

ADVANCED MEDICAL SYSTEMS OPERATING PROCEDURE

DOSIMETRY PROCEDURE AND POLICY

ISP-24 Rev. 01/95

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1.0 PURPOSE: This procedure describes the receipt, issue and processing of dosimetry.

2.0 PRECAUTIONS AND LIMITATIONS:

2.1 Personnel whole body dosimetry is to be worn on the upper front torso of the body unless otherwise directed by the RSO.

2.2 Extremity dosimetry is to be worn on the finger of the hand closest to the source of radiation. If extremity dosimetry is not being used, it should be worn in close proximity to the whole body dosimetry.

2.3 Self Reading Pocket Dosimeters (SRPDs) are to be worn in close proximity to the whole body badge.

2.4 Ensure dosimetry is firmly attached to prevent loss.

3.0 INSTRUCTIONS:

3.1 Dosimetry Type.

3.1.1 AMS utilizes the dosimetry service provided by a commercial vendor.

a. Three types of badges are used, whole body film badge, finger ring TLDs and area TLDs.

b. Whole body film badges are issued for a one week period.

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- c. Finger ring TLDs (extremity dosimetry) are issued for a one month period.
 - d. Area TLDs, located at various locations throughout the facility, are issued for a one month period.
- 3.1.2 A commercial vendor supplies AMS with 200mR, 1R and 5R SRPDs.
 - 3.1.3 Form ISP-24C may be used by personnel to track their pocket dosimeter readings.
- 3.2 Badge Groups.
- 3.2.1 Group I badges - these are primarily finger rings issued on a monthly basis. There are also a number of visitor film badges available.
 - 3.2.2 Group II badges - these are monthly badges issued for area monitoring throughout the facility.
 - 3.2.3 Group III badges - these are weekly film badges issued to London Road personnel.
- 3.3 Receipt of Badges.
- 3.3.1 Badges are sent directly to London Road. Upon receipt they should be checked to verify that the proper badges are included. Report any errors to the RSO.
- 3.4 Issuing assigned (imprinted with individual's name) badges.
- 3.4.1 New badges are to be exchanged as near as possible to the date printed on the badge. Badges may be exchanged prior to the date if the individual will be out of town on the printed date.
 - 3.4.2 All badges should be exchanged before the end of the week in which the printed date falls.
 - 3.4.3 Badge holders should not be exchanged unless they have been damaged.

NOTE: Badge holders are the property of the vendor and are chargeable to AMS if not returned at the termination of service.

3.5 Issuing Visitor Dosimetry.

3.5.1 Visitor badges and SRPDs should be issued to:

- a. Non-employees who will be entering Restricted Area Radiation Areas of the Isotope Facility.
- b. Employees without assigned dosimetry who will be temporarily working in a Radiation Area where receipt of a dose is likely.

3.5.2 For each visitor badge issued, a Dosimetry Log, Form ISP-24A, should be completed.

3.5.3 Visitor dosimetry is to be issued to only one individual. They may not be issued to anyone else.

- a. Non-employee badges should be returned at the end of the visit.
- b. Employee badges should be retained for the entire issue period, since the individual may have more than one occasion to work in a Radiation Area.

3.6 Sending Badges to the vendor for processing.

3.6.1 Badges (not holders), including controls, should be mailed directly to the vendor no later than five (5) working days after the exchange date.

3.6.2 All badges with the same date should be sent in together. This includes all unused visitor badges. Do not hold up the badge return because one individual has not exchanged yet. It is important that badges be processed in a timely manner.

3.6.3 Any badges exchanged after the regular mailing should be sent when received. Do not hold until the following period.

3.7 Monthly Summary of Badges Issued.

3.7.1 At the end of each month, a list of all badges issued and a copy of the Dosimetry Log, should be sent to the RSO. The green packing list may be utilized as the list, provided visitors names are written in besides the appropriate badge numbers.

3.7.2 The Dosimetry Log should be completed and a copy sent to the individual, if requested.

3.8 Corrections and Adjustments to Service.

3.8.2 All corrections and adjustments to the service will be made by the RSO or after his approval is obtained.

3.9 Missing or Lost Badges.

3.9.1 Any dosimetry lost or misplaced must immediately report to the RSO.

3.9.2 The personnel involved shall, if in a Restricted Area, immediately leave the area and contact the RSO.

3.9.3 The personnel involved should make a statement via the Lost Dosimetry Report, Form ISP-33B.

3.9.4 The RSO, after review of the circumstances, should assign a dose to the individual(s) involved.

3.9.5 Dosimetry may be reissued at this time.

3.9.6 Should badges previously reported as lost be found, they should be sent in for processing immediately.

3.10 Film Badge Reports.

3.10.1 Badge reports are sent to the attention of the Radiation Safety Officer. Anyone desiring to know their exposure should contact the RSO for that information.

DOSIMETRY LOG

ISP-24A

As a byproduct materials licensee, we are required by law to maintain certain records regarding personnel who may be exposed to ionizing radiation at the London Road Isotope Facility. Your cooperation is requested in providing the following information.

NOTE: Complete one form per badge issued.

NAME: _____
LAST FIRST M.I.

SOCIAL SECURITY NUMBER: _____

DATE OF BIRTH: _____

COMPANY OR ORGANIZATION: _____

FILM BADGE NUMBER: _____

BADGE TYPE (circle one) WHOLE BODY - EXTREMITY

DATE OF BADGE: _____

ISSUE DATE: _____

MAILING ADDRESS: _____

Exposure data as determined by dosimetry report for the period
_____ to _____ and recorded as follows:

REPORT DATE: _____

X-GAMMA EXPOSURE: _____

BETA EXPOSURE: _____

This report is furnished to you under the provisions of the Nuclear Regulatory Commission regulation 10CFR part 19. You should preserve this report for further reference.

LOST OR DAMAGED DOSIMETRY REPORT

ISP-24B

The following badge or badges issued to me have been lost or damaged:

BADGE NUMBER: _____ BADGE DATE: _____

BADGE NUMBER: _____ BADGE DATE: _____

BADGE NUMBER: _____ BADGE DATE: _____

DETAILS OF LOSS OR DAMAGE (INCLUDE WHERE, WHEN AND HOW):

SIGNATURE: _____ DATE: _____

RSO'S ESTIMATE OF EXPOSURE ASSIGNED:

_____ MREM (WHOLE BODY)

_____ MREM (EXTREMITY)

BASIS FOR ABOVE ASSIGNED DOSE:

RSO: _____ DATE: _____

MONTHLY POCKET DOSIMETER LOG

ISP-24C

Name: _____
Month: _____

This form should be filled out for each work activity with radioactive material.

Date	Time	RWP #	WB Dose(mR)	Ext. Dose(mR)	WB to date
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[illegible]

Reviewed by RSO: _____ Date: _____