An Authorized User (AU) is a Georgia Tech faculty or staff member whose use of radioactive material has been approved by the Radiation Safety Committee (RSC). The AU is normally in charge of a research project involving radiation or is responsible for a laboratory course involving radiation.

The AU, and any students or staff under their supervision, are responsible for using radioactive materials in accordance with the requirements set forth in the Georgia Tech Radiation Safety Policy Manual, any related Georgia Tech procedures, and the regulations of the State of Georgia. The AU is also responsible for ensuring that students and staff using radioactive materials under their supervision are trained in safe laboratory practices and are familiar with the terms of this application.

The prospective Authorized User must complete this application and forward it to the Interim Radiation Safety Officer (RSO), Gary Spichiger, at gary.spichiger@ehs.gatech.edu.

Upon review of and concurrence with the application by the RSO, the application will be forwarded to the RSC. RSC approval will be signified by the signature of the Chair of the RSC on this application. Since the RSC meets only once per quarter, the Chair of the RSC may signify an interim approval of the application. In such instances, the application will be presented to the full RSC for review and approval at its next meeting.

**Guidance for Specific Questions in this Application**

1., 2., 4., 5., 6., 8.a., 8.e., 9., 12. – No specific guidance

3. If a liquid scintillation analyzer or other instrument is possessed and used for analyzing radioactive samples, please submit an additional Form A to account for any internal or external radioactive sources.

7. If a sealed source, describe procedures only for the prevention of personnel exposure.

8. Unsealed sources are liquid, powder, gas, or other solid form sources that can be partially removed or used. Sealed sources are not removed or dispensed from their encapsulation for use. The encapsulation could be plastic, metal, glass, etc.

 b. If a sealed source, indicate “N/A”

c. If a sealed source, for (1) and (2), describe any cabinet, equipment, or other container in which the source will be used or stored. Indicate that it will be labeled “Caution, Radioactive Material” when the source is used or stored in that location.

d. If a sealed source, indicate “No”

10. If a sealed source, indicate “N/A”.

11. If an unsealed source, indicate “N/A”.

**Radioactive Material Authorized User Responsibilities:**

1. I understand that as an Authorized User I shall provide direct supervision of all new Radiation Workers during radiation use until such time as I or my designee is confident that they can handle radioactive material safely and competently.

1. I understand that as an Authorized User I shall provide training specific to the protocols in my lab.
2. I understand that as an Authorized User I shall designate in writing to the Radiation Safety Officer an alternate Authorized User to provide oversight of my radiation labs during a leave of absence greater than 60 days.

1. I understand that as an Authorized User I shall notify the Office of Radiological Safety in writing of my intention to terminate my Authorized User status at least 30 days prior to the proposed termination.

1. I understand that as an Authorized User I shall notify the Office of Radiological Safety in writing of my intention to move my radioactive materials lab at least 30 days prior to the proposed move and wait for the approval of the Radiation Safety Officer before moving my lab.

1. I understand that as an Authorized User my Form A will expire five years after the approval date, and I shall renew or replace my Form A prior to the expiration date.
2. I understand that as an Authorized User I shall be responsible for all radioactive materials on my inventory and I shall complete and sign my Quarterly Radioactive Materials Inventory within two weeks of receiving the inventory.
3. I understand that as an Authorized User I or my authorized designee shall review for correctness and complete/submit forms documenting requests for the acquisition (Form C) and use and disposal (Form E) of radioactive materials in my possession.
4. I understand that as an Authorized User I shall complete the radioactive materials refresher course every two years and shall ensure that each of my Radiation Workers does the same.

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|  |  |  |
| Signature |  | Date |

1. **Applicant Information** (Attach resume that substantiates any experience working with radioactive materials.)

|  |  |  |  |
| --- | --- | --- | --- |
| **Last Name:** |       | **First Name:** |       |
| **Title:** |       | **Department:** |       |
| **E-mail:** |       | **Dept. Mail Code:** |       |
| **Office:** | Building: |       | Room: |       | Phone: |       |
| **RAM Use Location(s):** | Building(s): |       | Room(s): |       | Phone(s): |       |
| **RAM Storage Locations(s):** | Building(s): |       | Room(s): |       | Phone(s): |       |

1. **Project Information** (Include requested radionuclide in title of project, e.g. H-3, C-14, Cs-137, Ni-63)

Title:

1. **Radioisotope(s) and Activity(ies)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Isotope** | **Possession Limit (mCi)** | **Per Source Limit (mCi)** | **Physical Form** | **Chemical Form** |
|       |       |       |  |       |
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1. **Description:** Provide a brief abstract of the experiment to be performed, including its purpose and/or objectives.

1. **Storage:** Specify how the radioactive material will be stored.

1. **Security:** Specify how the radioactive material will be physically secured from theft and unauthorized use.

1. **Radiological Precautions:** Describe handling, shielding, etc. procedures to be used to minimize personnel exposure and laboratory contamination. List all personal protective equipment that will be used.

1. **Procedures:** [ ]  Check here if procedures are attached. Otherwise, provide use procedures below.
2. Describe stepwise the procedure to be used from the opening of the container until the product is discarded as radioactive waste. Commercial or referenced procedures may be cited if copies are attached.
3. Describe any dilution or aliquoting procedures, indicating: (1) method of dilution, (2) subsequent aliquot amounts, and (3) where this is to be done – bench top, hood, etc.

1. Describe procedures for marking and labeling radioactive material containers indicating: (1) what is to be labeled, (2) when it is labeled, and (3) assay procedures to be used

1. Will any volatile or easily dispersible radioactive materials be present? [ ]  Yes [ ]  No
If yes, explain the safety methods to be used to control the hazard.

1. The use of neutron sources can generate activation products. If activation products will be generated, please indicate the expected isotopes and approximate activities.
2. **Training:** Radioactive material users are required to complete Radioactive Material Safety Training provided by ORS prior to beginning use. Required annual refresher training begins two years from the date of the initial training.

Describe on-the-job or other training that will be provided to users of your radioactive material.

Describe training that will be provided to non-RAM users who have access to your laboratory.

1. **Radiation Contamination Surveys:**  Routine radiation contamination survey requirements for unsealed radioactive material labs are prescribed in Procedure 9317. List below the manufacturer and model number of the instrument(s) you will be using to conduct your routine radiation surveys.

1. **Leak Testing and Radiation Level Surveys:**  Routine sealed source leak tests are conducted by ORS for beta/gamma sources with activities greater than 100 µCi and alpha sources greater than 10 µCi. If you possess any radiation survey instruments for the determination of exposure or dose rates, list those below. Indicate the manufacturer and model number of each instrument.

1. **Waste Disposal:** Complete the items below to identify the nature of radioactive waste expected to be generated during this project. ORS will provide the waste containers for the laboratory storage of solid, liquid, sharps, and scintillation vial radioactive wastes.
2. [ ]  Only sealed sources will be used. Waste will consist only of disposable gloves used while handling the source and the source itself when it is no longer needed.
3. [ ]  Unsealed sources will be used. The following physical form(s) of radioactive waste will be generated:

[ ]  Solid [ ]  Liquid [ ]  Scintillation Vials [ ]  Sharps [ ]  Other:

The pH of any liquid waste will be greater than 2 and less than 12.5.
List the chemicals and the proportions of each chemical comprising the liquid waste.

The waste will be [ ]  biologically or [ ]  chemically hazardous. If either item is checked this is considered mixed waste and should be minimized to the extent practicable. Describe the biological or chemical hazard associated with the waste.

List the manufacturer and product name of the liquid scintillation fluor to be used.

In making this application for Authorized User status, I acknowledge that I have reviewed the State of Georgia regulations, Georgia Tech Radiation Safety Policy Manual, and Office of Radiological Safety Procedure 9501, “Control and Accountability of Radioactive Materials” and agree to adhere to these rules and regulations.

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| --- | --- | --- |
|  |  |  |
| Signature |  | Date |

Comments and/or Amended Conditions:

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| --- | --- |
|  | **Office of Radiological Safety Review and Approval** |
|  |  |  |
| Radiation Safety Officer |  | Date |
|  | **Radiation Safety Committee Review and Approval** |
|  |  |  |
| Chair, Radiation Safety Committee |  | Date |

|  |  |
| --- | --- |
|  | **Interim Approval, if applicable:** |
|  |  |  |
| Radiation Safety Officer |  | Date |
|  | **\_\_\_\_\_\_**Radiation Safety Committee Chair Interim Approval Attached |