



Ionising Radiations Regulations 2017

(IRR17) – new eye dose limit

The European Union Basic Safety Standards Directive 2013 (BSSD) sets out updated safety requirements and all European countries have to bring the new standards into law. In the UK, the Health & Safety Executive (HSE) have been working to help provide a smooth transition of the requirements of the BSSD. The deadline for transposition of these into UK law is 6 February 2018.

The draft regulations contain a number of changes by HSE although not yet published. The most significant proposed change is the reduction in the eye dose limit from 150 mSv per year to 20 mSv per year. This has been introduced after a number of epidemiological studies in the 2000's suggested that there is a lower dose threshold (below 0.5 Gray) for the induction of a cataract to the eye lens than had previously been identified. As well as the lower 20 mSv annual dose limit, there will be a five year dose limit which allows a worker to go over the 20 mSv limit, up to a maximum of 50 mSv in one year, but not over 100 mSv in a five year period. Other changes for employers will be to adopt a graded approach for Notification, Registration and Licensing for all relevant practices. This will be an on-line process to be completed by 6th February 2018.

PHE can provide an eye headband dosimeter to allow employers to measure the dose to the lens of the eye to help them assess their compliance with the proposed new lower eye dose limit. The dosimeter has been approved by the HSE since 2013 for the assessment of dose to the lens of the eye, $H_p(3)$. The whole body TLD is also approved to measure doses to the lens of the eye from gamma and x-radiations only when worn on the collar and where the field is uniform. Many customers have already started to use the eye dosimeters to assess their compliance and we are now issuing over 7000 per year. This is mainly to the medical field but also to a variety of other employers throughout the industry.

The new IRR17 are expected to be accepted into law in the next couple of months. HSE has been working and consulting with various sections of the radiation industry over the last year to help with the transition to

the new regulations. It is expected that the regulations will come into force on 1st January 2018 to allow employers and dosimetry services time to prepare and submit applications (notify, register or license) for the changes before the deadline of 6th February. The HSE has agreed that the new eye dose limit will, therefore, come into effect on 1st January 2018 and cover the whole calendar year. This is a simpler approach for employers, employees and ADS's to implement.

PHE has already made amendments to its software to accommodate these changes so that customers will be automatically alerted if the dose to the eye approaches or reaches the new limit. For our Record Keeping workers, they will also see a five year summary and a cumulative life dose total for eye on their quarterly reports from 2018.

If you would like some more information on the PHE eye dosimeters, please contact our Customer Services Team.

Dose Record Keeping team

We have a new member in our Dose Records Office team. Simonne Wheat joined us in early September and is working from Wednesday to Friday. We would like to welcome Simonne to her new role of Dose Records Administrative Officer and I am sure you will be speaking to her soon.



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Flying with your dosimeters

If you travel by air with work, and need to take your dosimeter, it would be beneficial to request an Air Transit dosimeter (labelled as per picture below). The Air Transit dosimeter will measure any dose received during travel from cosmic radiation and from any airport x-ray baggage scanners. It is issued as well as your personal dosimeter and should be kept with your routine dosimeter during your travel and flight time but NOT whilst at work. Please pack both dosimeters in your hand luggage (rather than hold luggage) for minimum exposure to security scanners during travel. On return to the UK, send both dosimeters together for assessment. We analyse your dosimeters and deduct any dose measured on the Air Transit from your personal dosimeter to give us your occupational dose before reporting as normal. For more information, please email doserecords@phe.gov.uk.



Received any dosimeters with a little hole in the wrapper?

Do not panic! When issuing dosimeters, our wrapping machine can sometimes leave the occasional wrapper a little puffy. This is not a problem other than it means they will not fit into the holder easily. In order to release the air, a small hole is made in the wrapper with a pin. As the wrapper is designed to protect the dosimeter from contaminants and not to be water tight, this is a good solution to ensure that the dosimeter will fit in the holder properly when it reaches you!

Where to Wear your TLD!

Our whole body TLD measures the dose to the body and skin of the wearer. It should be positioned on the torso between the shoulder and waist, in the best position to measure the dose from the source of radiation. The holder is an integral part of the dosimeter and the material that measures the dose sits behind the two filter areas. The body element is behind the thick circular filter (with Public Health England written on it) and the skin element is behind the open window.

White Wrapper

The white wrapper on the TLD is mainly designed to protect the dosimeter from contaminants e.g. dirt but also enables us to print the wear details of the dosimeter.

We have received some back without their wrapper. The wearer has removed the wrapper and placed the TLD card into the holder without it. The wrapper should stay on the TLD card and the whole package should be put into the holder as shown in the picture below. This helps the wearer to ensure the dosimeter is placed correctly into the holder with the name or serial number and the end of wear date clearly shown in the window. It is important that the dosimeter elements are placed behind the correct filter (as explained above) to record the body and skin dose correctly. Please pass this information on to your teams. Thank you.



Dose Results via Encrypted Email

In July we amended our procedures and began to send all results files **containing any personal information (e.g. date of birth)** by encrypted email. We notified customers that we made this change to ensure that personal data is kept secure. This has been successful with most customers pleased that this extra measure has been taken. Please be aware, however, that the link to download the results is only valid for 30 days. Please download the report and save securely to your own server. After this time, if you need any copy reports please contact us on doserecords@phe.gov.uk. If you do not currently have your reports by encrypted email and would

Nice to see you!

We like to get out and meet people and show them what our service offers.

This year we have attended several Conferences/ Meetings and were pleased to be part of their Exhibition. These events have covered the whole country from locations in Somerset to Aberdeen.

People from different areas of PHE's Centre for Radiation, Chemical and Environmental hazards travelled to Aberdeen for the annual meeting of The Society for Radiological Protection. This included many from our service areas of Radiation Protection Advisors (RPA), Radiation Metrology as well as our Personal Dosimetry Service (PDS). We met with customers, suppliers and colleagues for an interesting update on all that is new in radiation protection.

We are already planning for next year and here are some of the events we will be attending:

- Society of Radiological Protection Annual Conference: 1st – 3rd May in Southport
- Institute of Physics & Engineering in Medicine RPA update meeting: 12th/13th May in Birmingham
- Association of University of Radiation Protection Officers Annual Conference: 4th – 6th September in Leicester.

If you are around come and say "hello"!!!!

Urgent Assessments

If you think that you or one of your employees may have received an unexpected dose, you can return the dosimeter to us for urgent assessment. We receive up to 2,500 dosimeters per day for assessment so to help us locate the dosimeter easily and quickly, please ensure you:

- Place the dosimeter in our green envelope or a jiffy style envelope addressed appropriately (add postage for a speedy return if necessary)
- Include a note to say "URGENT ASSESSMENT" and why you are requesting it
- Include a contact email and/or telephone number for us to inform you of the assessment

We will read the dosimeter as soon as we can on its arrival at PHE and contact you within 24 hours with the assessment result. This service is free of charge for our customers*.

**up to 10 times per year*

Pictured below, PHE staff at the SRP conference dinner: Tim Daniels (Radiation Metrology, back first left), Ciaran McDonnall (RPA Chilton, back third from left), Nicky Gibbens (PDS Manager, front first left), Joanne Shaw (RPA Leeds, front second from left) and Ruth Lofts (RPA Leeds, front third from left).



Public Health England
Wellington House
133–155 Waterloo Road
London SE1 8UG, UK
www.gov.uk/phe
Twitter: @PHE_uk

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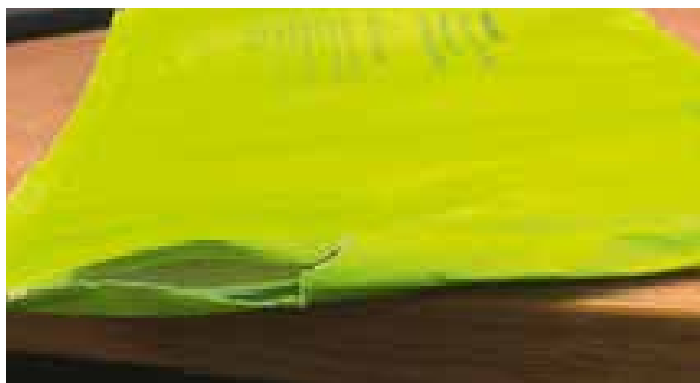
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PHE Personal Dosimetry Service
Centre for Radiation, Chemical and Environmental Hazards
Public Health England
Chilton, Didcot, Oxfordshire OX11 0RQ, UK
T: +44(0)1235 825240
F: +44(0)1235 825564
E: personaldosimetry@phe.gov.uk
www.phe-protectionsservices.org.uk/pds

Returning dosimeters to PHE for assessment (within the UK) – Green Envelopes

We provide a bright green, specially designed, pre-paid envelope for you to return your dosimeters for assessment. You will receive your new dosimeters in this envelope to exchange with the used ones and return to us. The envelope is padded and secure to stop the dosimeter wrapper cutting through and escaping to get lost in the post.

Unfortunately, we have noticed an increase in green envelopes coming back to us that have been damaged in the post. We are addressing this with our supplier but we would also like to make a polite request to customers to check the envelope before sending. If it is looking weak at the fold (see image to the right), please put some extra tape across it to ensure it stays intact during transit. Below is an example of an envelope that arrived with a tear just big enough for the TLD to escape:



Here is an example of an envelope where it is beginning to weaken and could turn into a tear:



As the TLD and extremity dosimeters are reusable, there is a charge if they go missing or get damaged. We also will not be able to supply you with a dose assessment for any that get lost so please make your parcel secure. If you do have any issues with damage to a returned envelope, we advise that you contact your local post office for further information.

Our envelopes are also very recognisable to the postman and they happily return them here if they find any astray. If you do not have our envelope, please use any padded envelope. We can always supply a pre-paid label for you to use. Please contact our Customer Services Team.

Getting Connected to the Personal Dosimetry Service (PDS)

Telephone

Prefix 01235 (unless*)

Nicky Gibbens, Manager	825334
Lyn Pike, Deputy (Commercial)	825343
Sean Baker, Laboratory Manager	825349
Dosimeter Logistics Office	825339
Dose Records Office	825230

Laboratories:

TLD & Extremity	825353
Neutron (Leeds)*	0113 267 9041
Customer Services (CS)	
CS Team (calls are rotated)	825240

Fax

General PDS	825563
General CS	825564

Email

General PDS	personaldosimetry@phe.gov.uk
Dose Records Office	doserecords@phe.gov.uk