
SUBJECT:	Universal Waste	Number:	EHS-004
CATEGORY:	Universal Waste Management	Last Update:	01-17-2020
ISSUING OFFICE:	Environmental Health & Safety (EHS) Office	Revision Date:	02-26-2021

Universal Waste Management Program

DESCRIPTION

This program is designed to properly manage the universal waste generated at District facilities. Universal waste cannot be thrown in the trash, but must be handled separately in accordance with local, state, and federal regulations. For this program, universal waste includes:

- Batteries (rechargeable nickel-cadmium, silver button, small sealed lead acid, alkaline, carbon-zinc)
- Fluorescent lamps (4, 6, 8 ft. light tubes, compact fluorescents, other fluorescent lamps)
- Non-incandescent lamps (halogen, high intensity discharge, sodium vapor, projector lamps)

Electronics: Certain electronic devices are also considered universal waste. These materials are handled through the District Materiel Control & Procurement Unit, including computer monitors, televisions, cell phones, VCRs, computer CPUs, and portable DVD players. For more information contact, Materiel Control & Procurement Unit at (619) 725-7642.

LEGAL BASIS

This guideline has been established and maintained within the District for all employees to comply with requirements set forth in Chapter 23 of the California Code of Regulations, Title 22 known as Universal Waste Rule.

BATTERIES

Includes: rechargeable nickel-cadmium, silver buttons, small sealed lead acid, alkaline, carbon-zinc

- **9 volt or less:** Store in a bucket with a tight fitting lid.
 - Properly label with site name and accumulation start date (see Attachment A)
 - Empty buckets can be requested from the EHS Office via email safetyoffice@sandi.net
- **Rechargeable batteries:** Place in a separate box or container and label.
- **Small-sealed lead acid batteries:** Place in a separate box or container (with terminals taped) and label.



Refer to “Identification and Packaging Universal Wastes Guide at School/Facility Site” for further information on batteries (see Attachment E).

Storage: Keep all containers closed when not in use.

- Batteries cannot be stored on District property for longer than one year. This includes storage time at the Supply Center Warehouse prior to processing by the vendor.
- Request pick up every 6 months or so (summer and winter) to avoid going over the one year storage requirement.

Laptop Battery: If a laptop battery is damaged, this increases the risk of a fire during charging. If a laptop battery overheats or catches fire, immediately unplug and move the device away from flammable materials and place it on a non-combustible surface. Refer to “Laptop Battery Safety Factsheet” for proper procedures (see Attachment B).

LAMPS

Includes: 4, 6, 8 ft. light tubes, compact fluorescents, other fluorescent lamps, halogen, high intensity discharge, sodium vapor, projector lamps.

- **Fluorescent tubes (all sizes):** Store spent tubes in either the original boxes they came in or boxes requested.
 - Properly label with site name and accumulation start date (see Attachment C)
 - Empty boxes can be requested from the EHS Office via email safetyoffice@sandi.net
- **Non-incandescent lamps:** Place in a separate box and label.



Refer to “Identification and Packaging Universal Wastes Guide at School/Facility Site” for further information on lamps (see Attachment E).

Storage: Keep all containers closed when not in use.

- Never store spent lamps in a manner that can cause them to break.
- Lamps cannot be stored on District property for longer than one year. This includes storage time at the Supply Center Warehouse prior to processing by the vendor.
- Request pick up every 6 months or so (summer and winter) to avoid going over the one year storage requirement.
- Full boxes of lamps are preferred for pick up, however if boxes are not full, stuff crumpled paper in the box to prevent rattling and potential breakage during transport.
- Tape boxes closed.

Breakage: If lamp breakage should occur at your site, broken glass and lamp constituents must be cleaned up immediately and secured in an airtight container. Refer to “How to Manage Broken Lamps Factsheet” for proper procedures (see Attachment D).

PICK-UP REQUEST PROCEDURES

1. When your containers have been stored for six months or more, request for removal from the EHS Office via email safetyoffice@sandi.net.

PLEASE NOTE: The only method for submitting removal requests is via email. Any requests submitted by any other means will not be processed for removal.

When making a removal request, always provide the following information:

- The type and amount of material for pick up (i.e. 2 boxes of lamps and 1 battery bucket)
 - Location of the universal waste if other than the custodial supply room.
 - Any replacement containers needed, if any (i.e. Need 2 empty lamp boxes and 1 empty battery bucket)
2. The EHS Office will notify the Warehouse & Distribution staff about your request by submitting a Universal Waste Service Request & Tracking Document. You will receive an e-mail copy of this document for your records.
 3. The Warehouse & Distribution staff will remove your universal waste filled-containers and deliver empty containers, if requested.

ATTACHMENTS

- A- Universal Waste Batteries Label
- B- Laptop Battery Safety Factsheet
- C- Universal Waste Lamps Label
- D- Broken Lamp Management Factsheet
- E- Identification and Packaging Universal Waste Guide at School/Facility Site

If you have questions or comments about these guidelines, please contact
Environmental Health & Safety (EHS) Office
(858) 627-7174

San Diego Unified School District reserves the right to make exceptions to, modify or eliminate this guideline and or its content. This document supersedes all previous guidelines relative to this subject.

ATTACHMENT A- Universal Waste Batteries Label

Place this label on all containers used to store batteries.

UNIVERSAL WASTE BATTERIES

INCLUDING
RECHARGEABLE NICKEL CADMIUM
SILVER BUTTON, MERCURY
SMALL SEALED LEAD ACID BATTERIES
ALKALINE, CARBON ZINC

SITE NAME: _____

ACCUMULATION START DATE*: _____

*Date the first item is placed in this container

Keep container closed when not in use
Request pickup at least every 6 months (even if bucket is not full)

For pickup requests, send by email only to:
Environmental Health & Safety (EHS) Office
safetyoffice@sandi.net

IN CASE OF AN EMERGENCY
DURING SCHOOL HOURS, CONTACT EHS OFFICE AT (858) 627-7174
AFTER-HOURS EMERGENCIES, CALL SCHOOL POLICE AT (619) 291-7678

ATTACHMENT B- Laptop Battery Safety Factsheet**LAPTOP BATTERY SAFETY**

A damaged or faulty laptop battery has a potential to start a fire. Periodically check your computer's battery for potential warning signs and observe the following:

- Do not leave your computer plugged in and sitting on a combustible surface, such as a paper-cluttered desk. If so, it is suggested that you unplug your laptop, when not in use and place it on a desk clear of combustible materials.
- Make sure the computer power cord is not damaged; it can emit small electrical sparks that can start a fire. If damaged, unplug the power cord immediately and contact the IT helpdesk.
- Do not block the laptop's fan and air vents when using it.
- Avoid placing the laptop on surfaces where dirt, dust, or lint are present.
- In case of a battery or electrical fire: **DO NOT USE WATER!** Use a Class ABC multipurpose (dry chemical) fire extinguisher.
- Use only Underwriter's Laboratory (UL) approved surge protectors with computer equipment.
- Never piggyback power cords.
- A battery that is swelling without any other signs (such as excessive heat and/or smoking) does not usually pose an immediate threat. Discontinue using the device and unplug. Report it to IT helpdesk to have the battery replaced.

In Case of Fire

First, report the fire to site administration. If it is safe, do the following:

- Unplug the laptop if it is charging
- Move the laptop away from people and things that can burn

DO NOT USE WATER! Use a Class ABC multipurpose (dry chemical) fire extinguisher. If the fire cannot be safely extinguished, evacuate and call 911.

ATTACHMENT C- Universal Waste Lamps Label

Place this label on all containers used to store lamps.

UNIVERSAL WASTE LAMPS

INCLUDING
FLUORESCENT TUBES
HIGH INTENSITY DISCHARGE LAMPS
SODIUM VAPOR LAMPS

DOES NOT INCLUDE INCANDESCENT LIGHT BULBS

SITE NAME: _____

ACCUMULATION START DATE*: _____

*Date the first item is placed in this container

Keep containers closed when not in use

Call for pickup at least every 6 months (even if box is not full)

If box is not full, stuff crumpled paper in box to eliminate accidental breakage during transport

For pickup requests, send by email only to:

Environmental Health & Safety (EHS) Office

safetyoffice@sandi.net

IN CASE OF AN EMERGENCY

DURING SCHOOL HOURS, CONTACT EHS OFFICE AT (858) 627-7174

AFTER-HOURS EMERGENCIES, CALL SCHOOL POLICE AT (619) 291-7678







ATTACHMENT D- Broken Lamp Management Factsheet**HOW TO MANAGE BROKEN LAMPS**

If one or two lamps accidentally break, follow these instructions for cleanup and then ship them with the rest of your lamps. If you have a major breakage (more than 2 lamps), do not clean them up. Contact the Environmental Health & Safety (EHS) Office for guidance at (858) 627-7174. For after hour emergencies, contact School Police at (619) 291-7678.



- Secure the area from staff, students and others. Open a window before cleaning up and turn off any forced-air heating or air conditioning.
- Carefully sweep up the debris with a small broom or whisk broom, sweeping gently to avoid suspending the phosphor powder in the air.
 - Use personal protective equipment (PPE) such as gloves, goggles and particle masks for your safety.
 - Never use a vacuum. Vacuuming will disperse the mercury/phosphor powder causing further contamination that will require additional clean up.
 - Use sticky tape to pick up the remaining glass fragments or powder.
 - Wipe the area with a damp paper towel or wet wipes.
- Place the debris in an airtight container such as Ziploc bag, jar or a pail with a tight fitting lid and label it.
 - The container can then be placed in a larger container such as a cardboard box for temporary storage.
 - A five-gallon HazWaste bucket with a tight fitting lid can be obtained at no cost by contacting the EHS Office.
 - Place any contaminated clothing or PPE in a sealable plastic bag and discard it in the trash.
 - Wash your hands. Wipe off the bottoms of your shoes using a damp paper towel to remove any potential residues.
- Make sure the container is labeled with the following information:
 - Universal Waste**
 - Accidentally broken mercury lamps**
 - Date of Accumulation _____**
- The broken lamps can be safely stored with the intact spent lamps and shipped to the warehouse when necessary.
- **DO NOT STORE UNIVERSAL WASTE LONGER THAN ONE YEAR**






ATTACHMENT E- Identification and Packaging Universal Wastes Guide at School/Facility Site


This document is a supplement to the Universal Waste Management Procedures for the identification of batteries and lamps appropriate for disposal as Universal Waste. It provides minimum requirements for packaging these universal wastes for shipment off-site.


Universal Waste Category	Example	Type/ Characteristics	Description and Application	Packaging
BATTERIES	 	Alkaline	Alkaline battery is a dry cell primary battery with alkaline electrolyte of potassium hydroxide, and its energy generated via the reaction between zinc metal and manganese oxide. Alkaline batteries are used in many household items such as MP3 players, CD players, digital cameras, toys, lights, and radios to name a few. Commonly known as AA, AAA, C, and D batteries.	<p>9 VOLT OR LESS BATTERIES: Step 1 - Place each battery into a sturdy container designated for used batteries (<i>use the 5-gallon pail provided by the District EHS Office</i>).</p> 
	 	Lithium (Li)	Li battery is primary battery, which contains lithium metal and are favored for items where extended battery life is vital, such as pacemakers, watches, hearing aids, remote control toys, remotes in general, digital cameras, calculators, and smoke detectors.	<p>Step 2 – Close and label the container as Universal Waste-Batteries (<i>use the District pre-made label</i>), include site name and date the waste was first generated.</p>
		Zinc-Carbon	Zinc-Carbon battery is a dry cell primary battery that provides direct electric current from the electrochemical reaction between zinc and manganese dioxide. It is suitable for low current drain devices such as radios, toys and low power torches.	<p>Step 3 - Recycle through the District EHS Office within one year of being generated. Request at safetyoffice@sandi.net</p> <p>RECHARGEABLE BATTERIES are placed in a separate container.</p>

Universal Waste Category	Example	Type/ Characteristics	Description and Application	Packaging
		<p>Nickle-Cadmium (NiCd or NiCad)</p>	<p>NiCad is a type of rechargeable battery using nickel oxide hydroxide and metallic cadmium as electrodes. NiCad batteries are widely used in portable power tools, photography equipment, and flashlight. Larger ventilated wet cell NiCad batteries are used in emergency lighting, standby power, and other applications.</p>	<p>SSLA/Pb BATTERIES are placed in a separate container. Step 1 - Tape each terminal with plastic non-conductive tape (<i>scotch tape or electrical tape</i>) to prevent the possibility of spark.</p>
		<p>Nickle Metal Hydride (Ni-MH)</p>	<p>Ni-MH is a type of rechargeable battery, essentially an extension of the proven sealed nickel-cadmium battery technology with the substitution of a hydrogen-absorbing negative electrode for the cadmium-based electrode and often used in high-end portable electronic products such as digital cameras and other high drain devices.</p>	 
		<p>Small Sealed Lead-Acid (SSLA/Pb)</p>	<p>SSLA/Pb batteries are rechargeable batteries, also known as valve-regulated lead acid batteries (VRLA), which are sealed against spilling or loss of electrolyte when operated, and controlled generation of gas within the battery. These are widely used for storage in backup power supplies in cell phone towers and stand-alone power systems. IMPORTANT: This is not automotive (car) lead-acid battery!</p>	<p>Step 2 - Place it into a sturdy container (<i>use the 5-gallon pail provided by the District EHS Office</i>).</p> 

Universal Waste Category	Example	Type/ Characteristics	Description and Application	Packaging
		<p>Lithium Ion (Li-Ion)</p>	<p>Li-Ion is a type of rechargeable battery and works by the movement of lithium ions through a membrane. Li-Ion batteries are used in portable consumer electronic devices.</p>	<p>For larger size dimension, place each battery either into its original shipping box, or into any sturdy cardboard box.</p>  <p>Step 3 – Close and label the container or box as Universal Waste-Batteries (use the District pre-made label), include site name and date the waste was first generated.</p> <p>Step 4 - Recycle through the District EHS Office within one year of being generated. Request at safetyoffice@sandi.net</p>

Universal Waste Category	Example	Type/ Characteristics	Description and Application	Packaging
<p>LAMPS</p>		<p>Straight or Compact Fluorescent Lamp/Tube</p>	<p>A fluorescent lamp or a fluorescent tube is a low-pressure mercury-vapor gas-discharge lamp that uses fluorescence to produce visible light.</p>	<p>Step 1 - Place each used lamp into a sturdy box or container designated for used lamps (<i>use either the original shipping box or the box provided by the District EHS Office</i>).</p> 
		<p>High Intensity Discharge (HID) Lamp</p>	<p>A HID Lamp is a type of electrical gas-discharge lamp which produces light by means of an electric arc between tungsten electrodes housed inside a translucent or transparent fused quartz or fused alumina arc tube.</p>	<p>Step 2 – Close and label the box or container as Universal Waste-Lamps (<i>use the District pre-made label</i>), include site name and date the waste was first generated.</p> 
		<p>Neon</p>	<p>A neon lamp is a miniature gas-discharge lamp. The lamp typically consists of a small glass capsule that contains a mixture of neon and other gases at a low pressure and two electrodes (an anode and a cathode). When sufficient voltage is applied and sufficient current is supplied between the electrodes, the lamp produces a glow discharge.</p>	<p>Step 3 - Recycle through the District EHS Office within one year of being generated. Request at safetyoffice@sandi.net</p>

Universal Waste Category	Example	Type/ Characteristics	Description and Application	Packaging
		Ultraviolet (UV)	UV lamps are specialized lights such as mercury-vapor lamps, tanning lamps, and black lights. Although lacking the energy to ionize atoms, long-wavelength ultraviolet radiation can cause chemical reactions, and causes many substances to glow or fluoresce.	
		Mercury Vapor	A mercury-vapor lamp is a gas-discharge lamp that uses an electric arc through vaporized mercury to produce light. Mercury vapor lamps are more energy efficient than incandescent bulbs.	
		High Pressure Sodium (HPS)	High-pressure sodium lamps (sometimes called HPS lights) are commonly used as plant grow lights. They have also been widely used for outdoor area lighting such as streetlights.	
		Metal Halide	A metal-halide lamp is an electric lamp that produces light by an electric arc through a gaseous mixture of vaporized mercury and metal halides.	

Universal Waste Category	Example	Type/ Characteristics	Description and Application	Packaging
	 <p>The image shows four different styles of LED lamps. From left to right: a standard A19 screw-in bulb, a can-style recessed bulb, a flood-style bulb with a wider beam, and a globe-style bulb with a visible filament-like structure inside. Each lamp is labeled with its respective name below it.</p>	<p>LED Lamp</p>	<p>An LED lamp is a light-emitting diode (LED) product, which is assembled into a lamp (or light bulb) for use in lighting fixtures. LED is a “solid-state” technology, which means that the materials used to generate the light are encased within a solid material.</p>	