Off-Campus Resources

Description

The University of Florida operates numerous clinics, research laboratories, working farms and education centers which are physically separate from the main campus. Though they are supported by the University of Florida and the division of Environmental Health & Safety, they do not enjoy the convenient level of waste management assistance available to the main campus. Off-campus faculty and staff have the same basic waste management responsibilities as the UF main campus, but they must also consider larger compliance issues. The information provided here is meant to assist off-campus facilities in managing the most common regulated wastes. For all other regulated waste management questions reach out to EH&S at (352) 392-8400 or e-mail us at the Hazardous Waste Management General Mailbox.

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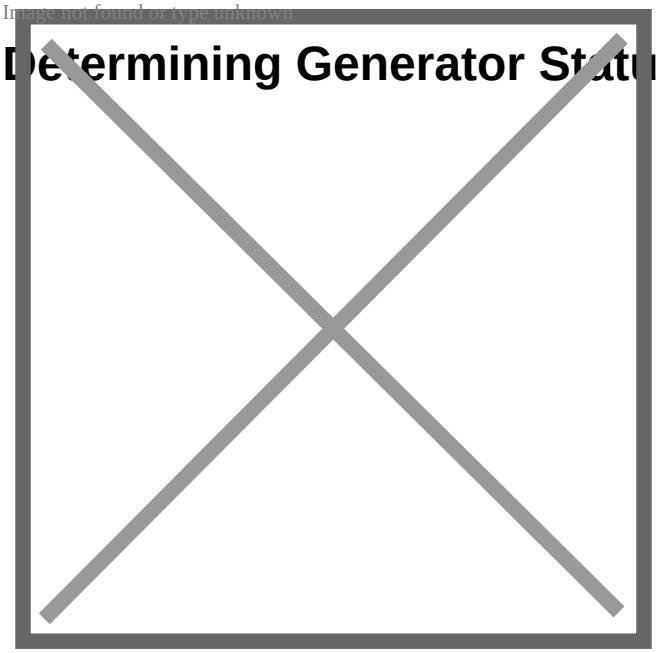
Determining Generator Status and Requirements



Generator status is based on waste generation rate and

accumulation. The rate is determined by the amount of waste (kg) generated per month. This value must include the Central Accumulation area and all waste in Satellite accumulation areas for all operations at the facility. The total amount of waste accumulated is the amount accumulated in the central accumulation area. The chart below lists the generator levels and the limits/thresholds for each.

Generator Status	Waste Generated/ month	Acute Waste Generated/ M
Very Small Quantity Generator	< 100 kg	<1kg
Small Quantity Generator	>100kg and <1000kg	<1kg
Large Quantity Generator	>1000kg	>1kg

At each level there are associated regulatory requirements. These are described in the Off-Campus Generator Requirements.

Large Quantity Generator (LQG)

Contact EHS if you are getting close to becoming a Large Quantity Generator (LQG) (352)-392-8400.

Small Quantity Generator (SQG)

Small Quantity Generators have some further regulations that need to be followed. Small quantity generators must accumulate less than 1000kg/month and less than 1kg/qt of acute hazardous waste and must not exceed 6000kg within the 180 accumulation window and:

- Must make an attempt to make arrangements with the following local authorities:
  - Police Department
  - Fire Department
  - Emergency Response Contractors
  - Local Hospitals
- The attempted arrangements must include:
  - Facility Layout
  - Types and Location of Wastes and Waste production
  - Facility Access and Egress
  - Location of personnel working areas
- The Attempted Arrangements must be documented
- SQGs must have an Emergency Coordinator on the premises or on call at all times
- Anywhere there is waste there must be the following posted:
  - Name and phone number of the Emergency Coordinator
  - Phone Number to the local Fire Department
  - Map of Facility with Locations of Fire extinguishers, spill control material, and fire alarm (if present)
- Hazardous waste containers must be dated when transferred to the central accumulation area and inspected at least weekly thereafter (see CAA Weekly Container Inspection Log).
- All Employees must be trained in proper waste handling and emergency procedure relevant to their responsibilities

- Small Quantity Generators must use the Universal Hazardous Waste Manifest and Land Disposal Restriction

Very Small Quantity Generator (VSQG)

Most UF off-campus facilities will fall under this category. **Very small quantity generators have the least amount of regulations to follow.** There is no time limit for how long VSQGs can keep their hazardous waste as long as the total is below the 1000kg of hazardous waste and 1kg of acute waste. UF Environmental Health and Safety recommends waste be removed at least annually.

- Hazardous waste containers MUST have the words “Hazardous Waste” and an indication of the hazards present (i.e. Flammable, Corrosive, Toxic, Reactive, Oxidizer)
- Must have <1000kg total hazardous waste and <1kg/ qt of P-listed waste
- Containers must be labeled with constituents and approximate percentages of each
- Containers must be closed unless adding waste
- Incompatible waste must be segregated
- Accumulation Areas must be prepared for emergencies with:
    - Adequate Aisle Space and Access to Waste
    - Communication Device (Telephone or Two-Way Radio)
    - Fire Alarm
    - Fire Extinguisher
    - Spill Kit

Episodic generation

Recently, the EPA passed the RCRA improvements rule and it allows for VSQGs and SQGs to once a year dispose of LQG amounts of waste while retaining their lower generator status. If you think your facility could use this rule to dispose of excess inventory contact UF Environmental Health and Safety at (352) 392-8400.

Responsibilities

Each off-campus facility will have faculty, staff, and students, many of which will be creating or managing hazardous waste. Any person dealing with hazardous waste must be knowledgeable on their role in the process. There will be a few people that will need to have a higher understanding of the rules and regulations governing hazardous waste. Each facility will need a facility wide hazardous waste manager who will be in charge of the overall waste program. Also, all labs and shops will need to have a waste manager to manage their area. Below you can see a list of the duties for each.

Facility Director /Hazardous Waste Manager

- Complete Facility Managers Hazardous Waste Training
- Manage Central Accumulation Area
- Act as a point of contact to inspectors, disposal vendors and UF EH&S
- Audit each process for the presence of hazardous chemicals
- Identify all waste streams

- Document the waste determination process
- Keep records of any testing or other basis for the waste determination
- Keep complete detailed records of waste determinations and disposal
- Perform periodic reviews of the waste management program

Waste Manager

- Complete hazardous waste training for off campus laboratory and maintenance staff
- Ensure all lab staff have completed hazardous waste management training
- Make an accurate hazardous waste determination on each waste stream
- Ensure all hazardous waste container have the words Hazardous Waste and an indication of the hazard(flammable, corrosive, oxidizer, reactive, toxic)
- Label all containers accurately
- Close, segregate, and accumulate all hazardous waste near the point of generation
- Know where all emergency equipment is and maintain adequate aisle space within SAA

Staff and Students

- Complete hazardous waste training for off campus laboratory and maintenance staff
- Label all containers accurately
- Close, segregate, and accumulate all hazardous waste near the point of generation
- Know where all emergency equipment is and maintain adequate aisle space within SAA

Types of Regulated Waste

Hazardous Waste

Hazardous Waste requires the most effort of all regulated wastes to manage. Follow the steps below to manage hazardous waste properly at off-campus locations. Contact EH&S Hazardous Waste Management by using the Hazardous Waste Management General Mailbox or by calling (352) 392-8400

Waste Determination

Making a hazardous waste determination is a critical requirement under the federal and state waste rules and is something the regulators focus on with each inspection. Waste determinations involve answering three basic questions:

1) Is the material a waste?

2) Does it exhibit an EPA Characteristic?

3) Is it an EPA Listed waste?

If the material is a waste and you answered YES to either of the other questions, it must be managed as a hazardous waste. Determinations are based on waste chemical content and process knowledge of the generator. A proper hazardous waste determination is the basis for correctly completing the hazardous waste label. Contact EH&S for assistance with making a proper waste determination. You can use the Waste Determinaiton Process Poster 2020 for general guidance.

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Labeling

HW Label Poster 2021

- All Hazardous waste must be labeled and include the following
    1. **“Hazardous Waste”**
    2. **Indication of Hazard (check all hazards present-must match content)**
    3. **Chemical Constituents (% must add up to 100 prior to collection)**
    4. **Generator and Location Information (P.I./Bldg/Room #)**
- Unwanted/Unusable original product must be labeled if Hazardous Waste
- Non-Hazardous original products Do Not require additional labeling
- Request Hazardous Waste Labels using the link or by calling 352-392-8400
- You may generate custom labels using the templates below:

Resources

Blank Hazardous Waste Label (fillable PDF)
Blank Hazardous Waste Label

Hazardous Waste Accumulation

At off-campus facilities waste accumulation occurs at two levels: Satellite Accumulation and Central Accumulation

- Hazardous Waste Satellite Accumulation Area Requirements 2022 – Off-Campus

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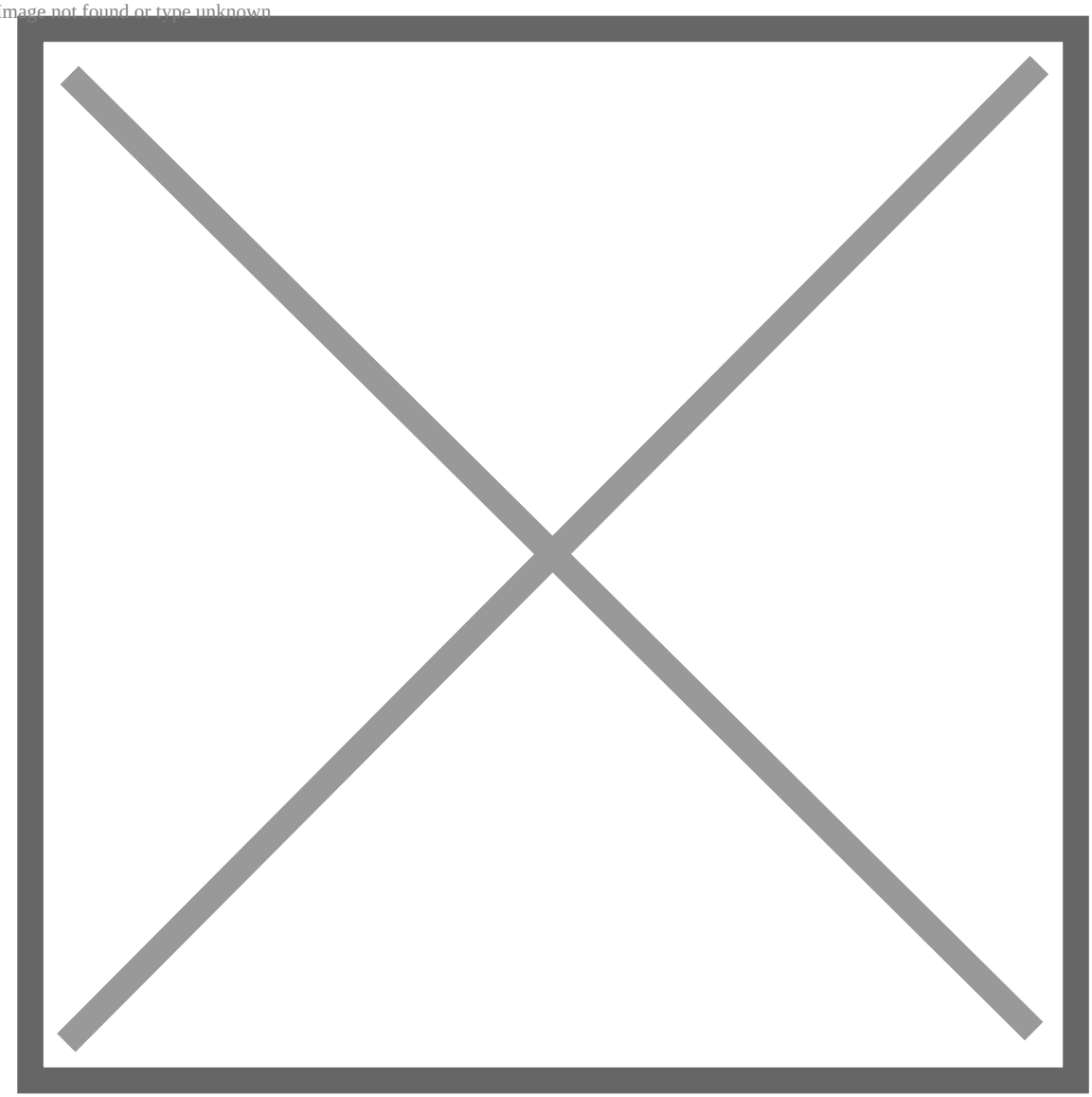

Waste accumulation at either level must include provisions for the following safety measures:

- Adequate Aisle Space and Access to Waste
- Communication Device (Telephone or Two-Way Radio)
- Fire Alarm
- Fire Extinguisher
- Spill Kit

Waste containers must be also be managed safely by:

- Keeping them closed and properly labeled
- Segregating incompatible chemistry
- Inspecting regularly for spills or defect

Transfer of waste containers

If you are operating as a Small Quantity Generator (SQG), Hazardous waste containers must be dated when transferred to the central accumulation area and inspected at least weekly thereafter (see CAA Weekly Container Inspection Log). These are best management practice even if you are a Very Small Quantity Generator (VSQG).

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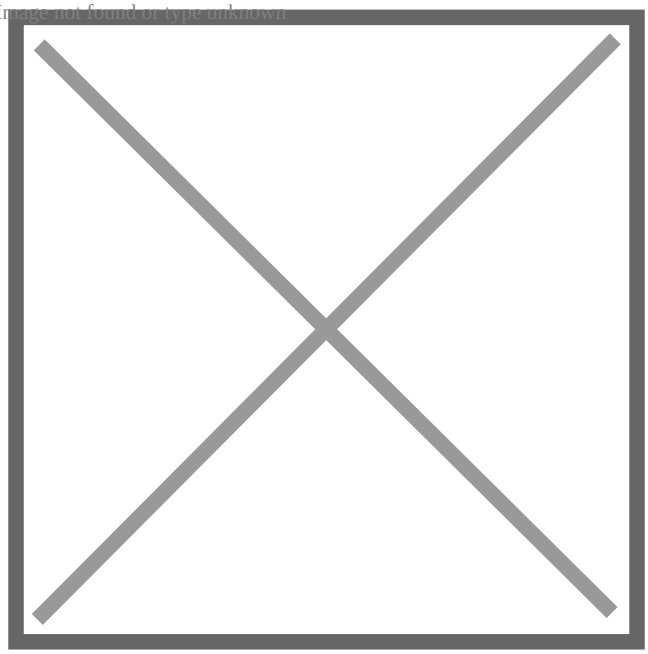


Universal Waste

Universal Waste is actually a subset of Hazardous Waste. Many of the items contain Characteristic waste chemicals like lead and mercury. Fluorescent lamps, most storage or rechargeable batteries, mercury containing devices are hazardous wastes, but are allowed to be managed under a slightly simplified set of rules.

Universal Wastes Categories:

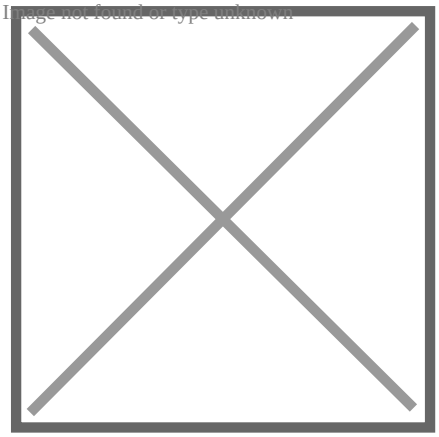
- Mercury Containing Lamps
- Mercury Containing Devices
- Batteries

Specific labeling required, “Universal Waste – category

- Accumulation Start Date on the label
- Labels on each container
- All containers must be closed
- Must be disposed of within one year from the Accumulation Start Date

Resource: Universal Waste Management Poster

Used Oil

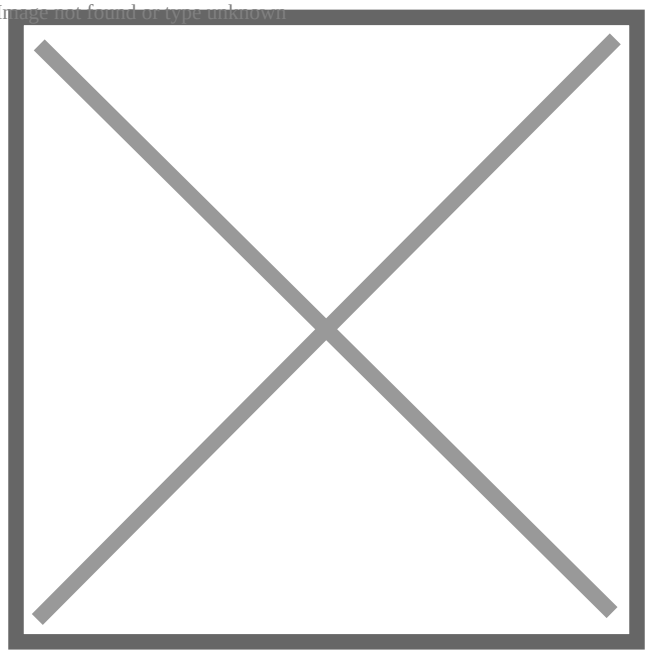
Image not found or type unknown  Used Oil is another regulated waste. Used oil includes synthetic and

petroleum based motor oil, pump oil, hydraulic fluid, mineral oil, gear oil and lubricant greases (Food cooking oils are NOT used oil). The rules regulating Used Oil are as follows:

- Containers MUST be labeled as Used Oil and closed.
- Containers MUST be stored on an oil impervious surface.
- Containers MUST be kept clean and weather protected.
- Spill containment is required equal to 110% of the largest container.

Filters

Used oil filters must be recycled by an approved vendor. They must be packaged, protected from the weather, stored on an impervious surface and labeled as “Used Oil Filters”

Image not found or type unknown 

Spills

Absorbent solids (towels/oil dry) used to clean up spilled or leaked oil must be packaged, but can be placed into a dumpster as regular trash. There must be **NO FREE LIQUIDS**

placed in any dumpster.

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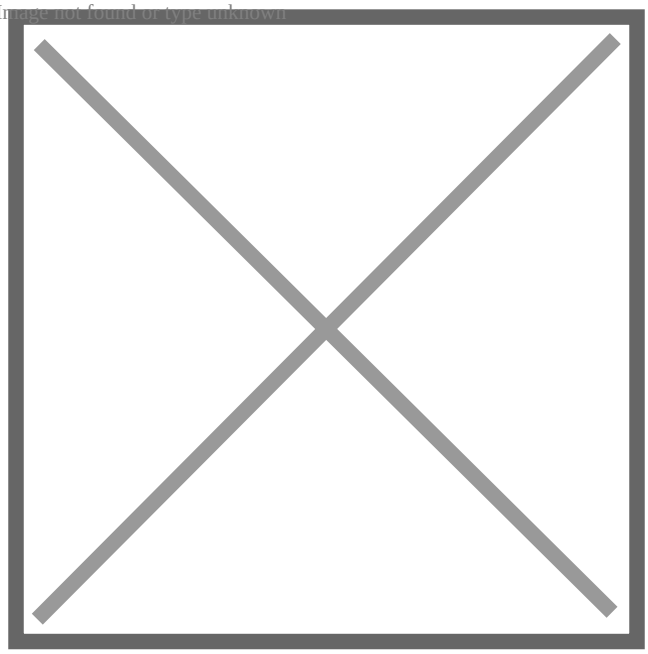

Electronic Waste

Some electronics contain heavy metals such as lead and mercury and would normally be considered hazardous waste. Electronic Waste or e-Waste includes end of life computers, monitors, copiers, printers, and other electronic lab equipment.

Not hazardous waste if recycled.

Use R2 certified recycler.

- Contact EH&S (352) 392-8400 for further guidance.

Training Requirements

UF Hazardous Waste Training Requirements

Both federal and state regulations require initial and annual training for those employees and students whose job description involves the handling or management of hazardous materials and wastes. Everyone who will create, handle, or manage hazardous waste at an off-campus facility should be properly trained. Training can be accessed through the myUFL training portal. Additional Training may be required based on the Hazardous Waste Generator Status of the facility.

EPA Hazardous Waste Training Requirements

Facilities which reach Small Quantity Generator or Large Quantity Generator status must complete additional training commensurate with their added responsibilities

Department of Transportation (DOT) Training

Under 49 CFR 172, Subpart H, employees who are part of the process for offering or shipping of hazardous waste or sign hazardous waste manifest must be trained to the level of their specific duties. In most cases, that employee must have completed a DOT Dangerous Goods Shipping Course. This training must be repeated at a minimum every three years so long as the responsibility to sign paperwork still exists. There are numerous qualified vendors of this training on-line:

- Safety Unlimited
- Lion Training
- 360 Training

Disposing of Hazardous Waste

Large Quantity Generator (LQG)

If you are a large quantity generator of hazardous waste:

- **You must dispose of waste every 90 days**
- Create a list of all hazardous materials you are disposing
- Contact EH&S and give them the list hwm@ehs.ufl.edu (352) 392-8400
- EH&S will help facilitate the shipment, by putting the facility in contact with the current contracted hazardous waste vendor.

Small Quantity Generator (SQG)

If you are a small quantity generator of hazardous waste:

- **You must dispose of waste every 180 days**
- Create a list of all hazardous materials you are disposing
- Contact EH&S and give them the list hwm@ehs.ufl.edu (352) 392-8400
- EH&S will help facilitate the shipment, by putting the facility in contact with the current contracted hazardous waste vendor.

Very Small Quantity Generator (VSQG)

If you are a very small quantity generator of hazardous waste:

- **You must dispose of waste before accumulating 1000kg**
- UF EH&S encourages you to dispose of waste at least annually
- Create a list of all hazardous materials you are disposing
- Contact EH&S and give them the list hwm@ehs.ufl.edu (352) 392-8400
- EH&S will help facilitate the shipment, by putting the facility in contact with the current contracted hazardous waste vendor.

Waste Minimization

Waste minimization is a strategy to eliminate or reduce the use of harmful substances at the beginning of the process. This will lead to less wasteful spending, increased protection of worker health and the environment, while minimizing risks and potential liabilities. Facilities that effectively manage their chemicals and minimize the waste generated are and asset to the university community. Option for waste minimization are:

- **Inventory management**
  - Use the University's inventory system for your chemicals to keep your inventory up-to-date
  - Purchase fewer chemicals that will become hazardous waste
  - Purchase only what you need

- **Process modification**
  - Use fewer chemicals that will become hazardous waste as raw materials
  - Modify processes to do smaller experiments
  - Do not mix hazardous waste and non-hazardous waste

- **Recovery and reuse**
  - Recover and recycle hazardous waste (i.e. redistill solvents on-site)
  - Reuse waste in another process
- **Elementary Neutralization**
  - Research or analysis of natural samples can involve inorganic acids and naturally occurring ions. In some cases the pH can be adjusted to allow for drain disposal via sanitary sewer systems. ALWAYS consult UF EH&S to review waste content before proceeding with any drain disposal.
  - Neutralization can be safe, effective and eliminate the need for costly waste disposal and/or higher regulatory burden.

Resources

Waste Determination Worksheet 2020c
CAA Weekly Container Inspection Log
Off-Campus Generator Requirements
Universal Waste Management Poster