



Radioactive Waste Guidelines



Radioactive Waste Segregation

STEP 1

Segregate radioisotopes by waste type

- ✓ **Solid Waste:** lab debris (paper, etc.), disposable gloves, etc.
- ✓ **Non-hazardous Liquid Waste:** buffers, aqueous liquids with a pH between 7 and 11
- ✓ **Hazardous Liquid Waste:** flammable, corrosive, toxic, etc.
- ✓ **Liquid Scintillation Cocktail:** vials containing scintillation cocktail
- ✓ **Sharps:** needles, razor blades
- ✓ **Bio-hazardous Waste:** animal carcasses or tissue
- ✓ **Lead:** bricks, foil, etc.

STEP 2

Within each waste type, segregate radioisotopes by half-life:

- ✓ < 15 days (such as ^{32}P and ^{111}In)
- ✓ 15-28 days (such as ^{33}P and ^{51}Cr)
- ✓ 29-60 days (such as ^{59}Fe and ^{125}I)
- ✓ 61-90 days (such as ^{35}S)
- ✓ 90 days (such as ^3H , ^{14}C , ^{57}Co , ^{22}Na , ^{45}Ca)

Radioactive Waste Labeling and Storage

- Use appropriate label and containers for labeling and storage of radioactive waste
- Always place liquid container in secondary containment to adequately contain all of the contents of the container/spilled materials
- Mark storage area with “Caution Radioactive Material” sign that include the trefoil radiation symbol
- Keep containers closed when not in use.
- **Do not dump it down the drain!**
- **Do not dispose of radioactive materials/waste via sinks or trashcans.**
- **Do not intentionally evaporate radioactive materials/waste**

*Please make sure you read and understand the Tennessee State University Radiation Safety Manual and have completed the Radiation Safety training **BEFORE** you start working with radioactive materials.*