Application for X-ray Machine Subregistration

**Registration for X-ray machines**

**Instructions**

X-ray machines must be registered with Radiation Safety. All Principal Investigators (PI) must be approved and sub-registered by the Radiation Safety Committee prior to using x-ray generating machines. Additionally, prior approval for procurement and installation of x-ray machines must be obtained from Environmental Health & Safety (EHS) per MAPP 04.01.01.

The application involves primary items that are required to be completed before the application will be presented for the Radiation Safety Committee’s review and approval. Complete this application form and submit to the Radiation Safety Officer (RSO) in the EHS Department. It is very important for the PI 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 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 safety. 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 PI and all Authorized Users (AU) is part of the application review process and should be completed as early as possible.

**Sub-registration Information (to be completed by the Principal Investigator)**

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

**\*For Bone Density or Body composition Scans, see item 15, page 6 for additional requirement**.

1. Survey Instrument (Manufacturer/Model/Serial #/Recent Calibration Date): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\*Categories of x-ray machine for DSHS 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*)

1. X-ray machine description:

|  |  |
| --- | --- |
| Manufacturer |  |
| Model |  |
| Serial # |  |
| Max kV |  |
| Max mA |  |
| Type\* |  |

|  |  |
| --- | --- |
| Manufacturer |  |
| Model |  |
| Serial # |  |
| Max kV |  |
| Max mA |  |
| Type |  |

|  |  |
| --- | --- |
| Manufacturer |  |
| Model |  |
| Serial # |  |
| Max kV |  |
| Max mA |  |
| Type |  |

1. Propsed X-ray Control Measures

**Access Control/Hazard Warning Signs & Device Labels**

Yes No

Posted entrances

Access control/device security

Control Area established

Warning label

**Engineering Controls**

Yes No

Protective (Shielded) housing

Protective housing interlock

Key/Lock control

Activation warning system

**Administrative Controls**

Yes No

Standard Operating Procedures/Emergency procedures

Emergency contacts posted

Personnel authorization

Designated location of radiation badges (when not in use) indicated

**Safety Controls**

Yes No

X-ray machine is secured from unauthorized move

Beam intensity reduced or filtration in place

Radiation exposure below 2mR/hr at 30 cm from the machine

Limited access to spectators/visitors

1. Provide the following specific information (use additional sheet as required):
2. Summary of Principal Investigator's training and experience with x-ray machines including institution, courses, machine types, and duration.

1. Summary of X-ray procedures (experimental protocol)

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

1. Description of planned equipment modifications or updates to the machine.

(Clinical use machines will require Equipment Performance Evaluation documentation).

1. Outline a method in which the lab and equipment can be shut down by EHLS, and users can be denied access in the event of non-compliance. (This will be verified during the application review process).

1. **Important notes:**
2. Certification of training must be documented for all users to operate or maintain the X-ray machines.

List of Authorized Users\*:

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

\* Authorized Users must have read the X-ray Safety Section of the Radiation Safety Manual and must verify by signing their initials.

\* Authorized Users must have received specific radiation safety training for the radiation hazards in their labs from their Principal Investigator and must verify by signing their initials.

\* Authorized Users must have attended and passed the UH initial X-ray Safety Course and/or refresher course and must verify by signing their initials.

(Other Authorized Users may be added later by amendment after completing these requirements)

1. 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)
2. Any actual or suspected exposure must be reported to the RSO immediately.
3. 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.
4. Notify the RSO prior to the x-ray machine being moved to another location, transferred to another individual, or disposed of.
5. Notify the RSO when the status of device is changed from “Active” to “Inactive” and vice versa.
6. 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. PIs leaving the University must follow the [PI checkout procedure](http://www.uh.edu/ehs/manuals_and_forms/PI_Checkout_Procedure.pdf) on the EHS website.
7. Notify the RSO before the addition of an Authorized User. Privileges of departing Authorized Users should be suspended immediately and communicated to the RSO.
8. 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.
9. Provide a sketch of the room and the proposed location of the X-ray. Identify the X-ray control area. Specify location of radiation badges when not in use. Use additional pages if necessary.
10. **LICENSED PHYSICIAN**

*As a licensed physician, I certify that I am the owner or associated with this applicant, and/or provide supervision to non-practitioners administering radiation to human beings or animals in accordance with Title 25, Texas Administrative Code. I certify that I am qualified and agree to carry out those duties as the Licensed Physician.*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Typed or printed name of licensed physician TX License Board No.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature Date

**CERTIFICATION**

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

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PI Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_