

ITEM 24

PERSONNEL MONITORING

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HEALTH PHYSICS
WALTER REED ARMY MEDICAL CENTER
Washington, D.C. 20012

HSWP-QHP
SOP Number 1-5

23 April 1979

PERSONNEL DOSIMETRY SERVICE

1. REFERENCES:

- a. AR 40-14, "Control and Recording Procedures for Occupational Exposures to Ionizing Radiation."
- b. 10 CFR 20, "Standards for Protection Against Radiation."
- c. Health Physics SOP 1-3, "Bioassay Program."

2. PERSONNEL DOSIMETRY ASSIGNMENT LEVELS.

An appropriate personnel monitoring device or devices will be assigned to each individual as required by references 1a. and 1b. above. In addition, other personnel monitoring techniques (e.g. bioassay) will be utilized to evaluate personnel dosimetry as deemed necessary by the Health Physics Officer. Personnel monitoring devices will usually be assigned when individuals are likely to receive in excess of the following levels in a three (3) month period:

Whole Body, head and trunk, active blood forming organs, gonads or lens of eye	125 millirems
Skin of the whole body (other than hands and forearms) cornea of the eye, and bone	750 millirems
Hands and wrist, or feet and ankles	1875 millirems
Forearms	1000 millirems
Thyroid, other organs, tissues and organ systems	500 millirems

3. APPLICATION FOR PERSONNEL DOSIMETRY SERVICE.

- a. Any individual working with ionizing radiation or in an area where ionizing radiation is being utilized who feels that he/she may receive an

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accumulated dose equivalent in excess of the above values may make application for personnel dosimetry service from the Health Physics Office, WRAMC, utilizing WRAMC Form 1119. Supervisors will review these forms and make appropriate comments thereon.

b. Supervisors of individuals who are likely to receive occupational radiation doses in excess of the above values must require such individuals to submit an application for Personnel Dosimetry Service (WRAMC Form 1119) to the Health Physics Office, WRAMC, prior to assignment to that work.

c. The procedure and responsibilities for processing the application are as follows:

(1) Individual Application for Personnel Dosimetry Service

The applicant has the responsibility to furnish:

- (a) Individual data
- (b) Previous occupational exposure history

(2) Statement of Work Conditions/Environment by Supervisor

The supervisor has the responsibility to furnish:

- (a) A statement of types of exposures in worker's environment, (e.g., x-ray, neutron, isotope).
- (b) A statement that the applicant has been oriented in radiation safety procedures relevant to his/her position.

(3) Evaluation of Application to Determine Need for Personnel Dosimetry Monitoring

The Health Physics Office has the responsibility to:

- (a) Review the individual's work areas and sources of ionizing radiation in that environment.
- (b) Estimate the monthly dose as a result of such duties.
- (c) Recommend the type of monitoring device, if any, that is appropriate to monitor occupational radiation exposure to individual and the frequency of monitoring.

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4. ASSIGNMENT OF PERSONNEL MONITORING DEVICE TO INDIVIDUAL

a. The Health Physics Officer will assure that personnel monitoring devices are assigned to individuals based on an evaluation by the Health Physics Office as to the type and quantity of radioactive materials used in the work environment or the radiation sources to which the individual is exposed.

b. If in the judgment of the Health Physics Officer, workers have the potential of receiving an accumulated dose equivalent of radiation in excess of the values in paragraph 2 above, an appropriate personnel monitoring device will be assigned to the worker. Bioassay may also be required when necessary. Examples of personnel monitoring are as follows:

- (1) Personnel in the Diagnostic Radiology Service who routinely take x-rays will be issued a whole body film badge.
- (2) Ward personnel providing nursing service to brachytherapy or iodine therapy patients will be issued a whole body film badge or personnel dosimeter for the duration of that procedure.
- (3) The radiopharmacist and other personnel involved in nuclear medicine preparations will be issued a whole body film badge and a TLD ring badge.
- (4) Researchers performing radioiodinations will be required to have their thyroid monitored for any uptake of iodine.
- (5) Each WRAMC fire station will be issued six pocket dosimeters to be utilized in the event that fire department personnel respond to a fire in a radiation area.

5. DISTRIBUTION AND COLLECTION OF PERSONNEL MONITORING DEVICES

a. The supervisor of each major activity utilizing the Health Physics Personnel Dosimetry Service will appoint a personnel dosimetry coordinator. The Health Physics Office will be notified promptly of changes in personnel dosimetry coordinators.

b. Responsibilities of Personnel Dosimetry Coordinator are as follows:

- (1) Assist incoming personnel in completing Personnel Dosimetry Service Application (WRAMC Form 1119) and arrange for a radiation safety briefing.
- (2) Forwarding of applications to the Health Physics Office.

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- (3) Coordinate distribution and collection of personnel dosimetry devices for personnel in his activity.
- (4) Coordinate bioassay schedules for personnel in his activity.
- (5) Notify Health Physics Office of all departing personnel who utilize the personnel dosimetry service.

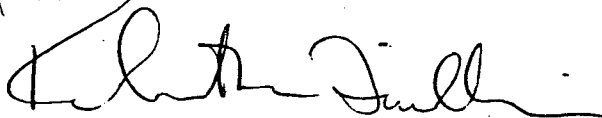
6. MAINTENANCE AND REVIEW OF OCCUPATIONAL EXPOSURE RECORDS (DD FORM 1141)

The Health Physics Office has the responsibility to assure that:

- a. DD Form 1141 will be maintained for all personnel participating in Film Badge and/or Bioassay Service.
- b. Occupational exposure records will be reviewed at least quarterly.
- c. Monthly exposure records will be reviewed and unusually high exposures will be investigated. The ALARA dose concept is implemented.

7. TERMINATION OF PERSONNEL DOSIMETRY SERVICE

Upon termination of personnel dosimetry service for an individual, the Health Physics Office will complete the DD Form 1141 and annotate the WRAMC Form 1119. These forms will be maintained in accordance with references 1a. and 1b. and AR 340-18-6. Individuals will be furnished notifications and reports as required by 10 CFR 19.



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