

Protecting and improving the nation's health

# Monitor

Newsletter of the Personal Dosimetry Service November 2014 Issue 46

# Dose Record Keeping Forms

We are often asked to send out copies of our dose record keeping forms.

There are several ways to obtain these forms, which are used to request:

- a registration of a worker for our dose record keeping service
- a termination of a dose record of a worker
- a radiation passbook

We can always send a paper copy or email you a PDF, but also you can download the up-to-date forms from our website at

#### www.phe-protectionservices.org.uk/pds/service/ doserecordkeeping/

or apply to use our Dosimetry Online (DOL) service where you can access all this information, and more, through a quick and secure client web portal.

### Urgent Assessments – Make Sure They Get Here

As part of our service we provide urgent dosemeter readings, and for body TLDs and extremity dosemeters we can phone or email the result on the day that we receive the dosemeter.

Sometimes, however, the process is delayed because the dosemeter hasn't reached us. Here are some tips to make sure dosemeters for urgent assessment get read promptly:

- every week we receive thousands of dosemeters back for processing

   if your dosemeter needs an urgent assessment, please make sure
   its stands out by clearly marking the package as urgent
- include a covering note, telling us who to call or email
- send it quickly first class mail or courier. Don't rely on our 'freepost' labels for this – that's the way the thousands of other dosemeters are returned

### **Email Addresses**

#### Is Your Address Book Up To Date?

On 1 April 2013 the Health Protection Agency was abolished and its functions transferred to Public Health England. Our email addresses were changed to the format '@phe.gov.uk', from the former '@hpa.org.uk' format.

Emails to the old HPA addresses should still reach us, but we cannot guarantee that forever, of course. It's a good idea to make sure you've updated all old HPA addresses to the PHE format.

Many thanks

#### Also in this issue

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### 'Approx' Designation in Dose Reports

Our routine dose reports sometimes carry the designation 'Approx' underneath the result line for a dosemeter. We are often asked what this means. Here is an update of an article we published in *Monitor* in 2008.

The 'Approx' designation means that *the result is subject to a higher measurement uncertainty than usual*. But it is still our best estimate of the dose received.

Measurement uncertainty arises from a number of causes, including:

- uncertainty in calibration of the dosemeter
- uncertainty in calibration of the automatic read equipment
- variation in response of the dosemeter as radiation energy changes
- variation in response of the dosemeter with age

All dosimetry systems are subject to uncertainties such as these, and a service like ours will assess uncertainties during type testing and routine quality control. Under laboratory test conditions a good dosimetry system such as ours should be able to achieve an uncertainty of ±15% at the 95% confidence level (ie you can expect 19 out of 20 results to be within 15% of the true dose). However, in operational use the figure will be higher because the radiation field and other conditions are less well known. For our TLD service we estimate a total uncertainty of about 30% in operational use.

In some circumstances, though, our measurements are less accurate. These are when:

- our stringent QA tests show that the readout may not have been normal
- the dosemeter is returned to us for processing very late



 (for body TLDs) the ratio of body dose to skin dose is unusual

In our QA tests the 'regions of interest' (coloured vertical lines) are used to determine whether the TLD glow curve has the right shape. In this example the lower peak (labelled iii in the figure below) is a little late, but the TLD was read out correctly.

We check the ratio of body dose to skin dose because, in normal circumstances:

- the body dose will never be significantly bigger than the skin dose
- the skin dose will seldom be much bigger (eg x8) than the body dose (this can only happen with beta radiations)

If we do get an unusual ratio, this could be because the dosemeter has been partly shielded or has been exposed to a narrow beam of radiation.

In none of these cases can we say that the accuracy of the measurement will be as good as usual, so we indicate this with the note 'Approx' in the dose report. For most of the 'Approx' results, the uncertainty will still be tolerably low. In extreme cases, where the uncertainty is too high, we will report no result – instead, we'll write separately and tell you what has happened.

### **RPA Services – Veterinary Radiography**

Exposure to ionising radiation is only one of the hazards that staff working in a veterinary practice may face, but the consequences of an unintended exposure could have a significant impact on the exposed individual and on the practice.

It is important that appropriate advice is sought by the practice owner to ensure suitable and sufficient procedures are in place to cover work withing ionising radiation and to keep doses as low as reasonably practicable as required by the lonising Radiations Regulations 1999 (IRR99).

Help is at hand and a veterinary practice can seek professional help by consulting a radiation protection adviser (RPA), a service that PHE offers. IRR99 specifically requires the veterinary practice to consult an RPA to provide advice on these regulations and, in particular, advice on certain matters such as the plans for a new radiography room. The RPA will advise on all aspects of working with ionising radiation to assist the radiation employer to comply with these regulations. Dealing with the requirements



of the regulations need not be onerous and is based on a common-sense approach to health and safety to protect staff and customers.

PHE has provided RPA services to the veterinary sector for many years and currently covers a number of individual practices and larger veterinary businesses that comprise 20 or more practices. As RPA for a practice, we would assist it to comply with the various requirements of IRR99 and undertake radiation measurements to confirm that adequate shielding is in place and staff exposures are low.

For a veterinary practice to comply with IRR99, it is required to appoint one or more radiation protection supervisors (RPS) who must be provided with the necessary training to carry out their duties. Again, PHE can assist with this. PHE provides a number of veterinary RPS courses from its locations in Glasgow, Leeds and Chilton in South Oxfordshire.

Further details of our training services can be found on our service website at

#### www.phe-protectionservices.org.uk/rpt/ courses/list

with details of our RPA services at

www.phe-protectionservices.org.uk/rpa

### **RPII** Merges with the EPA

From 1 August 2014, the Radiological Protection Institute of Ireland (RPII) merged with the Irish Environmental Protection Agency (EPA) – see www.epa.ie/radiation.

RPII is now known as the Office for Radiological Protection of the EPA. Irish users will find lots of useful information on the EPA website, including a video about population radiation exposure.

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## **Dosimetry Online (DOL)**

Don't forget that, as a customer of our personal dosimetry service, you can have access to a range of information and advice for free.

On DOL you can:

- look up dose results
- amend your order to add or remove names
- register and terminate a record for a worker
- change your customer details such as address or phone number
- look up un-returned dosemeters
- order and download dose reports
- request an emergency order
- view dose summaries
- access information pages

If you would like to apply for access to DOL, please email doserecords@phe.gov.uk and request a DOL client access form. We will issue you with a username and password, so that you can get started. We will also be on hand to help out with any queries.

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#### Getting Connected to the Personal Dosimetry Service (PDS)

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