

FACT SHEET: Radioactive Waste Disposal Safety Guidelines



NEED TO KNOW:

- Only use OEHS-provided containers for radioactive waste disposal. One isotope, one container.
- Wear appropriate personal protective equipment when handling radioactive waste.
- Questions? Contact oehs@tulane.edu.

REMEMBER:

- **DO NOT** commingle dry waste with vials.
- **DO NOT** fill liquid containers completely. Leave enough head space to allow for expansion.
- **DO NOT** mix aqueous with organic liquid rad waste.
- **DO NOT** exceed the “fill line” of sharps containers.
- **DO NOT** pour radioactive liquids down the sink for disposal.

MORE INFO:



Radioactive waste is one of the major waste streams from university operations (e.g., research labs, medical clinics, and construction). Strict regulations govern radioactive material and radioactive waste management. Failure to comply may result in fines from the state and/or termination of the university’s radioactive material license.

Segregate radioactive waste into the following categories: Solids, Aqueous Liquid; Organic Liquid; Scintillation Vials Containing Unabsorbed Liquid, Sharps, Pathological Waste (e.g., animal carcasses), and Lead Pigs. Further segregate the radioactive waste according to radioisotope. Each radioisotope will have its own container.

OEHS provides all radioactive waste containers on campus. Each container illustrated on Page 2 is designated for a specific category of waste. **ALERT: DO NOT USE red biohazard bags for disposal.**

DISPOSAL OF SOLIDS:

- Collect solid waste into the appropriate waste containers.
- One isotope, one container.
- **DO NOT** mix solid waste with liquid waste.
- Ensure that each container has an adhesive radiation waste label attached.



DISPOSAL OF AQUEOUS AND ORGANIC LIQUIDS:

- **DO NOT MIX AQUEOUS** radioactive liquid waste with **ORGANIC** radioactive liquid waste.
- Decant each radioisotope liquid waste into its own OEHS-provided liquid container.
- Cap liquid container tightly after each use.
- Mark the Date and Radionuclide on each bottle.
- Place the liquid container in a secondary container to prevent accidental spills or leakage.



DISPOSAL OF VIALS CONTAINING UNABSORBED LIQUIDS:

- Place vials with scintillation cocktails in drum. **DO NOT** include other solid waste with the vials.



SHARPS:

- Fill sharps container to the Capacity Line. **DO NOT** exceed the line.
- Close cap when full.
- Label sharps container with an adhesive sticker that reads “Radioactive Material”.



DISPOSAL OF PATHOLOGICAL WASTE:

- Place frozen animal carcasses and tissue samples in brown paper bags and keep in freezer until waste pick-up is arranged. The freezer is considered a container for OEHS records.



DISPOSAL LEAD PIGS:

- Segregate from regular radioactive waste for special pick up.



REQUESTING WASTE PICKUP VIA OEHS:

- Fill out the [Hazardous Waste Collection Form](#). Once completed, send via email to oehs@tulane.edu.

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Safety Guidelines

CONTAINERS FOR RADIOACTIVE WASTE DISPOSAL

All radioactive waste must be segregated according to the following categories. **NOTE:** Different isotopes cannot be mixed in the same container. To arrange for radioactive waste pickup, fill out the Hazardous Waste Collection Form. Once completed, send via email to oehs@tulane.edu.

SOLIDS:

- Petri dishes
- Glass tubes
- Plastic pipette tips
- Plastic pipettes
- Culture vials
- Plastic Vacutainer tubes
- Gauze, paper towels, plastic-backed absorbents or bench coat, etc.
- Contaminated gloves and other personal protective equipment.
- Waste from cages where animals injected/infused with radionuclides are housed.



AQUEOUS AND ORGANIC LIQUIDS:

- Liquids must be in non-breakable and compatible containers provided by OEHS.



VIALS CONTAINING UNABSORBED LIQUIDS:

- Liquid scintillation cocktail in vials only. DO NOT dispose of dry material in container.
- **REGULATED VIALS (RV):** P-32; Si-32; P-33; S-35; Cl-36; Cr-51; I-125
- **DEREGULATED VIALS (DRV):** C-14; H-3



SHARPS:

- Needles
- Razor blades
- Microscope slides
- Glass pipettes
- Any contaminated material that can puncture/penetrate the skin or Red Bag



PATHOLOGICALS:

- Keep frozen animal carcasses or tissues from animals injected/infused with radionuclides prior to sacrifice.
- Place carcasses/pathological tissues in brown paper bags; **DO NOT** use sealable plastic bags. Keep in freezer until ready for pickup.



LEAD PIGS:

- Segregate from regular radioactive waste for special pickup.



ADDITIONAL RESOURCES:

- US NRC: [Title 10 Part 20 - Standards for Protection Against Radiation](#)
- University of Southern California: [Radiation Safety Manual, Chapter 8](#)