NOTES FOR GUIDANCE IN USING THE SERVICE

These Notes are intended to assist people in the various establishments using the Personal Radiation Monitoring Service to understand how the Service operates, to minimise problems in its operation and to obtain the best accuracy possible in the assessment of the doses received. These Notes should be kept available for ready reference and used, in particular, by the person who looks after the arrangements within an establishment for use of the Service.

Number and address of Centre

Each establishment registered with the Service is allocated a Centre Number to assist in easy identification. The Number designated to your Centre is given on page 6 of these Notes and should always be used in correspondence or telephone calls concerning the Service.

Issue of monitors

The types of monitor used in the Service are TLD badges (theroluminescent dosimeter badges), neutron badges, finger sachets and special TLD badges. The types to be issued to your Centre are also shown on page 6 of these Notes. Notes on these monitors and their use are attached.

Monitors for prescribed wearing periods are despatched with Monitor Details Forms and a pre-addressed envelope or Jiffy Bag for use when returning the monitors to the Personal Radiation Monitoring Service. This dispatch is made about 12 to 14 days before the commencement of each period. If they are not received at least 4 days prior to a wearing period, the Service should be contacted so that replacements can be provided for that period. Receipt of the monitors is assumed unless the Personal Radiation Monitoring Service is notified at this time.

It should be noted that where different types of monitor are issued to a Centre, they may be despatched in separate packages to the Centre.

Prior to issue, monitors are individually numbered for ease of identification by the individuals wearing them in the Centre and in the processing system used in the Personal Radiation Monitoring Service to evaluate the doses received. Care must be taken to ensure that the correct monitor number is issued to the wearer listed against that monitor number on the Monitor Details Forms.

The number of monitors issued in a batch is equal to the number of persons to be monitored (except where an individual wears more than one monitor) plus a control.
The Monitor Details Forms consists of two parts. They give the prescribed wearing period for the monitors on the front and instructions for the completion and return of the monitors on the back. After a period of using the Service, it may be found desirable to change the type of monitor issued to a Centre or to change the wearing period. However, Centres will be advised of such changes in advance.

Storage of Controls and Other Monitors

Controls are used in the assessment of doses received by other monitors and serve as a means of determining background levels to which the batch of monitors as a whole is exposed and to assist in determining if the batch might have been accidentally exposed to radiation at any time. Controls must be returned with the batch with which they are issued. If not returned with the batch, there could be increased errors in the dose assessments.

All of the monitors issued will be accumulating background radiation from the time of issue. Accordingly, it is essential that monitors not be retained for periods much longer than the last date of wearing so that the accumulated background reading will be kept to a minimum.

At all times, monitors and controls should be stored in areas where the background radiation levels are low. Monitors for wearing by individuals should be stored in such places prior to and after the prescribed wearing period and whilst not in use, e.g. overnight and during an individual's absence from the Centre. Controls should be stored in these places from the time of receipt from the Personal Radiation Monitoring Service until their return.

Normally, only one control is issued with each batch of monitors of the one type. However, in some large centres, where background radiation levels are higher than normal, and vary from one area to another in the Centre, extra controls are supplied. This applies particularly to some of the centres issued with the Special TLD badge. For convenience, the controls are referred to as Controls A, B, C etc. For periods outside the prescribed wearing period, all monitors and controls should be kept in an area of very low background radiation. During the wearing period, Control A and any unused monitors should be retained in that area. However, Control B, C, etc should be placed in the various holding areas in the Centre where the individuals' monitors are kept outside working hours during the wearing period. Proper correlation between an individual's monitor and its appropriate Control must be made when registering wearers with the Service. This procedure is necessary to ensure that background radiation received by the badges at all times during the issue period is properly taken into account.

Wearing of Monitors

Monitors are normally issued to individual wearers who are registered with the Service. If unnamed monitors are issued, the wearer's name and wearer identification number should be written against the monitor number allotted to the wearer on the Monitor Details Forms.

Unless two or more monitors are requested for measurement of different types of radiation, or for determining the doses received by different parts of the body, each individual being monitored should wear one monitor only. This monitor should be at waist or chest height to determine doses typically received by the body and should be underneath protective devices such as lead rubber or lead plastic aprons, when these are worn. When more than one monitor is to be worn by an individual, the named monitor must be worn on the waist or chest and the name of the
wearer, position of wearing and the words "SECOND MONITOR" written against the monitor number of the unnamed monitor allotted to this person.

If doses to unshielded parts of the body, such as fingers, head, etc are to be determined, then monitors should be worn on or as close as possible to the region of interest. Wherever the monitor is worn on the body, this should be indicated on the Monitor Details Forms when returning them to the Personal Radiation Monitoring Service.

Outside of working hours, or when not in use, monitors should not be worn, but placed in storage with the control. This is necessary to ensure environmental conditions do not adversely affect the monitor and control differently and to reduce the possibility of their loss. This procedure also avoids the delays that frequently arise in returning monitors to the Personal Radiation Monitoring Service due to an individual being on leave at the end of a wearing period and not having left the monitor in the appropriate storage space.

In the event that an individual has to undergo medical procedures which use radiation, the monitor should not be worn, but placed in an area of low background radiation. Doses from such procedures are not to be included as part of the dose from occupational exposure.

A monitor should be worn by one person only. If it is shared by two or more people, it is subsequently impossible to determine the dose received by each person.

Return of Monitors and Monitor Details Forms

At the end of each wearing period, the monitors, together with controls issued for that period, and the original of the Monitor Details Form, should be returned promptly to the Personal Radiation Monitoring Service in the pre-addressed envelope or Jiffy Bag, with correct postage paid. The duplicate copy of the Monitor Details Form should be retained for your reference as some of the information on it is not repeated on the Dose Report Forms that are referred to later. Any delays in the return may lead to errors in the assessment of doses on the monitors, due to the possibility of the monitors being exposed unknowingly to radiation or to changes in their characteristics. If an individual's monitor is not available at the end of the wearing period, because it has not been stored with the control outside of working hours, the return of the batch should not be delayed and the accuracy of dose assessments for that batch jeopardised. The accuracy of assessment of the dose to the late returned monitor will be reduced, due to there not being a suitable control for it. Prompt return also makes it possible to determine if any unusually high doses have been received, and action can then be taken to investigate such doses in order to avoid their recurrence in the future.

It should be noted that all monitors should be returned after the wearing period, even if they have not been used. A charge will be made for TLD cards, Special TLD badges or Neutron badges that are not returned to the Personal Radiation Monitoring Service in a reasonable time.

Instructions for the completion of the Monitor Details Form are given on the back of the duplicate copy.

All monitors returned should be listed on the Monitor Details Form. If there are any monitors to be returned from a previous issue, they should be listed in monitor number order with the wearer's name and identification number listed against them under those already printed on the Monitor Details Forms. Only one line should be used for each entry. Any monitors which are
unused or have been used for area monitoring purposes should have this clearly stated on the forms.

**Miscellaneous Issues of Monitors**

Monitors may be issued for miscellaneous purposes. This may be on a "request" basis, in which case monitors and Monitor Details Forms are issued when requested. Such requests must provide sufficient time for preparation and dispatch of monitors and should be at least two weeks before they are required. Monitors should be stored, worn and returned in accordance with the above procedures. Replacements will not be issued until requested.

**Radiation Dose Reports and Records**

Reports on the doses received by monitors will be issued to a Centre as soon as possible after assessment. In the event of a very high dose being received, advice to this effect will be made by telephone to the Centre. It is recommended that a responsible Officer in the Centre investigates the reasons for such doses immediately in order to reduce the possibility of any further high doses arising from the same source.

The Dose Report Form lists the doses received for the specified wearing period and also the total dose received by the wearer for the previous 12 month period prior to the date of the Dose Report. This makes it possible to ensure that doses remain below the recommended limits.

A Cumulative Dose Report is also issued. This gives the total doses received by the wearer from the date that they were registered with the Service.

Copies of reports are sent to the appropriate State Health Authority. In the event of high doses being received, advice on action to be taken should be sought from the Authority.

**Charges**

A monitoring charge is made for all monitors issued except for controls. The charges are determined in accordance with the number of monitors issued at the time of posting and apply even if the monitors are not used. In addition, charges are made for monitor holders for TLD cards and TLD holder keys. Charges for these are listed in the Schedule of Charges. There is a charge for non-returned or irreparably damaged TLD cards, Special TLD badges, Neutron monitors and Finger sachets. There is no refund available for holders that are returned to the Personal Radiation Monitoring Service.

Accounts are rendered during the week immediately following the issue of monitors. Cheques and money orders should be made payable to the Collector of Public Moneys, and posted to:

Australian Radiation Protection and Nuclear Safety Agency  
619 Lower Plenty Road  
Yallambie Vic 3085

An account for holders and/or TLD holder keys issued is rendered at the time of the request for the holders and the payment should be directed to the above address.

If the Service is discontinued, all monitors but not holders or keys that are still issued to the
Centre must be returned to the Personal Radiation Monitoring Service. An account will be issued as soon as possible after the receipt of advice of discontinuing the Service and this will include charges for any non-returned TLD cards, Special TLD badges, Neutron monitors or Finger sachets and monitors posted up to the time of receiving such advice.

For further information, see the enclosed 'Policy on Charging'.

**Changes in Requirements**

Changes in the number of monitors issued, wearer names, or in addresses should be advised to the Personal Radiation Monitoring Service as soon as they are known. In general, **at least two weeks' notice** before a regular changing period should be given. However extra monitors (and holders, if required) can be issued for remaining portions of wearing periods and the regular number of monitors issued can be modified accordingly. Extra controls may be issued for these "non-routine" issues and these controls should be returned with the monitors issued with them.

**Enquiries**

Requests for changes in requirements and enquiries relating to assessment of reported doses, etc should be addressed to:

Personal Radiation Monitoring Service  
Australian Radiation Protection and Nuclear Safety Agency  
619 Lower Plenty Road  
Yallambie Vic 3085

Telephone enquiries can be made to (03) 9433 2211 or 1800 678112 (Freecall) and ask for the "Personal Radiation Monitoring Service (PRMS)".

So that the various requirements and enquiries can be attended to as rapidly as possible, it is requested that the Personal Radiation Monitoring Service be informed directly instead of enclosing these with returned monitors. In all correspondence or telephone enquiries, the Centre number should always be given. Telephoned requirements should always be followed up by confirmation in writing.

**PETER THOMAS**  
**MANAGER**  
**PERSONAL RADIATION MONITORING SERVICE**