



Radiation Safety

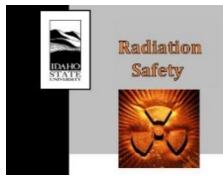


RADIATION PROCEDURES MANUAL **Procedure Cover Sheet**

Procedure Title: Dosimetry
Procedure Number: RS-02 Rev.2
Effective Date: 05/31/2024

Approved By: Radiation Safety Committee

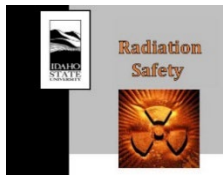
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Revision History

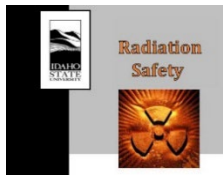
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Procedure #: RS-02 Rev.2
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Table of Contents

1.	INTRODUCTION.....	4
2.	PURPOSE	4
3.	SCOPE	4
4.	ROLES AND RESPONSIBILITIES	4
5.	ACRONYMS/DEFINITIONS.....	5
6.	REQUIRED MATERIAL(S)	5
7.	REQUIRED TRAINING(S).....	5
8.	PROCEDURE	5
8.1.	Issuing Dosimetry	5
8.1.1.	Issuing Dosimeters to Radiation Workers	5
8.1.2.	Issuing Fetal Dosimeters.....	7
8.1.3.	Instructions for Use.....	9
8.2.	Deactivating Dosimeters	10
8.3.	Dosimeter Shipments	10
8.4.	Dosimetry Records.....	11
8.4.1.	Radiation Worker Files	11
8.4.2.	Determination of Prior Occupational Dose.....	11
8.4.3.	Quarterly Dose Reports.....	11
8.4.4.	Annual Dose Reports	12
8.4.5.	Dose History Requests.....	13
8.5.	Lost Dosimeters	13
8.5.1.	Dose Investigations.....	14
9.	LIST OF FORMS.....	14
10.	REFERENCES.....	14
11.	CHANGE HISTORY	14
12.	APPENDICES	14
	APPENDIX I – ISU Dosimeter Series Codes.....	15
	APPENDIX II – Dosimeter Information	16
	APPENDIX III – Declaration of Pregnancy Form	18
	APPENDIX IV – 100 mrem Annual Exposure Letter.....	19
	APPENDIX V – Dose History Request Letter	20



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

1. INTRODUCTION

Idaho State University will monitor the external occupational exposure to individuals who meet any of the following criteria as specified in 10 CFR Part 20.1502 and SSRCCR Vol. 1, Part D:

- i. Adults likely to receive greater than 10% of the annual allowable limits (500 mrem total effective dose equivalent) specified in 10 CFR 20.1201(a),
- ii. Minors likely to receive a deep dose equivalent greater than 0.1 rem, a lens dose equivalent greater than 0.15 rem, or a shallow dose equivalent greater than 0.5 rem.
- iii. Declared pregnant worker.
- iv. Individuals entering a high or very high radiation area.
- v. Individuals working with medical fluoroscopic equipment.
- vi. Extremity dose for workers who may receive greater than 10% of the limit from 10 CFR 20.1201(a) (5000 mrem shallow dose equivalent) and workers who operate open beam analytical x-ray equipment.

2. PURPOSE

The purpose of this procedure is to provide instructions for managing ISU's dosimetry, program to ensure compliant external monitoring of occupational exposures at ISU.

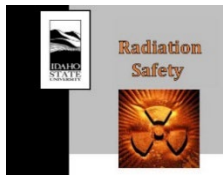
3. SCOPE

This procedure is limited to the issuance/deactivation of dosimetry badges, dosimetry shipments, dosimetry reports, and dosimetry recordkeeping.

4. ROLES AND RESPONSIBILITIES

The individual requesting a dosimeter must complete ISU's radiation safety training and the RPR-1 form.

The Radiation Safety Department will verify the requesting individual meets the requirements for external monitoring, will ensure the individual has completed the ISU radiation safety training and necessary paperwork, and instruct the individual how to appropriately wear and store their dosimeter. Radiation safety staff are also responsible for maintaining dosimetry records and issuing dosimetry reports.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

5. ACRONYMS/DEFINITIONS

ARSO: Assistant Radiation Safety Officer
DOB: Date of Birth
EHS: Environmental Health and Safety
IAC: Idaho Accelerator Center
ISU: Idaho State University
NRC: Nuclear Regulatory Commission
RS: Radiation Safety
RSD: Radiation Safety Department
RSO: Radiation Safety Officer
SSN: Social Security Number

6. REQUIRED MATERIAL(S)

- Various

7. REQUIRED TRAINING(S)

- ISU Radiation Safety Training

8. PROCEDURE

8.1. Issuing Dosimetry

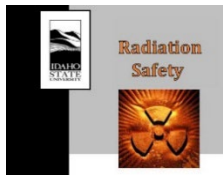
8.1.1. Issuing Dosimeters to Radiation Workers

Prior to issuing any dosimeter, proof of completion of the radiation safety training and a completed RPR-1 form are required. Save records according to Section 8.4.1. The information found in Section 8.1.4 should be discussed with the individual before physically issuing a dosimeter to an individual.

8.1.1.1. A temporary (SPARE) dosimeter is to be issued until the end of the current wear period. If the inception date is past the manufacturing date for the next quarter, another Spare will also need to be assigned for the next wear period.

8.1.1.2. Record the participant name, comments, and dosimeter serial number on the appropriate department tab in the dosimeter Master sheet for the current quarter located on Box. (Radiation Safety Program > Dosimetry > YYYY > Master_#QTR_YYYY_Dosimeters).

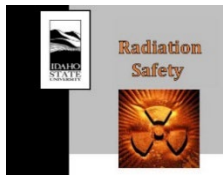
- a. The serial number is located in the back of the dosimeter above the barcode. Only enter the first 8 characters (7 numeric, 1 alpha) of the serial number from



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Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

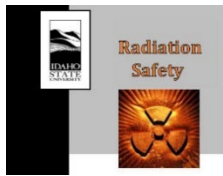
the temporary dosimeter to be assigned.

- 8.1.1.3. Affix a printed label with the person's name to the dosimeter.
- 8.1.1.4. For new individuals, enter the individual's information into the Landauer database using the following steps:
- b. Login and select the "Add New Participant" button at the top right.
 - c. Enter the person's first and last name, DOB, gender (optional). Select the "Save Participant" button when finished.
 - d. Select the "Add dosimeter setup" button from the popup screen, continue to Step 8.1.1.7.
- 8.1.1.5. For individuals previously added to the Landauer system, login and use the search bar and/or filters to locate the participants entry and click on their name.
- NOTE: If using the search bar and no results are populating, press the red X on the "Account" filter. Also verify the correct filter is selected for active or inactive participants. Participants that have been entered in the past but don't have a current dosimeter will be listed as inactive.
- 8.1.1.6. Navigate to the "Dosimeter setups" tab within the participants entry and select "Add dosimeter setup."
- 8.1.1.7. Select "189742 IDAHO STATE UNIV" from the account drop-down menu.
- 8.1.1.8. Select the appropriate subaccount for the individual from the drop-down menu.
- 8.1.1.9. Select the type of dosimeter to be issued from the drop-down menu.
- a. Pa badges are generally issued to personnel working with analytical/medical x-ray machines. These personnel include those who work in: Radiographic Sciences, Student Health Center, EHS, Biology (except those who work at the IAC), Geology, Treasure Valley Anatomy & Physiology Laboratories, Dental Hygiene, Pocatello Family Dentistry, and Meridian Family Dentistry.
 - b. Ta badges are generally assigned to all other personnel.
- 8.1.1.10. Select "Quarterly, 1st" from the frequency from the drop-down menu.
- 8.1.1.11. Select "Standard" from the dose assessment drop-down menu.
- 8.1.1.12. Select the appropriate dosimeter location from the pop-up figure.
- a. Ta Badge - Chest
 - b. S Ring - Dominant Hand
 - c. Pa Badge - Collar
- 8.1.1.13. Enter the first date of the next quarter in the "Need by date" box (e.g. 1/01/YYYY, 04/01/YYYY, 07/01/YYYY, or 10/01/YYYY). The "Need by date" should be thought of as the first time they will receive and wear a permanent dosimeter.



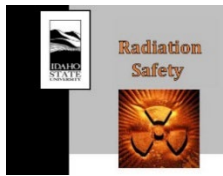
Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
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Effective Date: 05/31/2024

- 8.1.1.14. A pop-up menu may appear if the manufacturing date has passed with the following selections available.
- “Assign Spare” - Does not allow for a custom date range, not suggested.
 - “Special Shipments” - Should be used sparingly as they include extra fees.
 - “I’ll assign later” - Select this option, then “Accept.” Continue to next step.
- 8.1.1.15. Select “Add another dosimeter” if needed, and repeat Steps 8.1.1.6 - 8.1.1.12.
- 8.1.1.16. Select “Save” when finished.
- 8.1.1.17. Navigate back to the “Dosimeter setups” tab.
- 8.1.1.18. Select “Assign Spare” on the dosimeter entry just added and enter the serial number of the dosimeter. Select the appropriate number from the populated results.
- NOTE: If a serial number is not populating, first verify there are no typos. If the problem persists the spare being assigned is not the appropriate for the type of entry created (e.g. trying to assign a Pa badge to a Ta entry), the serial number has already been assigned, or the serial number is not for the appropriate quarter.
- 8.1.1.19. Enter a begin wear date, the first day the participant will need/wear the dosimeter.
- 8.1.1.20. Enter an end wear date, typically the end of the current quarter unless otherwise specified (e.g. 03/31/YYYY, 06/30/YYYY, 09/30/YYYY, or 12/31/YYYY).
- 8.1.1.21. Select “Accept” when finished and log-off.
- 8.1.1.22. Deliver the dosimeter to the individual or their Authorized User.
- NOTE: Be sure to make all temporary badge assignments in the myLDR portal before sending badges off to be read, otherwise the changes will not be reported!
- 8.1.2. Issuing Fetal Dosimeters
- 8.1.2.1. A worker may voluntarily declare pregnancy at any time. Provide the worker with the Declaration Form, which is available at:
<https://www.isu.edu/media/libraries/research/ehs/documents/Declaration-of-Pregnancy-Form.pdf>
- 8.1.2.2. Provide the worker with a copy of Regulatory Guide 8.13 and have them direct any questions they may have to the RSO. Reg. Guide 8.13 is available at:
<https://www.isu.edu/media/libraries/research/ehs/documents/Reg-Guide-8.13---Instruction-Concerning-Prenatal-Radiation-Exposure.pdf>
- 8.1.2.3. Once the worker has completed the Declaration of Pregnancy form, scan and upload the form to BOX: Radiation Safety Program > Records > Radiation Worker Records (70) > Radiation Worker Files. If the worker does not have a folder, create one.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

- 8.1.2.4. Upon Declaration of Pregnancy, the worker is issued a monthly fetal monitor in addition to their regular dosimeter(s). The fetal monitor is to be issued under the same series as the worker's regular dosimeter(s). Follow the steps below to issue a worker a fetal dosimeter:
- a. Login to the myLDR portal and use the search bar and/or filters to locate the participants entry and click on their name (see note on Step 8.1.1.5).
 - b. Press the pencil icon on the "Participant Details" section.
 - c. Select "Yes" under the "Pregnancy details" section. A series of new fields will appear prompting you to enter the declaration date, etc. Fill this out as completely as possible (e.g., if only the month and year of conception are given, chose the first day of the month)
 - d. Select "Save Participant" when finished entering pregnancy details.
 - e. Select the "Add dosimeter setup" button from the popup screen.
 - f. Select the same dosimeter set-up information as the worker's whole-body dosimeter, but enter "Monthly, 1st" from the frequency drop-down menu.
 - g. Also select "Fetal" from the dosimeter location pop-up figure.
 - h. Enter the first day of the next month in the "Need by date."
 - i. A pop-up menu may appear if the manufacturing date has passed with the following selections available.
 - "Assign Spare" - Does not allow for a custom date range, not suggested.
 - "Special Shipments" - Should be used sparingly as they include extra fees.
 - "I'll assign later" - Select this option, then "Accept." Continue to next step.
 - j. Select "Save" when finished.
 - k. Navigate back to the "Dosimeter setups" tab.
 - l. Select "Assign Spare" on the dosimeter entry just added and enter the serial number of the dosimeter. Select the appropriate number from the populated results (see note on Step 8.1.1.8).
 - m. Enter a begin wear date, the first day the participant will need/wear the dosimeter.
 - n. Enter the last day of the first month the dosimeter will be worn as the end wear date.
 - o. Select "Accept" when finished and log-off.
- 8.1.2.5. Deliver the dosimeter to the individual or their Authorized User. Explain to the worker that the fetal monitor must be worn in the abdominal area, (under a lead apron if worn), and that it will be exchanged monthly throughout the duration of



the pregnancy. Also remind the worker that their primary dosimeter is still to be worn in the usual location.

8.1.2.6. Explain to the worker that they can revoke the declaration of pregnancy even when they are still pregnant. However, once pregnancy is revoked, the lower dose limit for the embryo/fetus no longer applies and fetal monitoring will stop.

8.1.3. Area Monitors

8.1.3.1. Login to Landauer and select “Dosimeters” from the column on the left

8.1.3.2. Select the “Add area monitor” button at the top right.

8.1.3.3. Enter the desired name of the dosimeter in the “Area Monitor Location” entry field.

8.1.3.4. Select “189742 IDAHO STATE UNIV” from the account drop-down menu.

8.1.3.5. Select “Area Monitors (AMN)” from the subaccount drop-down menu.

8.1.3.6. Select the appropriate dosimeter type. Area and Environmental monitor badge types will vary with department/location and can be either Pa or Ta type,

8.1.3.7. Select “Quarterly, 1st” from the frequency from the drop-down menu.

8.1.3.8. Enter today's date in the “Need by date” box.

8.1.3.9. A pop-up menu should appear with the following selections available.

- “Assign Spare” – Select this, enter the spare dosimeter serial number. Press “Accept” and continue to next step.
- “Special Shipments” - Should be used sparingly as they include extra fees.
- “I’ll assign later” - Not possible for area monitors.

8.1.3.10. Select “Add another area monitor” if needed, and repeat Steps 8.1.3.2 - 8.1.3.9.

8.1.3.11. Select “Save” when finished.

8.1.4. Instructions for Use

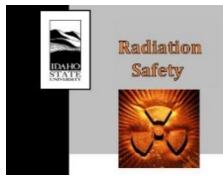
8.1.4.1. Dosimeter Placement and Storage

8.1.4.1.1. Instruct the worker that they must wear their issued dosimeter any time they are operating a radiation generating device, handling radioactive materials, or entering a radiation use area

8.1.4.1.2. Ta issued dosimeters are to be worn on the chest, above the waist, and not on a lanyard or sleeve.

8.1.4.1.3. Pa issued dosimeters are to be worn on the collar outside of the lead apron

8.1.4.1.4. When not in use, dosimeters are to be stored on a dosimeter board near their work area. Dosimeter's are not to be taken home.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

8.1.4.2. Medical Radionuclides

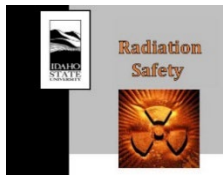
- 8.1.4.2.1. Inform the worker that they are encouraged to notify the RSO or appropriate radiation safety staff if they are going to be medically exposed to radionuclides.
- 8.1.4.2.2. The dose received from the administration of therapeutic or diagnostic medical radionuclides are not to be considered a part of an individual's occupational exposure record.
- 8.1.4.2.3. The worker should be advised on the importance of consulting with the RSO for determination of appropriate use of dosimetry prior to the administration of medical radionuclides.

8.2. Deactivating Dosimeters

- 8.2.1. Login to the myLDR portal and use the search bar and/or filters to locate the participants entry and click on their name (see note on Step 8.1.1.5).
- 8.2.2. Navigate to the "Dosimeter setups" tab.
- 8.2.3. Select "Deactivate" on a desired dosimeter entry.
- 8.2.4. Enter the deactivation date in the pop-up screen and select "Deactivate" to save the changes.
- 8.2.5. Alternately one may deactivate an entire participant, or multiple participants by performing the following steps:
 - a. Login to the myLDR portal and use the search bar and/or filters to locate the participants entry.
 - b. Mark the check box next to each participant name that is to be deactivated.
 - c. Enter the deactivation date in the pop-up screen and select "Deactivate" to save the changes.

8.3. Dosimeter Shipments

- 8.3.1. After receiving new dosimeters, all used/unused badges must be collected and must be sent to Landauer for processing. One or more control dosimeters are included for each series of dosimeters. The control dosimeters are stored in the envelope for each appropriate series and sent back at the end of each monitoring period with the used badges.
- 8.3.2. DO NOT MISS any of the used badges. For each series, the dosimeters, controls, and rings should be checked accordingly when grouping badges of the same series in the envelop for shipping.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

- 8.3.3. To return the old badges, choose an appropriate box and carefully place the badges in the box, so that they will be transported without receiving any mechanical shock or physical damage. The initial package that contained the new dosimeters can be used for this purpose.
- 8.3.4. The following label should be posted on the box:
- Handle Carefully!**
Monitoring Devices Enclosed
Keep Away from X-ray and Radioactivity
- 8.3.5. Addresses of the sender (Radiation Safety Office) and receiver (Landauer) should be labeled clearly.
- 8.3.6. The box should be transferred to the post office or mail center by the Radiation Safety staff.

8.4. Dosimetry Records

8.4.1. Radiation Worker Files

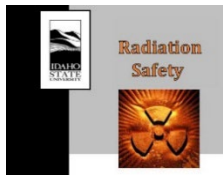
- 8.4.1.1. The Radiation Safety Department stores all dosimetry related worker files on the BOX server in a folder titled, Radiation Worker Files.
- 8.4.1.2. The folder is accessed via the following path: Radiation Safety Program > Records > Radiation Worker Records (70) > Radiation Worker Files.
- 8.4.1.3. If the worker does not have a folder, create one named as (Last Name, First Name).
- 8.4.1.4. Each radiation worker file should contain any dosimetry related records for that worker. Such as: RPR-1 form, dose history requests, 100 mrem letter, etc.

8.4.2. Determination of Prior Occupational Dose

Federal regulations in 10 CFR 20.2104 require the licensee to request prior occupational dose for the current year for individuals who are likely to receive the annual occupational dose which requires monitoring. ISU Radiation Safety staff will request current year occupational dose records for individuals that are expected to meet the annual occupational dose requirement for monitoring. ISU does not perform planned special exposures and has very few positions that require monitoring due to the occupational dose limit requirement.

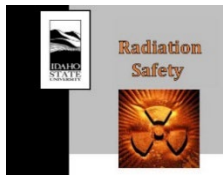
8.4.3. Quarterly Dose Reports

- 8.4.3.1. Quarterly dose reports are compiled and given to the RSO to be discussed with the Radiation Safety Committee during the quarterly meetings.
- 8.4.3.2. Login to Landauer and select “Reports” from the column on the left.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

- 8.4.3.3. Select “Dosimetry Report (US)” from the Report Type drop down menu.
- 8.4.3.4. Select “Custom” and select the calendar symbol in the “Period” entry field. Select the first day of the desired quarter on the right calendar. Select the last day of the same quarter on the left calendar, then click “OK.”
- 8.4.3.5. Each column header can be clicked for ease in sorting reports. A filter can also be added to look at a single subaccount for example.
- 8.4.3.6. Duplicate quarterly dose reports are provided by Landauer without social security numbers. Select and download the second report for each subaccount. Ensure the reports do not contain social security numbers.
- 8.4.3.7. Compile the reports and submit to the applicable authorized users.
- 8.4.3.8. For the reports from the fourth quarter, save pdf copies of each series report in Box as an annual summary and as a backup for Landauer’s database.
- 8.4.4. Annual Dose Reports
- Annual dose reports are only for workers exceeding 100 mrem (TEDE or to any organ or tissue) must be provided in a sealed envelope to the worker along with a cover letter.
- 8.4.4.1. Login to Landauer and select “Reports” from the column on the left.
- 8.4.4.2. Select “Form 5 – Annual” from the Report Type drop down menu.
- 8.4.4.3. Select “Custom” and select the calendar symbol in the “Period” entry field. Select the first day of the year on the right calendar. Select the last day of the year on the left calendar, then click “OK.”
- 8.4.4.4. Select “+ Add Filter” and select “Participant Number” or “Participant Name.” Enter the appropriate value in the pop-up box and select “Filter.”
- 8.4.4.5. Select and download the Landauer generated Form 5.
- 8.4.4.6. If necessary, add any internal dose information to the Form 5.
- 8.4.4.7. The cover letter is in Appendix IV and located on BOX > Radiation Safety Program > Dosimetry > 100mrem Templates.
- 8.4.4.8. Fill-in the date and the individual’s name on the letterhead.
- 8.4.4.9. Compile the letter and Landauer Form 5 and submit to the RSO for review and signature.
- 8.4.4.10. Upload a signed copy to the Radiation Worker Files.
- 8.4.4.11. Create a folder for the worker if one is not present.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
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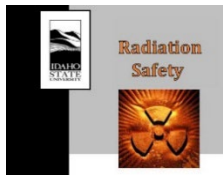
8.4.5. Dose History Requests

- 8.4.5.1. Upon receiving a request for dose history from an individual or an employee's organization, a formal letter and NRC form 5 should be sent within 30 days of receipt. The NRC Form 5 is found at:
<https://www.nrc.gov/docs/ML1308/ML13083A017.pdf>
- 8.4.5.2. Login to Landauer and select "Reports" from the column on the left.
- 8.4.5.3. Select "Dosimetry Report (US)" from the Report Type drop down menu.
- 8.4.5.4. Select "+ Add Filter" and select "Participant Name", enter the name in the pop-up box and select "Filter."
- 8.4.5.5. Select the most recent report (no SSN) and look for the appropriate individual.
- 8.4.5.6. Copy the individuals dose information from the Lifetime To Date column into the NRC form 5.
- 8.4.5.7. Obtain the cover letter from Appendix V or download from BOX > Radiation Safety Program > Dosimetry > 100mrem Templates.
- 8.4.5.8. Fill-in the date, individuals name, and total lifetime dose.
- 8.4.5.9. Compile the Letter with the NRC Form 5 and submit to the RSO for review and signature.
- 8.4.5.10. The RSO will submit the letter to the requesting institution.
- 8.4.5.11. The signed letter, request, and report pulled from Landauer should be added to the individual's files on BOX > Radiation Safety Program > Records > Radiation Worker Records (70) > Radiation Worker Files.

8.5. Lost Dosimeters

If a worker loses their dosimeter the following actions should be completed to assist in the estimation of their dose for that quarter:

- a. Interview the worker who has lost their dosimeter and ask the following questions:
 - i. What are your work duties?
 - ii. When was the dosimeter lost?
 - iii. Who performs similar work in their organization?
- b. Review the dose of individuals that have similar work duties in the same radiation use areas
- c. Generate a report with assumptions and methods for estimating the worker's dose and submit to the RSO for approval.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

- d. The RSO will review and approve the report and place it in the Radiation worker file.

8.5.1. Dose Investigations

The RSO or designee along with the RSC will review each incident for determination of appropriate actions. Unexpected high exposures are defined by exceeding ISU's ALARA limits.

9. LIST OF FORMS

ISU Dosimetry Letter Templates

Pregnancy Declaration form

NRC Form 5

10. REFERENCES

None.

11. CHANGE HISTORY

Revision 1 - Includes the addition of Section 8.1.2.6 to inform a declared pregnant worker they have the right to revoke their declared pregnancy in accordance with Reg. Guide 8.13. Minor updates to the Declaration of Pregnancy Form and the Annual 100 mrem Exposure letter and grammatical changes.

Revision 2 – Update to procedure to reflect new version of the Landauer website, now called myLDR portal.

12. APPENDICES

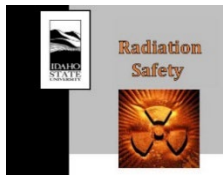
APPENDIX I – ISU Dosimeter Series Codes

APPENDIX II – Dosimeter Information

APPENDIX III – Declaration of Pregnancy Form

APPENDIX IV – 100 mrem Annual Exposure Letter

APPENDIX V – Dose History Request Letter

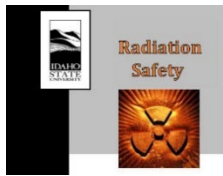


Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
Approval Date: 04/25/2024
Effective Date: 05/31/2024

APPENDIX I – ISU Dosimeter Series Codes

ISU dosimeter location and corresponding Landauer series code

Location	Series Code
Physics	PHY
EML	EML
EAL	EAL
IAC workers	IAC
Cu-67 Worker	COP
Biology Dept.	BIO
Engineering (Reactor)	ENG
Pharmacy Dept	PHA
Environmental Monitors	EMN
Radiographic Sciences	RSC
Student Health Center	SHC
TSO employees	TSO
Temporary	TMP
Area Monitors	AMN
Chemistry	CHE
CAES (Idaho Falls)	CES
Meridian	MER
Meridian Visitors	VIS
Meridian Family Dentistry (MFD)	MRD



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APPENDIX II – Dosimeter Information

Dosimeter Type

Depending on the type of radioactive sources or radiation producing devices that are going to be used in each laboratory, an appropriate dosimeter needs to be assigned to the corresponding individuals. The different types of dosimeters in Landauer are as follows:

- Type Pa Badge, for whole body worn on the collar
 - beta/gamma/x-ray exposures
 - Worn outside of the lead apron (only for Radiographic Sciences and Meridian)
- Type Ta Badge, for whole body worn in the chest area
 - beta/gamma/x-ray/neutron exposures
- Type S Ring, for extremity worn on the ring finger of dominant hand
 - beta/gamma/x-ray exposures
 - Ring badges should be assigned where appropriate. All those who get ring badges should receive a whole-body dosimeter as well.

Frequency

The dosimeters for radiation workers who need to be monitored for external exposure at ISU are on a quarterly exchange schedule. New badges will be issued for the first of January/April/July/October. When a new radiation worker is added, his/her first badge will arrive with the next badge shipment. If a fetal monitor is required, a monthly exchange needs to be selected.

Holder/Size

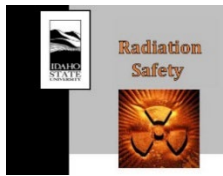
Badge holders may be ordered **ONLY** if needed. Rings are issued with a Medium size by default. People may be asked to try other sizes and a small or large size should be ordered if required.

1st Wear Date to Ship

This is the date of the first badge shipment for a person. If changes are made to a person's data (i.e., change their series, badge type, etc.) this date will **NOT** be changed.

Active/ Deactivate

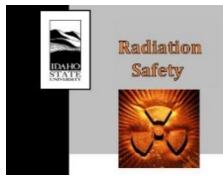
This field indicates when a person is currently wearing a particular badge. When a worker no longer needs to be monitored or no longer works at ISU, it is best to cancel their account by following Step 8.2.5.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
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Note: Once an individual has been entered into Landauer's database, they will receive a dosimeter with their name on it for the following quarter and will also receive an annual dose report at the end of the calendar year.

A staff member in the Radiation Safety Department should conduct audits at least semi-annually to remove dosimetry no longer in use.



Procedure #: RS-02 Rev.2
Procedure Title: Dosimetry
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Effective Date: 05/31/2024

APPENDIX III – Declaration of Pregnancy Form

Letter for Declaring Pregnancy

This form letter is provided for your convenience. To make a declaration of pregnancy, you may fill in the blanks in this form letter, or you may write your own letter.

Declaration of Pregnancy

To: Radiation Safety Office

In accordance with the NRC's regulations 10 CFR 20.1208, "Dose to an Embryo\Fetus," I am declaring that I am pregnant. I believe I became pregnant in _____ (mm/yy)

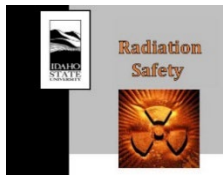
Current Supervisor or Dosimeter Series Code _____

I understand the radiation dose to my embryo\fetus during my entire pregnancy will not be allowed to exceed 0.5 rem (5 mSv) unless that dose has been exceeded between the time of conception and submitting this letter. I also understand that meeting the lower dose limit may require my employer (ISU) to change my job responsibilities during my pregnancy.

Signature

Date

Printed Name



Procedure #: RS-02 Rev.2
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APPENDIX IV – 100 mrem Annual Exposure Letter



Date: [DATE]
To: All Personnel Monitored for Exposure to Ionizing Radiation who fall under the Provision of 10 CFR 19.13(b).
From: Radiation Safety Department
Subject: [YEAR] Annual Occupational Radiation Exposure Report

This report is furnished to you under the provisions of the Nuclear Regulatory Commission Regulation 10 CFR part 19. Specifically, 10 CFR part 19.13(b) requires that licensees must provide an annual report to each individual monitored of the dose received in that monitoring year if (1) the individual's occupational dose exceeds 1 millisievert (1 mSv) TEDE of 100 millirem (100 mrem) to any individual organ or tissue or (if) the individual requests his or her annual dose report. This report is being provided because you have either exceeded an occupational dose of 100 mrem or requested a report. You should preserve this report for future reference.

On the annual report (enclosed), Blocks 11-14 show the types of monitoring that you had for the year, i.e., either skin (deep or shallow) or whole body. The "Committed Effective Dose Equivalent" and the "Committed Organ Dose Equivalent" and Block 18 represents the "Total Organ Dose Equivalent".

It should be noted that "ND" refers to dose equivalents below the minimum reportable quantity of 1 mrem for a given dosimeter and time period.

The dose units are in "rem". Ensure that all of the personal information is correct: name, date of birth, and sex. If there are any errors or questions about the report, please contact the Radiation Safety Department at 208-282-5652.

Mason Jaussi
Radiation Safety Officer
Idaho State University
Radiation Safety Department
(208) 282-5652
masonjaussi@isu.edu

Office of Research— Radiation Safety Department
921 South 8th Ave., Stop 8263 | Pocatello, ID 83209-8263
(208) 282-5652 | isu.edu/radiation-safety

APPENDIX V – Dose History Request Letter



MONTH. DAY, YEAR

REQUESTING ENTITY
Attn: External Dosimetry
ADDRESS 1
ADDRESS 2
ADDRESS 3

Subject: Occupational Dose Record for JOHN DOE

To whom it may concern:

As a follow up to your mail dated MONTH DAY, YEAR, a dose history record of JOHN DOE for the monitoring period of MONTH YEAR through MONTH YEAR is included as an attachment. The lifetime dose for JOHN DOE is reported as # mrem.

If you have any questions, please do not hesitate to [call](#) or e-mail us.

Best regards,

Mason Jaussi
Radiation Safety Officer
Idaho State University
Radiation Safety Department
(208) 282-5652
masonjaussi@isu.edu
Enclosure (1)
cc: File

ROAR

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