

Hazardous Waste Management Standard Operating Procedure

FACILITIES SERVICES

DESIGNATION

Designation is the process of determining whether a waste is regulated under WAC 173-303 and if so, what waste codes apply to it. See Master Forms List for the Designation Checklist form.

Facilities Services (FS) regularly generates certain wastes, the designation of which is listed below. Designation occasionally needs to be done for 'clean out' items. This will be done by the Hazardous Waste and Academic Safety Manager (HWASM), as needed, at the request of Facilities Services. Such items may be accumulated in Robinson 145 rather than in Facilities Services accumulation areas.

Waste Stream	Contact	Designation
Bulbs	Electrician/Electrician Assistant	Universal Waste
Mercury containing thermostats	HVAC technician	Universal Waste
Used Oil	Auto Shop Manager	Special Waste: Used Oil (no PCB content, low halogen content). Handled according to WAC 173-303-515
Spent Antifreeze	Auto Shop Manager	Special waste handled according to WAC 173-303-522
Batteries	Warehouse Manager	Universal Waste
Ballasts	Electrician/Electrician Assistant	Depends on PCB content. See below for more information
HVAC oil	HVAC technician	Dangerous Waste – Toxic
Paint (Latex/water based)	Paint Shop Manager	Non-hazardous
Paint (spray paint in cans)	Paint Shop Manager	Dangerous Waste – Flammable & Toxic
Used Refrigerants: Chlorofluorocarbons (CFCs) & Hydrochlorofluorocarbons (HCFCs)	HVAC technician	Special waste recycled and handled according to WAC 173-303-506. See below for more information

SATELLITE ACCUMULATION

Satellite Accumulation is a location at or near the point of waste generation where hazardous waste is initially accumulated prior to consolidation at the 180/90 day accumulation area.

Designated maintenance areas and vehicles belonging to the various Facilities Services departments that manage the listed waste streams are satellite accumulation areas. Facilities personnel are responsible to ensure that these areas are secured in such a way that improper addition of waste is prevented. When satellite accumulation containers are full, they are moved to the appropriate long-term accumulation area within 3 days.

180/90 DAY ACCUMULATION

180/90 day accumulation areas are places where waste is kept once it is removed from satellite accumulation and is awaiting shipment for treatment and disposal.

Each waste stream has a designated accumulation area. These areas are listed in the chart below. Individual departments and generating employees are responsible to ensure that the waste under their control is placed in the proper universal waste or 180 day waste accumulation area. These areas must also be secured in such a way to prevent the improper addition of waste.

Waste Stream	Accumulation Area Location
Bulbs	Recycling shed
Mercury Containing Devices	Robinson 145
Used Oil	Auto shop waste room
Spent Antifreeze	Auto shop waste room
Batteries	Warehouse
Ballasts	Recycling shed
HVAC oil	Auto shop waste room
Used Refrigerant	HVAC shop
Paint (spray paint in cans)	Small grounds shed (puncture station and full can collection)

INSPECTIONS

Weekly inspection of all containers in 180/90 day accumulation areas is required by WAC 173-303-630(6). Inspections must include the integrity of containers as well as accuracy and completeness of labels.

Each 180/90 day accumulation area will be inspected weekly by the appropriate department contact person listed below. The inspector shall ensure that each container in their area is in good condition, closed and properly labeled. Inspectors shall also note the full date of containers in order to ensure that no waste is accumulated longer than allowed.

Accumulation Area Location	Inspector
Auto shop waste room	Mechanic
Small grounds shed (puncture station and full can collection)	Paint Shop Manager or Groundskeeper
Recycling shed	Universal waste only – not inspected weekly
Warehouse	Universal waste only – not inspected weekly
HVAC shop	Special rules for refrigerants – not inspected weekly

WASTE DISPOSAL

Periodically the HWASM arranges for disposal of these waste streams. The HWASM will contact the various department and responsible individuals to arrange a mutually agreeable time. In addition, the waste stream inspectors are responsible to contact the HWASM and request disposal when containers are full or accumulation time limits are being approached.

INSTRUCTIONS FOR SPECIFIC WASTE STREAMS

Fluorescent tubes:

Fluorescent tubes are collected intact for disposal under Washington State Department of Ecology Universal Waste rules. Tubes are placed either back in their original boxes or in large drums provided by our waste management service. These will only accommodate straight tubes. Label these containers: "Universal Waste - Lamps: Fluorescent, straight" and record the accumulation start date.

Non-straight fluorescent tubes should be packed carefully into cardboard boxes or buckets. These boxes should be labeled "Universal Waste - Lamps: Fluorescent, non-straight" and record the accumulation start date as well as the number of bulbs in the box. Keeping a tally on the outside as bulbs are placed in the box is acceptable.

Compact fluorescent bulbs:

Pack these bulbs securely into cardboard boxes or buckets. Pin based and spiral based can be packed together. Clearly label the container "Universal Waste -Lamps: Compact Fluorescent bulbs" and have an accumulation start date as well as the number of bulbs in the box.

High-Intensity Discharge Lamps (HID's)

Metal halide and high-pressure sodium bulbs can be packaged together into cardboard boxes in the same manner as the compact fluorescents. Any bulbs that are considered "shatter shield" will need to be packed separate from the rest. Clearly label the box "Universal Waste – lamps: H.I.D. bulbs" with an accumulation start date and the number of bulbs in the box.

PCB ballasts:

Remove any extra wires and pack into a plastic drum or bucket. These ballasts are dangerous waste. Label the container: "Dangerous Waste: PCB containing ballasts". Record an accumulation start date and either the word "toxic" or the toxic DOT label.

Non-PCB containing ballasts:

Ballasts that contain DEHP: Remove any extra wires and place in a plastic drum or bucket. These ballasts are considered dangerous waste and may not be disposed of in the garbage. We do not currently anticipate the generation of this type of ballast, but if it occurs, Facilities personnel are to consult with the HWASM and our current waste vendor for specific packaging instructions.

Ballasts with electronic circuit boards: These ballasts contain substances that can be harmful to our environment although they are not yet regulated as dangerous waste. These ballasts will be sent for recycling. Remove all extra wires and pack them in plastic buckets or sturdy cardboard boxes. Label each one clearly "Electronic ballasts for recycling".

Batteries:

All batteries need to be separated and packaged according to our current waste vendor's protocols. In general, the various types of batteries should be separate – lead acid, Ni/Cad, lithium and alkaline. Lithium batteries must be taped to prevent reaction during transportation. Car batteries and

similar lead acid batteries are taken to a local recycler. The main battery accumulation area is in the Facilities Services Warehouse. Small battery collection areas listed below are emptied 2 times per year and brought to the main battery accumulation area in Facilities Services to be combined prior to disposal. All containers are to be labeled "Universal Waste – batteries: *type of battery*" with an accumulation start date. All containers must be closed.

Main collection area – Facilities Services Warehouse

Small collection locations:

Robinson – chemistry equipment stockroom – room 340

Johnston – all three floors near the recycling bins

Lied Art – 1st floor computer lab, 2nd floor main office

Cowles Auditorium – office of the Theatre Program Assistant

Spent Antifreeze:

Spent Antifreeze is generated in the auto shop. It is collected and managed under special rules found at WAC 173-303-522. Under these rules, there is no accumulation time limit; however, it is good practice to put an accumulation start date on the label.

Used Oil:

Our used oil is handled in compliance with the used oil regulations. This is similar to the relaxed Universal Waste rules, but used oil is not a Universal Waste. Our current process is to have the oil pumped and removed by Emerald Services. They prefer to pick up a minimum quantity of two drums to pump per stop. Used oil containers are to be labeled "Used Oil" with an accumulation start date.

Mercury Containing Thermostats:

Mercury containing thermostats are to be brought to Robinson 145 and placed in the mercury containing device collection container. Coordinate with the HWASM.

Used Refrigerant Oil:

A 5-gallon satellite accumulation container is kept in the HVAC shop labeled "Dangerous Waste: Used refrigerant oil containing CFC and or HCFCs. Toxic" with an accumulation start date. Once this satellite accumulation container is full, it is moved to the waste storage room near the auto shop to await disposal.

Refrigerants:

CFCs and HCFCs are not to be discharged into the environment. Such discharge is illegal, constitutes 'disposal without a permit', and would make us subject to all of the consequences thereof. If CFCs and HCFCs are not reclaimed or recycled per the requirements below, they are considered dangerous waste and handled according to the full requirements of Whitworth's Dangerous Waste Management Program.

- 1) Records must be kept of every reclamation/recycle. These records must include:
 - a. The date of shipment off-site

- b. The quantity by weight, per shipment.
- c. The percentage of the total CFC or HCFC amount that waste reclaimed or recycled per shipment and the manner of disposal for the remaining CFCs/HCFCs.
- d. The dates of reclamation/recycling
- e. For shipments off-site, the generator must obtain a signed document from the reclamation facility certifying the information listed in a-d above.
- f. For CFCs/HCFCs reclaimed on-site the recordkeeping, requirements are the same as listed above in a-d and should be kept by reclamation batch.

SOP EVALUATION AND REVISION

The Facilities Services waste management SOP is evaluated annually by the HWASM and the Director of Facilities Services to ensure it is effective in practice and that it complies with all applicable regulations. Revisions are made in consultation with university's safety personnel.

REVIEWED BY:

Safety:	August Weil	Date: Dec 10, 2018
Facilities Services Director:	Christopher Eichorst	Date: Nov 7, 2018

APPROVAL

Dean of the College of Arts & Sciences:	Noelle Wiersma	Date: Dec 3, 2018
Hazardous Waste & Academic Safety Manager:	Joy Diaz	Date: Nov 7, 2018