HARVARD
Campus Services
ENVIRONMENTAL HEALTH & SAFETY

X-Ray Cabinet General Safety Checklist

Machine Identification:

Manufacturer:_____Model:_____

Principal
Investigator:_____Telephone:_____

General Safety Regulations:

1. Only individuals authorized on the permit may operate the machine. All authorized users must receive instruction in and demonstrate an understanding of the operation of the machine before starting unsupervised work.
2. An operational fail-safe light is visible to the operator indicating when x-rays are being produced.
3. Use interlocks, barriers or administrative controls to ensure no one can gain access to the primary beam or high scatter radiation areas.
4. Use a calibrated thin-window GM survey meter to verify shielding effectiveness and monitor radiation levels.
5. Whole body and finger ring dosimetry is required for all personnel working with cabinet units.
6. Do not use the safety interlock to turn the machine off; use the main switch.
7. Do not override the safety interlock unless there is a Radiation Safety Services (RSS) approved written procedure.
8. Make sure the machine is OFF before changing samples or the primary tube safety shutter is closed and verify there is not active beam present; always check the current and voltage meters and/or use a survey meter to detect x-rays.
9. Do not modify the built-in shielding. If modifications must be made, contact RSS for approval to restart instrument.
10. Secure unused ports, if any, to prevent accidental exposures.
11. Secure cabinet units through a unit key control or room lock.
12. Maintain an operating log that includes date, operator, beam voltage and current, and time on and off (or total exposure time) for each unit use.
13. Notify RSS immediately if there is a concern for or any abnormal personnel radiation exposure.
14. Obtain approval for any location changes, purchase or removal of diffraction/fluorescence units by RSS. Notify RSS prior to the acquisition, disposal, or transfer of any diffraction/fluorescence unit.
15. Contact RSS for information regarding radiation safety or radiation survey instrumentation. A copy of the Massachusetts Radiation Control Regulations is available at RSS.

Email **radiation_safety@harvard.edu** to send comments and suggestions to Radiation Safety Services.

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