**SECTION 010008X MANAGEMENT OF UNIVERSAL WASTES**

**PART 1- GENERAL**

**1.1 DESCRIPTION**

This item provides specifications for the characterization, handling, storage, transport, and disposal of universal wastes (UW) generated as a result of this construction contract. UWs are a class of hazardous waste which are subject to less stringent regulation than hazardous wastes. UW generated from construction projects at the Maryland Aviation Administration (MAA) properties may include mercury-containing equipment, batteries, mercury-containing lamps or bulbs, and fluorescent light ballasts that contain polychlorinated biphenyls (PCBs).

Examples of wastes which may fall under this category of UW include:

* Mercury-containing Lamps or Bulbs
	+ Fluorescent light tubes (FLTs)
	+ Compact fluorescent bulbs
	+ Neon lights
	+ High intensity lamps
	+ Sodium vapor lamps
* Mercury-containing Equipment
	+ Thermostats and thermometers
	+ Gas flow regulators
	+ Pressure or vacuum gauges (e.g. u-tube manumeters, barometers)
	+ Switches (e.g. tip switches in portable heaters, silent wall switches)
* Batteries
	+ Lead-acid batteries
	+ Nickel-cadmium batteries

The contractor must manage the UW generated under this contract per applicable federal and state regulations for small quantity-handlers of UW as described below. A small quantity-handler (SQH) of UW is defined as a universal waste handler that does not accumulate 5,000 kilograms or more of universal waste at any time during a calendar year.

State regulations pertinent to UW management within Maryland are found in the Code of Maryland Regulations 26.13.10. Management of UW includes, but is not limited to, the characterization, handling, storage, transport, and disposal of UW. The Contractor shall designate an employee to oversee the proper management of UW generated under this contract. All activities shall conform to the standards described in this specification and or as directed by the Engineer.

**1.2** **WASTE CHARACTERIZATION**

Contractors must properly characterize wastes prior to disposal in a manner that meets Federal and State regulations. Waste lamps, mercury-containing equipment, batteries, and PCB-containing ballasts characterized as hazardous waste must be managed as UW. Methods of characterization include the use of owner/generator knowledge and material analysis performed by a laboratory designed for such analyses. Either method may be used, but waste evaluations must be able to be substantiated. For construction waste, the use of owner/generator knowledge should be based on Material Safety Data Sheets which MAA may supply upon request or data from reliable sources regarding waste produced from similar activities. Material analyses require correct sampling procedures to be performed; therefore the Contractor shall communicate with a laboratory prior to sampling suspect hazardous waste materials for proper sampling techniques.

For suspect UW, the Contractor shall assume that suspect UW *is* UW and manage the waste in accordance with this specifications. In some cases, nonhazardous wastes may be labeled by the manufacturer as such. For example, most PCB-free ballasts are labeled “No PCBs” (all ballasts manufactured after 1978 do not contain PCBs). In most cases, however, suspect UW wastes do not contain manufacture content labels, such as FLTs. Since most FLTs do contain mercury in concentrations which require managing the FLTs as UW, contractors should assume that FLTs are UW and manage them as such. Other wastes, such as switches and gauges, should be analyzed before disposal.

**PART 2 – PRODCUTS**

Not Used.

**PART 3-** **CONSTRUCTION METHODS**

**3.1 HANDLING AND ACCUMULATION**

All UW must be handled and accumulated in such a manner as to prevent a release to the environment. Contractors shall use containers to store the waste which minimize the chances of a waste release and accumulate the waste in areas which reduce the chances of a release to the environment. Some UWs, such as bulbs, are fragile and require special care in handling and accumulation. For waste FLTs, a common storage technique is to immediately store the waste in sleeves within cardboard boxes or cylinders following the generation of the waste (i.e. removal from a light fixture). These containers must be large enough to fully protect all the FLTs in the container and have lids or other features that allow the containers to be closed when not in use. Generally, the following guidelines should be met when considering container types for UW:

* The container must be closed;
* The container must be structurally sound;
* The container must be compatible with the contents of the waste; and
* The container must lack evidence of leakage, spillage, or damage that could cause a release under reasonably foreseeable conditions.

Contractors must label or mark containers which contain UW or label or mark the waste per state regulations. To identify UW, a colored label is affixed typically to the container. State regulations require that the container be marked with one of three phrases:

* “Universal waste--*name of waste*”,
* “Waste *name of waste*”, or
* “Used *name of waste*”.

Additionally, the waste must be marked with the accumulation start date, or the date that the first waste was placed in the container.

The Contractor shall designate and clearly identify a specific location within the construction site to accumulate containers of UW. The location should be away from areas where construction activities occur which could damage UW, but easily accessible to the Contractors’ staff. When the Contractor expects to generate large quantities of UW from a construction project, the Contractor must coordinate with MAA’s Division of Environmental Compliance (DEC) thru the Engineer to identify proper accumulation areas and a timeline for disposal.

The Contractor may not accumulate wastes on MAA property longer than the Federal or State guidelines permit, or as directed by the Engineer, or beyond the date of the end of the Contract, whichever is shorter. Regulations require accumulation of UW no longer than one year after the accumulation start date (date that the first UW was placed in that container).

**3.2 RESPONSE TO RELEASE**

If a release to the environment occurs, the Contractor shall determine whether any of the material resulting from a release is a hazardous waste. If the material is a hazardous waste, the waste must be managed per hazardous waste (not universal waste) regulations. Should a release to the environment occur; the Contractor shall notify the Engineer and the Airport Operations Center (AOC) of the incident via telephone immediately and provide the following Information:

1. Location and time of incident
2. Name and/or type of material spilled or released
3. Amount and size of container(s) from which spill or release occurred
4. Dangerous properties of the material
5. Identification of personnel involved
6. Type of personal injuries, if any
7. Any actions taken to remediate the release

MAA will be responsible for notifying the Maryland Department of the Environment (MDE) of the release.  Contractor shall notify MAA’s DEC.

**3.3 TRANSPORT AND DISPOSAL**

The contractor must transport or ensure the transport of UW waste to a disposal or recycling facility in a manner which meets all Federal and State transportation guidelines for UW. Most hazardous waste haulers will accept UW. The Contractor is prohibited from processing, diluting or treating the waste on MAA‘s property.

Unlike hazardous waste, UW shipments do not need to have manifests completed prior to shipping—shipping papers, bills of lading, or similar documents identifying the transfer of waste from the Contractor to a waste hauler are approved forms of documentation. Shipping documents should have the following information on them:

* The name and address of the originating UW handler or foreign shipper from whom the UW was sent;
* The quantity of each type of UW received; and
* The date of receipt of the shipment of UW.

Once completed, the contractor must provide legible copies of shipping documents to the Engineer for submittal to the MAA’s Division of Environmental Compliance.

Waste haulers may use manifests to document waste transfer. In these cases, the Contractor shall provide the hauler with MAA’s Environmental Protection Agency Identification Number (EPA ID Number) for inclusion on all manifests.

* For wastes generated from BWI Marshall the Contractor must use the following identification number: MDD041354002.
* For wastes generated from MTN the Contractor must use the following identification number: MDD980918973.

When manifests are used, the Contractor must provide copies of the manifest to the Engineer upon receipt and copies of the signed returned manifest from the transport, storage, and disposal facility (TSDF) or other facility immediately upon receipt.

**3.4 TRAINING**

Contractors must communicate the management requirements and release response procedures described in this Section “Management of Universal Waste” to their employees who handle or have responsibility for managing universal waste. This communication should be documented.

**3.5 INSPECTION OF JOB SITES**

Federal, State and/orMAA representatives reserve the right to inspect contractors’ job site(s) to observe work practices associated with the requirements identified herein.

**PART 4 - METHOD OF MEASUREMENT**

No separate measurement will be made for work performed under this Specification Section.

**PART 5 - BASIS OF PAYMENT**

No separate payment will be made for work performed under this Specification Section. The cost of the work, complete in place, described in this Specification Section shall be included in the respective bid price under Item **XX-XXX** "Demolition". Costs include all labor, material, services, and equipment necessary to complete the work in every respect.

**END OF SECTION 010008X**

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