RADIATION PROCEDURES MANUAL
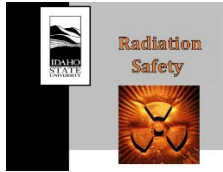## Procedure Cover Sheet

Procedure Title: Radiation Safety Training Record Management

Procedure Number: RS-18 Rev.1

Effective Date: 08/01/2022
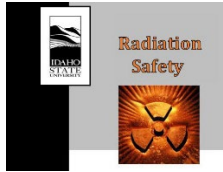
Approved By: <u>Radiation Safety Committee</u>   Date: <u> 07/06/2022   </u>

Revision History

Revision Number	Author Name	Date	Approved by/date
RS 18.0	Mason Jaussi & John Longley	04/07/21	RSO-04/13/21
RS 18.1	Miranda Kriner	05/01/22	RSC-07/06/22

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1. INTRODUCTION

Individuals working with or near radioactive materials or radiation producing machines are required to complete ISU Radiation Safety training annually. The Radiation Safety Department (RSD) has developed three radiation safety training modules, which are all available through Google Forms, to ensure workers are properly training in the radiation safety as it relates to their job function. The radiation safety department will maintain records for all individuals required to take radiation safety training in accordance with this procedure.

2. PURPOSE

The purpose of this procedure is to ensure all radiation workers are training in radiation safety at the appropriate frequency and associated training records are properly managed.

3. SCOPE

This procedure provides instructions to the RSD staff on how to properly process radiation safety training requests, manage the training modules, and track and control radiation worker records.

4. ROLES AND RESPONSIBILITIES

The Radiation Safety Officer (RSO) has the responsibility of managing the training programs and ensure the training records are stored appropriately.

Radiation Safety Staff have the responsibility of managing the training records in accordance with this procedure.

5. ACRONYMS/DEFINITIONS

RSO: Radiation Safety Officer
RSD: Radiation Safety Department
AU: Authorized User
IAC: Idaho Accelerator Center
CAES: Center for Advanced Energy Studies
Permanent Radiation Workers: A permanent Radiation Worker is any individual whose official duties or authorized activities include handling, operating, or working in the presence of any type of radiation source or radioactive material as a routine part of
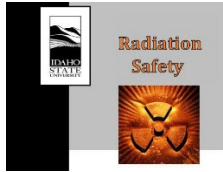
their job. This procedure will refer to permanent radiation workers as Radiation Workers. Radiation Workers are required to complete an initial radiation safety training module and a refresher training module each year thereafter. The RSD staff will track and manage Radiation Worker training records and send notifications when they are due for the annual refresher training.

Visiting Radiation Workers: Visiting researchers and students that work with or near radioactive materials or radiation producing machines must complete the appropriate ISU radiation safety training module. Their records will be stored, and training tracked but will not receive an annual training notification. Instead, if one year has passed since their initial training date, the individual will be archived and must take the appropriate training module if they return to work at ISU.

Awareness Training: Students, visitors, co-located workers, and minimally exposed personnel (e.g., students who use small, non-dispersible radiation sources) and short-term visitors shall receive awareness training by the respective Authorized User.

The Radiation Safety Department provides specific awareness training to certain groups applicable to their role at the frequency specified below.

- Custodial personnel - Annual

- Public safety personnel - Annual

- Emergency response personnel - Biennial with reactor drill

- Shipping and receiving personnel - Annual

- Purchasing personnel - Annual

6. REQUIRED MATERIAL(S)

- Initial Radiation Safety Training Request Google Form and Sheet

- ISU Radiation Safety Office Google Form

- Training Records Google Sheet

- Linked Radiation Safety Training Excel Workbook
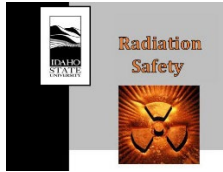
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7. REQUIRED TRAINING(S)

Applicable radiation safety training

- Initial ISU Radiation Safety Training

- Refresher ISU Radiation Safety Training

- General X-Ray ISU Radiation Safety Training

- Visitor Awareness Training

8. PROCEDURE

8.1. Processing Initial Training Requests

8.1.1. Individuals requesting initial radiation safety training can submit a request on the Radiation Safety Department website or through direct contact with the RSD.

8.1.2. A member of the RSD staff must respond to individuals requests for initial training by email. The email will include the following information:

- Link to the ISU Radiation Safety Department Google Form.

- Instructions to complete an RPR-1 Radiation Worker Information Form.

- They require dosimetry (as applicable).

- Appropriate training module for the individual.

8.1.3. If a dosimeter needs to be assigned refer to steps found in RS-02 Dosimetry, Section 8.4 - Radiation Worker Files.

8.1.4. Individuals should be instructed to select either the Initial Radiation Safety Training or the General X-ray Radiation Safety Training option from the drop-down menu on the Google Form. The RSD staff member will determine which radiation safety training module is appropriate by reviewing the department and/or authorized user specified in the request.
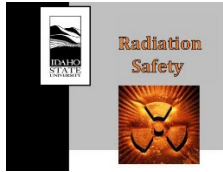
8.1.4.1. In general individuals that fall into the categories listed should be instructed to take the respectively listed training:

Initial Radiation Safety Training

- Individuals who handle radioactive material

General X-ray Radiation Safety Training

- Individuals who operate X-ray producing machines

8.2. Worker Refresher Trainings

All radiation workers are required to take a refresher training each year following the completion of the initial radiation safety training.

8.2.1. The linked Radiation Safety Training Excel Workbook will automatically send overdue Permanent Radiation Workers (non-visitors) an initial email at the beginning of each month. The email will include the following information:

- Notification to the individual that they are overdue for their Annual Refresher Radiation Safety Training.

- Link to the ISU Radiation Safety Office Google Form.

- Instructions to complete an RPR-1 Radiation Worker Information Form (as applicable).

8.2.1.1. The linked Radiation Safety Training Excel Workbook will determine if an RPR-1 is needed by indexing all training records for the individual (within the workbook). If a previously completed RPR-1 is found for the individual then the sheet will autofill the new entry with the same information.

8.3. Worker Status

All radiation workers who complete and submit ISU Radiation Safety Office Google form will have their response recorded in the Training Records Google Sheet. The linked Radiation Safety Training Excel Workbook is set to perform a data query every minute and will automatically add new worker information and date of training to the "RAW DATA" Excel tab.

NOTE: Edits should not be made to the "RAW DATA" Excel tab as they will be over written with every new query. The formulas for the "MASTER" Excel tab are contained in Row 2 (hidden) and should not be edited. Rows on the "MASTER" Excel tab should not be added, deleted, or moved as it may cause formatting errors. If any issues are encountered Row 2 can be used to fill the rest of the table to correct any reference or value errors present.

The master table is where most changes will occur, but it is only to be used for updating a worker's status (Column A and Column B). If there is ever a desired to edit any worker information e.g. updating an "Email Address" (Column H on the "MASTER" Excel tab), the changes should be entered on the Google Sheet

(Column B). Rows in the Google Sheet should never be added, deleted, or moved, but information within a row may be edited on the Google Sheet without any complications.
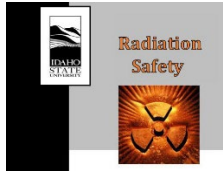
8.3.1.   Active Radiation Workers

8.3.1.1.   A staff member of the RSD must manually update the "Active" status to "Y" for all new entries at least once a month (Column A on the "MASTER" Excel tab).

8.3.2.   Archived Radiation Workers

A training record should never be deleted or altered unless it is being changed from an active status to an archived status. There are exceptions where certain information may need updated (See note in Section 8.3.).

8.3.2.1.   A staff member of the RSD must manually update the "Archive" status to "Y" at least quarterly (Column B on the "MASTER" Excel tab).

- Workers who no longer require training (i.e., no longer employed at ISU, change in job function, etc.) will need to be archived.

- For visitors if one year has passed since their initial training date, the individual will need to be archived.

## 8.4.   Notifications

8.4.1.   Radiation Worker Verifications

The linked Radiation Safety Training Excel Workbook will automatically send an email to each Authorized User and/or department on a quarterly basis. The email will instruct the recipient to respond with a list of their current radiation workers. The provided list will be used to verify the records in the "Active Worker by AU" Excel tab for each specific department.

8.4.1.1.   Discrepancies in Radiation Worker training or status will be processed according to Sections 8.1. for workers who have not received the appropriate training.

8.4.2.   Delinquent Radiation Worker Notifications

The linked Radiation Safety Training Excel Workbook will automatically send an email to Authorized User's notifying them of any Radiation Workers in their program who are delinquent in radiation safety training. Radiation workers are delinquent if they have not submitted the ISU Radiation Safety Office Google Form one week after receiving a training notification.

8.4.2.1.   Notifications to Authorized Users are sent when a Radiation Worker becomes delinquent and will continue for four weeks if training is not completed. One month of delinquency will cause the linked Radiation Safety Training Excel Workbook will notify the RSO of delinquent workers and the respective
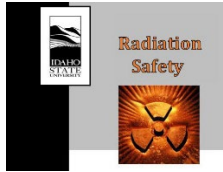
Authorized Users. The RSO will notify the Authorized User that the worker is restricted from all radiation work until their training is complete.

8.5.   Record Management

8.5.1.   Annual Archive of Training Records

8.5.1.1.   Download and open the Training Records Google Sheet as a Microsoft Excel file. Preform the following actions:

- Save file to desktop following the naming format "YYYY_RST"

8.5.1.2.   Open the linked Radiation Safety Training Excel Workbook. Preform the following actions:

- Right-click on the "MASTER" tab and select move or copy
- Check the "Create a copy" box
- Change the "To book" destination to the "YYYY_RST" file
- Push "Okay"
- Rename the copied tab to "YYYY MASTER"

8.5.1.3.   While on the "YYYY MASTER" tab, preform the following actions:

- Press CTRL+A to select all data
- Press CTRL+C to copy selection
- Right-click and select "Paste Value" to remove formulas

8.5.1.4.   Save the "YYYY_RST" file in the following Box folder:

- Records > Radiation Worker Records (70) > RST_Grade Reports > Year

8.5.2.   Transfer of Active Records

Active worker entries listed in the "YYYY MASTER" tab will need raw data re-added to the ISU Radiation Safety Training Google Sheet (starting at Row 3).

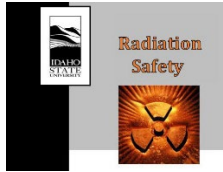8.5.2.1.   Access the Training Records Google Sheet. Preform the following actions:

- Select Row 3
- While holding down the shift key, also select the last row of data (##), which should select all data entries
- Right-click on selection and choose the "Delete Rows 3 - ##" option

8.5.2.2.   Access the "2022_RST" file, "2022 MASTER" tab. Preform the following actions:
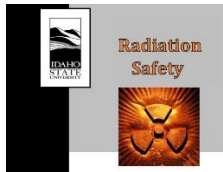
- Select the drop-down menu from the "Archive" header (Cell B1)

- Uncheck the "Y" box to hide archived worker entries

- Select "Okay"

8.5.2.3. Verify the following information matches for a specific row/individual who is displayed as active in the "2022 MASTER" tab:

- The training date of completion from "YYYY MASTER" tab (Column M)

- The training date of completion from the "Form Responses 1" tab

  o Column CA (Initial Training)

  o Column DQ (X-ray Training)

  o Column EO (Refresher Training)

8.5.2.4. If the information is the same, preform the following actions on the respective documents/tabs:

"Form Responses 1" tab

- Select the entire row of interest

- Press CTRL+C to copy selection

Training Records Google Sheet

- Select the first cell in the first empty row (Starting at Row 3 and moving down)

- Right-click and select "Paste Special ˃ "Values Only"

8.5.2.5. Repeat for all active workers.

8.5.3. Transfer of RPR-1 Information

If the "YYYY MASTER" tab has RPR-1 Information for the individual but the "Form Responses 1" tab does not, then this information should also be transposed from the "2022 MASTER" tab to the Training Records Google Sheet.

8.5.3.1. Preform the following actions on the respective documents/tab:

"YYYY MASTER" tab

- Select the cells in Columns O to AD, in the row of interest

- Press CTRL+C to copy selection

Training Records Google Sheet

- Select the cell in Column I, in the row of interest

- Right-click and select "Paste Special" ˃ "Values Only"

9. LIST OF FORMS

None.

10. REFERENCES

None.

11. CHANGE HISTORY

Revision 1 – Revision issued to reflect the changes to the radiation safety training delivery platform. The Radiation Safety Department replaced the Moodle training platform with Google Forms. This revision accounts for the management of these training records.

12. APPENDICES

None.