



**Idaho State
University**

Guidance for Transferring, Scrapping, or Disposing of X-Ray Generators or Radiation Producing Machines

This document provides guidance for Authorized Users on the proper identification, coordination, hazard evaluation, and documentation required when transferring, scrapping, dismantling, or disposing of X-ray generators or radiation-producing machines (RPM) at Idaho State University.

ISU Contacts

Radiation Safety Department (RSD)

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Environmental Health & Safety (EHS)

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1. Equipment Identification and Initial Notification

Before any movement, dismantling, or disposal activity, the Authorized User must document the following:

- Manufacturer, model, serial number, ISU asset number
- X-ray tube manufacturer, model, serial number
- Building and room location
- Current State of Idaho radiation-machine registration information
- Intended disposition (scrap, transfer, surplus, disposal)

RSO Notification Requirement: The RSO must be notified prior to scrapping, moving, or transferring the machine to ensure proper regulatory tracking and preparation for registration closure.

2. Coordination With Environmental Health & Safety (EHS)

Before disposal, EHS must confirm the appropriate disposal route and evaluate the unit for hazardous components. EHS will determine whether specialized waste handling or regulated waste disposal is required.

3. Hazardous Materials Review

Authorized Users must review manufacturer documentation, SDS, or service manuals to identify hazardous materials that may be present in the system. If needed, EHS assistance may be requested to verify the presence of hazardous materials.

Potential hazards include:

- Beryllium (Be)
- Mercury
- Lead shielding
- PCB-containing dielectric oils in older transformers or capacitors



*** Safety Precaution ***

Do **NOT** smash, break, or cut the X-ray tube — it is under vacuum and glass fragments may cause injury. **If hazardous metals/components (e.g., beryllium) are suspected, coordinate with EHS for disposal.**

*For systems manufactured **before July 1979**, or when PCB content is unknown, contact the waste hauler or an X-ray service company to determine PCB status and disposal requirements.*

4. Rendering the Unit Non-Functional (Scrap/Disposal Only)

To prevent unauthorized reuse, ensure that the power supply to the RPM is **completely disabled**, then cut the main power cord flush with the cabinet. This step is not required for transfers to other licensed facilities.

5. Radiological Survey (If Applicable)

Most X-ray generators do not require contamination surveys. This step applies **only** to neutron generators or particle accelerators. The Radiation Safety Department (RSD) will perform any required radiological or contamination surveys.

6. Final Approval Before Release

Equipment may not be placed into scrap metal, surplus, or waste streams until **both** RSO and EHS have approved the disposition. Final disposal approval can be obtained via email or telephone.

7. Documentation and Recordkeeping

Authorized Users should retain documentation of the final disposition, including transfer forms, disposal records, or surplus paperwork.

8. Closure of State Registration

Radiation Safety will update or close the State of Idaho radiation-machine registration once the unit is transferred or disposed.

Reference

Idaho DHW — Disposal of Radiation Producing Machines: [DHW resource link](#)