# **Ionizing Radiation in Research**

# **Project Assessment Form**

# Project No

Projects using radiation must be conducted in accordance with the University PPL document [2.80.03 Risk Management and Approval Processes to work with Radiation Sources](https://ppl.app.uq.edu.au/content/2.80.03-risk-management-and-approval-processes-work-radiation-sources).

NB Researchers whose projects will involve the exposure of human subjects to radiation will need to make an additional submission in line with the [ARPANSA Code of Practice for the exposure of humans to ionizing radiation for research purposes](http://www.arpansa.gov.au/pubs/rps/rps8.pdf) (2005). Use of ionizing radiation in animals may also be subject to requirements stipulated in the [ARPANSA Code of Practice for Radiation Protection in Veterinary Medicine](http://www.arpansa.gov.au/pubs/rps/rps17.pdf). Compliance with the relevant ARPANSA code is a legislative requirement. Projects involving animal and/or human exposure to radiation may also require current ethics approval from the relevant research ethics committees.

When completed, this form should be sent to the appropriate School or Centre RSO for initial review. The RSO will then forward to the University Radiation Protection Adviser for final approval. Work should not commence on the project until final approval is granted by the UQ RPA.

## Name and academic affiliation of the applicant

|  |
| --- |
|  |

## Summary description

A project title and concise plain English description of the aim of the work and the role played by ionizing radiation should be given. Relevant citations may be given of previous work in which the proposed technique was used. Where the particular application of radiation is new, or involves techniques that are not well established, the submitting researcher must identify whether alternatives to ionizing radiation exist and cite reasons for the use of radioactive substances in the project.

The estimated duration of project should also be specified.

|  |
| --- |
|  |

## Project details

**Details of the radiation sources to be used**

### Radioactive substances

|  |  |  |  |
| --- | --- | --- | --- |
| Isotope | Sealed or unsealed | Hazard group if unsealed\*As per AS 2243.4-1998 | Estimated maximum activities (MBq) |
| To be used at one time | Whole project estimate |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

*\*Use of unsealed Group 1 or Group 2 materials will require explanation of the particular circumstances that compel their use. If more space is required please use an attachment*

|  |
| --- |
|  |

### Details of laboratory where work is to be carried out

|  |  |  |
| --- | --- | --- |
| **Building name & room No.** | **Radiation Safety Act facility compliance certificate number and expiry date** | Laboratory type(*low, medium* or *high* level)\* |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

\* Applicants should consult their RSO for assessment of the type of laboratory required

### X-ray equipment details

|  |  |  |  |
| --- | --- | --- | --- |
| Makes and models of X-ray equipment to be used | **kV and mA settings** | **Locations (Building and Room No.)** | **Radiation Safety Act facility compliance certificate number and expiry date** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### Sealed source apparatus details

|  |  |  |  |
| --- | --- | --- | --- |
| Makes and models of equipment to be used | **Type of apparatus\*** | **Installed locations (Building and Room No. if relevant)** | **Radiation Safety Act facility compliance certificate number and expiry date** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

\*e.g. radiation gauge, benchtop analyser, portable fluorescence analyser, borehole logging unit etc

### Staff training and licencing details

Do the applicant and associated users already hold a use licence issued by Queensland Health?

If a licence is held please give the numbers and expiry dates for each license.

|  |
| --- |
|  |

### Identification and control of the principal hazards

A risk assessment for the procedure must be conducted and documented on the UQ Safe Risk database. The risk assessment should also identify any additional training requirements for anyone working on the project.

Provide Risk assessment number here and date of completion...........................................

Indicate which of the hazards are applicable and outline briefly the type of controls that will be applied. Generally, controls will involve the adoption of particular safe working procedures and the use of shielding and other protective equipment.

NB responses should only be given where the hazard is applicable to your project. A particular project might include more than one hazard category.

|  |  |
| --- | --- |
| **Principal hazard** | **Control measures proposed** |
| Partial or whole body irradiation from X-rays, gamma rays or neutrons. |  |
| Irradiation and/or contamination of the skin or mucosal membranes by unsealed beta emitting sources (including exposure to blood, body fluids or tissues treated with radioisotope). |  |
| Internal irradiation following ingestion or inhalation of liquid or gaseous sources. |  |
| Environmental contamination \* |  |

*\*Where one of the principal hazards is that of environmental contamination, such as from the use of radioactive materials in fieldwork projects, a more detailed submission will be required for review as part of the approval process. In some cases, this type of work will need formal approval from the Regulator and the advice of the University Radiation Protection Adviser should be sought regarding the principal issues to be addressed in a submission to the Regulator.*

### Staff training details

Do the applicant and associated workers on the project require additional training to use the particular radiation source(s) specified above?

If NO, please write NO in box below.

If YES, list the additional training required below Consult the associated risk assessment and contact the local RSO or UQ RPA for advice and assistance with training.

|  |
| --- |
|  |

### Radiation monitoring equipment

Please specify the type of survey meters(s) to be used (e.g. GM, scintillation, ion chamber etc) and the make and model details where known. Include calibration expiry dates.

|  |
| --- |
|  |

### Personal monitoring

If relevant, give details of the type of personal monitoring to be used, e.g. TLD, extremity, direct reading devices etc.

|  |
| --- |
|  |

### Radiation Safety and Protection Plan

List the current RSPP identification number for the required Radiation Practice

|  |
| --- |
|  |

Is the applicant familiar with the specific requirements of the Radiation Practice’s RSPP?

 Yes No

Will additional safe working procedures be required for work with the radiation source(s) proposed?

If NO, please write NO in box below.

If YES, list these additional procedures required below - consult the associated risk assessment and contact the local RSO or UQ RPA for advice and assistance with training.

|  |
| --- |
|  |

### Disposal procedures for radioactive substances

# Disposal procedures are required to comply with the University PPL: [2.80.05 Management of Unsealed Radioactive Waste](https://ppl.app.uq.edu.au/content/2.80.05-management-unsealed-radioactive-waste).

Potential difficulties with compliance must be raised with the local RSO and the University RPA at an early stage. This has particular importance where any disposal to the environment (other than sewer disposal) is anticipated. In such cases, a more detailed submission may be required and the advice of the University Radiation Protection Adviser should be sought at an early stage.

### Hazards not related to radiation

Will the provisions of the Workplace Health and Safety Act and Regulation in relation to other hazards e.g. hazardous substances, dangerous goods, electricity, be complied with?

|  |
| --- |
|  |

Are there any other unresolved health and safety related issues in the workplace?

|  |
| --- |
|  |

Declaration: *By submitting this form the applicant agrees to comply with all requirements stipulated by the Australian and Queensland Government radiation control authorities, the relevant WHS regulatory bodies, and UQ policies and procedures for radiation management, risk management and staff responsibilities for Occupational Health and Safety.*

*The applicant also declares that they have read and are familiar with the relevant Radiation Safety and Protection Plan and can verify that all workers on the project have completed appropriate risk assessments and have undergone all appropriate training required to complete the project safely.*

Submitted by: ………………………………

Signature ………………………………….. Date / /

Role...............................

List of names of associated workers on project?

Recommended by Local Radiation Safety Officer Y N

Name: ………………………………

Signature ………………………………….. Date / /

Recommended by University Radiation Protection Adviser

Name: ………………………………

Signature ………………………………….. Date / /