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Reference: Customer Information



# PERSONAL DOSIMETRY MONITORING CUSTOMER GUIDE

V4

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## RPS Cardiff Service Guide

This is a basic guide to the terms and conditions of the service provided to customers. It will tell you how to make proper use of the service, and what you can expect to receive in return. For further information regarding any other aspects of our service please visit our website at [www.rpscardiff.co.uk](http://www.rpscardiff.co.uk). For customers under a Service Level Agreement, some of these terms and conditions may not be applicable.

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## Dosemeter Choice

### TLDs (Thermoluminescent Dosemeters)

TLDs work by storing the energy they receive from the ionising radiation (e.g. gamma rays) until they are heated to a high temperature (around 250°C). When this happens, the energy is released as visible light. The light output is measured, and the result is proportional to the radiation dose received. All TLDs use the high-sensitivity, tissue-equivalent material LiF:Mg,Cu,P (lithium fluoride, doped with magnesium, copper and phosphorus).



### Body TLD

The standard dosimeter is the body TLD. This is used for the vast majority of exposure situations, including veterinary and dental work, medical applications and non-destructive testing. It can be used for:

- measurements of whole body and skin doses from gamma, x- and beta radiations
- eye lens dose from gamma and x-rays
- routine, accident and emergency doses

### Extremity TLDs

These are used where the extremities (hands and feet) could get significantly more radiation dose than the rest of the body. They can be used for:

- measurements of extremity (skin) doses from gamma, x- and beta radiations
- routine and emergency doses

They come in three formats:

- rings, adjustable in size to suit a range of fingers - preferred when using gamma- or x-rays
- finger stalls, like the finger of a glove, in two sizes - preferred when using beta sources or close handling of radioactive sources
- ankle straps, for measuring doses to the feet.

### Headband (Eye Lens) Dosimeter

This dosimeter is recommended where the eyes can be exposed to beta radiations, or where gamma/ x-ray fields in the region of the eye are non-uniform. It uses the same detector as the extremity finger stall, but is configured for the recommended measurement quantity for the eye lens. The head band allows the detector to be positioned either centrally on the forehead, or offset over the eye that is expected to receive the highest dose.

The headbands must be used with the white filter facing outwards and the bar code facing inwards. They are used for:

- measurements of eye lens doses from gamma, x- and beta radiations
- routine and emergency doses

## Opening an Account

To set up a new account we will require a main contact for invoicing and administration purposes. If you require dosimeters to be sent to multiple locations we will need contact details for each of these. We will also need contact details for sending reports if different to those of the dosimeter recipients. We send dosimetry reports in electronic format only to as many as 4 recipients. Usually one of these recipients would be for your Radiation Protection Adviser.

We will send a Service Level Agreement which should be signed and returned prior to commencement of service provision.

Unless provided under a Service Level Agreement also covering radiation protection adviser services, there is a minimum charge per wear period equivalent to the cost of 4 dosimeters per location. This charge is levied in order to recoup administrative costs associated with small orders.

You will need to decide upon the monitoring period and type of dose meter required. You should seek advice about this from your Radiation Protection Adviser.

Once your account is up and running, you will receive dosimeters shortly before the first day of each wear period. These dosimeters are manufactured by our third party supplier, Public Health England (PHE) and are distributed to our customers from their UK laboratories in Chilton. At around the same time as the dosimeters are sent we will provide, by e-mail where customers have provided us with an e-mail address, a list of your assignments for the forthcoming period which should tally with your requirements. The dosimeters should be changed on, or as close to the first day of the month as possible.

All details regarding the care and use of dosimeters are provided our dosimeter users guide – please read this carefully and make sure all other users are aware of the appropriate care and use of their dosimeter/s.

We will continue to send dosimeters until such time as we receive notification that you no longer require our services.

### User Registration, Changes & Terminations

Always tell us about any changes to monitoring requirements promptly. In order for us to open an individual's dose record, a completed registration form should be received before a dose meter can be issued, preferably via our website or by post, giving relevant details for each wearer. Registration can be made via <https://www.rpscardiff.co.uk/>. We will need a full name for each person being monitored. This does not of course apply to equipment or environmental monitoring. Further information may be required, but if so, this will be requested at the time of registration. If you need to register a new user more urgently, you may call us to make a request on 02920 316268.

There is a set-up charge for each new wearer if they have not previously been monitored by RPS Cardiff. Please refer to the charges section below.

Any changes to your account need to be with us by the cut-off date of the next wear period. These dates can be found on our website. Any request made after the cut-off will be fulfilled within 10 working days.

If a dosimeter is required at short notice, we may be able to issue one from our stock of spares, depending upon availability. We mail these out on the same day as requested, but there is an additional charge for this. For details please refer to the section 'Charging Structure'.

Note also that any cancellations after the cut-off point will result in a dosimeter being sent for the next wear period and charged for. For this reason please tell us promptly if you wish to cancel monitoring.

**WE WILL EMAIL YOU CONFIRMING ANY INSTRUCTION YOU MAKE REGARDS ADDITIONS, CHANGES AND TERMINATIONS OF MONITORING. PLEASE INFORM US IF YOU DO NOT RECEIVE THIS CONFIRMATION – IT MAY MEAN WE HAVE NOT RECEIVED THE INSTRUCTION.**

When making any requests please ensure a valid email address has been supplied.

### Issue & Return of Dosimeters

Shortly before the beginning of each wear period each location will be provided with a new consignment of dosimeters. We will also email a despatch list to you around the same time. Please retain these until the beginning of the month at which point they should be made available to the wearers. Your users should change their dosimeters as soon as they have received the new issue.

We will provide you with a despatch sheet which may assist you in the collection of dosimeters at the end of the period. You will also be provided with an addressed envelope for the dosimeters return. If there are any anomalies, contact RPS Cardiff as soon as possible in order that we may address them. Return the full consignments of dosimeter/s as soon as you have gathered all of them in. Failure to return any dosimeter within 85 days of the end of the wear period will result in a 'Non-returned Dosimeter' Fee.

It is your responsibility to ensure the safe return of your dosimeters to PHE. If you have any doubts over the reliability of the standard postal service, we would suggest you consider the use of recorded delivery.

In order for you to demonstrate good compliance with the Ionising Radiations Regulations 2017 (IRR17), we would expect you to return all dosimeters to PHE within the month following changeover. If a dosimeter is not received within this period its record will be marked 'NR' (not returned). If a dosimeter goes past the 85 day point its record will be marked 'LX' and a charge is levied at this point in time. If subsequently returned and processed its record will be marked 'LP'. Please refer to report codes section below.

Emergency processing is available for dosimeters of wearers suspected of receiving overexposure. In the first instance call us on 02920 316268 to inform us. There is an extra charge for this – please refer to table on page 6.

### Reports

We normally receive dosimetry results within 14 days of receipt of the dose meter at PHE. We collate and format these results and send you a 'periodic' report, and a summary report. The periodic report also provides details of any dose records updated since the last periodic report (updated to IP, NR, LX, etc.). The summary report provides individual and cumulative doses for the year to date.

For chest, outside apron, and area monitor dosimeters, radiation dose from external radiations in Hp(10) mSv and Hp(0.07) mSv is used for dose record purposes. For ankle and finger dosimeters, dose is Hp(0.07) mSv. For eye collar, and TLD headband, dose is Hp(3) mSv.

We will also provide on request, a full dose history report.

### Dose Limits & High Dose Reporting

Dose limits are 'legal limits' and to exceed them is to commit an offence. However, they should only be seen as representing an upper boundary and not values that can be reasonably expected to be reached. It is possible to be in breach IRR17 where these levels have not been exceeded if it is shown that the radiation employer did not employ ALARP (As Low As Reasonably Practicable) and reach general compliance with IRR17 (9) – restriction of exposure. The table below is derived from Schedule 3 of IRR17.

Area of Body	Employees	Trainees	Other Persons
	(18y +)	(< 18y)	
Whole Body Effective Dose	20 mSv	6 mSv	1 mSv
Lens of Eye	20 mSv	15 mSv	15 mSv
Skin	500 mSv	150 mSv	50 mSv
Extremities	500 mSv	150 mSv	50 mSv

(Notes: Apart from the whole body dose, all other values are for equivalent dose. The dose to the skin is that which is averaged over 1cm<sup>2</sup> - regardless of the actual area exposed).

We will email you with details of any doses which if continuing would result in a dose to the wearer exceeding 3/10<sup>ths</sup> of the annual dose limit for whole body and skin and 15 mSv for the lens of the eye.

### Invoicing

Invoicing is in arrears. For non-SLA customers (i.e. those for which RPS Cardiff does not act as appointed radiation protection adviser) we will issue invoices twice yearly – at the end of September, and at the end of March. Approximately two weeks prior to invoicing we will send each location a summary of usage. Please make sure this is checked, and contact us if there are any anomalies. Please note: late/lost charges are made 6 months after issue, so for example, late/lost January issue dosimeters will appear on your usage summary as a July charge, February dosimeters as an August charge, September dosimeters as a March charge, etc.

### Charging Structure

NB: Unless provided under a Service Level Agreement, for each location there is a minimum charge per wear period equivalent to the price of 4 dosimeters. The standard charges are detailed below (all prices exclude VAT).

Dosimeter Type	Monthly issue		Bimonthly issue	
	Charge per unit	Minimum Charge	Charge per unit	Minimum Charge
-Badge	£2.53	£10.12	£3.96	£15.84
Ring	£6.36	£25.44	N/A	N/A
Stall	£6.36	£25.44	N/A	N/A
Extremity TLD	£6.98	£27.92	N/A	N/A

Late/Lost Dosimeter Charge: £31.80

New Wearer Set-up Charge: £1.00 per new record where individual has not previously been monitored by RPS Cardiff

Emergency Issue: £2.00 per dosimeter

### Account Closure

Canolfan Ganser Felindre,  
Yr Eglwys Newydd,  
Caerdydd,  
CF14 2TL  
Ffon: 02920 316268



Velindre Cancer Centre,  
Whitchurch,  
Cardiff,  
CF14 2TL  
Telephone: 02920 316268

Upon receiving notification that you wish to close your account, we will send confirmation of your request and begin the cancellation process. We expect you to send back any outstanding dosimeters before or shortly after the end of the issue period with your normal returns.

On an agreed termination date, prior to your final invoice we will provide you with a summary of any dosimeters outstanding, and details of any lost/late dosimeters chargeable. Normal charges will apply to any dosimeters not returned or returned late.

We will then issue a final invoice.

### Contact Us

Contact us by email or by telephoning 02920 316268.

- For all enquiries email:  
[rps.cardiff@wales.nhs.uk](mailto:rps.cardiff@wales.nhs.uk)
- New assignments, changes and terminations please visit our website:  
[www.rpscardiff.co.uk](http://www.rpscardiff.co.uk)  
Or email  
[rps.cardiff@wales.nhs.uk](mailto:rps.cardiff@wales.nhs.uk)



## Report Codes

Codes	Remarks
IP	In processing. Awaiting dose assessment.
LT	Dose below recording level (0.10 mSv).
NI	Not issued or issued in error - no charge for this dosimeter.
NR	Dosimeter still unreturned one month after wear period - return ASAP to avoid lost charges.
NW	Not worn, no dose assessment made.
LX	Dosimeter still outstanding - charge applied.
LR	Dosimeter received late. Awaiting dose assessment.
LP	Dosimeter received and processed late. Recorded result may consequently have a greater degree of uncertainty.
AE	Possible accidental exposure reported. Awaiting dose assessment.
DL	Dosimeter reported as being lost, no dose assessment possible.
DP	Dosimeter damaged in processing or lost in transit. No assessment possible.
EE	Employers' estimate of dose recorded.
ET	Possible accidental exposure whilst in transit. Awaiting results of investigation.
OL	Dosimeter reported as being unavailable, lost or damaged - replacement dosimeter issued.
SI	Special Issue from spares. Supplier not notified.