An Authorized User (AU) is a Georgia Tech faculty or staff member whose use of an X-Ray generating device 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 who will operate the x-ray generating device, are responsible for using x-ray generating devices 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 anyone using x-ray generating devices 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 Radiation Safety Officer (RSO), Steve Grimm, at steve.grimm@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.b., 7., 8., 9., 10. – No specific guidance

3. The current requested is the filament/emission/beam current.

6a. For byproduct machines, indicate “N/A”

**X-Ray 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 operate my x-ray generating device safely and competently.

1. I understand that as an Authorized User I shall provide training specific to the protocols in my lab and x-ray generating device.
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 x-ray 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 x-ray generating device at least 30 days prior to the proposed move and wait for the approval of the Radiation Safety Officer before moving my x-ray generating device.

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 have the interlock and shutter systems of all x-ray generating device in my possession that depend on an interlock system to prevent exposure of human beings to x-rays fully inspected by a qualified service technician every 5 years. I understand that the documentation of these inspections shall be a prerequisite for continued operation of my x-ray generating device on the Georgia Tech campus.
3. I understand that as an Authorized User I shall complete the x-ray refresher course every 2 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 x-ray generating devices.)

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| --- | --- | --- | --- |
| **Last Name:** |       | **First Name:** |       |
| **Title:** |       | **Department:** |       |
| **E-mail:** |       | **Dept. Mail Code:** |       |
| **Office:** | Building: |       | Room: |       | Phone: |       |
| **Equipment Location:** | Building: |       | Room: |       | Phone: |       |

1. **Project Information** (Include requested type of x-ray generating device in title of project, e.g. XRD, SEM)

Title:

1. **X-Ray Generating Device Specifications**

Type:

Manufacturer:       Model:       Serial Number:

Maximum Voltage:       kV Operating Voltage:       kV

Maximum Current:       mA Operating Current:       mA

Anticipated Workload:       hours per week, average

1. **Description:** Provide a brief abstract of the experiment to be performed, including its purpose and/or objectives.

1. **Security:** Specify how the x-ray generating device will be secured from unauthorized use (password on computer, authorized BuzzCard, key to room, hidden key to device, etc).

1. **Radiological Precautions:** Describe procedures to be used to minimize personnel exposure.
2. Describe any shielding of the x-ray generating device and the room.

1. Describe any safety systems designed to reduce the likelihood of personnel exposure (interlocks, shutter, vacuum required, etc).

1. **Procedures:**
2. Describe the stepwise procedure for the use of the x-ray generating device. Include details from device preparation for a sample, how samples are loaded and removed, and other routine activities.

[ ]  Check here if procedure is attached.

1. Describe the emergency procedure for response to discovering leakage or device malfunction.

Attach a copy of the Emergency Procedure posting to be displayed on or near the device, which must include how to quickly turn off the device, the contact phone number of the Authorized User or lab member, the Office of Radiological Safety’s main phone number (404-894-3605), and the Georgia Tech Police Department’s phone number (404-894-2500).

1. **Radiation Surveys:**  Annual leakage surveys and audits are performed by ORS. For analytical devices, quarterly leakage surveys (and checks of the safety systems) will be performed by the users, and documented on RS-136.

If you possess any radiation survey instruments for the determination of x-ray leakage or exposure rates, list those below. Indicate the manufacturer and model number of each instrument.

1. **Training:** X-Ray users are required to complete X-Ray Safety Training provided by the Office of Radiological Safety prior to beginning use. Required refresher training begins 2 years from the date of the initial training, and is required every 2 years.

Describe on-the-job or other training that will be provided to users of your x-ray generating device.

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

1. **Logbook:** A record must be kept and available that contains the following information: name of operator, date, time in, time out, total time, maximum kV, and maximum mA. Maintenance and problems will also be recorded.

The logbook may be on paper, stored on the computer that runs the device, stored on a central server, or a combination. Describe how the logbook for this device will be kept.

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 9502, “Control and Accountability of Radiation Generating Equipment” 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 |