

SECTION 15 (addendum)RETRIEVAL AND MANAGEMENT OF SEALED SOURCES FROM GENERALLY  
LICENSED DEVICES

Generally Licensed devices such as liquid scintillation counters, gas chromatographs, etc containing radioactive sources are periodically obtained for purposes of academic, teaching research and development. However, during equipment decommissioning, these radioactive sources have to be properly removed and disposed of accordingly. This procedure details the removal and possession of radioactive sources from generally licensed devices.

- A. Equipment and source identification
  1. Confirm with researcher that equipment is no longer needed.
  2. Verify that the device is a generally licensed device and determine source properties.
    - a. Identify source radionuclide and verify activity is less than 100 microcurie.
    - b. Verify the radionuclide and activity are a listed under Texas A&M University Broad Scope License and that adding to the license will not exceed any applicable limits.
    - c. Review source location and equipment/shielding configuration.
  
- B. Source removal and retrieval
  1. Determine if the source will be removed by the vendor or equipment manufacturer or by Radiation Safety. **(Note: only Radiological Safety Staff (RSS) that have received appropriate training in handling sealed sources and surveying for radioactive material AND are familiar with the operation and source characteristics of the generally licensed device may remove the source).**
    - a. Vendor removed sources
      - i. Arrange with researcher and vendor a time to meet the vendor at the generally licensed device,
      - ii. Prepare equipment including: properly calibrated survey meter (GM end window, pancake, etc.), an appropriate shielding pig for the source, lab coat and disposable gloves, tongs or forceps, wipe test supplies, and radioactive material labels
      - iii. Meet the vendor and observe the removal process. Once the source is removed, retain them in an appropriate lead shield and affix proper labels for transport of the source back to the storage facility
      - iv. Ensure manufacturer, model number and serial number are transferred with the source

- v. Survey the area and personnel involved in the removal to verify the source has been removed from the device and no contamination remains.
  - vi. Obtain manufacturer information concerning any applicable maintenance requirements (i.e. leak testing procedures)
  - vii. Return the source to the storage facility for appropriate storage/use/disposal.
- b. RSS removed sources
- i. Arrange a time to meet with the researcher at the generally licensed device.
  - ii. Prepare equipment including: properly calibrated survey meter (GM end window, pancake, etc.), an appropriate shielding pig for the source, lab coat and disposable gloves, appropriate tools needed for removal, tongs or forceps, wipe test supplies, and radioactive material labels.
  - iii. Meet the researcher and check to verify that the source is present and that the source shielding and mechanisms do not appear damaged. **NOTE:** If damage to the source housing or drive mechanism is noted, removal of the source should be conducted in coordination with the vendor.
  - iv. Follow the detailed procedure of removing the source as per the manufacturer recommendations depending on the device model.
  - v. Remove the source and retain them in the source shield or place them in a shielding pig with appropriate labeling.
  - vi. Ensure that source is tagged with manufacturer, model number and serial number
  - vii. Survey the area and personnel involved in the removal to verify the source has been removed from the device and no contamination remains.
  - viii. Obtain manufacturer information concerning any applicable maintenance requirements (i.e. leak testing procedures)
  - ix. Return the source to the storage facility for appropriate storage/use/disposal.