

Radiation Risk Assessment for Sealed Sources
as required by the Ionising Radiations Regulations 2017

Guidance is available to help you complete this form – please refer to the Safety Office document IR009

Description of work assessed:

Departmental Code:

Location of work:

Assessment date:

Name of assessor:

Post/Status:

This section is to demonstrate that Best Available Techniques (BAT) are observed in order to minimise the disposal of radioactive waste to the environment and to minimise radiation exposures of the public (refer to relevant EPR permit or Exemption Order as applicable and consult Safety Office/RPA).

Can you use a non-radioactive method? If not, why not?

Is the activity of the source the minimum necessary for the work? If not, why not?

The sealed source should be non-dispersible – how is this kept under review?

Refer to special form certificates and leak tests where relevant

What are the arrangements for disposal of the source? This must be considered and documented. Consider the possibility of returning the source to the supplier

Has the Best Practical Environmental Option been chosen for disposal? Consult RPS/Safety Office/RPA for advice

Add further information on how you will minimise environmental and public dose effects that may result from your work. Include security considerations

Complete this column – consider who might be harmed and how

Employees involved in the work:

Non-University employees directly involved in the work (agree on responsibilities of the employers involved):

Others who may be affected by the work (other staff, visitors):

Any pregnant persons involved in the work:

Source of ionising radiation:
for sealed sources specify radionuclide, activity, main emissions and maximum energy

Nature of risk: consider external exposure and potential harm – internal exposure need not be considered provided the source remains undamaged and leak tests are up to date	
Estimated dose rate and annual dose to persons directly involved in the work: use data from manufacturer/supplier if available. The Safety Office can also supply data sheets	
Estimated dose rate and annual dose to persons not directly involved in the work: consider other staff and members of the public	
	Describe the control measures
Advice from manufacturer on safe use and maintenance: this must be followed	
Engineering controls and design features in place or planned: refer to critical examination carried out by installer where relevant	
Planned system of work: particularly for higher risk activities e.g. beam diagnostics or maintenance – necessary for work in controlled area	
Access restrictions: to areas and enclosures (access to override if applicable)	
Designation of areas: controlled or supervised areas	
Local rules: if needed, these must follow the required format.	
Personal protective equipment provided:	
Training: in-lab practical training (refer to induction checklist) and taught courses.	
Altered working or additional precautions for pregnant staff: (if annual external whole body dose less than 1mSv there should be no need for additional precautions).	
	Consider accident situations and any further controls needed
Possible accident situations, and potential severity: consider consequences of failures in control measures and source leakage.	
Steps to prevent or to limit consequence of accident: with reference to source leakage, leak tests must be carried out at least every 2 years.	
Likelihood of accident: High medium or low if above control measures used and maintained	

Results of previous dosimetry/ monitoring in similar situations:	
Need for classification: Yes/No (only necessary if annual whole body dose likely to exceed 6mSv – please consult RPA if this is considered likely)	
Any additional actions needed to ensure doses are kept as low as reasonably practicable	
Additional risks and control measures not referred to above: refer to separate risk assessments or add details of significant risks and control measures to this assessment. Consider all hazards associated with the work: e.g. electrical hazards, manual handling, handling of cryogenics and other coolants, etc.	
Reference to additional risk assessments	

<u>Assessment Agreed</u>	
Research Supervisor/PI/Line Manager:	Name:
Date:	Signature:
Specify a revision date for this assessment	
Review on or before	
Ensure that the assessor and Supervisor are aware that <u>re-assessment</u> will also be required for any significant change in this work, for instance, changed activity limits or different category of workers (including pregnancy).	
<u>Seen by RPS:</u>	RPS Name:
Date:	RPS Signature:
Additional comments from the appointed RADIATION PROTECTION ADVISER (IF THIS ASSESSMENT IS SEEN BY RPA)	
RPA sign/date	