



**College of Earth, Ocean, and
Atmospheric Sciences**
Oregon State University
Ship Operations
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Radiation Safety Officer

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Radioactive Material Use Authorization Request

Every vessel has its own policies and procedures with regard to isotope use onboard. These are normally linked to the institution or agency which owns or operates the vessel. Generally speaking, most vessels require that all isotope use be conducted inside a portable laboratory to ensure the labs in the vessel itself stay as "clean" as possible. For personnel and samples coming and going from the lab, the policies and procedures may vary widely.

Always coordinate with the vessel's Radiation Safety Officer (RSO).

The introduction, use and disposal of radioisotopes onboard research vessels owned, operated and/or chartered by OSU's College of Earth, Ocean and Atmospheric Sciences shall comply with the regulations of the Federal Nuclear Regulatory Commission (NRC) and State of Oregon statutes (ORS), be sanctioned by the OSU Radiation Safety Committee (OSURSC) and monitored or supervised as appropriate by the OSU Radiation Safety Officer (RSO).

The R/V OCEANUS operates under Oregon State University's radioactive materials license ORE-90005, issued by the State of Oregon. All possession and use of radioisotopes aboard must comply with State regulations and University procedures. For all activities outside of Oregon waters, additional specific arrangements must be made with the U.S. NRC and any other regulatory agencies having jurisdiction. In order to insure authorization approvals, training certificates, license amendments, reciprocity approvals, etc., are completed in time it is necessary for experimenters to submit their written requests for radiation use authorization at least sixty days in advance (the same timing required for the preliminary cruise plan).

This form may also be emailed or faxed to the OSU Radiation Safety Officer using the contact information above. For information and assistance concerning requests, or concerning other radiation safety matters, please contact the RSO (<http://oregonstate.edu/ehs/rso>)

Requestor Information

Name & title

Email address

Phone

Are you the Authorized User of radioactive material? Yes No

If no, enter Authorized User:

Home institution name and address

List other isotope user names, titles and institutions

Name, phone, email of home institution RSO

Licensing. Please have your home institution's RSO contact Dan Harland and Roberta Mesa regarding radioactive materials licensing requirements for your cruise. Licensing must be approved for cruise to proceed.

Purpose, dates, location Please provide a short description of the general nature of the work, the research vessel name, cruise dates (including expected repetition of cruise at later dates, if applicable), ports, and cruise area:

Isotope Information. Please provide the following information for the isotope use you are requesting: list each isotope, its activity in millicuries and physical form (liquid, solid, gas, sealed source [ECD, et. al.]) and chemical form (e.g.: sodium bicarbonate). For all sealed sources forward your most recent leak test certification to Dan Harlan.

Protocols. Send a copy of your radioisotope use protocols to Dan Harlan. Protocols should specify activity amount used per manipulation.

Use and Storage. Describe locations for isotope use and storage in the isotope van, including fume hoods, refrigerations/freezers. List and describe any equipment used in conjunction with your work, including liquid scintillation counters. Request LSC for sample analysis. List any radiation monitoring equipment you will be using, including manufacturer, model and calibration date.

Radiation Safety. Describe arrangements for isolation and control of radioisotope, including controlled area boundaries and use of personal protective equipment. Explain weekly radiation contamination surveys and spill clean up procedures. Explain dosimetry requirements, if any and dose reduction equipment to be used. Give an estimate of total activity released, if any.

Radioactive waste management. Describe types and quantities of waste generated and request waste containers here. Please request supplies needed for sample packaging and shipment. **Note that the OSU license does not permit discharge of radioactive wastes to the ocean; all waste must be packaged and brought ashore for disposal. Disposal of non-routine radioactive waste by OSU involves a separate fee.**

Radioisotope shipping and logistics. Please describe your plan for shipping and transfer of radioisotopes both to and from the vessel. Note that if your cruise loads in Newport it is possible to ship your isotope to OSU Ship OPS for transfer to the vessel.

Authorized users training. OSU employees who handle isotopes must have a signed radioisotope orientation acknowledgment on file prior to departure. Non-OSU personnel must submit a memo from their organization's Radiation Safety Officer stating that the person has received radiation safety training adequate to satisfy requirements of 10CFR19 (not needed if a previous radioisotope use authorization for the specific PI and user had been granted and is on file at the OSU Radiation Safety Office).

Experience. Describe previous experience using radioactive materials on research vessels. Include isotopes used, activity levels, and other experience such as shipment of radioactive materials, spill clean up and use/trouble shooting liquid scintillation counters.

Certification statement.

It is understood that all users have proper training in handling isotopes and either have experience with isotopic work at sea or will be under the direct supervision of an experienced user. All precautions for handling and disposal of radioactive wastes shall be followed. It is further understood that all isotope work will be confined to an isotope van and that unreported transfer of isotope onto the research vessel itself may result in revocation of user's isotope privileges on SIO vessels. The user is assumed by the signature below to accept responsibility for cleanup of any radioisotope spills on board the vessel, and for the safe and legal use and transport of isotope.

Signature & Date

Title & Institution

The RSO will prepare an OSU Radiation Use Authorization (RUA) for the proposed work. The RUA includes: 1) work authorized, including location onboard, personnel, description of radioisotopes to be used, 2) RUA Conditions, including procedures for monitoring work, post-cruise surveying/clean-up, waste and material disposal cost apportionment, and appropriate signatures (P.I., RSO, Marine Superintendent).

Approval

RSO

Ship OPS/Marine Superintendent