Environmental Health & Safety Policy Manual		
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Chemical Waste Management Procedures		

1.0 PURPOSE:

Hazardous and nonhazardous chemical wastes are generated by a variety of activities at LSUHSC. Proper handling and disposal of these chemical wastes reduce the threat to human health and the environment.

2.0 SCOPE:

These procedures provide guidance to all LSUHSC personnel who generate and handle hazardous and nonhazardous chemical waste.

3.0 RESPONSIBILITIES:

Environmental Health and Safety Department (EH&S) shall:

- Develop and implement procedures for the proper handling and safe disposal of hazardous and nonhazardous chemical waste.
- Provide safe storage of hazardous chemical waste pending final disposal.
- Comply with all government regulations regarding hazardous waste management.
- Prepare, submit, and maintain all records, reports, and manifests as required by government regulations.

Principal Investigators and Supervisors shall:

- Ensure their personnel have received training as described by these procedures.
- Ensure the appropriate disposal of hazardous and nonhazardous chemical wastes generated by work performed under their supervision
- Develop and implement more stringent procedures following the identification of any specific risks relevant to the handling and disposal of hazardous chemical waste.

Staff and Students shall:

- Comply with institutional policies and procedures.

- Notify your PI/Supervisor in the event of a chemical/chemical waste spill. Refer to Chemical Spill Response Policy and Procedures for spill management.

4.0 IMPLEMENTATION

This section provides guidance on the procedures for general chemical waste management, waste classification, separation, containerization, labeling, and collection information for hazardous and nonhazardous chemical waste.

Faculty and staff are responsible for the administration of safe work practices within their respective areas. The cooperation of all supervisors and personnel is necessary to make laboratories and areas where chemicals are utilized safe places to learn and work. Faculty and staff working with chemical and/or hazardous waste must coordinate proper disposal of chemical wastes with EH&S. The following information provides guidance for safe handling procedures for hazardous and nonhazardous chemicals wastes.

Waste minimization should be first-line waste management procedure on the LSUHSC Campus. As a result, departments shall prioritize their operations to adhere to the guidance of the LSUHSC Waste Minimization Program.

Waste Classifications

According to the EPA, solid waste materials are identified by the Environmental Protection Agency (EPS) and Louisiana Department of Environmental Quality (LDEQ) as being hazardous waste either by being listed by chemical names or by having certain physical and chemical characteristics. The "listed chemicals" can be found in the Louisiana Administrative Code (LAC) 33 Volume 4901 and the "characteristic" categories in LAC 33 Volume 4903. In addition, hazardous wastes may include byproducts and wastes from chemical reactions or unwanted commercial products and chemicals. Hazardous waste determinations are not always straight forward; therefore, EH&S may be enlisted to assist with guidance for handling and proper disposal.

Safety Data Sheets (SDS) which may be found online or printed out from the manufacturer of the material or chemical, are a good source of information for determining whether a particular material meets criteria to be designated as hazardous. SDSs must be accessible and available in laboratories or other spaces that store or utilize chemicals. All chemicals must be labeled properly and stored properly in appropriate containers.

Waste Accumulation and Storage

- Appropriate personal protective equipment (eye protection, gloves, aprons, etc.) must be worn when dealing with chemical waste materials. The

chemical's SDS and Personal Protective Equipment Policy Manual should be referenced for PPE use guidance.

- Compatible waste streams may be collected in a single container. Use of SDS sheets or chemical compatibility charts may be used to assist with compatibility determinations. Never mix incompatible wastes, as mixing incompatible wastes may cause a chemical reaction and/or increase disposal costs. It may be necessary to have different waste containers accumulating materials.
- Waste material must be compatible with the collection container, e.g., corrosives must not be stored/collected in metal containers. When possible, plastic containers are preferred to glass, as they are less likely to break if knocked over. Do not use containers with capacities exceeding one gallon unless granted written permission from the EH&S Department.
    - Chemical/hazardous must be collected in good condition, leak-proof containers, that are compatible with the type of waste stored and kept closed except when adding waste.
    - Waste containers may not be left open or open with funnels.
    - Stoppered glassware or beakers are not appropriate waste collection containers.
    - The chemical's original container can be used for disposal if it is not damaged and can be securely resealed; however, do not reuse the original container if the waste's physical characteristics have been significantly changed. For example, if a flammable solvent has also been made corrosive by the addition of an acid, then a metal container would no longer be suitable for this waste.
    - Do not place hazardous waste in an unwashed container that previously held an incompatible material.
    - Do not overfill a container; always leave an at least a two-inch air gap.
- Chemical/Hazardous waste should be stored near the point of generation or in the lab in which it is generated. Waste should be consolidated in one place in the lab – not spread out in several different cabinets and counter tops.
    - Waste containers and any chemical container must not be stored in a location where a spill could potentially cause a release to the environment.
    - Containers should not be stored next to sinks and ideally not in hoods with sinks.
    - Containers should not be stored on the floor where they can be kicked over, particularly in rooms with floor drains.
    - Waste should not be removed from the labs or room, with the exception of transport for final disposal.

Labeling

Label all hazardous chemical waste containers with the words "Hazardous Waste", the principle chemical constituents and their approximate percentages,

and the date the waste is first placed within the container. EH&S upon collection of waste materials will provide final regulatory labeling.

If empty commercial chemical containers are used to collect waste, the old chemical label must be obliterated and a new label affixed to the container to avoid possible confusion as to the contents.

Waste Disposal

The disposal of chemical waste via the sink or trash and the use of fume hoods to intentionally evaporate chemicals or abandonment of chemicals/chemical wastes is prohibited on campus.

Please reference the Waste Disposal Procedures for management of pharmaceuticals and controlled substances wastes.

Chemical waste pick-ups are a service provided by the EH&S Department. Chemical waste pick-ups are held weekly on Thursdays; a service request must be submitted for every chemical waste pick-up. Authorized individuals must use the bob.lushsc.edu service request system. To have a chemical waste pick-up done by Thursday, submit a service request no later than Wednesday at 4:00 p.m.

5.0 TRAINING

PI/Supervisors of staff and students shall ensure that Compliance and Training System (CATS) General and Laboratory Safety Training has been completed prior to assignment of duties managing chemical/hazardous wastes.

All EH&S personnel who handle hazardous chemical waste must complete 40-hour Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training and annual HAZWOPER refresher training.