

Georgetown University

*LM-12 Preclinical Science Building
3900 Reservoir Road, N.W.
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*Radiation Safety
(202) 687-4712
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RADIOACTIVE WASTE - DISPOSAL TO THE RSOS

All radioactive waste generated by Authorized Users (AU) must be delivered to the Radiation Safety Office Staff (RSOS) for storage and disposal. The only exception to this rule involves sink disposals of liquid radioactive waste, which require special authorization (see page 2). Researchers must prepare and deliver the waste to the RSOS in accordance with the criteria listed in this procedure. The RSOS provides assorted sizes of yellow plastic bags and liquid waste containers. The RSOS receives waste at the following locations and times:

Medical Center - Every Monday and Thursday, 11:00 - 11:30 am
WG-01 The Research Building (loading dock area)

Reiss Building - Every 1st Wednesday of each month, 2:30 - 3:00 pm
Reiss Science loading dock

Radioactive Waste packages must never be left unattended in these locations.

All radioactive waste must be sorted by isotope and type. Carts must be used to transport the waste to the RSOS. Proper protective clothing must be worn while packaging and transporting radioactive waste. If applicable, personnel monitoring must be performed and the results documented on the Personnel Contamination Monitoring Form (PCMF). All waste transfers must be accompanied by a completed Radioactive Waste Transfer Form. Please write legibly on all waste transfer paperwork and tags. Use microcuries as the unit of activity for waste transferred. Call the RSO at 7-4712 with any question regarding waste transfer. The types of waste and the disposal requirements for each are as follows:

Solid waste

- must have a completed radioactive waste tag attached, indicating isotope and activity.
- must be transported in bags which are securely fastened (i.e., taped).
- cannot contain any liquid at all - not even one cc!
- cannot contain any biohazardous material.

Liquid waste

- must have a completed radioactive waste tag attached, indicating isotope, activity, volume, pH, and, chemical contents with percentage (to 100 percent of volume).
- must be determined to be Aqueous (water soluble) or Organic (i.e. phenol or >22% methanol).
- have container lids which are securely fastened.
- must have the pH adjusted to a value between 5.5 and 8.5.
- must be transported in plastic containers.
- must be transported in a secondary containment.

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RADIOACTIVE WASTE - DISPOSAL TO THE RSOS

Liquid Scintillation Vial Waste

- must be transported in vial trays with the caps on each vial tightly closed.
- each tray must be labeled with a sticker provided by the RSOS which indicates the isotope, activity and number of vials.
- must include the brand of cocktail solution on the Radioactive Waste Transfer Form.

Stock Vials

- have an attached radioactive waste tag indicating isotope, activity and # of vials.
- be separated from the carrier vial containers (lead or plastic). The carrier vial containers must also be bagged and transferred to the RSOS, however, no tag is required.
- must not be mixed with solid waste.

Sharps

- have a completed radioactive waste tag attached, indicating isotope and activity.
- must be in an approved sharps container.

Animals

- have a completed radioactive waste tag attached, indicating isotope, activity and number of animals.
- must be wrapped in absorbent material, frozen solid and sealed inside plastic bags.
- segregate the types of animals into separate bags (mice, rats, etc.).
- separately bag all bedding associated with the animals.

Sink Disposals

Authorized Users must specifically request, and receive approval, for disposal of radioactive materials in the laboratory sinks. The isotopes, activities and solubility class are stated in each Authorization To Use Radioactive Materials. Each sewer disposal performed by the Authorized User's researchers must be documented on the Radioactive Materials Control Sheet (RMCS) and reported on the Authorized User Quarterly Inventory Report Summary. However, all Authorized Users are encouraged to forego sink disposals and collect their aqueous liquids in bulk for disposal by the RSOS. Additionally:

- Materials must be readily soluble or dispersible in water.
- Organic solvents must not be disposed of in this manner.
- A written record of each such disposal must be maintained by the Authorized User. The RMCS may be used for this purpose, but must include the isotope, activity, volume, pH, and, solubility class of the solution.
- Sinks used for the disposal of radioactive materials shall be labeled with the "CAUTION--RADIOACTIVE MATERIALS" warning label. Only one sink in a laboratory should be used for this purpose. The inside surface of the sink shall be included in the random areas tested for contamination as a part of the routine survey requirements.