

Old Dominion University
Radiation Safety Committee

Application for the Possession and Use of Radioactive Materials

Directions: This application is to be completed only by Authorized Users or persons applying concurrently for Authorized User status (RSO-1). *Complete in duplicate, sign both copies, and return to the Environmental Health and Safety Office/Radiation Safety Office.* When approved by the Radiation Safety Committee, one copy will be returned to the applicant to serve as his/her authorization. *This authorization expires two years from the approval date.* An amendment must be submitted for approval before any change in protocol.

1. **Applicant:** _____

Department: _____

2. **Application Type:** New Renewal Amendment

3. **Office:**

Building _____ Room _____ Phone _____

4. **Location(s) of Proposed Use:**

Building _____ Room(s) _____ Phone _____

5. **Radionuclides for Possession:**

(a) **Radionuclide:** _____ Possession Limit (mCi): _____

Chemical/Physical Form: _____

(b) **Radionuclide:** _____ Possession Limit (mCi): _____

Chemical/Physical Form: _____

(c) **Radionuclide:** _____ Possession Limit (mCi): _____

Chemical/Physical Form: _____

(d) **Radionuclide:** _____ Possession Limit (mCi): _____

Chemical/Physical Form: _____

(e) **Radionuclide:** _____ Possession Limit (mCi): _____

Chemical/Physical Form: _____

6. Sealed Sources Only:

Complete this part for each sealed source proposed for use. Low activity check sources and exempt check sources need not be listed.

(a) Source:

Radionuclide: _____ Half-life: _____

Activity: _____(mCi)

Principal radiation emitted (check one or more) and energy(s) of the emission(s):

Alpha Energy _____(MeV)

Beta Energy _____max. (MeV)

Gamma or x-ray Energy _____(MeV)

Positron Energy _____(MeV)

Date calibrated: _____

Manufacturer: _____

Model No.: _____

Serial No.: _____

(b) Source description:

(c) Describe the proposed use(s) of the source giving particular attention to health and safety aspects:

7. Unsealed Sources Only:

Complete this part for *each* radionuclide proposed for use. Use a separate page for each radionuclide.

(a) Radionuclide:

Radionuclide _____ Half-life _____

Principal radiation emitted (check one or more) and energy(s) of the emission(s):

Alpha Energy _____(MeV)

Beta Energy _____max. (MeV)

Gamma or x-ray Energy _____(MeV)

Positron Energy _____(MeV)

(b) Experimental Protocol:

Outline experimental protocol, with particular attention to health and safety aspects of the proposed use. Use additional sheet(s) if necessary.

(c) Waste:

Estimate activity and volume (or number) of waste that will be generated by proposed use.

Aqueous: Activity/Volume per month _____

Other liquid (specify): Activity/Volume per month _____

Liquid scintillation vials Activity/Number per month _____

Animal carcasses Activity/Number per month _____

Solid (dry)/Incinerable Activity/Volume per month _____

Solid (dry)/Non-Incinerable Activity/Volume per month _____

Other (specify): Activity/Volume/Number per month _____

(d) Associated Wastes:

If applicable, describe any mixed waste (e.g. carcinogenic, hazardous etc.) that will be generated as a result of proposed use

8. Equipment and Facilities:

(a) Instruments and Equipment:

Check available instruments and equipment

Fume hood Room # _____

Appropriate signs, tape and labeling

Personal protective equipment (PPE)

Disposable gloves

Lab coats

Safety glasses

Waterproof backed absorbent material for benches

Remote pipette(s)

Trays to contain spills

Film badges

Portable radiation detection instrument(s) Specify type _____

Liquid scintillation counter

Gamma scintillation counter

(b) Facilities:

Attach a floor plan of areas where radioactive materials are used or stored showing fixtures such as sinks, hoods, benches, cold rooms etc., and major pieces of equipment such as refrigerators, freezers, centrifuges desks, radwaste containers etc. Indicate work areas, radioactive material storage areas, radioactive waste storage areas, entrances and exits. *Indicate room numbers.*

9. Security and Emergency Procedures:

(a) Security

Describe what provisions have been made to insure that radioactive materials are secure from unauthorized persons. Also describe a key control plan designed to restrict access to areas where radioactive materials are used and stored.

(b) Emergency Procedures:

Describe the emergency procedure(s) that will be followed in case of a spill or accident. Describe decontamination procedures.

(c) Emergency Contacts:

List two names and phone numbers to be called after hours in case of emergency.

Name _____ Phone _____

Name _____ Phone _____

10. Monitoring and Recordkeeping:

(a) Laboratory monitoring:

Describe your laboratory monitoring program. Include a description of your swipe survey schedule (specifically the frequency of surveys), areas to be surveyed, and documentation of surveys. *Note:* Survey frequency must be commensurate with the type(s), form(s), and activities of radionuclides proposed for use. For most applications swipe surveys must be conducted on a monthly basis. See the Radiation Safety Policy and Procedures Manual for guidance.

(b) Recordkeeping:

Describe your method of inventory control and accounting, including records of receipt, use and disposal.

11. Personnel:

List all persons who will use or will be potentially exposed to radiation as the result of proposed use.

11. Certification:

The signature below affirms that the applicant has read and will comply with the rules, regulations, and procedures of the Old Dominion University Radiation Safety Committee and Radiation Safety Officer. The applicant accepts responsibility for maintaining current knowledge of those rules, regulations, and procedures and responsibility for the actions of those persons working under his/her authorization. Any changes in the use protocol, personnel and the location of use will be reported to the Radiation Safety Officer in a timely manner.

Signature _____ Date _____

Radiation Safety Committee:

Approved / RSC Chair _____ Approved / RSO _____
Approved / RSC Member _____ Approved / RSC Member _____
Approved / RSC Member _____

(a) Dosimetry Indicated

- Whole Body
- Whole Body + Extremity
- Bioassay

(b) Special conditions attached to approval:

(c) Date of approval: _____

(d) Expiration date: _____
(rev. 7/02)

RSO-2