**Ionising Radiation Regulations 2017 (IRR17) – Summary of Changes**

The new regulations come into force on 1 January 2018, replacing IRR99. The latest version can be found here:
http://www.hse.gov.uk/pubns/books/l121.htm
As of 14 December 2017, this version contains the final regulations, but there are some errors in ACOP and guidance which are to be amended.

## Significant changes applying to sealed and unsealed sources, and to X-ray generators and accelerators

### *Notification, registration and consent*

IRR17 introduces a three-tier system of notification, registration and consent (licence) that replaces the current requirement for notification and prior authorisation. The Safety Office will carry out notification, registration and application for consent on behalf of the University, but we expect a response from each department on the registration and consent questions. Please let us know if any questions or problems when completing these forms. Departments will need to ensure that these conditions continue to be met. Please continue to consult us early in the planning stages of new work requiring registration or consent, and inform us of any significant changes to work.

### *Eye dose limit*

The annual dose limit for exposure to the lens of the eye will be reduced from 150mSv to 20mSv. For beta emitters, eye doses will be very low if normally working behind a Perspex shield. For gamma emitters, the skin dose at 30cm can be taken as an estimate of the eye dose. In practice, eye doses are only likely to need to be monitored for certain work with positron emitters. If you have used eye dosimetry in the past, please review the results and contact us if any questions.

### *Radon reference level*

The IRR99 radon reference level was 400Bq/$m^3$ over a 24-hour period, but the IRR17 radon reference level is 300Bq/$m^3$ averaged over an annual period. Calculations show that these are broadly the same so there should be no significant difference, but radon assessments should be reviewed. Under IRR17 we need to notify HSE of any work performed in radon levels above 300 Bq/$m^3$.

### *Definition of outside worker*

An outside worker is an employee carrying out services in another employer's supervised or controlled area, and now includes both classified and non-classified workers (previously only defined as classified workers in another employer's controlled area). The intention is that non-classified outside workers would have the same level of protection as our own employees.

In practice, departments should already have arrangements in place for taking care of visitors, assessing risks of others as part of the risk assessment and are following current university advice regarding cooperation between employers, but please review these arrangements, ensure these are written into departmental policy documents and followed.

### *Estimated doses to members of the public*

There is a requirement to put procedures in place to estimate doses to members of the public. This should be covered by risk assessments and by environmental assessments carried out by the Safety Office when applying for EPR Permits.

### *Radiation accidents*

Recording and analysis of significant events – the definition of significant event is now linked to the implementation of a contingency plan. Many of you will have contingency plans which cover the event of spills. If the spill is contained, for example on a spill tray, and there is no risk of spreading contamination or a significant dose to the worker, this is NOT considered a significant event. Having a spillage procedure separate from the contingency plan is advised.

We will prompt appropriate follow up of accidents, but where a contingency plan "is used" (i.e. a "significant event") the requirement is that:
*Regulation 13(2)d)*
*(i) the cause of those circumstances is analysed to determine, so far as is reasonably practicable, the measures, if any, required to prevent a recurrence of such circumstances;*
*(ii) a record of such analysis is made and kept for at least 2 years from the date on which it was made; and,*
*(iii) any exposure which occurs due to the above circumstances is noted on any relevant dose record.*

As before, you should continue to report accidents as soon as possible (if a dose above normal for the work may have been received as a result of an accident, please do not wait for the accident report to reach our desks – let us know by email or phone as soon as you can).

### *Local rules*

In IRR99, there are five essential items in local rules. IRR17 guidance includes two additional items:

- *Details of the management and supervision of the work.*
- *Procedures for ensuring staff have received sufficient information, instruction and training.*

These aspects are already checked during audits and are generally in place across departments, but please review your local rules.

### *Training and refresher training*

The need for refresher training is highlighted in several areas. Additionally, there are requirements for training employees engaged in work with high-activity sealed sources (HASS). Advice has been given to departments where this applies.

### *Dose record retention period*

There is a change to the dose record retention period from 50 years to not less than 30 years after the last day of work (for classified worker records and significant accidental doses).

### *A few things have been removed…*

- Removing the subsidiary dose limit for the abdomen of a woman of reproductive capacity.
- References to 'radiation employers' and replacing it with employers – duties of various employers should be clear in the context of specific regulations.

## Changes to other regulations

### Environmental Permitting Regulations

There are a few changes under EPR that will appear as an amendment to EPR in February 2018 – partial significance to HASS so relevant departments will be informed as necessary.

### IRMER and ARSAC

There are various changes which are being highlighted to departments involved in medical exposures and administration of radioactive substances to humans.

### REPPIR

There are some changes which may affect some departments, and again these will be highlighted as needed.