

# Hazardous & Regulated Waste Management

Western Kentucky University (WKU) is classified as a large quantity generator of hazardous waste by the Environmental Protection Agency (EPA). WKU is permitted by the state and federal government to store hazardous waste generated. Hazardous waste is disposed of by contract and hauled off site four times a year. Wastes may be reclaimed, recycled, chemically or physically treated or destroyed by high temperature incineration.

No chemicals, no matter how harmless they may seem, shall be placed in domestic waste containers (dumpsters, trash cans, etc.), poured down drains, rinsed down sanitary sewers or in any way released into the environment. Some examples of hazardous waste include laboratory reagents, solvents, non-latex paints, fuels, corrosives, poisons, pesticides, pump oils, and compressed gases. Materials used to clean up spills are also considered to be hazardous waste.

Questions regarding the classification, storage and disposal of chemical waste should be directed to the Environmental Health and Safety (EHS) office.

# Hazardous Waste

WKU-EHS

Hazardous waste is waste with properties that may pose a danger to public health or the environment. It is a byproduct of university operations including academic research laboratories, shops, facilities management, and farm operations. There are four basic characteristics that the EPA uses to identify hazardous waste: ignitability, corrosivity, reactivity, or toxicity.

The Resource Conservation and Recovery Act (RCRA) provides the framework for the proper management of hazardous waste. From this act, the EPA regulates hazardous waste from "cradle to grave". This includes the safe generation, transportation, treatment, storage, and proper disposal of hazardous waste.

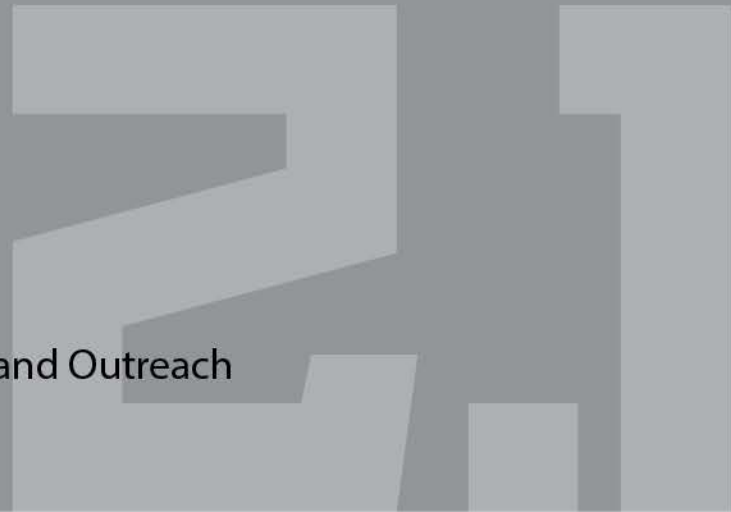
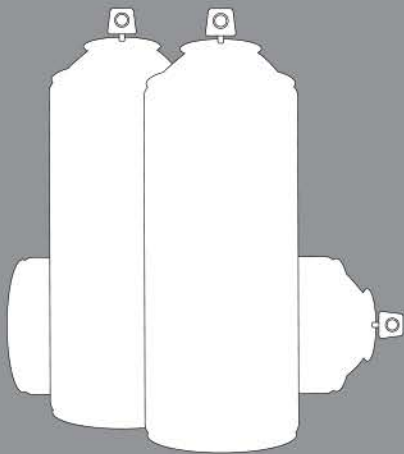
Hazardous wastes are classified into four general categories (listed, characteristic, universal, and mixed). This helps to eliminate the need to test wastes individually.

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# Regulated Waste

WKU-EHS

Regulated waste is similar to hazardous waste in that it has properties that pose harm to public health and the environment. However, the EPA does not consider it hazardous. This is due to the lack of resources to properly manage and train the nation's population (nurses, painters, mechanics, etc.). Therefore, the EPA requires regulated waste to be managed properly but not to the standards of hazardous waste. Examples of regulated waste include: biomedical waste, aerosol cans, used oils, latex paints, and expired pharmaceuticals.





# Accumulation

# WKU-EHS

There are two types of hazardous waste accumulation areas at WKU. All waste accumulation and storage areas are subject to routine audits and inspections by regulatory agencies who may conduct audits unannounced.

## Satellite Accumulation Area

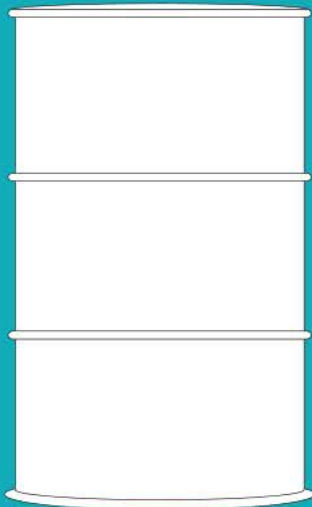
The Satellite Accumulation Area (SAA) is the location where hazardous waste is generated. Waste is under the direct control of those who generated it. Examples of SAA locations include academic science labs, offices, print shops, art studios, and maintenance shops.

- Max volume of any single waste accumulated in one single SAA is 55 gallons or 1 quart of an acute hazardous waste
- No time limit on the time a waste may be accumulated
- All waste containers must be properly labeled and stored

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# 90 Day Accumulation Area

The only accumulation area that falls into this category at WKU is located at the Hazardous Waste Building. There is no regulatory limit on the overall amount of waste that can be stored in the building as long as no waste remains within the area for greater than 90 days. Weekly inspections, specific storage requirements, training, and recordkeeping exist for this area.





# Generator

WKU-EHS

The generator of the waste is responsible for the management of chemical and hazardous wastes at WKU. Environmental Health and Safety (EHS) will support and assist generators to assure that wastes are managed in accordance with regulations. However, it is the generator's ultimate responsibility to assure that waste generated is managed in a safe and appropriate manner.

## Responsibilities

WKU employees should be familiar with proper waste handling and emergency procedures that are relevant to their job responsibilities, both during normal facility operations as well as during emergencies.

Instructors, researchers, principal investigators, and supervisors are responsible for ensuring students understand their obligations with regard to handling all types of waste and know appropriate emergency procedures pertaining to any hazardous waste they use.

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# Labeling & Handling

The EPA requires labeling of hazardous waste containers that includes the proper chemical name along with the words "Hazardous Waste". Federal and State law requires complete identification of all wastes prior to disposal. Generators should make every attempt to identify unknowns. EHS has pre-printed, approved hazardous waste labels available for generators to use. Labels must not contain abbreviations, chemical formulas or "trade" names. The exterior of each waste container must be clean and free from any chemical contamination.

All containers labeled as containing a hazardous waste should be stored in a secondary containment (i.e. tub or basin) to prevent environmental contamination in the event of a spill or leaking container. The contents of the containers must be known, the containers must be of suitable integrity and kept closed when not in use, and the total volume in a SAA cannot exceed 55 gallons or 1 quart of an acute hazardous waste.

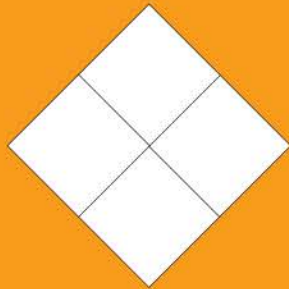
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# Pick Up Request

WKU-EHS

When a container with chemicals is no longer needed, the chemical has been spent, or a waste container from a SAA is full, a pick up request from EHS should be filled out online at [wku.edu/ehs](http://wku.edu/ehs). Click the tab labeled EHS Forms and scroll down to Regulated Waste Pick Up Request. EHS will evaluate the information and schedule the material for pickup. If the information provided is insufficient, additional information will be requested from the generator. Waste will not be picked up until the appropriate information is received. Wastes may require the generator to certify the presence or absence of constituents and concentrations. This certification can be based on the generators knowledge, analytical testing or other scientific data.





# Minimization

# WKU-EHS

The costs associated with the proper disposal of chemical wastes can exceed ten times the cost for purchasing the chemical. Supervisors are encouraged to limit the amount of chemicals purchased to what is needed. It is better to order additional chemicals than to dispose of unwanted or unused chemicals. A significant percentage of waste disposed by WKU consists of expired and unused reagent chemicals.

Review how you purchase, handle and store laboratory chemicals to control the costs of proper chemical waste disposal and the inherent hazards of storing and working with hazardous chemicals. Do not stockpile chemicals unnecessarily.

Waste minimization benefits you, the environment, and WKU.