

Application for X-ray Machine Authorization

Instructions

X-ray machines must be registered with the Radiation Safety Office. All Authorized Users (AU) must be approved and authorized by the Radiation and Laser Safety Committee prior to using x-ray generating machines. Additionally, prior approval for procurement and installation of x-ray machines must be obtained from the Radiation Safety office.

The application involves primary items that are required to be completed before the application will be presented for the Radiation and Laser Safety Committee's review and approval. Complete this application form and submit to the Radiation Safety Officer (RSO). It is very important for the AU to ensure all required items are addressed to avoid delays; approval for use and request to purchase any additional x-ray machines will not be granted until the application is approved by the Radiation and Laser Safety Committee.

A Standard Operating Procedure (SOP) is required as part of the application process. A facility evaluation will be performed during the application review process to ensure proposed research can be conducted safely. Engineering controls (if applicable) will also be evaluated post-installation to verify that special safety features for the equipment and facility meet current requirements. Training recommendations required for the AU and all Radiation Workers is part of the application review process and should be completed as early as possible.

Authorization Information (to be completed by the Principal Authorized User)

1. AU/ Operator/Supervisor: _____
2. Phone: _____ E-mail: _____
3. Emergency Contact: _____ Phone: _____
4. Department: _____
5. Building/ Office #: _____
6. Lab Location: _____
7. Department Chair: _____
8. Purpose or Intended Use: _____

9. Survey Instrument (Manufacturer/Model/Serial #/Recent Calibration Date):

***Categories of x-ray machine for Rhode Island Department of Health (RIDOH) registration:** Medical Radiographic (e.g. Bone densitometer), Veterinary, Other Industrial (XRD, XRF, etc), Minimal Threat (e.g. cabinet x-ray), *Please consult with the RSO for assistance if needed.*

10. X-ray machine description:

Manufacturer	
Model	
Serial #	
Max kV	
Max mA	
Type*	

Manufacturer	
Model	
Serial #	
Max kV	
Max mA	
Type	

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Max mA	
Type	

11. X-ray Control Measures

Access Control/Hazard Warning Signs & Device Labels

- | Yes | No | |
|--------------------------|--------------------------|--------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Posted entrances |
| <input type="checkbox"/> | <input type="checkbox"/> | Access control/device security |
| <input type="checkbox"/> | <input type="checkbox"/> | Control Area established |
| <input type="checkbox"/> | <input type="checkbox"/> | Warning label |

Engineering Controls

- | Yes | No | |
|--------------------------|--------------------------|-------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Protective (Shielded) housing |
| <input type="checkbox"/> | <input type="checkbox"/> | Protective housing interlock |
| <input type="checkbox"/> | <input type="checkbox"/> | Key/Lock control |
| <input type="checkbox"/> | <input type="checkbox"/> | Activation warning system |

Administrative Controls

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Standard Operating Procedures/Emergency procedures |
| <input type="checkbox"/> | <input type="checkbox"/> | Emergency contacts posted |
| <input type="checkbox"/> | <input type="checkbox"/> | Personnel authorization |

Safety Controls

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | X-ray machine is secured from unauthorized move |
| <input type="checkbox"/> | <input type="checkbox"/> | Beam intensity reduced or filtration in place |
| <input type="checkbox"/> | <input type="checkbox"/> | Radiation exposure below 2mR/hr at 30 cm from the machine |
| <input type="checkbox"/> | <input type="checkbox"/> | Limited access to spectators/visitors |

12. Provide the following specific information (use additional sheet as required):

- a) Summary of Authorized User's training and experience with x-ray machines including institution, courses, machine types, and duration.

- b) Summary of X-ray procedures (experimental protocol)

- c) Procedures for alignment, maintenance, and/or service, including procedures for the bypass of safety interlocks (additional requirements apply for medical radiographic types).

- d) Description of planned equipment modifications or updates to the machine.
(Clinical use machines will require Equipment Performance Evaluation documentation).

13. Important notes:

- a) Certification of training must be documented for all users to operate or maintain the X-ray machines.

List of X-ray Users*:

Name_____	ID _____	Email:_____	Initial_____
Name_____	ID _____	Email:_____	Initial_____
Name_____	ID _____	Email:_____	Initial_____
Name_____	ID _____	Email:_____	Initial_____
Name_____	ID _____	Email:_____	Initial_____

* X-ray Users must have read the X-ray Safety Manual and must verify by signing their initials.
* X-ray Users must have received specific X-ray safety training for the radiation hazards in their labs from their Authorized User and must verify by signing their initials.
* X-ray Users must have attended and passed the URI initial X-ray Safety Training and/or refresher course and must verify by signing their initials.
(Other Authorized Users may be added later by amendment after completing these requirements)

- b) This application is strictly for non-human use only except as specifically authorized. X-ray use on humans under the scope of this authorization is prohibited. (Please indicate if clinical/ veterinary use x-ray machine is involved)
- c) Any actual or suspected exposure must be reported to the RSO immediately.
- d) Modifications and repairs to an x-ray machine that could affect the beam quality (excluding routine beam alignment) must be reported to and receive prior approval from the RSO before the device is put back into operation.
- e) Notify the RSO prior to the x-ray machine being moved to another location, transferred to another individual, or disposed of.
- f) Notify the RSO when the status of device is changed from “Active” to “Inactive” and vice versa.
- g) Notify the RSO prior to laboratory close-out, relocation, and/or transfer of radiation device or source to another PI(s), including transfer out of the University. AUs leaving the University must notify the RSO at least 2 weeks prior departure.

- h) Notify the RSO before the addition of an X-ray User. Privileges of departing X-ray Users should be suspended immediately and communicated to the RSO.
- i) A log should be maintained to document the specific personnel and date/time that the equipment is being used when the machine is used by more than one personnel.

14. Provide a sketch of the room and the proposed location of the X-ray. Identify the X-ray control area. Use additional pages if necessary.

CERTIFICATION

I certify that the information contained herein and attached hereto is true and correct to the best of my knowledge.

Date: _____ AU Signature: _____