



DEPARTMENT OF HEALTH
DIRECTORATE: RADIATION CONTROL



GUIDELINES

PERSONAL MONITORING WHEN A LEAD RUBBER APRON IS WORN - MEDICAL AND VETERINARY USE OF DIAGNOSTIC X-RAYEQUIPMENT

Introduction

Monitoring of persons occupationally exposed to ionizing radiation is an essential component of any safety programme. The purpose of a dosimetry programme is to provide occupational workers with an estimation of their radiation dose and to highlight unsafe practices.

A Personal Radiation Monitoring Device (PRMD) is a radiation sensor designed to measure the radiation dose received by a person, who is occupationally exposed to radiation, over a specified period of time.

Note: The licence holder is responsible to ensure that radiation workers on his/her premises wear a PRMD.

In order to ensure that the exposure record is accurate, the following guidelines must be followed.

| WEARING POSITION OF PRMD | |
|---|---|
| If ONLY a lead rubber apron is worn: | <ul style="list-style-type: none">• Wear the PRMD in front of the body, OUTSIDE the apron, between the neck and waist, preferably at the collar.• The PRMD must be facing outwards towards the source of exposure |
| If a lead rubber apron with eye and thyroid protection are worn: | <ul style="list-style-type: none">• Wear the PRMD at the waist UNDER the protective apron. |

Precautions

- The PRMD must be worn only during periods of occupational exposure.
- Do not wear the PRMD when receiving dental, radiography or nuclear medicine examinations.
- Wear only the assigned PRMD. Do not wear any other individual's PRMD.
- The PRMD must not be kept inside a pocket where coins, keys, or other objects can attenuate incident x-rays before it reaches the PRMD.
- Do not tamper with or unnecessarily expose a PRMD to radiation, heat or moisture.
- Do not store the PRMD near a radiation source (e.g. do not leave it attached to a lead apron that will be stored in the X-ray examination room).
- Remove the PRMD from clothes before it is washed.

- Return the PRMD at the end of wearing period.
- PRMD is considered late if not returned by the due date to the Radiation Monitoring Service provider. A lost (non-returned) PRMD causes a permanent gap in the individual's exposure history record. Lost PRMD's must be reported.

Pregnant radiation workers

Refer to document on "*Occupational for Women of Reproductive Capacity*" with special reference to pregnant radiographers, available from the Directorate: Radiation Control or at: www.doh.gov.za

Notifications of over-exposures

- The Service Provider will notify the user and Radiation Control of an exposure which exceeds the prescribed limits.
- In the event of an over-exposure the user must complete and immediately return form RC010 to the Department of Health: Directorate: Radiation Control.
- This form is available from the Directorate: Radiation Control or at <https://sites.google.com/site/radiationcontroldoh/>

Service Provider of PRMD's

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