transporter and disposal facility information, dates and times of waste shipment departures / arrivals, and signatures, for each load of waste, within 35 days of waste being removed from site. | X | X | X |
| The following documentation shall be maintained on-site by the **Environmental Consultant** during abatement activities: |  |  |  |
| 18. Valid Environmental Consultant personnel OSHA, RCRA, and DOT training certifications. | X | X | X |
| 19. Proof of current Facility Contingency Plan Training. |  |  | X |
| 20. Consultant Daily Log. | X | X | X |
| 21. Listing of all visual inspections with the date of inspection and the date of signoff on the supervisor’s log. | X | X | X |
| 22. Hazardous Materials Survey Report. | X | X | X |
| 23. All TCLP waste sample laboratory results including completed chain of custody forms and valid laboratory NYS DOH ELAP certifications. | X | X | X |
| 24. CSA Inspections – Initial Inspection and Weekly Inspections Thereafter. | X | X | X |
| 25. All applicable waste documentation, including but not limited to Universal Hazardous Waste Manifests, waste profiles, LDR forms, c7 forms and disposal facility letter(s). | X | X | X |

Close-out:

1. Within 30 days after project completion, the **Contractor** shall submit one electronic copy of the closeout-out submittal (requirements listed below) to DASNY Code Compliance and one copy to the Environmental Consultant for review and approval prior to the Contractor’s final payment. Once DASNY Code Compliance approves the electronic close-out submittal, the Contractor shall provide three (3) hardcopy sets of the approved close-out documents (double-sided and bound): one (1) to DASNY Code Compliance; and two (2) to DASNY Project Management, one of which is to be distributed to the facility. DASNY Project Management shall provide the Facility with one copy of the approved closeout submittals.
	1. **Fully Executed Copies** of all completed hazardous waste disposal manifests, recycling certificates for recycled metal and disposal logs shall be sent to DASNY Code Compliance including legible transporter and disposal facility information, departure / arrival times and dates, and signatures. Original hazardous waste manifests shall be sent to the Owner.
	2. Daily progress log.
	3. Entry/Exit Logs. Decontamination unit entry/exit log for Hazardous Waste generation work areas (must be separate from any documentation associated with Asbestos removals, unless the material is both Hazardous and ACM).
	4. If TSDF transfer facility is utilized, completed hazardous waste manifest from final destination must also be provided. Final destination of waste must be within the United States.
	5. Documentation of Container Storage Area (CSA) closure (if applicable) in accordance with applicable federal and state regulations.
2. Within 30 days of the completion of each abatement phase, the **Environmental Consultant** shall submit one electronic copy of the documents listed below to DASNY code compliance for review and approval prior to Environmental Consultant’s final payment. Once DASNY Code Compliance approves the electronic close-out submittal, the Environmental Consultant shall provide three sets of the approved close-out documents (double-sided and bound): one (1) to DASNY Code Compliance; and two (2) to DASNY Project Management, one of which is to be distributed to the facility.
	1. Upon completion of the Project, the Environmental Consultant shall certify to the Owner, in writing, that the work is complete and acceptable in an Executive Summary of the work.
	2. The Environmental Consultant shall review and approve or disapprove all necessary guarantees, certificates of compliance, and all other close-out documentation, which the Contractor is required to submit.
	3. The Environmental Consultant shall provide to the Owner the final Project data binder to include:
3. All daily logs.
4. Summary of all visual inspections with the date of inspection and the date of signoff on the supervisor’s log.
5. Any applicable sampling logs, results, chain of custody forms, and sample location plans.
6. Daily Worker Rosters.
7. All TCLP waste sample laboratory results including completed chain of custody forms and valid laboratory NYS DOH ELAP certifications.
8. All applicable waste documentation, including but not limited to Universal Hazardous Waste Manifests, waste profiles, LDR forms, c7 forms, recycling certificates and disposal facility letter(s).
9. All pertinent correspondence related to the Project including but not limited to clearance letters and supplemental inspection findings performed during construction, copies of all weekly hazardous waste storage location inspections, etc.
10. Hazardous Waste Project Submittals shall be submitted as separate packages, not included with any other environmental or hazardous materials submittals.
11. **PRE-CONSTRUCTION CONFERENCE**
12. Prior to start of preparatory Work under this Contract, the Contractor shall attend a pre-construction conference attended by Owner, Facility Personnel, and Environmental Consultant.
13. Agenda for this conference shall include but not necessarily be limited to:
14. Contractor's scope of Work, Work plan, and schedule to include number of workers and shift days and times.
15. Contractor's safety and health precautions including protective clothing and equipment and decontamination procedures.
16. Environmental Consultant's duties, functions, and authority.
17. Contractor's Work procedures including:

a. Methods of job site preparation and removal methods.

b. Respiratory protection.

c. Disposal procedures.

d. Cleanup procedures.

e. Fire exits and emergency procedures.

1. Contractor’s required pre-work and on-site submittals, documentation, and postings.
2. Contractor's plan for 24-hour Project security both for prevention of theft and for barring entry of unauthorized personnel into Work Areas.
3. Temporary utilities.
4. Handling of furniture and other movable objects.
5. Hazardous waste segregation and minimization plan, including metals intended for recycling.
6. Storage of Hazardous waste in CSA.
7. Waste disposal requirements and procedures, including Contractor notification to DASNY project management and Environmental Consultant for TCLP waste stream sampling, once waste stream generation has commenced, and prior to any waste being removed from site.
8. If applicable, contingency plan training information.

C. In conjunction with the conference the Contractor shall accompany the Owner and Environmental Consultant on a pre-construction walk-through documenting existing condition of finishes and furnishings, reviewing overall Work plan, location of CSA, location of fire exits, fire protection equipment, water supply and temporary electric tie-in.

1. **APPLICABLE STANDARDS AND REGULATIONS**
2. All activities related to the work shall be conducted in compliance with all applicable laws, regulations, and requirements which may include, but not be limited to: EPA, DOT, RCRA, TSCA, OSHA, New York State Department of Environmental Conservation (NYS DEC), New York City Department of Environmental Protection (NYC DEP), and New York City Fire Department.
3. The Contractor is required to secure and maintain all required regulatory permits necessary to perform all aspects of the work.
4. The Contractor shall containerize and store waste in accordance with all applicable regulations. All containers shall be appropriately marked/labeled.
5. **PROJECT SUPERVISOR**
6. The Contractor shall designate a full-time Project Supervisor who shall meet the following qualifications:
7. The Project Supervisor shall be trained in hazardous waste removal/generation procedures and hazardous waste management in NYS, via a 40-hour HAZWOPER and 8-hour Supervisor training course, as well as appropriate RCRA and DOT training.
8. The Project Supervisor shall have a minimum of one year experience as a supervisor.
9. The Project Supervisor must be able to read and write English fluently, as well as communicate in the primary language of the Workers.
10. If the Project Supervisor is not on-site at any time whatsoever, all Work shall be stopped. The Project Supervisor shall remain on-site until the Project is complete. The Project Supervisor cannot be removed from the Project without the written consent of the Owner and the Environmental Consultant. The Project Supervisor shall be removed from the Project if so requested by the Owner or DASNY.
11. The Project Supervisor shall maintain a Daily Project Log that includes the Waste Disposal Log required by section 4.03 of this specification.
12. The Project Supervisor shall be responsible for the performance of the Work and shall represent the Contractor in all respects at the Project site. The Supervisor shall be the Contractor primary point of contact for the Environmental Consultant.
13. As required by applicable regulations, prior to assignment to hazardous waste work, instruct each employee with regard to the hazards of the generated waste, safety and health precautions, and the use and requirements of protective clothing and equipment, as well as the facility contingency plan and/or Contractor emergency action plan.

**PART 2 PRODUCTS**

1. **PROTECTIVE CLOTHING**

A. Provide personnel utilized during the Project with disposable protective whole body clothing, head coverings, and foot coverings. Provide appropriate disposable gloves (i.e. neoprene or butyl gloves for handling PCBs), suitable to prevent hazardous waste skin contact, to protect hands.

B. Provide sufficient quantities of protective clothing to assure a minimum of four (4) complete disposable outfits per day for each individual performing abatement Work.

C. Eye protection and hard hats shall be provided and made available for all personnel entering any Work Area.

D. Authorized visitors shall be provided with suitable protective clothing, headgear, eye protection, and footwear whenever they enter the Work Area.

1. **SIGNS AND LABELS, CONTAINERS**

A. Provide warning signs and barrier tapes at all approaches to Hazardous Waste generation Work Areas. Locate signs at such distance that personnel may read the sign and take the necessary protective steps required before entering the area.

B. For PCB Hazardous Waste, provide the appropriate “Large PCB Mark” or “Small PCB Mark” (ML or MS per 40 CFR 761) as shown below, of sufficient size to be clearly legible, for display on waste containers (bags, boxes, rolloffs or drums) which will be used to contain or transport PCB contaminated material, in accordance with 40 CFR 761. In addition, U.S. Department of Transportation (DOT) 49 CFR Parts 171 and 172 requires the name and UN number of the material to be on the bags or drums, and, if shipped in bulk (rolloffs, Gaylord boxes, etc) the bulk container must also be labeled: Polychlorinated Biphenyl, solid mixture UN 3432.

 ML  MS 

C. The PCB materials are also NYS Hazardous Waste, and must have a label stating the following on each container :

**HAZARDOUS WASTE--Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority, or the U.S. Environmental Protection Agency.**

**Proper DOT Shipping Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Generator's Name, Address, City, State, ZIP and phone\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Generator's EPA Identification Number, Waste code\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Accumulation Start Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Manifest Tracking Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D. Provide 6 mil plastic disposal bags with PCB caution labels.

1. The “Small PCB Label” (MS per 40 CFR 761) may be used as shown above. Bags shall also be labeled with U.S. DOT required markings per 49 CFR 172, Polychlorinated Biphenyl, solid mixture UN 3432.
2. Labeled PCB waste containers or bags shall not be used for non-PCB waste or trash. Any material placed in labeled containers or bags, whether turned inside out or not, shall be handled and disposed of as PCB waste.
3. **DAILY PROJECT LOG**

A. Provide a Daily Project Log. The log shall contain on title page the DASNY Project name and number; name, address and phone number of Owner; name, address and phone number of Environmental Consultant; name, address and phone number of Abatement Contractor; and emergency numbers including, but not limited to local Fire/Rescue department.

B. All entries into the log shall be made in non-washable, permanent ink and such pen shall be strung to or otherwise attached to the log to prevent removal from the log-in area. Under no circumstances shall pencil entries be permitted.

C. The Project Supervisor shall document all Work performed daily and note all inspections.

1. **SCAFFOLDING AND LADDERS**

A. Provide all scaffolding and/or staging as necessary to accomplish the Work of this Contract. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding and ladders shall comply with all applicable OSHA construction industry standards.

B. Provide scaffolding and ladders as required by the Environmental Consultant for the purposes of performing required inspections.

1. **SHIPPING CONTAINERS AND PACKAGING**

A. Provide packaging in accordance with 49 CFR 173 Packaging Group 9, such as 30 or 55 gallon capacity fiber, plastic, or metal drums, Gaylord Boxes or other Intermediate Bulk Containers (IBCs), or non-siftable bulk containers, capable of being sealed air and water tight if hazardous waste has the potential to damage or puncture disposal bags. Affix hazardous waste caution labels on lids of drums, and opposite sides of drums or bulk containers, as well as the ends of bulk containers. Recovery or salvage drums must be acceptable for disposal of hazardous waste. Prior approval of drums is required. Drums or containers must meet the required OSHA, EPA (40 CFR Parts 260-264 and 300), and DOT Regulations (49 CFR Parts 171-178). Use of damaged containers shall not be allowed.

1. **EQUIPMENT AND MATERIALS**

A. All dry vacuuming performed under this contract shall be performed with HEPA filter equipped industrial vacuums conforming to ANSI Z9.2.

B. Any power tools used to drill, cut into, or otherwise disturb hazardous material shall be manufacturer equipped with HEPA filtered local exhaust ventilation, unless specified otherwise.

1. All polyethylene (plastic) sheeting used on the Project (including but not limited to sheeting used for critical and isolation barriers, fixed objects, walls, floors, ceilings, and waste container) shall be at least 6 mil fire retardant sheeting.
2. Absorbant Material: Absorbent Material: Clay, soil or any commercially available absorbent used for the purpose of absorbing hazardous or potentially hazardous materials.
3. **RESPIRATORY PROTECTION**
4. Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134. Provide respirator training.

B. Select respirators from those approved by the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services. High Efficiency Particulate Air (HEPA) respirator filters shall be approved by NIOSH and shall conform to the OSHA requirements in 29 CFR 1910.134.

1. Respirators shall be individually fit-tested to personnel under the direction of an Industrial Hygienist initially and on a yearly basis. Fit-tested respirators shall be permanently marked to identify the individual fitted, and use shall be limited to that individual.
2. A storage area for respirators shall be provided by the Contractor in the clean portion of the decontamination enclosure where they will be kept in a clean, dry environment.
	* + - 1. The Contractor shall provide and make available a sufficient quantity of respirator filters so that filter changes can be made as necessary during the work day. Filters will be removed and discarded during the decontamination process. Filters cannot be reused. Filters must be changed if breathing becomes difficult. Filters provided to the personnel shall be appropriate to the hazardous waste(s) being handled as well as any chemicals brought on site and used to facilitate the removals.
				2. Filters used with negative pressure air purifying respirators shall not be used any longer than one eight (8) hour work day.

G. Any authorized visitor, Worker, or supervisor found in the Work Area not wearing the required respiratory protection shall be removed from the Project site and not be permitted to return.

1. The Contractor shall have at least two (2) Powered Air Purifying Respirators stored on site designated for authorized visitors use. Appropriate respirator filters for authorized visitors shall be made available by the Contractor.

**PART 3 EXECUTION**

1. **HAZARDOUS WASTE GENERATION AND ON-SITE STORAGE**
	* + - 1. All waste shall be stored, handled, transported and disposed of in accordance with all federal, state, and local guidelines and regulations. The Contractor shall obtain all permits, licenses, etc., which are necessary for the storing, transporting and disposing of hazardous waste. The Contractor shall develop all applicable manifests, Waste Profile Sheets, LDR Forms, c7 forms and any other documentation and coordinate with the Owner regarding proper signatures.
2. All hazardous waste generated shall be placed into 6 mil plastic disposal bags or other suitable container upon detachment from the substrate. Large components with residue shall be wrapped in one layer of clear 6 mil plastic sheeting. Sharp components likely to tear disposal bags shall be placed in fiber drums or boxes and then wrapped with clear 6 mil plastic sheeting.
3. All construction and demolition debris determined by the Environmental Consultant to be contaminated with hazardous waste shall be handled and disposed of as hazardous waste.
4. All hazardous waste must be located at or near the point of generation, under the control of the Project Supervisor. Up to 55 gallons may be stored at the point of generation for an indefinite period, but any greater than 55 gallons must be moved within three (3) days to a Container Storage Area (CSA) as specified in 6 NYCRR Section 372.2 “Standards Applicable to Generators of Hazardous Waste”, or off-site. Waste may be stored at the CSA for 90 days (large quantity generator), 180 days (small quantity generator with TSDF within 200 miles of site), or 270 days (small quantity generator with TSDF greater than 200 miles from the site) during which labeling, inspections, and other requirements must be met as described in 6 NYCRR Section 372.2, Section 373-3.1(d) and Subpart 373-3.
	* + - 1. The Contractor shall identify and classify the hazardous waste generated through the performance of the work as per the governing regulations, and in accordance with the waste stream TCLP results provided by the third-party Environmental Consultant. The Contractor shall utilize the TCLP results to confirm the requirements for handling, storing, transporting and disposing of the hazardous waste.
				2. The Third-Party Environmental Consultant shall sample all potential hazardous waste streams for TCLP analyses prior to disposal, in accordance with 40 CFR 261 for hazardous waste. The waste profile, LDR form, c7 forms and waste transporter permit must be reviewed and approved by the Environmental Consultant prior to any hazardous waste leaving the site. The DOT-trained Environmental Consultant must be on-site for all hazardous waste shipment removals and will be responsible for inspection of the waste shipment as well as signoff on the hazardous waste manifest, on behalf of the owner and DASNY, to allow the hazardous waste shipment to leave the site.
				3. On-site Storage Requirements.

Each waste dumpster\container shall have completed hazardous waste label with facility name, correct EPA ID number, full address, waste codes, and waste information.

Appropriate hazardous waste storage and contents labels shall also be posted on the containers.

Since this is considered a main storage area for the project, third-party DASNY Environmental Consultant shall be completing an initial and thence weekly hazardous waste storage area inspection logs and these records shall be provided to DASNY and the facility each week. Weekly inspection records shall be maintained for three (3) years.

Each dumpster\container shall also post all relevant DOT labels to indicate proper waste types.

Each dumpster\container shall identify the accumulation start date. Maximum storage limit is 90 days from the date of accumulation.

All dumpsters and containers being stored outside shall meet EPA RCRA container requirements and shall not leak. All dumpsters and containers must be fully covered and protected from the elements as well as secured by lock when not in use.

Spill kit shall be maintained in the CSA.

Regarding the posting of emergency numbers, Contractor shall coordinate with facility and DASNY and post all required emergency numbers including facility contact(s), DASNY field office, Contractor emergency numbers and local fire, police and medical facility numbers. Signage shall be posted on the lockable CSA.

1. The CSA and personnel managing it must also meet the following requirements of 6 NYCRR 373:
	1. Preparedness and Prevention provisions of Section 373-3.3
	2. Secondary containment requirements of 373-2.9(f)(1)
	3. Personnel training in section 373-3.2
	4. Contingency plans and emergency procedures in section 373-3.4 subparagraph 376.1(g)(1)(v)
	5. The containers must be dated when placed in storage, and accumulation times must be observed.
	6. The total amount of hazardous waste stored in the CSA at any given time must not exceed the maximum for the current generator status (6,000 kg-SQG, no limit-LQG).
	7. A label or sign stating "Hazardous Waste" must identify all areas and containers used to accumulate hazardous waste.
		* + 1. Closure of the CSA. If a CSA was created specifically for the Hazardous waste generation work, once the work is complete, the Contractor shall immediately close out the CSA, as per 373-3.7(b) and (e).
				2. The Contractor is required to provide temporary protection of the building (i.e. roof, window openings, construction joints, etc.) as applicable for the work, at the end of each Work shift so as to maintain the building in a watertight condition. Any damage to the facility caused by inadequate Contractor protection shall be the responsibility of the contractor.

**PART 4 DISPOSAL OF HAZARDOUS WASTE**

1. **TRANSPORTATION AND DISPOSAL SITE**
2. The Contractor's Hauler and Disposal Facility shall be approved by the Owner. Prior to the hazardous waste being removed from the site, written notice must be provided and confirmation received from the intended disposal facility, indicating proper authority to receive the hazardous waste, as well as the ultimate disposal method for the waste. The notice shall be acknowledged in writing via a disposal facility representative’s signature, printed name and title, as well as phone number, in compliance with 6 NYCRR 372.2(b)(2). For disposal within New York State, facilities must be specifically permitted to accept hazardous waste. In addition, the Contractor is responsible for securing appropriate treatment or disposal for the generated hazardous waste streams at a permitted TSDF, if necessary, in compliance with all regulatory requirements, and for obtaining a copy of the waste manifest and waste profile of the treated waste as executed by the TSDF. If the manifest is not returned within 35 calendar days from removal from the site, the contractor shall notify the Owner and the NYS DEC, and initiate an investigation as required.
3. The Contractor shall give at least 24-hour notification prior to removing any waste from the site. Waste shall be removed from the site only during normal working hours unless otherwise specified. No waste shall be removed from the site unless the Contractor and Environmental Consultant are present, and the Environmental Consultant authorizes the release of the waste. The DOT-trained Environmental Consultant must be on-site for all hazardous waste shipment removals and will be responsible for inspection of the waste shipment as well as signoff on the hazardous waste manifest on behalf of the owner and DASNY to allow the hazardous waste shipment to leave the site.
4. The Contractor shall supply all required placard and labeling and shall have an appropriately DOT - trained individual to prepare the waste container and inspect the packaging of the hazardous waste.
5. All hazardous waste generated as part of the project shall be removed from the site within ten (10) calendar days after successful completion of all hazardous waste generation work. However, all disposal facility permits/licenses, waste profiles, LDR forms, c7 forms, hauler permit(s), and all other necessary paperwork must be submitted to and approved by the Environmental Consultant before the waste is removed from the site. Waste stream samples shall be collected by the Environmental Consultant for TCLP analysis and the results utilized by the Contractor for waste stream characterization and disposal determination.
6. Upon arrival at the Project Site, the Hauler must possess and present to the Environmental Consultant a valid DEC Part 364 Waste Hauler's Permit. The Environmental Consultant may verify the authenticity of the hauler's permit with the proper authority.
	* + - 1. The Hauler, with the Contractor and the Environmental Consultant, shall inspect all material in the transport container prior to taking possession and signing the Hazardous Waste Manifests.
				2. Transporters shall maintain waste manifest and shipment record forms. All transporters are required to obtain and maintain NYS DEC Part 364 Waste Transporter permits and, if applicable, a NYC Fire Department permit for transporting flammables. The Part 364 Permit shall have the license plate number of the vehicle, the expiration date of the permit, the type of waste the hauler can transport and the TSDF to which the hauler can transport the waste. The transporter must also have all applicable, current waste transportation permits for the states where the proposed disposal facilities are located.
7. **WASTE SHIPMENT STORAGE CONTAINERS**
8. All waste shipment storage containers shall be fully enclosed and lockable (i.e. enclosed dumpster, trailer, etc.).

B. The Environmental Consultant shall verify that the waste shipment storage container and/or truck tags (license plates) match that listed on the DEC Part 364 permit. Any waste shipment storage container not listed on the permit shall be removed from the site immediately prior to storage of any material from the site.

C. The waste shipment storage container shall be plasticized and sealed with one layer of clear 6 mil plastic. Once on-site, it shall be kept locked at all times, except during load out. The waste shipment storage container shall not be used for storage of equipment or contractor supplies.

D. While on-site, the waste shipment storage container shall be labeled with DEC Hazardous Waste Warning Labels as specified in Section 2.02.

E. The DEC Waste Hauler's Permit number shall be stenciled on both sides and back of the waste shipment storage container.

F. The waste shipment storage container is not permitted to be loaded unless it is properly plasticized, has the appropriate danger signage affixed, and has the permit number appropriately stenciled on the container.

1. The Owner may initiate random checks at the Disposal Site to ensure that the procedures outlined herein are complied with.
2. **Hazardous WASTE MANIFESTS & DISPOSAL DOCUMENTATION**
	* + - 1. The Contractor is responsible for securing appropriate treatment or disposal for the waste streams at a permitted TSDF, in compliance with all requirements, and for obtaining a copy of the waste manifest (interim storage and final disposal) as executed by the TSDF. If the manifest is not returned within 35 calendar days from removal from the site, the Contractor shall notify the Owner and the NYS DEC, and initiate an investigation as required. The Contractor shall contact the EPA and file an Exception report if the manifest is not returned within 45 days. All hazardous waste metals intended for recycling, shall have the appropriate completed c7 form accompanying the shipment and this form must be received by the DEC prior to the shipment leaving the site.
3. A Uniform Hazardous Waste Manifest shall be utilized solely as the waste Manifest for transportation. A hauler billing form or bill of lading may be used if the hauler needs an independent record, but shall not be used as the sole shipping document.
4. The Manifest shall be completed by the Contractor and verified by the Environmental Consultant that all the information and amounts are accurate and the proper signatures are in place.
5. The Manifest shall have the appropriate signatures of the Owner’s Representative (the Generator) and the Hauler representative prior to any waste being removed from the site.
6. Copies of the completed Manifest, shall be retained by the Environmental Consultant and shall remain on-site for inspection.
7. Upon arrival at the Disposal Site, the Manifest shall be signed by the Disposal Facility operator to certify receipt of hazardous and asbestos wastes covered by the manifest.
8. The Disposal Facility operator shall return the original Manifest and certificate of recycling for recycled metals to the Owner’s Representative or the disposal facility state as required by the DEC in 6 NYCRR 372 within 35 days. The Environmental Consultant must call the facility to investigate if the Manifest is not returned within 35 days and contact the DEC and file an Exception report if not returned within 45 days.
9. The Contractor shall utilize the Waste Disposal Log provided by the Owner. This log shall be maintained by the Project Supervisor and shall be kept on-site at all times. (See Appendix B.)
10. Copies of all waste disposal manifests, c7 forms, certificates of recycling, as well as originals of all manifests and disposal logs (copies are acceptable for electronic closeout submittal review) shall be submitted by the Contractor to the Owner with the final close-out documentation.
11. The Contractor must also submit reports and records per the requirements of 6 NYCRR 372.2.
12. Payment for disposal of hazardous waste will not be made until a signed copy of the manifest and certificate of recycling from the treatment or disposal facility certifying the amount of hazardous waste delivered is returned for each load of waste removed from the site. The original hazardous waste manifest must be provided to the Owner, and copies provided to DASNY Code Compliance.
	* + - 1. Unless directed otherwise, the Contractor shall file the annual report and fee report, if applicable, for the hazardous waste shipped, and provide closure notification to EPA and DEC with a full copy to DASNY immediately upon completion of the work.

END OF SECTION 02 86 00

APPENDIX A

SAMPLE BLANK PCB LDR FORM



APPENDIX B

SAMPLE BLANK c7 NYSDEC NOTIFICATION FORM

 **“C7” NOTIFICATION FOR GENERATORS**

To: Training & Technical Support Section Date: \_\_\_\_\_\_\_\_\_\_\_\_

Bureau of Technical Support

Division of Environmental Remediation

New York State Department of Environmental Conservation

625 Broadway

Albany, NY 12233-7020

Please be advised that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (generator’s company name)

(generator’s street address)

intends to use the

(description and citation of exemption or exclusion; e.g., scrap metal exemption of 6 NYCRR 371.1(g)(1)(iii)(b)) for

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (describe waste stream)

that will be shipped from the above address to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (receiving company e.g., scrap metal dealer, recycler or smelter)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(receiving company address)

Please contact the undersigned at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ if you have any questions.

 (phone number)

Sincerely,

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (print name of generator company representative)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Optional – email address)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(signature of generator company representative)

Submission by email to info.sqg@dec.ny.gov is preferred.

If submitting by mail to the address above or by fax to 518-402-9020, please direct to Attn: Training & Technical Support Section

Please call (518) 402-9553 if you have any questions about how to complete this form.

APPENDIX C

WASTE DISPOSAL LOG

|  |  |
| --- | --- |
| **DORMITORY AUTHORITY STATE OF NEW YORK** |  |
| **WASTE DISPOSAL LOG** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Facility Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  |  | **Building Name/Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Project Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  | **DASNY Project Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Abatement/Remediation Contractor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  | **Project Monitor Firm: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Load No.** |  | **Hauler Name** |  | **NYSDEC #** |  | **License Plate No.** |  | **Size of Container** |  | **Disposal Facility Name** |  | **Date Depart from Site** |  | **Date Received at Disposal Site** |  | **Date Shipment Record Returned** |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
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| **Comments:**  |  |
| **Page \_\_\_\_\_\_ of \_\_\_\_\_\_** |  |