RP COP019 – RADIATION RISK ASSESSMENTS

1. Introduction

As with all other hazardous work, in order to be confident that work with radiation sources, intentionally or otherwise, is being undertaken safely, it is necessary to undertake suitable and sufficient risk assessments. This measure is made mandatory by its inclusion in the UK regulations concerning safe work with radiation. Due to the complexity of assessing the risk from radiation exposure, employers are legally obliged to consult on the matter with a Radiation Protection Adviser (RPA). This Code of Practice explains the arrangements that have been put in place to assist Schools and equivalent divisions in producing suitable and sufficient radiation risk assessments. The arrangements for hazardous laser (hazardous lasers are those in Classes 1M, 2M, 3R, 3A, 3B and 4) risk assessments are also included.

2. Generic Risk Assessments

Although there are many factors that can affect the risk from working with radiation sources and lasers, there are many common factors. In order to avoid the need to prepare individual risk assessments for every single researcher or member of staff who is working with radiation or lasers, the University RPA has prepared a series of “Generic Risk Assessments”. These are published on the University’s Health and Safety Department’s website. The generic risk assessments cover those radiation and hazardous laser work activities that are undertaken by a large number of researchers within the University, and include appropriate control measures.

3. Specific Risk Assessments

It is recognised that generic risk assessments can sometimes:

a) not recognise all the local aspects that might influence a risk assessment;
b) not take into account changes in work activities that could have a significant affect upon the risk; and
c) not take into account radiation or hazardous laser work activities that were not being undertaken at the time of the preparation of the assessments.

The University’s arrangements therefore include a means of extending an existing generic risk assessment to suit each particular circumstance, or recognising when an additional risk assessment is required. This is achieved

Tolerability of Risk model
(“The Tolerability of Risk from Nuclear Power Stations”, HSE, 1988)
through the use of the Proposed Scheme of Work (PSoW) form. Details of the PSoW form can be found in radiation protection code of practice RP/CoP007.

The PSoW form, which must be completed by all persons wishing to undertake radiation or hazardous laser activities without immediate supervision, obliges the requester to provide details of the work, and state which current generic risk assessment, if any, applies to his/her work. This information is used by the RPA to identify whether an existing generic risk assessment is adequate or needs modifying, or whether a new one needs preparing. Any modified or new risk assessment is prepared by the RPA in consultation with the requester – including taking any measurements that might be required – and/or the Radiation Protection Supervisor (RPS) or Departmental Laser Supervisor (DLS). A modification to the assessment, in the form of a standard template, is attached to the PSoW form before being sent back to the requester, via the RPS. This arrangement is intended not to replace the generic risk assessment, but to provide a specific risk assessment that is a combination of the two. A record of the PSoWs is maintained by the RPA.

4. Changes to and Reviews of Risk Assessments

Where there are changes to a radiation or hazardous laser activity that is sufficient to alter the risk, then the relevant radiation worker has to submit a revised PSoW form. It is the radiation worker and their line manager’s responsibility to identify when a change is significant, although the local RPS or DLS might also identify a significant change.

Where a radiation worker has declared that she is pregnant, then the line manager or the RPS informs the RPA in order that the relevant radiation risk assessment can be reviewed. If a change to the radiation work is necessary, then the RPA advises the worker and her manager, via the RPS, of the advised changes using a standard template. Information on safety when working with radiation whilst pregnant or breastfeeding can be found in radiation protection code of practice RP/CoP013.

5. Further Information

Further advice on the generic and specific radiation and laser risk assessments can be obtained from the Radiation Protection Unit of the Health and Safety Department.