




GuideSheet

Generally Licensed Radioactive Material

Generally Licensed Radioactive Material is low activity radioactive material that is contained in certain commercial products or devices. These products or devices are distributed by licensed facilities to individuals or institutions who are not required to be licensed in order to possess the material.

	GLD	EXEMPT QTY RAM	SOURCE MATERIAL ¹
Description	<p>Generally Licensed Devices (GLD) include the following:</p> <ul style="list-style-type: none"> Liquid scintillation counters with internal calibration sources (Cs-137, Ba-133, Eu-152, Ra-226) Static eliminators (Po-210) Smoke detectors (Am-241) Self-illuminating exit signs (H-3) Some gas chromatographs (Ni-63) 	<p>Exempt quantities of RAM (radioactive material) are small sources containing small amounts of radioactivity, such as button sources used for teaching and check sources used for instrument calibration.</p> 	<p>“Source Material” refers to the elements uranium (not enriched in the isotope U-235) and thorium (including any of their physical or chemical forms) ores that contain less than 0.05% of these elements, and depleted uranium (DU).</p> 
Registration	<ul style="list-style-type: none"> Register Generally Licensed Devices with EH&S (required by regulatory agencies for broad scope radioactive material licensees, such as USC). Exceptions: Exit signs and smoke detectors. 	<ul style="list-style-type: none"> Register Exempted Quantities RAM sources with EH&S (required by regulatory agencies for broad scope radioactive material licensees, such as USC). 	<ul style="list-style-type: none"> Registration with EH&S is NOT required for Source Materials Source Materials are bought and used as a chemical; refer to the Chemical Hygiene Plan for guidance.
Inventory	<ul style="list-style-type: none"> Keep updated inventories of GLDs. Notify EH&S of any relocation, modification, or intended disposal of devices. Store in a locked lab 	<ul style="list-style-type: none"> Keep updated inventories of RAM sources. Notify EH&S of disposal of RAM. Store in a locked lab. 	<ul style="list-style-type: none"> Keep updated inventories of source materials as part of the Chemical Inventory section in EHSA. Record depletions of stock and transfers to chemical waste.
Safe Handling	<ul style="list-style-type: none"> DO NOT disassemble devices at any time to avoid exposure. Devices that contain lead shielding may be adversely affected if moved/relocated. Contact manufacturer for information or assistance. 	<ul style="list-style-type: none"> Avoid cutting, drilling, or exposure to high temperatures or pressures to maintain source integrity. 	<ul style="list-style-type: none"> Handle source materials as chemicals; refer to the Chemical Hygiene Plan for guidance. Routes of exposure are: inhalation, ingestion, or injection/broken skin. Most applications using source materials pose minimal external radiological hazards.
Radioactive Contamination	<p>If leakage or damage to the radioactive source is suspected, remove the equipment from operation and contact Radiation Safety immediately.</p>	<p>If leakage or damage to the radioactive source is suspected, remove the source from use and contact Radiation Safety immediately.</p>	<p>Clean spilled source material using paper towels and simple cleaning solutions, e.g., degreasers. Dispose of materials from spill cleanup as radioactive waste.</p>
Hazardous Waste Management	<p>Contact Radiation Safety for disposal (rad_safety@usc.edu). Do not remove or tamper with equipment or the source inside the GLD.</p>	<p>Request a rad waste pick-up via EHSA. See EHSA SOP Radioactive Waste Management for details.</p>	<ul style="list-style-type: none"> Request a chemical waste pick-up via EHSA. See EHSA SOP Waste Pickup + Supplies for details. DO NOT mix Source Materials with other chemical waste for disposal.

¹ Source Materials present an internal radiation exposure hazard if they are inadvertently inhaled, ingested, injected, or enter the body through broken skin. Wear proper PPE prior to working with Source Material. Refer to the [Chemical Hygiene Plan](#) for guidance. Contact DPS (213) 740-4321 and Radiation Safety (323) 442-2200 immediately if a source material spill poses an intake risk (e.g., volatile material, personnel contamination, or large area/volume spill) or is outside the registered lab.

