

Transportation Instructions for Radioactive Material

Requirements for the transportation of radioactive material on campus and to other institutions must comply with both the NRC and DOT regulations. Transporting may involve walking or driving radioactive material across campus, or shipping off campus. The ORCBS must be notified before any transfers take place. This is to insure that proper procedures are followed and movement of radioactive material is tracked. Any transfers of radioactive material (possession transferred from one principal investigator to another) must be pre-authorized by the ORCBS.

Package Preparation

All packages used to transport radioactive material must be strong, tight containers that will not leak under normal transportation conditions (such as dropping, jarring or temperature extremes). If liquid is shipped, use at least twice the amount of absorbent needed to contain the entire volume, in case the container should break or leak. If you are not sure whether the container you plan to use is adequate, contact the ORCBS.

Transportation on Campus

Whenever radioactive material is transported from one building to another, the ORCBS must be notified of the following information:

- When the material will need to be moved
- The names of the person sending and receiving the material (if different)
- The sending and receiving locations
- The nuclide(s) being moved
- The chemical form of the isotope
- The total activity in mCi
- Number of containers
- Phone numbers of responsible persons
- Any special conditions

Walking to another building

Prepare to move your material using an appropriate container (see Package Preparation above). The package must have a radioactive warning label with the isotope, activity in DPM, uCi or mCi and date. Clearly identify the principal investigator and one other contact in case of an accident or loss of the package. The package must be tested for removable contamination before it leaves its place of origin and after it reaches its destination. Contact the ORCBS if any removable contamination is detected.

Driving to another building

The transportation of radioactive material is regulated by the Nuclear Regulatory Commission (NRC) and the Department of Transportation (DOT). **You must not move any radioactive material on a public road without prior authorization by the ORCBS.** Remember that all roads on the MSU campus are public. The ORCBS will prepare documentation and transport your material. The sender's responsibility is to contact the ORCBS in advance, and properly package the radioactive material.

Prepare to move your material using an appropriate container (see Package Preparation above). The ORCBS will determine what package labeling is required. Do not seal the package. The

condition of the package must be checked and a leak test performed by the ORCBS. A radiation worker must be present at the receiving location to take possession of the material at the arranged time.

Shipping Radioactive Material

When preparing to ship radioactive material, whether it is radioactive samples or a piece of equipment being returned for repairs, the ORCBS must be informed in advance. **Do not expect to send shipments out immediately.** Federal regulations must be followed regardless of the quantity being sent.

Shipments can only be made to institutions that are licensed to possess radioactive material. When shipping to another licensee, it is required that prior authorization be obtained from the Radiation Safety Office at that location, preferably the Radiation Safety Officer. License information must be on record or obtained before the shipment can be sent. To initiate this process, the person sending the material must have the following information:

- The name of the person sending the material
- Facility name and address
- The name of the person receiving the material
- The Radiation Safety Officer's (or other staff member) name and phone number
- The nuclide(s) being sent
- The chemical form of each isotope
- The total activity in mCi for each isotope
- Number of containers in the shipment
- Any special conditions.

Radioactive material is sent from this university through the MSU Stores mail room. A material return (MR) form must be filled out by the department **and** completed by MSU Purchasing. Purchasing will then assign an MR number to the shipment. The Stores mail room will not send the package without this number.

Prepare to ship your material using an appropriate container (see Package Preparation above). The ORCBS will determine what package labeling is required. Do not seal the package, as the condition of the package must be checked and a leak test performed by the ORCBS. Labels will be placed on the package, if required. When the package and paperwork are in order, the ORCBS will transport the package to the MSU Stores mail room. Copies of the shipping papers, material return form, and any other paperwork will be made and maintained for review at the ORCBS.

Remember that shipments of radioactive material must be planned well in advance; allow at least two weeks prior to the desired shipping date.