**SECTION 02 87 00**

**REMOVAL AND DISPOSAL OF UNIVERSAL WASTE**

**PART 1 GENERAL**

1. **DESCRIPTION OF WORK**

A. This specification covers the removal and disposal of Universal Waste, including lamps such as fluorescent and high-intensity discharge (HID) lamps, mercury-containing equipment (MCE) such as thermostats, switches, batteries and pesticides (not PCB lighting ballasts), as well as aerosol cans, at **XXX (Name of facility, building ID(s), address, DASNY project name and number).**

 The federal universal waste regulations are found in [Title 40 of the Code of Federal Regulations (CFR) in part 273](https://www.ecfr.gov/cgi-bin/text-idx?SID=0501d91ec562faafa833c60c2404d806&mc=true&node=pt40.27.273&rgn=div5) and apply to five types of universal waste:

* Batteries
* Pesticides
* Mercury-Containing Equipment (To be recycled as per NYS DEC – see details below
* Lamps
* Aerosol Cans

Universal Wastes are regulated by the United States Environmental Protection Agency (EPA) under 40 CFR Part 273 and by New York State Department of Environmental Conservation (NYS DEC) under 6 NYCRR (New York Codes, Rules and Regulations) Part 374-3. Both the EPA and DEC regulations identify Universal Waste that includes MCE and aerosol cans. MCE shall be recycled as per current regulations, instead of disposed as Universal Waste. Demolition and removal of materials shall be as required to support the work.

B. 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 |  |

C. 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.

D. 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.

E. 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. and 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. **SPECIAL JOB CONDITIONS**
1. Any special job conditions are described below:

Describe in detail or indicate “None”.

* 1. **DEFINITIONS**
1. Universal Waste consists of the following discarded materials, as identified in 40 CFR Part 273 and 6 NYCRR 374-3: Fluorescent light and high-intensity discharge (HID) lamps, MCE, batteries, aerosol cans and pesticides. Removed or replaced MCE must be delivered to a designated mercury collection site as per current NYC DEC regulations. Disposal of MCE in a solid waste management facility is prohibited. PCB ballasts/capacitors from light fixtures shall not be treated as Universal Waste; they shall be handled and disposed of as hazardous waste. See the Hazardous Waste Disposal Specification for these wastes.
2. Large Quantity Handler (LQH) of Universal Waste shall be a waste handler who accumulates 5,000 kilograms or more of Universal Waste at any time. This designation as a large quantity handler of Universal Waste is retained through the end of the calendar year in which 5,000 kilograms (11,000 pounds) or more total of Universal Waste is accumulated. The LQH shall notify the EPA, acquire or coordinate with a facility regarding an EPA identification number, and provide records for each shipment. The LQH shall ensure all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.
3. Small Quantity Handler of Universal Waste (SQH) shall be a waste handler who does not accumulate 5,000 kilograms (11,000 pounds) or more of total Universal Waste (batteries, pesticides, MCE, or lamps, calculated collectively) at any time.
4. Destination Facility shall be a facility that can legally accept Universal Waste from off-site so that the Universal Waste can be treated, disposed, or recycled in accordance with regulatory requirements.
5. Universal Waste Transporter shall be anyone who transports Universal Waste. In New York, Universal Waste Transporters that transport greater than 500 pounds of Universal Waste in a single shipment must be a permitted Universal Waste Transporter pursuant to Federal and State regulations. Proper notification with the receiving handler agreeing to receive the shipment is required by the Universal Waste Transporter.
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 universal waste shipments as well as final clearance assessments. The Contractor shall be responsible for the worker protection requirements.
7. Battery: a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy.
8. Pesticide: a substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant.
9. Mercury-containing equipment: a device or part of a device (including thermostats, but excluding batteries and lamps) that contains elemental mercury integral to its function.
10. Lamp: a bulb or tube portion of an electric lighting device.
11. Aerosol can: a non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.
	1. **SUBMITTALS**
12. Pre-Work Submittals: Within 7 days prior to the pre-construction conference, the Contractor shall submit an electronic copy of the documents listed below to the DASNY Project Manager, the DASNY Code Compliance Unit and the Environmental Consultant for review and Code Compliance approval prior to the commencement of removal activities:

| **Pre-work Submittals** | **SQH** | **LQH** |
| --- | --- | --- |
| 1. **Training & Certifications**
 |  |  |
| 1. List of the employees scheduled to perform this work and their project function (Supervisor or Worker)
 | X | X |
| 1. Certificates of on-site workers and supervisor, for successful completion of OSHA 40-hour Health and Safety course [29 CFR 1910.120/1926.65] for handling hazardous waste and spills, including most recent refresher training.
 | X | X |
| 1. OSHA 8-hour supervisor training [29 CFR 1910.120(e)(4)/1926.65(e)(4)] for hazardous waste.
 | X | X |
| 1. Valid United States Department of Transportation (DOT) training [49 CFR172.704] 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 |
| 1. Employees managing Universal Waste as large quantity handler must also meet the Personnel training requirements of EPA 40 CFR Section 273.36. Provide proof of training for these employees.
 |  | X |
| 1. Employees managing Universal Waste as small quantity handler must also meet the Personnel training requirements of EPA 40 CFR Section 273.16. Provide proof of training for these employees.
 | X |  |
| 1. **Transportation & Disposal**
 |  |  |
| 1. Valid Waste Transporter NYS Part 364 permit for all transporters.
 | X | X |
| 1. Valid 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 |
| 1. Valid US DOT vehicle permit for all transporters.
 | X | X |
| 1. Transfer Facility Permit (if used) including the name, address and EPA ID No. of the facility, contact person. Include an acknowledgement letter stating that the facility has the capacity and is permitted to accept the waste from the project site and how the waste will be disposed [i.e. treatment (T) landfill (L), incineration (B), recycled (R)].
 | X | X |
| 1. Final Disposal Facility permit including the name, address and EPA ID No. of the facility, contact person. Include an acknowledgement letter from the disposal facility stating that the facility has the capacity and is permitted to accept the waste from the project site and how the waste will be disposed [i.e. treatment (T) landfill (L), incineration (B), recycled (R)].

**The final destination of waste must be within the United States.** | X | X |
| 1. The TSDF permit(s) must identify the waste material(s) to be received.
 |  | X |
| 1. Draft waste profile form.
 | X | X |
| 1. Draft waste shipment record/manifest.
 | X | X |
| 1. **Site-specific**
 |  |  |
| 1. Safety Data Sheet (SDS) for all materials to be removed.
 | X | X |
| 1. If the Contractor introduces any chemical into the work environment, a SDS for each chemical must be presented to the Owner's Representative for review and approval prior to use.
 | X | X |
| **4. Progress Schedule:** |  |  |
| 1. Show the complete sequencing of removal activities and the sequencing of Work within each building, wing or section of building.

*The schedules will be utilized to schedule facility and third-party environmental consultant requirements.* | X | X |
| 1. 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 |
| **5. Scope of Work Plan:** |  |  |
| **Removal Work Plan and Drawing(s)** Provide a written work plan description of work and drawing(s) that clearly indicates the following: |
| 1. All work areas/phases numbered sequentially.
 | X | X |
| 1. Locations and types of all decontamination enclosures for each work area/phase, if necessary
 | X | X |
| 1. Proposed location and construction of storage facilities and field office (when applicable).
 | X | X |
| 1. Type of removal activity/technique for each work area/phase.
 | X | X |
| 1. List waste types and quantity being generated and stored (refer to 1.01, B).
 | X | X |
| 1. Site/work area preparation and cleanup procedures.
 | X | X |
| 1. Include in the plan, eating, drinking, and sanitary procedures, interface of trades and sequencing of Universal waste generation.
 | X | X |
| 1. Include occupational and environmental sampling (if any by the Contractor), frequency and duration of sampling.
 | X | X |
| 1. Container Storage Area (CSA) construction details). [How is the waste being stored? (indoors or outdoors, drums, containers, or dumpsters, types, with cover?).]
 | X | X |
| 1. Include waste transport routes to the CSA from each work area/phase.
 | X | X |
| 1. Include plan for universal waste segregation and minimization including metal recycling, as necessary.
 | X | X |
| 1. Contractor waste generation details (amount per day, per week or per quarter) in kgs or tons.
 |  | X |
| 1. Contractor emergency evacuation plan requirements and evacuation route for the project specific work areas/phases.
 | X | X |
| 1. DASNY PM, Facility Representative, and Project team emergency contact numbers. [to be posted at CSA (interior and exterior).]
 | X | X |
|  |  |  |
| **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 |

1. On-Site & During Construction:

The following submittals, documentation, and postings shall be maintained on-site by the Contractor during removal activities at a location approved by the Environmental Consultant:

1. Approved pre-work submittals.
2. Project Documents (specifications and drawings).
3. Applicable regulations.
4. Updated licenses/permits and acknowledgement letters for any changes in transporter or disposal site.
5. For each employee, current annual medical respiratory clearance and current satisfactory respiratory fit test results, if required.
6. 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 workday, week or month that it is stored on-site. The actual weight of the waste, excluding the weight of the dumpster, shall be identified.
7. Completed and signed Waste Profile form(s).
8. List of emergency phone numbers.
9. Waste disposal log.
10. Daily Project Log.
11. Copy of completed Universal Waste manifest(s)/shipment record(s) 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.
12. The following documentation shall be maintained on-site by the Environmental Consultant during removal activities:
13. Valid Environmental Consultant personnel OSHA and DOT training certifications.
14. Consultant Daily Log.
15. Listing of all visual inspections with the date of inspection and the date of signoff.
16. Environmental Survey Report.
17. All applicable waste documentation, including but not limited to Universal Waste Manifest/shipment records, waste profiles, and disposal facility letter(s).
18. Close-out:
19. Within 30 days after phase or 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 complete electronic close-out submittal, the Contractor shall provide three (3) hardcopy sets of the approved close-out documents (double-sided and bound) to DASNY Project Management, including one set 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 waste disposal manifests, recycling certificates, disposal facility letter(s), disposal logs shall be sent to DASNY Code Compliance including legible transporter and disposal facility information, departure / arrival times, dates, and signatures. Original waste manifests shall be sent to the Owner or disposal facility state with proof of this submission, as applicable.
	2. Copies of all executed waste profile forms and disposal facility acknowledgement letters.
	3. Daily progress log.
	4. If TSDF transfer facility is utilized, provide valid permit including name, address, EPA number of facility and contact person along with completed waste manifest from final destination must also be provided. Final destination of waste must be within the United States.
	5. Valid Waste Transporter NYS Part 364 permit for all transporters.
	6. Valid 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).
	7. Valid US DOT vehicle permit for Transporters, if applicable.
	8. Final Disposal Facility permit including the name, address and EPA ID No. of the facility, and contact person.
20. Within 30 days of the completion of each removal 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 complete electronic close-out submittal, the Environmental Consultant shall provide three sets of the approved close-out documents (double-sided and bound) to DASNY Project Management, including one set to be distributed to the facility.
	1. Upon completion of each phase or 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, or note that the documents were never received.
	3. The Environmental Consultant shall provide to the Owner the final Project data binder to include:
21. All daily logs.
22. Summary of all visual inspections with the date of inspection, if applicable.
23. Any applicable sampling logs, results, chain of custody forms, and sample location plans.
24. All applicable waste documentation, including but not limited to Universal Waste manifests, completed and signed waste profile forms, LDR forms, and disposal facility acknowledgment/acceptance letter(s)/documentation.
25. All pertinent correspondence related to the Project including but not limited to supplemental inspection findings performed during construction, prior submittal reviews, etc.
26. Universal Waste Project Submittals shall be submitted as separate packages, not included with any other environmental or hazardous waste submittals.
	1. **PRE-CONSTRUCTION CONFERENCE**
27. Prior to start of preparatory Work under this Contract, the Contractor shall attend a pre-construction conference with the Owner, Facility Personnel, and Environmental Consultant.
28. Agenda for this conference shall include but not necessarily be limited to:
29. Contractor's scope of Work, Work plan, and schedule to include number of workers, shift days and times.
30. Contractor's safety and health precautions including protective clothing, equipment and decontamination procedures.
31. Environmental Consultant's duties, functions, and authority.
32. 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. Universal waste segregation and minimization plan, including metals intended for recycling.
6. Storage of Universal waste in CSA.
7. Waste disposal requirements and procedures, including Contractor notification to DASNY project management and Environmental Consultant once waste stream generation has commenced, and prior to any waste being removed from site.
8. If applicable, contingency plan training information.

**1.06 APPLICABLE STANDARDS AND REGULATIONS**

1. 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.
2. The Contractor is required to secure and maintain all required regulatory permits necessary to perform all aspects of the work.
3. The Contractor shall containerize and store waste in accordance with all applicable regulations. All containers shall be appropriately marked/labeled.

**1.07 PROJECT SUPERVISOR**

1. The Contractor shall designate a full-time Project Supervisor who shall meet the following qualifications:
2. 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 DOT training.
3. The Project Supervisor shall have a minimum of one year experience as a supervisor.
4. The Project Supervisor must be able to read and write English fluently, as well as communicate in the primary language of the Workers.
5. 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.
6. The Project Supervisor shall maintain a bound Daily Project Log that includes the Waste Disposal Log required by section 4.03 of this specification.
7. 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.
8. As required by applicable regulations, prior to assignment to Universal 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 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, as applicable. Provide appropriate disposable gloves, suitable to prevent skin contact, to protect hands.

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

1. **SIGNS AND LABELS, CONTAINERS**
2. Provide warning signs and barrier tapes at all approaches to Universal 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.
3. Universal waste containers must be marked with the words that clearly indicate the type of waste in the container, for example, **“Universal waste – Batteries” or “Universal waste – Bulbs”** as per 40 CFR 273.13 and 273.34;



**2.03 DAILY PROJECT LOG**

A. Provide a Daily Project Log. The log shall contain on the 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 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. Affix Universal 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 Universal Waste. Prior approval of drums is required. Drums or containers must meet the required OSHA, EPA (40 CFR Parts 260-264, 273 and 300), and DOT Regulations (49 CFR Parts 171-180). 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. 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, waste container) shall be at least 6 mil clear fire retardant sheeting.

C. Absorbent Material shall be Clay, soil or any commercially available absorbent used for the purpose of absorbing hazardous or potentially hazardous materials.

* 1. **RESPIRATORY PROTECTION**
1. 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 thereafter. 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 shall 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. **GENERATING UNIVERSAL WASTE AND ON-SITE STORAGE**

Employee training shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal operations and emergencies, as well as to the type of waste they are handling.

MCE shall be segregated from other Universal Wastes to allow for required recycling.

Battery Labels: The container(s) holding intact batteries shall be labeled or marked as “Universal Waste – Battery(ies)”, “Waste Battery(ies)”, or “Used Battery(ies)”.

Lamp Labels: The container(s) holding lamps shall be labeled or marked as “Universal Waste – Lamp(s)”, “Waste Lamp(s)”, or “Used Lamp(s)”.

MCE Labels: The container(s) holding MCE shall be labeled or marked as “Universal Waste – Mercury-Containing Equipment”, “Waste - Mercury-Containing Equipment”, or “Used Mercury-Containing Equipment”.

Mercury Thermostat Labels: The container(s) holding mercury thermostats only may be labeled or marked as “Universal Waste – Mercury Thermostat(s)”, “Waste Mercury Thermostat(s)”, or “Used Mercury Thermostat(s)”.

Pesticide Labels: The container(s) holding pesticides shall be labeled or marked as “Universal Waste – Pesticide(s)” or “Waste Pesticide(s)”.

Aerosol Cans: The container(s) holding aerosol cans shall be labeled or marked as “Universal Waste – Aerosol Cans” or “Waste Aerosol Cans”.

Once the properly labeled containers holding the Universal Waste have been filled and sealed, they shall be stored in designated accumulation areas as agreed upon by the Owner’s Representative and Contractor. They shall not be stored in transportation vehicles, or on-site for more than one year from the date the waste storage was initiated.

Documentation when Universal Waste in storage was first accumulated shall be provided. This is to be done by labeling the waste with the date of the earliest accumulation. Thus, the length of time the Universal Waste has been accumulated can be readily determined / documented.

Maintenance of an inventory system on-site that identifies the earliest date that any Universal Waste in a group of Universal Waste items became a waste was received.

Any waste developed from the work that exhibits one or more characteristics of hazardous waste, that are not specifically identified by EPA and NYS DEC as Universal Waste, must be handled accordingly and not as a Universal Waste. See the Hazardous Waste Disposal Specification section 02 86 00 for those waste types.

On-site Storage Requirements.

Each waste dumpster\container shall have completed universal waste label with facility name, correct EPA ID number (if required), full address, and waste information.

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

Since this is considered a main storage area for the project, the 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 360 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 locked when not in use.

A 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, local fire, police and medical facility numbers. Signage shall be posted on the lockable CSA.

**PART 4 DISPOSAL OF UNIVERSAL WASTE**

1. **TRANSPORTATION AND DISPOSAL**
2. The Contractor's Hauler and Disposal Facility shall be approved by the Owner. The Contractor is responsible for securing appropriate treatment or disposal for the generated Universal Waste streams at a permitted TSDF, if necessary, in compliance with all regulatory requirements, and for obtaining a copy of the waste manifest/shipping record and waste profile of the treated waste as executed by the TSDF.
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 may be taken 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 Universal Waste shipment removals and will be responsible for inspection of the waste shipment as well as signoff on the Universal Waste manifest/shipping record on behalf of the owner and DASNY to allow the Universal Waste shipment to leave the site.
4. All Universal Waste generated as part of the project shall be removed from the site within 10 calendar days after successful completion of work. However, all disposal facility permits/licenses, waste profiles, hauler permit(s), and all other necessary paperwork must be submitted and approved by the Environmental Consultant before the Universal Waste is removed from the site. Waste stream samples, if required, shall be collected by the Environmental Consultant for TCLP analysis and the results utilized by the Contractor for waste stream characterization and disposal determination.
5. Upon arrival at the Project Site, the Hauler must possess and present to the Environmental Consultant a valid NYSDEC Part 364 Waste Hauler's Permit. The Environmental Consultant may verify the authenticity of the hauler's permit with the proper authority.
6. The Hauler, with the Contractor and the Environmental Consultant, shall inspect all material in the transport container prior to taking possession and signing the Universal Waste Manifest/shipping record.

**4.02 WASTE SHIPMENT STORAGE CONTAINERS**

1. All waste shipment storage containers shall be fully enclosed and lockable (i.e. enclosed dumpster, trailer, etc.).
2. The Environmental Consultant shall verify that the waste shipment storage container and/or truck tags (license plates) match that listed on the NYSDEC Part 364 permit. Any waste shipment storage container and/or truck not listed on the permit shall be removed from the site immediately prior to storage of any material from the site.
3. 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.
4. While on-site, the waste shipment storage container shall be labeled with Universal Waste Labels.
5. The waste shipment storage container is not permitted to be loaded unless it is properly plasticized and has the appropriate danger signage affixed.
6. The Owner may initiate random checks at the Disposal Site to ensure that the procedures outlined herein are complied with.
7. **WASTE MANIFEST/SHIPMENT RECORDS & DISPOSAL DOCUMENTATION**
8. A Universal Waste Manifest/Shipping Record (UWMSR) shall be utilized solely as the waste record documentation for transportation. A hauler billing form or bill of lading may be used if the hauler needs an independent record, but it shall not be used as the sole shipping document.

1. The UWMSR 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.
2. The UWMSR, if applicable, shall have the appropriate signatures of the Owner’s Representative and the Hauler representative prior to any waste being removed from the site.
3. Copies of the UWMSR shall be retained by the Environmental Consultant and shall remain on-site for inspection.
4. 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 A).
5. Originals of all UWMSRs 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.
6. Payment for disposal of Universal Waste will not be made until a signed copy of the manifest/shipment record from the treatment or disposal facility certifying the amount of Universal Waste delivered is returned for each load of waste removed from site, the originals are furnished to the Owner, and fully executed copies provided to DASNY Code Compliance.
	* + - 1. Off-Site Shipment of Universal Waste

Off-Site shipments shall meet the requirements for off-site shipments and handlers / transporters are prohibited from sending or taking Universal Waste to a place other than a designated Universal Waste handler or a Universal Waste destination facility.

LQHs of Universal Waste must notify EPA in writing and develop an EPA identification number or coordinate with the facility regarding use of their EPA identification number, prior to exceeding 5,000 kilograms of Universal Waste on-site.

SQHs do not need to notify EPA, receive an EPA identification number or keep records of shipments of Universal Waste.

LQHs must keep a record of all Universal Waste shipments received or sent off-site and must retain those records for at least three (3) years from the date of receipt or shipment. Records may include invoices, manifest/shipment records, logs, bills of lading, or other shipping documents.

The Contractor shall provide certified copies of all receipts obtained from designated mercury recycling collection sites within 30 days of MCE acceptance by collection, as applicable.

The Contractor shall furnish all certified copies of manifest/shipment records (interim storage and final disposal) within regulatory requirements. Within 30 days from acceptance of the waste by the disposal facility, the Contractor shall provide the Owner with Certificate of Disposal documents, as a requirement for final payment.

END OF SECTION 02 87 00

APPENDIX A

WASTE DISPOSAL LOG

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| **DORMITORY AUTHORITY STATE OF NEW YORK** |
| **WASTE SHIPMENT RECORD LOG** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Facility Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  |  | **Building Name/Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
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| **Project Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  | **DASNY Project Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
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| **Contractor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  | **Environmental Consultant: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **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 \_\_\_\_\_\_** |

