

To Radiation Protection Supervisors and Departmental Administrators
From D R Plumb, Radiation Protection Adviser
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Subject Update information
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Following the Radiation Protection Supervisors update meeting held on 23 March 2010, a reminder of some of the topics covered is provided below. These topics are relevant to RPS and also to Administrators and senior management of departments.

1. An Apology!

As you know, we arrange the annual update meetings to fit within a 'slot' of one half-day per year. This is because we appreciate that committing longer time than that is an unreasonable demand on *your* time. Because of the short time available to us we then attempt to include as much relevant and general interest material as possible. Invariably we attempt to cover more than is possible in the available time, and this of course was particularly obvious this year, with the workshop session, for which more time was obviously needed. We will try and learn from our mistakes! On a positive note, we intend to promote the instrumentation and monitoring workshop as a 'road-show' which we will bring to your departments in the near future – further information is in section 5, below.

2. HSE and EA News

A summary was given of the 'hot topics' currently promoted by the Health and Safety Executive. This included direction to 'management' that RPS appointments should be in writing, and that the role of the RPS, and limitations of the role should be clearly defined.

The role of the RPS in contingency arrangements has been flagged up as an example where misunderstandings occur – HSE are clear that written contingency arrangements should identify a local manager as the person responsible for co-ordinating an emergency response (not the RPS). Of course, in the University situation it is very likely that the RPS will wear a managerial 'hat' and is the appropriate person for the 'emergency' role!

The correct designation of controlled areas, and additional requirements for these areas has attracted comment from the HSE – wherever possible these areas should be formed from entire rooms, with doors as barriers – also when service engineers visit, handing over the control of the area to them is seen as best practice where 'University' local rules, RPSs and written arrangements may not be appropriate for the work being undertaken.

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Inadequate risk assessments have attracted the attention of the HSE - who have reminded us that risk assessments should be readily available to 'users' and reflect the actual work! The list of topics to be addressed in a risk assessment for ionising radiations is very specific and is set out in Regulation Seven of the Ionising Radiations Regulations 1999 (IRR99) – The University's ionising radiations risk assessment forms (SO Website) are designed to include all of the topics listed in Regulation 7, and the radioactive sources form includes the essential elements of consideration for BPM (BAT) requirements as required by the 'Specifications' issued under the Radioactive Substances Act 1993.

Risk assessment of below ground workplaces in terms of the likelihood of elevated Radon concentrations, continues to be a matter that is followed up by the HSE. A number of assessments (and actual measurements of Radon levels) have already been carried out in the University, but the SO will be reminding departments that further consideration to this topic is necessary.

In terms of news from the Environment Agency, the change, from April 2010, from Certification under the Radioactive Substances Act 1993, to the Environmental Permitting Regulations was explained at the meeting. These new regulations will mean changes to the way Certificates are applied for and costed (us!) and the way inspections are carried out and followed up (you!) Particularly to note is that subsistence charges will in future be influenced by the standards of compliance seen at the time of EA inspections. Also, in future, inspections are very likely to follow a format where the inspectors will require evidence of compliance with all of the various management 'conditions' listed in your Certificates – we anticipate that these conditions in any new 'EPR' permits will match those in the existing RSA permits.

To assist with demonstrating compliance with management conditions, the Safety Office is currently preparing some compliance matrix documents, which will show the compliances achieved centrally, and those that need to be demonstrated at department level. We hope to circulate copies of these documents during May 2010.

The EA are also reminding 'users' that when facilities (even single laboratories) are taken out of use, documenting a good decommissioning exercise is essential. In due course evidence of these decommissioning exercises will need to be presented to the EA when a site (or building Certificate) is cancelled. Information on the procedures to follow when decommissioning facilities can be found on the SO Website.

A review of the exemption orders relating to the Radioactive Substances Act 1993 is ongoing, but unlikely to be completed until mid-2011. When this review is complete and a new 'overall' exemption format is issued, the Radioactive Substances Act, in its entirety will then be revoked. Exemption orders are important to us in terms of the holding of small testing sources without Registration, and also for stocks of naturally occurring materials such as Uranium Thorium and Geological Specimens – so we will be watching very closely for the outcome of the exemption order review.

3. Guest presentations

This year we had two excellent 'special topic' presentations – from Dr Jeff Dalley – MicroPET/MR, and Professor Liz Morris – Radiation Protection in an Extreme Environment. A common factor in both presentations and an important issue for those carrying out *any* risk assessments for work, including those for techniques involving ionising radiation, is that the non-radiation hazards

associated with the process can often be significant, and the risks presented can actually be greater than those from the radiation. Therefore a holistic approach to risk assessment is always required, including input from individuals experienced in all relevant hazards associated with a process. This of course may require co-ordination between the DSO, RPS, BSO, Pls and others.

4. Controlled and Supervised Areas – Designation, use and decommissioning

A reminder was given of the correct approach to designation of areas and the subsequent requirements for the need for additional measures for use of those areas. Designation is a product of the prior risk assessment carried out by management in association with advice from an RPA. Depending on the decision taken on designation, further decisions can then be taken on appropriate signage, supervision, preparation of written local rules, appointment of radiation protection supervisors and monitoring arrangements for the area. Local rules should be written following the RPA advice and broadly in line with the model on the SO website – it is important that local rules contain the five key elements as specified in IRR99, and are focussed documents concentrating on the greatest risks. Lengthy, closely typed volumes are never going to be effective as 'local rules'! A reminder was also given that decommissioning of areas should be carried out on a logical manner and the results of decommissioning recorded for future reference.

5 Workshops

Two important topics were addressed in the workshop sessions – 1) making and maintaining records of training, and, 2) theory and practice in contamination and dose rate monitoring.

In terms of records of training, Mark Elsdon demonstrated models by which *departments* could record induction and training given to users of ionising radiations this to include *practical* training, as well as the important provision of information and instruction – all these three elements are required by the relevant legislation. Basic induction formats are on the SO (radiations) website. Also available is the Personal Safety Training Record, for individuals to record some of their own details of training received. Records of training provided are required under the IRR99, and the Certificates issued under the terms of the Radioactive Substances Act 1993. Records of training are requested during the University radiations audit programmes and, increasingly, by EA and HSE inspectors when they visit workplaces.

Mark Earthowl discussed the design and function of various types of monitors and how these should be used in order to effectively monitor for contamination and dose. The importance of correct selection of monitors was stressed, as well as the need for good technique to ensure meaningful results are obtained. A remainder was also given of the importance of establishing good monitoring records in order to demonstrate the effectiveness of the process.

The Safety Office are pleased to be able to offer a short 'road show' on instrumentation and monitoring, and bring our expertise and range of monitors to your department and discuss issues and problems with users of radioactive substances and machines. If you think that one or more short (up to one hour) sessions would be useful for users in your department, please do not hesitate to contact Lisabeth or David directly in order to discuss possible arrangements and to arrange suitable venues and times.

6. Forum Session

A brief update was provided on a number of topics – cross-group (or even cross-departmental!) inspections, a review of Perkin – Elmer's supply performance, results of the recent monitor calibration programme, and, the need for RPSs to check the SO website from time to time in order to access latest guidance and the various radiation protection and waste management forms. Importantly, notification was given that Liquid Scintillation waste would, from later this year no longer be consigned to landfill. Such waste generated on the Addenbrooke's site is already incinerated on-site, and waste from other University sites would in due course be disposed to a national incineration company. Details of the logistics involved are still being worked out and a meeting of departments will be organised in the summer.

The various documents, forms and policies and guidance available on the Safety Office Website were discussed and a reminder given that the site should be checked from time to time to ensure that the current versions of these items are used within departments:

So...Please check that you are using the current version of any form!

<http://www.admin.cam.ac.uk/cam-only/offices/safety/radiation/ir/forms.html>

As you are aware, our publication "*Working Safely with Unsealed Radioactive Sources*" (Revised August 2009) is now available on the Website, and not as a printed and bound volume. The format on the Website is in the format of one pdf file containing the overview and core information, supported with links to numerous separate pdf and word documents containing the 'appendix' data and further information.

Further to a number of requests, and for an 'experimental period', we have now placed on the website a single document containing the overview and all the appendices – If you find this format more useful please let us know.

7. Two Day course for Radiation Protection Supervisors

RPSs are reminded that the annual two-day course will be held on the 14 and 15 July 2010, in the Department of Pharmacology, Tennis Court Road. Although the course is intended for RPSs who have recently been appointed, or 'potential' RPSs, existing RPSs who have not completed this course or who have been in post for many years are very welcome on this course! **If you have not attended this course in the past four years**, you really should consider registering for the course this year. The course is organised jointly with the East Anglian Regional Radiation Protection Service (Addenbrooke's Hospital), and places may be booked at the SO website.

8. Next Year!

As mentioned at the meeting in March, plans are underway for the 2011 RPS update. A rather different format is envisaged, from mid-morning to mid-afternoon, including lunch – however your total time commitment to the update is not expected to be greater than those in previous years. We hope to include presentations from the senior HSE and EA inspectors responsible for this area – in what will be very much a 'back to basics' update concentrating on the essential elements of restriction of exposure, and good environmental control.