Radiation Safety Permit Application

# Application type

[ ] New

[ ] Renewal. If renewal, provide previous Permit Number:

# Principal Investigator

Name: Department:

Office Location: Building: Room Number:

Phone number: Email:

## 2.1 Designate in the absence of the Principal Investigator

Name: Phone number:

Email:

## 2.2 Emergency contact

Please complete the emergency contact numbers form and append.

# personnel

Include all individuals that may use and/or handle nuclear substances. Include the Principal Investigator and Designate. Attach a training record for each person identified. The training record should include a description of previous radiation safety training courses (date and location), and previous radiation work experience. Note that the last date of training for U of G Radiation Safety must be within the past 3 years to be eligible to be a radiation user.

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Position | Email  | Last date of U of G Radiation Safety training  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
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# nuclear substances and radiation devices

Requests to use nuclear substances not currently part of our license and/or greater than 10,000 exemption quantities will require approval by the Radiation Safety Committee and CNSC. Therefore increased approval times for the radiation safety permit should be expected.

## Unsealed Sources

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nuclear substance | Maximum Order (in kBq or MBq) | Maximum Possession Limit (kBq or MBq) | Chemical form | Physical form (solid, liquid, gas) | Purpose |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Quantity of radioactivity to be used per experiment:

 Nuclear substance: Activity (kBq or MBq):

Expected frequency of experiments:

## Sealed Sources

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Nuclear substance | Activity (kBq or MBq) | Reference date\* | Manufacturer | Model Number  | Serial Number\* | U of G ID\* |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

\*This information is required for sources that are already owned. For sources yet to be purchased please indicate “not available”. This information will be required once sources are received through submission of a change request.

## 4.3 Radiation Devices

|  |  |  |
| --- | --- | --- |
| Device | Sealed Source |  |
| Manufacturer | Model Number | Serial Number\* | Nuclear substance | Activity(kBq or MBq) | Reference Date\* | Manufacturer | Model Number | Serial Number\* | U of G ID\* |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |

\*This information is required for sources that are already owned. For sources yet to be purchased please indicated “not available”. This information will be required once sources are received through the submission of a change request form.

# location

Requests for locations not currently part of our license will require approval by the CNSC and therefore increased approval time for the radiation safety permit

##  Receiving location for packages of nuclear substances

|  |  |  |  |
| --- | --- | --- | --- |
| Building | Room number/location | Receiver | Expiry date of TDG certification\* |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

\*TDG certification must be current

## Location of nuclear substances and radiation devices

Include a separate entry for each location.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Nuclear substance or radiation device | Building | Room number | Purpose (use, storage or both) | Lab designation\* |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

\*Lab designation will be determined by the RSO.

# experimental Procedures and safety protocols

Provide a detailed description of the work to be performed with the nuclear substances and radiation devices previously identified. The description should include measures to ensure the safety and minimize exposure of all personnel.

Will you be using animals? [ ] Yes [ ] No

Will you be receiving any nuclear substance or radiation device that is not purchased directly from a commercial supplier? [ ] Yes [ ] No

 If yes, explain:

Expected end date of the project:

## 6.1 Purpose/objectives of the work:

## 6.2 Brief description of materials and equipment to be used:

## 6.3 Description of the methods to be used. Attach standard procedures if available.

## 6.4 Security measures in place to control access:

## 6.5 Spill procedures

# Controls

Lab coats, appropriate gloves and safety glasses/goggles are required personal protective equipment. Identify the additional items to be used:

[ ] Shielding. Indicate thickness and type:

[ ] Remote handling tools e.g. tongs, forceps, etc. Specify:

[ ] Removable bench covering

[ ] Other. Specify:

# CONTAMINATION monitoring

For unsealed sources contamination monitoring is required weekly whenever the nuclear substance is being used. If not being used, an entry must still be added to the contamination monitoring form.

## Portable Radiation Survey Instruments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | U of G ID (if applicable) |  |  |  |
| Meter | Manufacturer |  |  |  |
|  | Model |  |  |  |
|  | Serial number |  |  |  |
| Probe | Type |  |  |  |
|  | Manufacturer |  |  |  |
|  | Model |  |  |  |
|  | Serial number |  |  |  |
| Service record | Purchase date |  |  |  |
|  | Last Service date |  |  |  |
|  | Last Calibration date |  |  |  |
| Storage Location | Building |  |  |  |
|  | Room number |  |  |  |
| Person responsible for the meter | Name |  |  |  |
| Check source (if applicable) | Nuclear substance |  |  |  |
|  | Activity (kBq or MBq) |  |  |  |
|  | Reference date |  |  |  |

## Non-portable instruments for radiation detection and monitoring

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | U of G ID (if applicable) | 1 | 2 | 3 |
| Instrument | Manufacturer |  |  |  |
|  | Model |  |  |  |
|  | Serial number |  |  |  |
| Service record | Purchase date |  |  |  |
|  | Last service date |  |  |  |
|  | Last calibration date |  |  |  |
|  | Next calibration date |  |  |  |
|  | Service contract? | [ ] Yes [ ] No | [ ] Yes [ ] No | [ ] Yes [ ] No |
|  | Name of servicing company |  |  |  |
|  | Servicing company licensed by CNSC | [ ] Yes [ ] No | [ ] Yes [ ] No | [ ] Yes [ ] No |
| Storage Location | Building |  |  |  |
|  | Room number |  |  |  |
| Person responsible for the meter | Name |  |  |  |
| Internal source  | Source type | [ ] Internal [ ] External | [ ] Internal [ ] External | [ ] Internal [ ] External |
|  | Nuclear substance |  |  |  |
|  | Activity (kBq or MBq) |  |  |  |
|  | Reference date |  |  |  |

# Waste management

Describe the waste that will be generated

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Nuclear substance(s) | Estimated quantity per experiment (L or kg) | Estimated total activity per experiment (kBq or MBq) | Description (refer to experimental procedures is appropriate) |
| Biological |  |  |  |  |
| Liquid -Aqueous |  |  |  |  |
| Liquid Non-Aqueous |  |  |  |  |
| Solid |  |  |  |  |
| Other - Specify |  |  |  |  |

# acknowledgements and approvals

As the Principal Investigator of this project I confirm that:

* I am responsible for the work conducted under this permit
* I will ensure that the work is conducted in accordance with the application legislation, University of Guelph radiation safety program, and any identified permit conditions
* I will ensure that I and the people working under this permit maintain their radiation safety training as required
* I will ensure that contamination monitoring is conducted as required
* I will maintain accurate and current inventory records
* I will immediately notify the RSO of any changes in the information provided in this permit including changes in personnel, locations, and nuclear substances
* I will notify the RSO in advance of any change in my status at the University to ensure appropriate decommissioning
* I understand that non-compliance with the radiation safety program may result in cancellation of my permit and seizure of the associated nuclear substances and/or radiation devices

I certify that the information included in this application is accurate to the best of knowledge.

Signature, Principal Investigator: Date:

## Approvals

Signature, Department Chair/Head/Director : Date: