



# Radiation Safety



## RADIATION PROCEDURES MANUAL

### Procedure Cover Sheet

Procedure Title: Radiation Use Application

Procedure Number: RS-20, Rev. 0

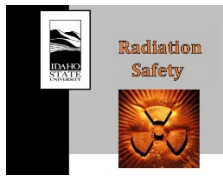
Effective Date: January 15, 2021

Reviewed By: Mason Javasi  
Assistant Radiation Safety Officer

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Approved By: John Longley  
Radiation Safety Officer

Date: 07-JAN-2021

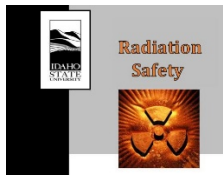


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## 1. INTRODUCTION

Researchers who wish to be named on a permit and perform the duties of an Authorized User per section 5.5 of the Radiation Safety Manual (RSM) shall be approved by the Radiation Safety Committee (RSC). Any new uses of radioactive material or radiation machines not listed on an existing permit for the requesting authorized user must be reviewed and permitted per Section 7 of the RSM. Granting of authorized user status, preparing or updating a permit, and terminating a permit are performed in accordance with this procedure. This procedure provides details for implementation of Section 7 of the Radiation Safety Manual.

## 2. PURPOSE

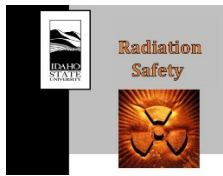
This procedure gives instructions for a researcher to supply necessary information to be qualified as an Authorized User and to provide details of their proposed research to allow the RSO/RSC to develop a Radiation Use Permit.

## 3. SCOPE

This procedure addresses authorization and permitting for all uses of ionizing radiation at ISU including use of radioactive material and use of radiation machines for academic, research, or clinical applications.

## 4. ROLES AND RESPONSIBILITIES

- **Researcher** – Researchers proposing to work with ionizing radiation submit documentation of their experience working with radioactive materials or radiation machines to demonstrate they are qualified to be an Authorized User. In addition, they submit detailed information regarding their project to the RSO for development of a Radiation User Permit. The term researcher encompasses all ISU and affiliated personnel who use radiation in research, academic, or clinical programs.
- **Radiation Safety Officer** –The RSO works with the researcher to obtain necessary information regarding qualification of the researcher and forwards the information to the Radiation Safety Committee for evaluation. In addition, the RSO receives detailed information regarding the proposed research and develops a draft Radiation Use Permit in conjunction with the Radiation Safety Committee Chair.
- **Radiation Safety Committee** – The RSC evaluates the qualifications of the researcher to serve as an Authorized User and formally votes to approve or disapprove the candidate. In addition, the RSC evaluates draft Radiation Use Permits and formally votes to approve or disapprove the permit.
- **Radiation Safety Committee Chair** – The RSCC works with the RSO to evaluate detailed research proposals and develop draft Radiation Use Permits.



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## 5. REQUIRED MATERIAL(S)

None.

## 6. PROCEDURE

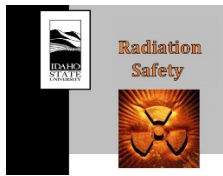
### 6.1. Evaluation of Proposed Authorized Users

- 6.1.1. The researcher must first qualify as a Radiation Worker by completing initial radiation safety training or X-ray radiation safety training as applicable and submitting Form RPR-1 to the Radiation Safety Department.
- 6.1.2. The researcher submits a summary of radiation experience and copy of their CV to the RSO.
- 6.1.3. The RSO submits the information to the RSC Chair who in turn submits the information to the RSC for evaluation at the next meeting or by electronic vote if necessary to meet schedule constraints.
- 6.1.4. The RSC evaluates the researcher's qualifications and votes to approve or disapprove the researcher to serve as an Authorized User. If necessary, the RSC may grant interim approval to a researcher pending further training and assistance by the Radiation Safety Department.

### 6.2. Development of Radiation User Permits

Application to serve as an Authorized User and application for a Radiation Use Permit may occur in one submission or in serial steps.

- 6.2.1. The Authorized User (researcher) submits the following information to the RSO. Information must be sufficient to demonstrate the safety of the operation.
  - Description of facilities and equipment.
  - Radioactive materials to be used if applicable.
  - Radiation machines to be used. The Radiation Safety Department will register with the Idaho Department of Health and Welfare.
  - Operating or handling procedures.
  - Shielding designs for sources that can create a high radiation area and radiation machines.
  - Additional hazards present in the work area that may affect radiation safety. See Section 7.3 of the Radiation Safety Manual.
- 6.2.2. The RSO and RSCC review the information provided and the RSO develops a draft Radiation Use Permit.



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- 6.2.3. The RSO submits the draft permit and supporting information from the researcher to the RSCC who in turn submits the information to the RSC for evaluation at the next meeting or by electronic vote if necessary to meet schedule constraints.
  - 6.2.4. The RSC evaluates the draft permit and votes to approve or disapprove the Radiation Use Permit.
  - 6.2.5. Once approved by the RSC, the permit will be signed by the RSCC and the RSO and submitted to the Authorized User for signature confirming they will comply with the Radiation Safety Manual and conditions of the permit.
  - 6.2.6. The Authorized User retains the fully signed permit for use in their program and returns a copy to the RSO for inclusion in the Radiation Safety Department records on Box.
- 6.3. Updates to Existing Programs
- 6.3.1. The authorized user will submit information describing the change to the RSO. Information will address the topics addressed in the original permit application.
  - 6.3.2. The RSO will review the information to determine if a permit modification is necessary. If so, the RSO will follow the process in Section 6.2 to create a revision of the permit and route it to the RSCC/RSC for evaluation/approval.
- 6.4. Termination of Permits
- 6.4.1. The Authorized User will notify the RSO at least 30 days prior to the planned end date of radiation/radioactive material use. This event can be triggered by retirement, acceptance of another job, or completion of research activities.
  - 6.4.2. If the research will continue, a new Authorized User will be identified and evaluated as described in Section 6.1. The permit will be revised to reflect the new authorized user as described in Section 6.3.
  - 6.4.3. If the research/operation is complete, the RSO will secure all radioactive materials and radiation machines. Radioactive materials will be transferred to the RSO permit in the EHS Assistant database. As necessary, the Radiation Safety Department will perform decommissioning surveys.
  - 6.4.4. For terminated permits, the permit will be removed from the active permit list with the date of termination noted. The permit will be retained in the Radiation Safety Department records on Box.