

Package Shipping and Receiving Procedures

Shipping

Any person transporting and shipping radioactive packages must have a current training certificate (requirements of DOT, NRC, and IATA/ICAO). Training will be completed within 90 days of employment.

Transporting and shipping radioactive materials will follow applicable federal and state regulations and severe penalties may be charged on individuals not in strict compliance with these laws. Shipment of radioactive materials or radioactive materials containing devices must be scheduled with Radiation Safety Office and will be shipped by trained Radiation Safety Personnel. It is the responsibility of the individual who requested shipment to comply with the guidelines provided in this section when shipping outside of the campus.

The three types of radioactive materials or radioactive materials containing devices transfer from the University of Rhode Island (URI) are:

- I. Transfers within the University
- II. Transfers between URI and other organizations in US
- III. International transfers.

I. Transfers within the University

Transfers within the University are defined as any amount of radioactive materials or radioactive materials containing devices being transferred by the Radiation Safety Office to individuals who are registered as authorized users (AUs) with the Radiation Safety Office. For general licensed materials or devices must be registered with the Radiation safety Office before the transfer. To conduct a transfer between the AUs, please refer to the items below:

- A. Notify and consult with the Radiation Safety Office of your need to transfer radioactive materials or radioactive materials containing devices within the University (call 874-2600). Advance notice must be given to Radiation Safety Office to allow for the required proper packaging of your materials and for transportation planning if necessary.
- B. Radiation Safety Office will confirm the AU receiving the radioactive materials or radioactive materials containing devices is authorized for the type and quantity being transferred.
- C. The activity, in microcuries or millicuries, of radioactive materials or radioactive materials containing devices to be transferred must be accurately calculated.

- D. Radiation Safety Office will require document(s) including the transfer date, name of individual transporting the radioactive materials if not using motor vehicle, the AU sending the materials or devices, the receiving AU, laboratory locations, and radioisotope name and quantity.
- E. Once transfer is complete, update radioactive material or radioactive materials containing devices inventory to reflect change.

Transferring between the AUs using motorized vehicle is prohibited. Any transfer using motorized vehicle can only be authorized by the Radiation Safety Office.

II. Transfers between URI and other organizations in US

Notify the Radiation Safety Office of all intended transfers of radioactive materials or radioactive materials containing devices to other organizations at least 2 weeks prior to the anticipated date of shipment. Radiation Safety Office will assist in providing, transport related document including labels and ship the radioactive materials or radioactive materials containing devices in compliance with all applicable regulations. To be assisted by the Radiation Safety Office, AU must: (Unless AU is DOT trained, all outgoing shipment from URI will be shipped by the Radiation Safety Office)

- A. Provide following
 - 1. Shipper name
 - 2. The radionuclide names
 - 3. The amount of activity (μCi or mCi)
 - 4. Chemical and physical form of the material
 - 5. Volume (in ml) or mass (in grams)
 - 6. Any other requirements (ex. dry ice)
- B. Provide information of the Radiation Safety Office at the organization you intend to ship the radioactive material to the Radiation Safety Office and the Radiation Safety Office will:
 - 1. Inform the receiving Radiation Safety Office of the name of the person you plan to send the material to and the isotopes and quantities to be sent.
 - 2. Provide all documents that the receiving organization requests.
 - 3. Confirming receiving institution will accept your material. This document must include:
 - a) The radionuclide name and the activity
 - b) The chemical or physical form of the material
 - c) The exact mailing address of the location where the radioactive package will be received
 - 4. Ask the receiving Radiation Safety Office to provide their NRC or agreement state license

III. International Shipments

For any international radioactive material shipment, Radiation Safety Office must be contacted in advance. International shipments of radioactive materials or radioactive materials containing devices will be completed by the Radiation Safety Office only unless AU is DOT trained. International shipments generally require more documentation and special consideration. Additionally, it may not be possible to transfer radioactive materials or radioactive materials containing devices to some foreign countries due to transportation restrictions and relationship of the two countries.

Radiation Safety Office must be contacted prior to the completion of any plans to perform experiments that will result in the production of radioactive materials intended to be shipped outside the US.

Receiving

Packages of radioactive materials shall only be received by the Radiation Safety Office and should be opened using the following procedures:

1. Wear proper protective equipment (PPE) including lab coat, disposable gloves, safety glasses, dosimeters if assigned, etc.
2. Check for evidence of mishandle and potential contamination such as packages that are crushed, wet, or damaged.
3. Open all packages containing volatile radioactive materials (ex. I-125, I-131) in an approved fume hood.
4. Monitor all packaging material for contamination/dose rate with a survey meter and record results.
5. Conduct wipe tests on the outside of the container, the vial container, and the vial for removable contamination.
6. Analyze the wipes using an appropriate counting device such as scintillation counter. Record the results on a form and sign and date with the actual analysis print out if available.
7. If there is no contamination above the action level ($220 \text{ dpm}/100 \text{ cm}^2$) on the outside package, write an inventory number on the vial container and the vial, and deliver to the user with the material tracking form.

8. The Radiation Safety Office will keep all survey results for the shipment for a minimum of three years.
9. If there is any evidence of leakage or external contamination above the regulatory limits, the Radiation Safety Office must contact the carrier and the Rhode Island Department of Health Radiation Control immediately.