

APPLICATION TO USE SEALED RADIOACTIVE SOURCES AT THE UNIVERSITY OF WYOMING

DIRECTIONS: This application is for sealed sources of radioactive materials covered by UW's NRC byproduct materials license. You must have Radiation Safety Committee approval before acquiring ionizing radiation sources. You must also have the prior approval of the Institutional Review Board (IRB) for projects involving human subjects.

This form is divided into 7 sections. Please print, type, or provide legible copies of printed material in response to the questions.

Sections A-E Complete by filling in the blanks to the best of your ability. Additional information can be supplied from the Radiation Safety Office or by the UW Safety Office. If you require more space, use the back page or attach a separate sheet. Do not leave any answers blank. If a question is not applicable to your situation, say so.

Section F This section consists of four forms: two of which are to be completed and posted in a conspicuous location in your workplace; and two forms for Radiation Safety records. A copy of each form must accompany the application. Attach a detailed description of the proposed use(s) of the radiation device, followed by a more detailed description of the procedures or any other information that would aid in the evaluation of the application.

Section G This space is reserved for any additional remarks by the applicant, Radiation Safety Officer or Radiation Safety Committee. The application is signed and dated at the bottom by the applicant and the RSO granting temporary approval if necessary.

A separate application form is required for each source. On completion, detach these directions and return the application to the Radiation Safety Office, Room 651, Hill Hall.

Keep a copy of your application for your office or workplace.

Radioactive Materials Safety Plan and other radiation safety information will be supplied by the Radiation and Safety Office, Hill Hall (766-2638).

The applicant is invited to attend the Radiation Safety Committee meeting at which this application will be reviewed. The applicant will be notified of the committee's final decision.

Attachments:

1. Safety Regulations Related to Sealed Sources
2. Radiation Survey Guidelines
3. Training in Use of Radioactive Materials
4. Occupational External Radiation Exposure History (NRC Form 4)
5. University of Wyoming Radioactive Materials Safety Plan

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AT THE UNIVERSITY OF WYOMING**

A. Principal User (Applicant) Information

1. Name and mailing address of Principal User: _____

2. Principal User's e-mail address _____
3. Principal User's Department: _____
4. Principal User's work phone number(s) _____
5. Principal User's home phone number _____
6. Building(s) and room(s) where sealed
source(s) will be used _____

B. Information on Sealed Source Device

1. Give a brief description (type, make, model) of the sealed source device and how it will be used. ***Attach a full description of the proposed use to this application.***

2. Will the sealed source device be used on human subjects?
_____ No (if No, skip to question B.3.) _____ Yes
 - a. ***Attach proof of approval from the Institutional Review Board (IRB)***
 - b. ***Attach an example of the informed consent form and questionnaire.***
 - c. Provide the skin entrance dose and effective dose from each procedure:

 - b. Will women of childbearing potential be included in this protocol?
_____ No (if No, skip to question B.3.) _____ Yes
If yes, describe how you will determine if the subjects are not pregnant.

3. Maximum frequency of equipment use: _____
(number/unit of time)
4. Duration of time permit is requested: _____
(maximum 3 years)

C. Radiation Hazard Information

1. What radioactive isotope(s) and activities (in millicuries, or mCi) will be used? _____

2. List the type(s) and energy(ies) of radiation emitted by the isotopes _____

3. Half-life of radionuclide _____
4. Occupational Exposure estimates. For the operator and other personnel who occupy the controlled radiation area, answer the following questions:
 - a. Body part(s) exposed to external radiation during procedures using sealed source _____
 - b. Maximum exposure rate (mR/hr) from source _____
5. Overall hazard rank of workplace, based on toxicity of and proposed usage amounts of radionuclide (refer to Radiation Safety Manual, section II-E) (circle one)

Type C
low

Type B
medium

Type A
high

D. Exposure Control and Monitoring

1. List the monitoring method(s) required for external exposures, and what frequency _____

2. Are written instructions for all procedures involving the radiation device available to the operator during the procedure? Elaborate: Yes _____ No _____
3. Will radiation shielding be used for the operator or room? Yes _____ No _____
Elaborate:
4. List the monitoring instrumentation available to you. If you are using someone else's instrumentation, submit a letter signed by the person responsible for the instrument.

Instrument/ Detector	Make	Model	Serial Number	Radiation Detected	Location (Bldg, rm)	Person in Charge

E. University Policies and Procedures

1. Have you read the University of Wyoming Radiation Safety Manual? Yes _____ No _____
2. Are you aware that all orders, shipments, and transfers of radiation sources must be approved and processed through Risk Management and Safety? Yes _____ No _____
3. Describe the security of sealed sources and how you will prevent unauthorized access.
4. Will ionizing radiation be used on animals? Yes _____ No _____
If Yes, attach a) The letter of approval from the UW Animal Care Committee.
b) A description of the handling precautions and training for personnel.

F. Forms (check with Risk Management & Safety)

Complete the following forms (attached). If these have been completed on a previous application and no changes are involved, refer to the existing form.

- a) Safety Regulations Related to Sealed Sources (a copy of this form must be posted in each lab).
- b) Radiation Survey Guidelines (a copy of this form must be posted in each lab).
- c) Training in Use of Ionizing Radiation (for each person who will operate the device). Attach any additional proof or description of training you have received.
- d) Occupational External Radiation Exposure History (NRC Form 4) (for each authorized device operator or student operator)

G. Remarks: by the applicant, Radiation Safety Officer or Radiation Safety Committee

Applicant signature _____ Date _____
Signed temporary approval by RSO _____ Date _____

Final approval in Radiation Safety Committee Minutes dated _____

SAFETY REGULATIONS RELATED TO SEALED SOURCES

For room# _____ Building _____.

A copy of these regulations will be posted in the workplace.

No food or beverages may be stored or consumed in the laboratory.

<p>The following shielding and/or apparel must be worn when working with radiation devices in this workplace:</p>	
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Persons using radiation devices in this workplace must wear the following personnel exposure monitors (dosimeters):	
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The workplace person who is responsible for distributing personnel dosimeters is:	(name)
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Workplace surveys are to be conducted every: _____
(time period)

Dates and results of workplace surveys will be recorded in a logbook. The logbook will be kept:	
	(location)

Place where copies of the UW <u>Radiation Safety Manual</u> , radiation device operator's instructions and OSHA regulations are kept:	(location)
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The person responsible for records is:	
	(name)

The person responsible for rule enforcement is:	
	(name)

Authorized Users for this Sealed Source

[illegible]

RADIATION SURVEY GUIDELINES

USER _____ BLDG _____ ROOM # _____

Workplace surveys required every (circle one): month week day other

Instructions: Sketch the workplace in the space below and number the areas to be surveyed. Show all exits and permanent room fixtures. Indicate all radiation usage areas, operator stations and shielding. Show the location of the UW Radiation Safety Manual, OSHA regulations (29CFR1910.1096), and the radiation device operator’s manual or other instructions.

Complete the table below for each survey location identified in the workplace sketch.

Instrument Used:			
Location #	Description	Location #	Description

Person responsible for: surveys _____ records _____