

Intent:

The purpose of this Hazardous Waste Management Policy (**HWMP**) is to serve as a guidance document to facilitate the proper handling of hazardous waste generated from the UW-Eau Claire Campus.

- To protect the health and safety of university faculty, staff, students and visitors through safe handling, storage, and disposal of hazardous and universal wastes generated on campus.
- To help ensure that UW-Eau Claire and UW-Eau Claire Barron County complies with federal, state, and local regulations pertaining to the handling and disposal of hazardous wastes.
- To reduce the potential environmental liabilities and costs of hazardous waste disposal.

Scope:

This HWMP identifies the proper management and disposal of hazardous wastes by faculty, staff, and other personnel during their research, work assignments, and/or course of study in accordance with Federal, State, and Local regulations.

- The policy and the procedures outlined herein apply to all UW-Eau Claire and UW-Eau Claire-Barron County faculty, staff, and student employees.
- This policy provides guidance for the disposal of hazardous chemical wastes. **Definitions:**

Accumulation Limit: The amount of hazardous waste that may be stored at the facility before shipping requirements take effect.

Accumulation Start Date: The date at which hazardous waste was first placed in the hazardous waste storage container (for satellite accumulation containers, the accumulation start date is the date the container is filled).

Acute Hazardous Waste: Type of hazardous waste where a small amount can cause severe health effects. All P-listed items are considered acuate. Staff who handle P-listed waste are trained to identify it.

Hazardous Waste: According to EPA, hazardous waste is chemicals or materials with one or more of the following properties:

a. Explosive	c. Toxic	e.	Radioactive
b. Flammable	d. Corrosive	f.	Waste Petroleum

Large Quantity Generator (LQG): A facility that generates more than 2200 pounds of hazardous waste per month.



Pharmaceutical Waste: Includes such examples as: expired drugs, open drugs that cannot be used, containers that held drugs, and drugs that are intended to be discarded.

Small Quantity Generator (SQG): A facility that generates more than 220 pounds, but less than 2200 pounds, of hazardous waste per month.

Storage Time Limit: Amount of time a generator must ship the hazardous waste once the accumulation limit has been reached.

Very Small Quantity Generator (**VSQG**): A facility that generates 220 pounds or less of hazardous waste per month.

Table of Contents:

- 1. <u>Responsibilities</u>
- 2. <u>Waste Determination</u>
- 3. Listed Hazardous Waste
- 4. <u>P & U List Purposes</u>
- 5. <u>Characteristic Hazardous Waste</u>
- 6. <u>Chemical Inventory</u>
- 7. <u>Chemical Storage</u>
- 8. <u>Acceptable Containers</u>
- 9. <u>Mixed Wastes</u>
- 10.<u>Chemicals Safe to Sewer</u>
- 11.<u>Neutralization of Acids & Bases</u>
- 12.<u>Reuse/Redistribution</u>
- 13.<u>Hazardous Waste Disposal</u>

- 14. Waste Minimization
- 15. Segregate Wastes Properly
- 16.<u>Universal Waste</u>
- 17.<u>Fluorescent Lamps</u>
- 18.<u>Used Oil/Oil Filters</u>
- 19. Mercury Containing Devices
- 20.<u>Pesticides</u>
- 21.Antifreeze
- 22.<u>Special Waste</u>
- 23. Emergency Procedures
- 24.<u>Training</u>
- 25.Related Information

Procedures

This policy has been developed to facilitate the handling, storage, pick-up, and disposal of hazardous waste in a safe and environmentally responsive manner that complies with all applicable federal, state, and local regulations.



Responsibilities

Risk Management, Safety and Sustainability (RMSS)

RMSS has the overall responsibility for hazardous waste collection, Resource Conservation and Recovery Act (RCRA) hazardous waste determinations, packaging, storage, disposal, training, inspections, and record keeping.

- 1. Providing the necessary resources to carry out the hazardous waste program.
- 2. Developing and administering a Hazardous Waste Management Program.
- 3. Providing technical assistance hazardous waste generator training to faculty and staff.
- 4. Assisting departments with compliance with the Hazardous Waste Program.
- 5. Preparing for the proper disposal of hazardous waste.
- 6. Periodically audit the management of hazardous waste containers in laboratories and make recommendations to appropriate authority for corrective action.
- 7. Preparing, submitting, and maintaining hazardous waste documentation, including submission of annual regulatory reports, and manifests.
- 8. Coordinating transport schedule with waste disposal contractor for all hazardous waste and universal waste pickups at UW-Eau Claire and UWEC-Barron County facilities.

Directors, Department Chairs, and Chemical Hygiene Officer

- 1. Implementing the hazardous waste program in their individual areas and departments, ensuring compliance within their disciplines, labs, areas, and shops.
- 2. Ensure staff and students receive training and instruction related to proper management of hazardous waste generated.

Faculty and Staff

- 1. Knowledge and understanding of steps needed to maintain compliance.
- 2. Maintaining proper storage and management of all generated wastes (hazardous, non-hazardous, and universal).
- 3. Ensure waste containers are properly labeled and in good repair. Provide secondary containment when possible, ensuring hazardous wastes or other regulated wastes are not stored in unapproved locations.
- 4. Consistently knowledgeable of the contents of each waste container and prevent the mixing of incompatible wastes that could create dangerous reactions.
- 5. Arranging for prompt removal of full waste containers.
- 6. Notify EHS staff that they require waste pickup services.



Waste Determination

Solid waste is any garbage, refuse or other discarded material, & hazardous waste is a specific category of solid waste that requires special management & disposal practices, as dictated by RCRA and the Wisconsin DNR under Wisconsin Administrative Code.

- 1. All waste must be properly classified to ensure proper disposal. This section discusses how waste is classified to determine if it will require special handling and disposal.
- Solid waste is defined as any material determined to fit for its intended use and is ready to be discarded no longer. Solid waste may be in the form of a solid, liquid, semi-solid or a contained gaseous material. Only trained Environment Health and Safety (EHS) staff should make waste determinations for any new waste streams. The waste disposal contractor may assist EHS staff in making waste determinations.
- 3. **Hazardous waste** is a specific category of solid waste that requires special management and disposal practices. Waste is determined to be hazardous if it is specifically <u>listed</u> in one of four lists in the RCRA regulations or if it exhibits certain <u>characteristics</u> or properties for reactivity, flammability, toxicity or corrosivity. In Wisconsin, hazardous waste determination is governed by <u>WAC Chapter NR 661:</u> <u>Hazardous Waste Determination & Listing</u>. Contact the EHS Manager to assist with hazardous waste determinations on new waste streams.

Listed Hazardous Waste

There are four lists – F, K, P, and U. Three of these lists -F, P, and U are of interest to the academic environment.

- 1. <u>F-List: EPA Code (F001-F039)</u> Identifies hazardous wastes generated from different sectors of manufacturing & industry; the F list wastes are known as wastes from non-specific sources. Many spent solvents on campus are found in this category.
- 2. **K-list**: Identifies hazardous wastes from specific sectors of industry and manufacturing and is considered source-specific wastes. The campus rarely has this type of waste.
- 3. **U-List**: Identifies hazardous waste from discarded commercial chemical products. This waste is considered toxic but not acutely hazardous.
- 4. **P-list**: Identifies acute hazardous wastes from discarded commercial chemical products. This waste can be extremely dangerous to human health or the environment. "P" wastes are of concern at UWEC because a small quantity of this waste (2.2 pounds) generated in one month can change our classification to a large quantity generator with significantly greater regulatory burden.



P and U list Purposes

The EPA defines a commercial chemical product as a chemical that is either 100 percent pure, technically (e.g., commercial) grade or the sole active ingredient in a chemical formulation. A list of some of the most common EPA-listed chemicals follows:

Common F-Listed Solvents				
Xylene	Acetone	Methanol	Methylene Chloride	
Toluene	Methyl Ethyl Ketone	Pyridine		
Common U-Listed Chemicals				
Acrylamide – gels not included		Benzene	Formaldehyde	
Formic Acid	Hydrofluoric Acid	Phenol	Methyl Methacrylate	
Common P-Listed Chemicals				
 Cyanides (soluble cyanide salts) 		Benzyl Chloride	Sodium Azide	
Nicotine	Epinephrine	Phosphine	Arsenic Acid	

Characteristic Hazardous Waste

If a generated waste is not a listed hazardous waste, it may be considered hazardous if it exhibits any one of the following four characteristics – flammability, corrosivity, reactivity, or toxicity. Dilution of *characteristic* hazardous waste to make it nonhazardous is not allowed. It is considered treatment and is subject to regulatory requirements.

1. Ignitability – EPA Code D001

Flammable Liquids – Flashpoint <140°F or 60 °C (e.g., alcohols, acetone, ethyl acetate, mineral spirits, gasoline), an ignitable compressed gas or oxidizer, or other material that can cause fire through friction, absorption of moisture or spontaneous chemical changes. Examples include used oil-based paint, used paint thinner, adhesives and mineral spirits.

2. <u>Corrosivity – EPA Code D002</u>

Aqueous (water containing) liquids with a pH ≤ 2 or ≥ 12.5 or a liquid that corrode steel at a rate of > 6.35 mm (0.250 inches) per year. Examples include waste rust removers and waste battery acids. Additionally,

- a. Inorganic Acids (e.g., hydrochloric acid, sulfuric acid, nitric acid, perchloric acid, phosphoric acid).
- b. Organic Acids (e.g., formic acid, lactic acid).
- c. Bases (e.g., hydroxide solutions, amines).



3. <u>Reactivity – EPA Code D003</u>

A waste that is normally unstable, readily undergoes violent changes without detonating, reacts violently with water, forms potentially explosive mixtures with water, generates toxic gases or fumes when mixed with water or non- corrosive materials, is capable of detonation or explosive reaction, or is a forbidden Class A or B explosive. Examples include:

- a. Sulfides and cyanides.
- b. Peroxide formers (e.g., ethers, potassium amide, sodium amide, tetrahydrofuran).
- c. Water Reactive Materials (e.g., sodium, potassium, lithium, calcium carbide).
- d. Multi-nitrated Compounds (e.g., picric acid, nitrosoguanidine, trinitroaniline).
- e. Perchlorate crystal formers (e.g., perchloric acids).
- f. Compounds that may undergo vigorous polymerization (e.g., methyl acrylate).

4. Toxicity - EPA Code D004 - D043

A waste which, when using the toxicity characteristic leaching procedure (TCLP), leaches any number of metallic, organic, or pesticide constituents in concentrations greater than specified in the regulation. Examples for these constituents include metals like silver, lead, mercury, cadmium, barium, chromium, and organic chemicals like benzene, chloroform, methyl ethyl ketone, and trichloroethylene as found in the: <u>WAC</u> <u>Chapter NR 661.0024 – Table 1 – Maximum Concentration of Contaminants for the Toxicity</u> <u>Characteristic</u>. **Note**: Waste is hazardous if it exceeds regulatory levels denoted in the far-right column of the table. All levels are reported in milligrams/liter.

Chemical Inventory

- 1. Maintaining an accurate chemical inventory is a regulatory requirement for using, handling, and storage of hazardous materials. UWEC and UWBC use Chemwatch, an online chemical safety and SDS management system database, to assist in determining the hazards posed by the chemical and obtain emergency response information.
- 2. Departments are responsible for entering, updating, and maintaining their departmental SDS inventory within Chemwatch annually.
 - a. There are faculty and staff logins available for those users who need to add and remove SDSs to/from folders. Contact RMSS for password.
 - b. If assistance is needed with ChemWatch, contact RMSS. Collaboration between the department and RMSS is essential for maintaining required chemical inventory records and regulatory compliance.



3. The RMSS Department will upload the SDS to laptops at various kiosks strategically located throughout each campus. Any staff, student or visitor may quickly access the data. No password is necessary.

Chemical Storage

- 1. All chemicals must be stored in a satellite accumulation area near where the waste is generated.
- 2. Place containers in locations where they will not be subject to damage, tipping, or spilling from foot traffic, carts, work activities, etc.
- 3. Containers must be in good condition and compatible with the waste being stored.
- 4. Waste containers must be clearly labeled, identifying their constituents, percentages of each constituent, and the hazards. Labels are available from the EHS Manager or the Chemical Stockroom.
- 5. Waste containers must be kept closed during storage, except when adding or removing waste; open funnels sitting in a waste container is considered an open container by regulatory agencies and is not acceptable.
- 6. Use the appropriate cap for the application. For example,
 - a. High-Performance Liquid Chromatography [HPLC] experiments/research must have a tightly sealed cap or lid with hole(s) in the cap the exact size of the tubing to prevent the escape of volatile organic compounds (VOCs); if venting is necessary, it must contain a carbon filter.
 - b. If a chemical composition can react, build up pressure and could potentially explode, a pressure relief mechanism must be part of the cap.
- 7. Containers must be handled and stored properly to prevent rupture or leakage.
- 8. There shall be no chemical residue outside of the container.
- 9. Containers must not be more than 90% full.
- 10. A single satellite accumulation area (SAA) can have no more than 55 gallons of hazardous waste and only one quart (2.2 lbs.) of acute hazardous waste present and must be under the control of the operator of the process generating the waste. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating. This excess hazardous waste must be removed from the SAA within three calendar days and transferred to the central accumulation area.



- 11. All chemical wastes must be stored using proper chemical segregation practices to avoid intermixing of incompatible materials. Refer to the Appendix A. <u>Compatible</u> <u>Storage Chart</u>.
- 12. Laboratory hoods may be used for containers that store odorous or volatile chemicals.
- Ensure waste containers face forward so that labels are visible for viewing, EHS inspections and monthly inventorying, & waste pick up.
 Note: See more information on "<u>CHEMICAL HYGIENE PLAN (uwec.edu)</u>" in Part 5. Chemical Procurement, Distribution, and Storage

Acceptable Containers

Hazardous waste must be collected in suitable containers. The Chemical Stockroom Manager can supply containers of various sizes and materials.

- 1. Ensure that hazardous waste containers are compatible with the hazardous chemical waste content (e.g., do not use metal containers for corrosive waste).
- 2. Use containers that are in good condition & do not leak. Empty chemical glass containers can be reused for waste collection provided they have been appropriately rinsed clean and all labels regarding the original contents have been removed or blacked out.
- 3. Containers must have tight sealing caps or lids.
- 4. Do not use an oversized container that may take a year or longer to fill.

Mixed Wastes

- 1. If you mix one gallon of hazardous waste with one gallon of nonhazardous waste, you now have two gallons of hazardous waste and you have doubled the disposal costs. According to the mixture rule, nonhazardous waste that is mixed with listed hazardous waste is automatically hazardous waste. Therefore, **do not mix waste**.
- 2. Dilution of *characteristic* hazardous waste to make it nonhazardous is considered treatment and is subject to regulatory requirements. The campus does not have a license to treat hazardous waste. The only exception to the treatment restriction is simple neutralization which is discussed under sewer disposal.

Chemicals Safe to Sewer

1. There are many chemicals used in laboratories that do not meet RCRA's definition of hazardous waste, however, they may still be toxic or dangerous and should not be disposed in the normal trash or dumped down a lab sink.



- 2. Neutralization of Acids & Bases is acceptable. Refer to section on Neutralization.
- 3. To assist with determining what laboratory chemicals can safely be disposed, a list of chemicals used in the Chemistry Department at UW-Eau Claire has been approved by the City of Eau Claire for sewerage so long as disposal of the chemicals to the sewer system is performed in the manner indicated on the list. Currently, disposing of chemicals through the landfill is prohibited.

Neutralization of Acids and Bases

- 1. If a liquid is hazardous only because of pH, campus employees may neutralize the solution & pour it down the drain. Use proper equipment including goggles, gloves, and apron & work in a hood. Add neutralizing agents slowly, stirring constantly. **If you are not familiar with neutralization techniques, do not attempt to neutralize solutions.**
 - a. Acidic solutions (pH <5)
 - Adjust the pH to 5-9 using a dilute solution (e.g., KOH, NaOH, NaHCO₃). Use a pH meter, indicator solution, or pH paper to determine the pH.
 - Flush down the drain of a chemical sink with 20 volumes of cool water.
 - b. Basic solutions (pH > 9)
 - Adjust pH to 5-9 using a dilute solution (e.g., HCl, H₂SO₄, HNO₃). Use a pH meter, indicator solution, or pH paper to determine pH.
 - Flush down the drain of a chemical sink with 20 volumes of cool water.
 - c. For highly concentrated acids, neutralization with a relatively diluted basic solution will take a very large volume of base & a long time. In this case, consider neutralization using a concentrated basic solution with plenty of ice for an ice bath, performed slowly, carefully & with constant stirring. Monitor the temperature of the solution with a suitable thermometer to ensure the solution does not get too hot.
- 2. Report neutralization activities to EHS Manager for regulatory reporting.

Reuse/Redistribution

- 1. Where feasible, reuse or redistribute partial quantities of a chemical to another department or employee is encouraged. Reuse of chemicals, especially in a laboratory, may not be as easily achieved due to the typical need for higher purity ingredients. However, chemicals such as acids and bases not contaminated with hazardous constituents can be used for neutralization reactions and used to reduce the volume of corrosive hazardous waste sent out for disposal.
- 2. Records of neutralizations must be maintained as described in the section on Neutralization of Acids and Bases.



Hazardous Waste Disposal

The EHS Manager will perform a sweep of all hazardous waste in the Chemistry Department's satellite accumulation areas (SAA) and in Student Health Services on the last Friday of the month or the following week if conflicts arise. All other departments requesting removal of waste materials from their areas are instructed to contact the EHS Manager at <u>hunterd@uwec.edu</u>. Removal will occur at the end of the month.

- 1. All end of month waste picks up requests should be made by 3:00pm the previous day.
- 2. A waste generator who needs chemical waste picked up prior to the end of the month is instructed to email the EHS Manager listing the chemical(s) and container size(s).
- 3. Additional time is required for large waste pick-up requests (i.e., inventory clean-outs related to a renovation or a relocation project).
- 4. Only full bottles will be picked up at SAAs. If partially full containers are to be removed, notify the EHS Manager via email. The email should identify the partially filled chemical waste the department would like removed.
- 5. RMSS will maintain an inventory of all chemicals, with approximate amounts, at each SAA monthly to track University's total waste generation. The EHS Manager will be responsible for ensuring monthly inventories are conducted and records maintained.
- 6. All containers must be labeled with their contents, including water, and an approximate percentage of each constituent. All labels must be legible.
- 7. No signs of residue or spillage can be found outside of container.
- 8. All containers must indicate the hazards associated with the chemical.
- 9. Waste will be collected in the area in which it was generated. To ensure proper disposal of all hazardous materials contact the EHS Manager.
- 10. Disposal of liquids or discharge of hazardous vapors, gases, fumes, and dusts to the atmosphere is not considered a disposal method. Laboratory hoods should not be used to evaporate materials from open chemical containers.

Waste Minimization

- 1. The EPA has broad powers to enforce waste minimization based on the Hazardous Solid Waste Amendments of 1984. As a small quantity generator, the campus certifies they have made a good faith effort to minimize waste generation each time a manifest is signed.
- 2. It is important that all persons and departments generating hazardous waste consider how they can contribute to the waste minimization effort. The goal is to either prevent the formation or production of pollutants at the source or reduce the amount of hazardous waste that is generated.



- 3. Basic waste minimization options include:
 - a. Waste stream segregation-keep hazardous and non-hazardous, control spillage, etc.
 - b. Good housekeeping-prevent contamination of good material, control spillage, etc.
 - c. Inventory control-keeps track of materials to prevent duplicate orders and generating outdated material.
 - d. Order chemicals in smaller containers and quantities.
 - e. Material substitution-where possible, use a non-hazardous chemical.
 - f. Using smaller scale demonstrations.
 - g. Modifying specific experiments-use a non-hazardous metal in place of mercury, lead, cadmium, etc.
- 4. If you have (or will be doing) any of the above, contact the EHS Manager so this information can be used to document campus commitment to waste minimization.

Segregate Wastes Properly

Whenever possible, keep different hazardous wastes separate so that disposal options are clearer and more cost effective.

- 1. Do not store incompatible materials near each other.
- 2. Store acids away from bases, active metals, oxidizers, and chemicals which could generate toxic gases.
- 3. Store flammables in a flammable storage cabinet.
- 4. Do not mix flammables with oxidizers.
- 5. Store large bottles on low shelves.
- 6. Keep containers closed when not being filled.
- 7. Leaking containers must be transferred to another container. Whenever transferring a chemical into a container, check to make sure that the chemical is compatible with (i.e., will not corrode, dissolve, or permeate) the container. See more information in **Appendix A.** <u>Chemical Segregation & Storage Chart</u>

Universal Waste

Special and universal waste are wastes that may not meet the definition of a hazardous waste, but still requires special disposal or reclamation procedures. Universal waste regulations were designated to encourage recycling & proper disposal of commonly generated hazardous waste while also reducing the regulatory burden in generating facilities.

1. The following is a disposal guide for batteries generated by campus operations.



Alkaline Batteries

- a. Alkaline batteries include AAA, AA, C, D, 6 volt and 9 volts.
- b. Disposal: Normal Trash
- 2. Lead Acid Batteries
 - a. Lead acid batteries are found in cars, trucks, motorcycles, boats, etc.
 - b. Disposal: Do not place in trash. Spent lead acid batteries are to be stacked and stored in the MCS Auto Shop and taken offsite to a recycler.

3. Button Batteries

- a. Button batteries are found in watches, calculators, cameras, and other small equipment. They can contain silver oxide, mercury, lithium, or cadmium. These materials are considered hazardous waste. The contents can be determined by reading original battery packaging.
- b. Disposal: **Do not place in trash. Direct them to or notify the EHS Manager for collection and recycling.** Button batteries can only be recycled if they are segregated based on metal content. To facilitate this, keep the original packaging to refer to once the battery is spent.

4. Lithium Batteries

- a. Lithium batteries are found in some electronic equipment. See original packaging for content information.
- b. Disposal: **Do not place in trash. Direct them to or notify the EHS Manager for collection and recycling.** Button batteries can only be recycled if they are segregated based on metal content. To facilitate this, keep the original packaging to refer to once the battery is spent.
- 5. Nickle-Cadmium (NiCd) Batteries
 - a. NiCd batteries are found in items including medical equipment, pagers, and cellular telephones. Check original packaging for content information.
 - b. Disposal: **Do not place in trash. Direct them to or notify the EHS Manager for collection and recycling.** Keep NiCd batteries separate from other batteries during collection.



Fluorescent Lamps

Fluorescent lamps contain small quantities of mercury and other metals that are harmful to the environment and to human health.

- 1. UW-Eau Claire collects the following lamps for recycling:
 - a. Fluorescent lamps (tube style)
 - b. Compact fluorescent lamps (CFLs)
 - c. High pressure sodium vapor lamps
 - d. Metal halide lamps

- e. Ultraviolet lamps
- f. High & low-pressure mercury vapor lamps
- g. High intensity discharge (HID) lamps
- h. Neon, black lights, and LED lamps
- 2. Facilities and Custodial Services collects, and stores used lamps in designated locations throughout campus until ready to be transitioned to MCS. Lamps must be labeled "Universal Waste" and include the date the first bulbs were placed in the box.
 - a. Avoid breakage of lamps.
 - b. Lamp boxes must be closed when not adding or removing lamps.
 - c. A list of lamp storage locations is maintained by RMSS.

3. Handling Broken Lamps

- a. Carefully scoop up glass pieces and powder using stiff paper or cardboard. Place in sturdy box. Do not mix broken glass with unbroken bulbs.
- b. Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder.
- c. Wipe area clean with damp paper towels or disposable wet wipes. Place tape and towels in the box with the broken lamp.
- d. Do not use a vacuum or broom for cleanup of broken lamps.

Used Oil

Used oils and petroleum lubricants are not classified as hazardous wastes by EPA if they are properly recycled.

- 1. The Facilities Office sporadically generates Used Oil.
- 2. These oils include motor oil, heating oil, refrigerator oil, hydraulic oil, transformer oil, and lubricating oils.
- 3. Label containers with a used oil label.
- 4. Keep container securely closed except for when adding or removing used oil.



Used Oil Filters

- 1. The Facilities Office generates used oil filters in the process of maintaining ground equipment.
- 2. The proper handling of used oil filters must be implemented to appropriately manage these used oil filters.
- 3. Used Oil Filter Handling Procedure:
 - a. Drain filters into appropriate used oil container. A hot drain procedure should be utilized.
 - b. Allow adequate time for the filter to drain completely.
 - c. Once fully drained, the filters shall be placed in the metal recycling container.
 - d. These filters shall be recycled by an approved recycling vendor.

Mercury Containing Devices

It consists of items or articles that contain some amount of elemental mercury that is integral to the function of the instrument. The devices that may contain elemental mercury.

- 1. The devices that may contain elemental mercury are:
 - a. Thermometers with a silver bulb
 - b. Thermostats
 - c. Manometers and other gauges
- e. Mercury flame sensors/temperature probes
- f. Certain batteries
 - g. Relays and Neon signs

d. Mercury switches

Pesticides

If a pesticide must be used, the following management practices will help minimize waste disposal problems:

- 1. Select the appropriate pesticides.
- 2. Read the label carefully.
- 3. Apply the pesticides properly.

- 4. Clean up thoroughly.
- 5. Store the pesticides securely.
- 6. Dispose of containers safely.

Antifreeze

According to the EPA, used antifreeze may not be dumped with regular trash, poured into the sewer, or poured onto the ground.

- 1. The material must be disposed of at a secure chemical landfill or a landfill which has been designated for used antifreeze disposal.
- 2. Segregate used antifreeze from other wastes. Label the container "Waste Antifreeze."
- 3. Use propylene glycol antifreeze (usually pink) which is less toxic than ethylene glycol (usually green) where appropriate.
- 4. Store antifreeze in a container that can be completely drained with a wide opening.



- 5. Keep antifreeze storage containers always closed except when waste is added or removed.
- 6. Never mix antifreeze with other chemicals.

Special Waste

Special waste is any solid waste or combination of solid waste that due to its quantity, concentration, physical or chemical characteristics or biological properties require special handling and disposal.

- 1. The hazardous/special waste include:
 - a. Vehicle batteries & other lead-acid batteries.
 - b. Flammable liquids
 - c. Household chemicals
- 2. Potentially infectious medical waste.
- 3. Industrial process waste.
- 4. Pollution control waste.

Emergency Procedures

- 1. In the event of a chemical spill, call 911 immediately. University Police Administration will call EHS Manager and/or Director of RMSS to coordinate the spill response.
- 2. Eau Claire Fire Department (ECFD) is a HAZMAT Level 1 Team and will be the Incident Commander during a spill.
- 3. Faculty involved with a lab that either had a spill or is near a spill will need to be available to answer questions for ECFD.

Training

Training must be completed annually for individuals who generate and manage hazardous waste. Department heads, having individuals (staff, faculty, and students) under their control who generate hazardous waste, are required under federal and state law to ensure these individuals have been trained in the following subjects:

- 1. Hazardous substances
- 2. Hazardous waste determination
- 3. Waste classification, labeling, segregation, and storage requirements
- 4. Spill cleanup procedures
- 5. Hazardous disposal procedures

- d. Paint, Solvent-contaminated wipes, aerosols
- e. PCB ballasts



Related Information:

Resource Conservation and Recovery Act (RCRA) Laws and Regulations, US EPA

Chs. NR 600-699; Hazardous Waste Management (wisconsin.gov)

UW-System, <u>Hazardous Waste Management</u>

Appendix

Appendix A. Chemical Segregation & Storage Chart

Administration:

Approval Details

Approved By:	Brian K. Drollinger
Approval Date:	11/10/2023
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Date of next	The practice directive and procedure review should be scheduled
Review:	annually from the approval date.

Revision History

Version	Revision Date	Description of changes	Author
1.0	12/17/2019	Procedure Established	Chaizong Lor
2.0	04/28/2023	Procedure Updated	Chaizong Lor

Contact Person/Department

Contact Person:	Brian Drollinger, Director of Risk Management, Safety & Sustainability
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