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Title: Leaking Lead Battery	Date: 10/11/2024
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I. PURPOSE

This plan establishes a standardized way to handle, store and dispose of large car-sized leaking batteries, like the ones used for automobiles and autoscrubbers, generated on campus.

II. RESPONSE PERSONNEL

Facilities Custodial staff and Zone Mechanics are the primary responders to remove and replace leaking lead batteries.

III. RESPONSE TIME

Because sulfuric acid is a health and physical hazard and may cause burns and start fires, leaking batteries should be dealt with Immediately.

IV. HEALTH HAZARDS

The electrolyte solution in lead acid batteries contains sulfuric acid, which is highly corrosive and can cause severe chemical burns to the skin and can damage the eyes. The solution is also poisonous if ingested. In addition, overcharging a lead acid battery can produce hydrogen sulfide gas, which is an explosion hazard.

Exposure to hydrogen sulfide may cause irritation to the eyes and respiratory system. It can also cause apnea, coma, convulsions; dizziness, headache, weakness, irritability, insomnia; stomach upset, and if liquid: frostbite.

None, if wearing sufficient PPE (nitrile gloves, googles, sleeves/apron)

V. PROPER PROCEDURE/STEPS:

- 1. If the battery casing is cracked or leaking, it is not in good condition and the battery must be handled as "hazardous waste."
- Fully complete a "Hazardous Waste Tag", provided from EHS, for the leaking battery. The completed tag shall have the following information filled in:

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- a. Print Your Name.
- b. Building & Room No.
- c. Your Phone Number.
- d. Total Amount in Container: "1 Large Leaking Lead Battery."
- e. Container size...i.e., "20-gallon Polyethylene Salvage Drum," with a slotted screw type lid.
- f. Check one: Solid___Liquid_X_Gas___. If the battery is leaking; the liquid is the hazardous waste, presumed to be sulfuric acid, so check "Liquid."
- g. Chemical Composition. List full name of each chemical: i.e., "Lead battery acid, Hazardous Waste (D002, D008)".
- h. Check if applicable: Ignitable? Corrosive? Toxic? Oxidizer? Reactive/Explosive? Pesticide? Irritant? pH? Check one or more if applicable. For lead battery acid, the options selected would be "Corrosive", "Irritant", and "Toxic".
- i. Your signature.
- i. The date.
- 3. Place scotch, painter's, packing, or electrical tape over the terminals if they are exposed.
- 4. Place the battery in a 20-gallon Polyethylene salvage drum. There are 2 drums stored in Central Storage ("B" side) in the "caged" storage area with the spare fire extinguishers. Please contact EHS for access to the storage "cage". The salvage drums have screw-on lids that must be utilized.
- 5. Please requisition the drum from Central Stores. Bring the 20-gallon salvage drum to the location of the leaking battery, and place it in salvage drum. Leave drum at location.
- 6. Tape the completed "Hazardous Waste Tag" to the outside of the drum.
- 7. Contact EHS immediately for removal. If a leaking battery is discovered during evening, weekend, or holiday hours—please place the sealed salvage drum in your storage area and notify EHS of its whereabouts.
- 8. EHS will move the container to the Hazardous Waste Central Storage Building.
- 9. EHS will take all the information from the Hazardous Waste Tag, and the weight and place this information on the "Hazardous Waste Generation Form." The hazardous waste from the leaking acid battery, along with all the other waste in the Central Storage building will be taken away for disposal by an outside vendor.

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VI. PERSONAL PROTECTIVE EQUIPMENT & CLEAN UP EQUIPMENT

- Nitrile gloves
- Absorbent material such as spill pads or pigs would be put into drum after clean-up activities are completed.
- Clean towels and mops should be doused with water & disposed of in the trash.

VII. CLEAN UP PROCEDURE

Evaluate how big the spill or leakage—if any--is (or may become) and take actions to contain the spill in the smallest area possible, cordon off the area with caution tape and cones to prevent unauthorized entry. If more staff assistance is needed, make the call. If possible, prevent the spill from entering a **drain**.

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VIII. EXPOSURE AND FIRST AID

If you believe that battery acid has come into direct contact with your eyes, nose, mouth, or a cut, abrasion, puncture etc., immediately and thoroughly wash the exposed area with copious amounts of soap and water and seek medical care. Work with supervisors to complete an accident report.