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| https://www-p.unisa.edu.au/styleguide/logos/images/logo_unisa_RGB-blue.png | WHS FORM | WHS22 |
| APPLICATION FOR APPROVAL TO USE RADIATION IN RESEARCH  |



**BACKGROUND**

The Radiation Safety Committee (RSC) assesses applications to use radiation in research primarily to ensure that work is conducted safely and in accordance with radiation legislation. The RSC may also provide advice to other committees (such as Human Ethics) if there are any concerns about radiation-related matters that may not be apparent to those committees.

This document is the application form used for gaining approval to use radiation in research. Please insert information into this form as required. Non-applicable sections may be deleted.

It is advisable to consult with your Departmental RSO before submitting your application.

If your research project is being conducted partly or fully at an institution other than UniSA, you will need to liaise with that institution to determine if other approvals are required.

The RSC Chair will clarify any details by telephone or email and may request additional information. Approval of applications by the RSC is generally provided within a week of submission, assuming no further information is required.

Note that if the radiation to be used is **ultrasound** **only,** there is no need to apply for approval.

**DECISION NOTIFICATION**

When a decision regarding your application is made, you will be notified by email. Approved applications may include conditions. The RSC may also contact other research committees regarding the project.

**ADDITIONAL APPROVALS**

Research projects may require additional approvals before work can proceed.

Please work through the checklist at the end of this application form to determine if additional approvals are required. An approval to proceed with research involving radiation can be granted independently of other approval processes, however you must ensure **ALL** approvals are in place before research work commences.

1. **RESEARCH PROJECT INFORMATION**

Complete the following Table.

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| Unit/Research Institute: |  |
| Date: |  |
| Project title: |  |
| Ethics Protocol Ref No: |  |
| Academic Supervisor: |  |
| Principal researcher/investigator: |  |
| Proposed start date: |  |
| Expected completion date: |  |
| Locations to be used: |  |
| Departmental RSO: |  |

1. **BRIEF DESCRIPTION**

Please provide abrief descriptionof the project/research**.**

1. **JUSTIFICATION**

Explain clearly in lay terms why radiation must be used in this project/research.

1. **HAVE SIMILAR PROJECTS BEEN APPROVED?**

If **yes**—please provide details e.g. Project title, Ethics Protocol reference number, when approved.

1. **WILL HUMANS BE EXPOSED TO RADIATION FOR RESEARCH PURPOSES?**

If **yes** — you will need to comply with [ARPANSA Code of Practice (RPS8)](https://www.arpansa.gov.au/regulation-and-licensing/regulatory-publications/radiation-protection-series/codes-and-standards/rps8).

For research on humans please attach a copy of your [Notification of a Research Study Involving Exposure of Humans to Ionising Radiation](https://www.epa.sa.gov.au/files/4771330_rpc_human_research.pdf) form which, on radiation approval, will be forwarded by the RSO for sign-off by a representative of the Human Research Ethics Committee. Once signed-off, the form will be returned to you for emailing to the EPA (with a copy to your Departmental RSO for local records).

For human research trials involving non-ionising radiation, the same principles of exposure justification and informed consent are to be followed as for ionising radiation.

1. **DETAILS OF RADIATION SOURCES, USERS AND PROCEDURES**

In this section, we are seeking to determine whether or not radiation sources proposed for use in your research project

1. comply with regulatory requirements
2. are used by appropriately licensed people, and
3. will be used in accordance with satisfactory safety procedures.

There are 4 sub-sections; sealed sources, unsealed radioactive material, X-ray units and non-ionising radiation. Each sub-section includes a number of questions that prompt for answers to the 3 dot points above. Please feel free to include additional information if relevant.

**6.1 Sealed source(s):** (Delete if not applicable)

* What are the radionuclides, activities and dates of the sources?
* What are the uses of the sealed sources? (e.g. teaching, portable density gauge)
* Do the sealed sources need to be purchased?
	+ If they need to be purchased, submit form [Sealed Radioactive Source Purchase (WHS56)](https://i.unisa.edu.au/staff/ptc/resources/whs-resources/whs-forms/) to the RSO for approval.
* Are the sealed sources registered with SA EPA?
	+ If no, contact the University RSO
	+ If yes, provide a copy of the registration and include the most recent wipe test result (if this is part of the SA EPA registration conditions)
* Will the sealed sources be used beyond this project?
* What are the arrangements for disposal of the sources?
* Do the sources need to be transported by air or on public roads?
	+ Yes - provide a demonstration DG7 Transport Code consignment note, details regarding the package to be used, and a copy of the sealed source certificate and special form certificate (if the activity exceeds A2 from the Transport Code)
* Attach details regarding the safe working procedures and contingency plan
* If you are using the sealed sources -
	+ Provide a copy of your SA EPA radiation licence (or include the name and SA EPA licence number of the person who will be supervising you if unlicensed use is permitted by SA legislation)
* If someone else is going to use the sealed sources –
	+ provide contact details of the operators/group who will be using the sources to conduct the research on your behalf
	+ Provide the estimated dose rates and doses to relevant tissues (hands, skin, eyes, whole body). Include radiation safety datasheets for the sealed sources/devices to be used.

**6.2 Unsealed radioactive material:** (Delete if not applicable)

* What are the radionuclides, activities and activity dates of the radioactive material?
* Has an SA EPA registered premises been identified for research work?
	+ Yes - please provide a copy of the SA EPA premises registration (if it is a University registered premises, the EPA registration number or room ID is sufficient)
	+ No - please contact the University RSO to discuss where the research can be conducted
* What are the arrangements for storage of radioactive material?
* Does radioactive waste disposal need to be considered?
	+ Yes - please provide details regarding disposal pathway, activity, and the SA EPA approved radioactive waste management plan relevant for the waste
	+ No - provide information regarding how waste will be managed
* Does the radioactive material need to be transported by air or on public roads?
	+ Yes - Provide details of the DG7 Transport Code consignment note and package to be used
	+ You need to provide evidence of training for transport of radioactive material (Andrew to provide link)
* What potential pathways exist for unsealed radioactive material to cause exposure to operators or contaminate equipment/environment during routine operations, and also accident scenarios (dust, off-gassing, splashing)?
	+ Attach details regarding the safe working procedures and contingency plan
* If you will be using unsealed radioactive material -
	+ What is the name and contact details of the EPA-licensed person who will be present when you -
		- work with the stock solution (including opening the stock vials)?
		- successfully complete proficiency training using non-radioactive substances?
	+ If you have an SA EPA licence, attach a copy of your SA EPA radiation licence
	+ If you don’t have an SA EPA licence, include the name and SA EPA licence number of the person who will be supervising you
* If you will not be using unsealed radioactive material, provide
	+ names and contact details of the operators/group who will be using unsealed radioactive material to conduct the research on your behalf
* Provide the estimated equivalent dose rates and equivalent doses to relevant tissues (hands, skin, eyes, whole body). Include datasheets for the radioactive material to be used.

**6.3 X-ray units:** (Delete if not applicable)

* What types of X-ray units are being used? (e.g. X-ray analytical, diagnostic X-rays, DEXA)
* Do the X-ray units need to be purchased?
	+ Yes - please notify the RSO using form [Ionising Radiation Apparatus Purchase (WHS68)](https://i.unisa.edu.au/staff/ptc/resources/whs-resources/whs-forms/).
* Provide a copy of the SA EPA registration for each X-ray unit
* Attach the safe working procedures and contingency plan
* If you are operating the X-ray units-
	+ Include your SA EPA radiation licence number (or include the name and SA EPA licence number of the person who will be supervising you if unlicensed use is permitted by SA legislation)
* If you are not going to operate the X-ray units –
	+ Provide names and contact details of the operators/group who will be using X-ray imaging/irradiation/analysis apparatus for research purposes on your behalf.

**6.4 Non-ionising radiation** (Delete if not applicable)

Note: Radiation approval is required only for high power non-ionising radiation where there is a potential for the relevant exposure standard to be exceeded. You may wish to consult with the RSO or your Departmental RSO on whether your use of non-ionising radiation constitutes ‘high power’.

* Refer relevant [Australian Standard](https://www.saiglobal.com/online/autologin.asp) and/or applicable [ARPANSA code of practice](https://www.arpansa.gov.au/regulation-and-licensing/regulatory-publications/radiation-protection-series/codes-and-standards/rps8) .
* What is the source of the radiation?
* Does the equipment have design features or a classification which limits radiation exposure?
* If the equipment is classified (e.g. Class 4 laser product) provide a copy of certification from manufacturer or an image of the product labelling.
* Who will be exposed to radiation?
* What exposure to radiation occurs?
* What is the expected level of exposure?
* Please provide any calculations used to estimate the above exposures.
* How does this exposure compare to permissible exposure levels?
* What measures are in place to control exposures?
* If risk assessment forms [General risk assessment (WHS02)](https://i.unisa.edu.au/staff/ptc/resources/whs-resources/whs-forms/) or [Plant and equipment risk assessment (WHS41)](https://i.unisa.edu.au/staff/ptc/resources/whs-resources/whs-forms/) have been completed, please provide copies.

**APPLICATION SUBMISSION**

*I, the applicant, understand the University Policy on radiation and radiation safety management requirements, and agree to apply them in the research project. I also declare that all details provided in this application are true and correct.*

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Name of Applicant Signature Date

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Name of Academic Supervisor/Executive Dean Signature Date

endorsing this application

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Name of licensed person who has verified Signature Date

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material users

Please submit this application by email to the University RSO.

**CHECKLIST FOR OTHER APPROVALS**

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| **Question** | **Yes** | **No** | **Action Required** |
| 1. Does the work involve the use of naive whole animals or animal fluids or tissues for which prior ethics approval has not been obtained?

*Note: processed tissues (such as tissue set in blocks, fixed or onto slides) do not require AEC notification.* |  |  | If “Yes”, and if UniSA Animal Ethics Committee (AEC) approval has not already been granted, please refer to the [Animal Ethics webpage](http://i.unisa.edu.au/staff/research/research-ethics/animal-ethics/), to submit an application for AEC approval. |
| 1. Does the work involve the collection or use of blood or semen, either **your own** or from **someone else**?

*Note: processed tissues (such as tissue set in blocks, fixed, onto slides or established tissue culture cell lines) do not require HREC notification.* |  |  | If “Yes”, and if UniSA human ethics approval has not already been granted, please refer to the [Human Research Ethics webpage](https://i.unisa.edu.au/staff/research/research-ethics/human-research-ethics/), to submit an application for HREC approval.  |
| 1. Does the work involve the collection or use of saliva, urine, faeces, sweat or tears collected from people **other than yourself**?

*Note: processed tissues (such as tissue set in blocks, fixed, onto slides or established tissue culture cell lines) do not require HREC notification.* |  |  | If “Yes”, and if UniSA human ethics approval has not already been granted, please refer to the [Human Research Ethics webpage](https://i.unisa.edu.au/staff/research/research-ethics/human-research-ethics/), to submit an application for HREC approval.  |
| 1. Does the work involve human participants, embryos or data (including medical history)?”
 |  |  | If “Yes”, and a UniSA human ethics approval has not already been granted, please refer to the [Human Research Ethics webpage](https://i.unisa.edu.au/staff/research/research-ethics/human-research-ethics/), to submit an application for HREC approval. |
| 1. Does the work involve highly toxic, hazardous, carcinogenic/teratogenic or cytotoxic chemicals or drugs?
 |  |  | If “Yes”, please refer to the [Chemical Hazard Approvals webpage](https://i.unisa.edu.au/staff/ptc/safety-and-wellbeing/hazards-and-risks/inherent-hazard-types/chemicals-and-nanomaterials/). |
| 1. Does the work have actual or potential commercial applications?
 |  |  | If “Yes”, contact [UniSA Ventures](http://www.unisa.edu.au/ventures/?_ga=2.217870229.280173456.1533511326-1944250662.1448326492) for any assistance.  |
| 1. Does the work have actual or potential military applications, including use as a biological weapon?
 |  |  | If “Yes”, and a permit has not been granted or you are not sure about the defence implications of the activity, please refer to the [Defence Export Controls](https://i.unisa.edu.au/staff/research/biosafety-and-permits/defence-export-controls/) webpage. |
| 1. Does the work involve the import, export or use of animals (including invertebrates), plants, soils or other materials into or out of Australia?
 |  |  | If “Yes”, refer to [Biosecurity webpage](https://i.unisa.edu.au/staff/research/biosafety-and-permits/quarantine-and-transfer-of-goods/). |

**CHECKLIST FOR OTHER APPROVALS (continued)**

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| **Question** | **Yes** | **No** | **Action Required** |
| 1. Does the work involve the use of a genetically modified organism in the course of the manufacture of a thing that is not the GMO?

**AND**The thing is subject to regulation by other agencies such as Food Standards Australia, Australian pesticides and Veterinary Medicines Association, Therapeutic Goods Administration, Department of Agriculture and Water Resources or Department of Defence?*Note: a thing includes amongst other things synthetic biology, electronic forms or magnetic forms.* |  |  | If “Yes”, apply to the appropriate agency for a permit.For further information, contact the Biosafety Officer, biosafety@unisa.edu.au.  |
| 1. Does the work involve genetic modification of human embryos?

*Note: This category includes amongst other things, mitochondrial donation.* |  |  | If “Yes”, contact the Biosafety Officer, biosafety@unisa.edu.au. |