

Radiological Waste Identification

Summary/Purpose: The Radiological Waste Identification Policy details the definition of Radiological Waste and the procedures for safe handling and preparation of Radioactive Waste Materials.

Radiological Waste Identification

The University of Mississippi generates Low-Level Radioactive Waste (LLW). This LLW includes items used in our research laboratories that have become contaminated with radioactive material, or have become radioactive through exposure to neutron radiation. This waste is comprised of used gloves, paper towels and wiping rags, pipette tips, tissue samples, filter papers, and biodegradable liquid scintillation fluids.

Disposal Procedures:

The responsibility for radioactive waste identification, labeling, and packaging rests with the Principal Investigator (PI). The PI must follow all of the procedures in the University policies and regulations, and must provide proper instruction to personnel under their supervision.

The **Sharps and Biological Waste Disposal Flow Chart** details the required separation procedures for radiological wastes.

All wastes are to be separated into solids, liquids, or gases by the user for pickup as follows:

- Solid waste should not contain any free standing liquids.
- Liquid wastes are to be separated into
 - aqueous (water-based materials containing no other hydrocarbon solvent capable of flammability), and,
 - organic (hydrocarbon solvents capable of being burned), and,
 - further segregated according to radioisotopes.
- Aqueous liquids are to be bulked up into suitable containers which have secure, leak proof seals (caps) and are properly labeled.
 - Each container should contain only one radioisotope.
 - Contact the Radiation Protection Specialist (RPS) prior to the production of any liquid waste containing multiple isotopes.
- Scintillation fluids are to be left in individual scintillation vials, tightly capped.
- Organic liquids containing radioisotopes will have to be evaluated on a case by case basis by the RPS to determine the best method of packaging.
- A “Request for Disposal of Radioactive Materials” (DHS Form 14) must be submitted to the RPS for review prior to the removal of materials that are properly packaged, labelled and ready for collection.