Personal Radiation Monitoring Service
At a Glance
FOREWORD

As of 01 July 2012, with the promulgation of the *Radiation Protection (Personal Radiation Monitoring Service) Regulations 2012* (GN No. 125 of 2012), the Services Unit of the Radiation Protection Authority (RPA) has extended its **Personal Radiation Monitoring Service (PRMS)** to all radiation workers in the country. The PRMS is mainly tailored for employers to monitor the occupational exposure of their employees to ionising radiation. This manual, developed to serve as guidance to all potential subscribers of the PRMS, provides useful information on the various aspects of the Service.
The Personal Radiation Monitoring Service (PRMS)

It is to be highlighted that the PRMS only provides for the monitoring of the whole body exposure to ionising radiation from external radiation sources.

![Diagram of whole body exposure from an external radiation source](image)

**Figure 1: Monitoring of whole body exposure from an external radiation source**

The worker is provided with a **Personal Radiation Dosimeter (PRD)** also known as the **PRD Badge**. The PRD Badge is worn for a certain period of time, usually of 3 months duration or less. The wearing period is referred as the **monitoring period**, after which the PRD Badge must be returned to the RPA (Services Unit) to determine the dose, in millisievert (mSv), received by the radiation worker during the said monitoring period.

**Personal Radiation Dosimeters (PRDs) only measure the exposure to ionising radiation and do not provide protection against ionising radiation.**
A. Signing up for the PRMS

(i) Any person who wishes to subscribe to the PRMS shall complete the annexed Application Form, and submit the duly filled-in form to the RPA (Services Unit), 37, Saint Georges Street, Port Louis.

(ii) In principle, every monitoring period shall be of three-month duration. However, an Applicant may request for shorter monitoring period.

(iii) The RPA (Services Unit) shall provide the Service to every applicant subject to the availability of PRD Badges.

(iv) Prior to the start of the PRMS, the subscriber shall effect payment of a refundable deposit of Rs. 2000 for every PRD Badge required and shall also accept all the terms and conditions imposed by the RPA (Services Unit).

B. Issue of PRD Badges

(i) The subscriber shall, for every monitoring period, pay the appropriate fee for the issue of every PRD Badge. *(Refer Section H below for applicable charges)*

(ii) The PRD Badges shall be ready for collection at the office of the RPA (Services Unit) at least 5 days before the commencement of every monitoring period, and the subscriber shall arrange for the timely collection of the PRD Badges.

C. Proper Use of PRD Badges

Below are some practical advice for the proper use of PRD Badges:

(a) Every worker should wear the PRD Badge at the chest level.

(b) The PRD Badge should be worn on the outside of the clothing, but underneath any lead apron.

(c) Workers should wear their PRD Badges at all times when working with radiation sources.

(d) Every worker should wear his own PRD Badge and should not share his PRD Badge with any other person.

(e) Workers should not leave or store their PRD Badges near radiation sources.
(f) PRD Badges should not be tampered or disassembled.

(g) PRD Badges should always be kept clean, dry and free from radioactive contamination.

(h) PRD Badges should not be exposed to direct fluorescent light or excessive heat.

D. Return of PRD Badges

(i) Every subscriber shall return all PRD Badges, issued for a particular monitoring period, to the RPA (Services Unit) within 21 days after the end of the monitoring period.

(ii) Any PRD Badge returned in an irreparably damaged condition will be charged accordingly. *(Refer Section H below for applicable charges)*

(iii) A PRD Badge may be returned at any time to the RPA (Services Unit) with a special request for an emergency processing, for example in the case when the PRD Badge has been accidentally exposed to ionising radiation or when a high radiation exposure of a worker is suspected.

E. Dose Report

A Dose Report reporting the dose received, in millisievert (mSv), by a PRD Badge during a particular monitoring period will be sent to the subscriber within one month from the date the PRD Badge is returned to the RPA (Services Unit).

(Note: Dose received during a monitoring period exceeding 1.5 mSv and cumulative dose exceeding 6 mSv are displayed in bold in the dose report.)

F. Modification of the Requirements for the PRMS

Any subscriber may request a modification of its requirements for the PRMS, for example in the case when additional PRD Badges are required for the monitoring of new radiation workers or when a radiation worker will no longer require personal monitoring. All modification shall be made on the amendment form issued by the RPA (Services Unit). The RPA (Services Unit) should be notified, of any modification at least 15 days before the date the modification shall take effect.
G. **Termination of the PRMS**

(i) The PRMS may be terminated at any time, either by the RPA (Services Unit) or the subscriber, upon written notice being given to the other party at least one month before the termination date.

(ii) Upon termination of the PRMS, the RPA (Services Unit) shall refund, to the subscriber, the deposit made at the time of application after deducting any amount due to the RPA (Services Unit).

H. **Charges for PRMS**

(i) The applicable charges for the PRMS are summarised in the table below.

<table>
<thead>
<tr>
<th>PRMS Charges</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Refundable Deposit for every PRD Badge required</td>
<td>2000</td>
</tr>
<tr>
<td>2. Issue of a PRD Badge for every monitoring period</td>
<td>200</td>
</tr>
<tr>
<td>3. Failure to return a PRD Badge</td>
<td>2000</td>
</tr>
<tr>
<td>4. PRD Badge returned in an irreparably damaged condition</td>
<td>2000</td>
</tr>
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</table>

(ii) Payment by cash should be effected at the office of the RPA (Services Unit). For cheque payment, the cheque should be crossed and made payable to “Government of Mauritius”.

I. **Additional Information**

Please contact the RPA (Services Unit) for any additional information regarding the Personal Radiation Monitoring Service (PRMS).

*Contact Details:*

Radiation Protection Authority (Services Unit)
37, Saint Georges Street
Port-Louis
Tel: 208-0307
Fax: 208-0934
Email: rpa@mail.gov.mu
URL: [http://rpa.gov.mu](http://rpa.gov.mu)