

## Application for Use of X-ray Radiation Producing Equipment

Application Type:    Initial     Amendment:     Application #: \_\_\_\_\_

**Section 1 - Applicant Information**

A. Principle Investigator (Supervisor): \_\_\_\_\_ SU ID: \_\_\_\_\_

Title: \_\_\_\_\_ Department: \_\_\_\_\_

Office Phone#: \_\_\_\_\_ Lab Phone #: \_\_\_\_\_ Cell Phone #: \_\_\_\_\_

B. A copy of your Curriculum Vitae is provided with the application.     Yes     No

Link to CV: \_\_\_\_\_

C. Do you have previous experience in using X-ray Radiation Equipment?     Yes     No

If Yes, please describe (include locations, dates, process descriptions, isotopes, and quantities):

**EHSS Comments on Section 1**

**Section 2 - Personnel and Training**

List all personnel who will use X-ray equipment under your supervision (add additional rows as necessary). All individuals listed must complete Syracuse University's X-ray Equipment User Training Program prior to their use of x-ray equipment.

Name	SUIID#	Category*	Previous X-ray Radiation Use Experience (Y/N)	Years of Experience

*\*Category: Graduate Student, Undergraduate Student, Faculty, Staff, Other (describe)*

Personnel who will use radiation sealed sources in this laboratory will:

- Complete EHSS' radiation safety training prior to using x-ray equipment     Yes     No
- Complete EHSS radiation safety refresher training annually     Yes     No
- Be provided with lab specific safety training prior to using x-ray equipment     Yes     No

**EHSS Comments on Section 2**

**Application for Use of X-ray Radioactive Producing Equipment**

**Section 3 - Description of X-ray Unit to be Used**

**A. Indicate the x-ray producing equipment unit proposed for use in the following table.**

<b>Type</b>	<input type="checkbox"/> XRD (powder) <input type="checkbox"/> XRD (powder) <input type="checkbox"/> XRF <input type="checkbox"/> Other-describe:		
<b>Availability</b>	<input type="checkbox"/> X-ray Unit is currently on campus <input type="checkbox"/> X-ray Unit to be procured		
<b>Manufacturer</b>		<b>Model</b>	
<b>X-ray Serial #</b>		<b>X-ray Tube Target</b>	
<b>Beam type</b>	<input type="checkbox"/> Open beam <input type="checkbox"/> Closed beam <input type="checkbox"/> Open beam inside enclosed system <input type="checkbox"/> Other (describe)		
<b>Maximum kVp</b>		<b>Maximum mA</b>	
<b>Operating kVp</b>		<b>Operating mA</b>	
<b>Additional Comments</b>			

**B. Specify the Safety Features of X-ray Unit (check all that will be available)**

<input type="checkbox"/> Interlocks (describe):		
<input type="checkbox"/> Shutter	<input type="checkbox"/> Shutter indicator	<input type="checkbox"/> Enclosure
<input type="checkbox"/> X-ray On light	<input type="checkbox"/> Use logbook	<input type="checkbox"/> Radiation survey meter
<input type="checkbox"/> kVp/mA Indicator	<input type="checkbox"/> Proximity sensor	<input type="checkbox"/> Emergency shut off
<input type="checkbox"/> Locked room	<input type="checkbox"/> Lockable controls	<input type="checkbox"/> Password secured controls
<input type="checkbox"/> Other safety features (describe)		

<b>EHSS Comments on Section 3</b>

**Section 4 – X-ray Equipment Procurement Justification**

If you are proposing to procure a new x-ray unit, a justification for this proposed procurement must be provided below. This justification must demonstrate there is no suitable x-ray unit currently available at the University and a non-radiation producing alternative isn't reasonably substitutable.

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<b>EHSS Comments on Section 4</b>

**Section 5 - Radiation Use Operations**

<b>A. Estimate duration of your proposal</b>	
<b>B. Frequency of x-ray use</b>	
<b>C. Describe the overall scop/purpose the proposed x-ray use:</b>	
<b>D. Procedures for the principal operations involving the x-ray equipment. The procedure(s) must be sufficiently detailed for evaluation of the associated hazard and must include: alignments, start-up/shut down, sample changes, etc.</b>	

**EHSS Comments on Section 5**

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**Section 6 - Facilities**

A. List location(s) where x-ray will be used and stored.

Building	Room	Purpose	Controlled access
		<input type="checkbox"/> Use <input type="checkbox"/> Storage	<input type="checkbox"/> Keyed lock <input type="checkbox"/> Swipe card
		<input type="checkbox"/> Use <input type="checkbox"/> Storage	<input type="checkbox"/> Keyed lock <input type="checkbox"/> Swipe card

B. Will any of these areas be accessible to individuals who are not authorized to use x-ray:

- Yes    No

If yes, please indicate the types of individuals having access (i.e. custodians, students, etc.):

EHSS Comments on Section 6

**Section 7 - Radiation Exposure Hazard Evaluation**

A. What is the highest ambient radiation exposure(s) expected:

Immediate vicinity of x-ray during operation	
X-ray user location during operation	
Other locations in room	
Adjacent rooms and hallways	

B. Describe steps that will be taken by x-ray users and generally in the lab to maintain radiation exposures as low as reasonable achievable.

C. EHSS will provide radiation exposure monitoring dosimetry for individuals authorized to use x-ray radiation producing equipment. Confirm if issued, your laboratory will:

- Use dosimetry monitors as assigned                       Yes    No
- Store dosimetry in a centralized location in the lab    Yes    No
- Report lost or damaged dosimetry to EHSS            Yes    No

EHSS Comments on Section 7

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## Section 8 - Security

Indicated the steps that will be taken to prevent unauthorized access to or use of the x-ray radiation producing equipment:

- Door to room where the x-ray equipment will be installed and used, will be locked.
- Only trained and authorized operators will have key/card access to enter the room.
- The x-ray equipment's operational software will be password protected and password will be provided only to trained and authorized x-ray operators.
- Key to operate x-ray equipment will be removed when not in use and the key will be stored securely and be provided to trained and authorized operators only.

***Describe additional steps that will be taken to prevent the unauthorized use of the equipment:***

### EHSS Comments on Section 8

## Section 12 - Assurance Statement

I acknowledge responsibility for the use of x-ray radiation producing equipment in my laboratory and agree to comply with all applicable law and regulations and University requirements for the use of the x-ray equipment. I am familiar with the applicable requirements of [Syracuse University Radiation's Protection Program](#). I will ensure this information is readily available to all persons using the x-ray equipment in my laboratory. I also agree to have standard operating procedures for all operations proposed in this application available.

As an x-ray radiation equipment supervisor, I accept the responsibilities of the title as described in Section 1.3 Radiation Protection Program Handbook. I assume the responsibility of assuring that all individuals using x-ray equipment in my lab have completed the required x-ray equipment safety training program and have received supervised training on use of the x-ray equipment. I also agree to assure that all exposures from x-ray equipment used in my laboratory are kept as low as reasonably achievable. I also assure that all x-ray equipment use conducted in my lab will be in accordance with the terms and conditions of my application, the [Radiation Protection Program Handbook](#), and applicable rules and regulations.

I am aware that any additions or modifications to approved x-ray equipment use procedures in my lab that could potentially increase or modify the radiation hazard must be approved by the Radiation Safety Committee. I also acknowledge that I will not dispose of, transfer or sell the x-ray equipment without approval from Syracuse University Environmental Health and Safety Services.

I certify that all information provided, and all statements made in this application are true and complete to the best of my knowledge.

**Signature of Applicant** \_\_\_\_\_

**Date:** \_\_\_\_\_

### EHSS Use Only

Application Number:		Amendment Number:			
Date Received:		Date To RSC:		Date Approved:	

**Application's Major Requirements Summary**

**This is a summary of major requirements and not an all-inclusive list of all requirements for this application.**