





CHEMICAL WASTE GUIDELINE

Mercury-Containing Lamps – Maintenance

Identification	Description	Temple University uses a wide variety of lamps to illuminate buildings or conduct research which may contain toxic metals such as mercury which require special disposal. Includes all types of fluorescent bulbs (including compact), high-intensity bulbs (“HID”s), mercury lamps, UV bulbs, projector bulbs, and U-Tube or circular bulbs.
	Classification	<ul style="list-style-type: none"> Regulated- Universal Waste
	Potential Hazards	<ul style="list-style-type: none"> Possible toxic mercury vapors can be released if the lamp is broken and/or improperly disposed. Refer to chemical specific Safety Data Sheet (SDS) for specific hazard information.
Waste Minimization	Opportunities	<ul style="list-style-type: none"> Replace fluorescent lamps with LED (Light-emitting diode) bulbs. <p>CAUTION: Low-mercury bulbs with green tips and/or green lettering on the tube may not require special disposal if the lamps have been confirmed to pass the TCLP test. All verified TCLP test documentation must be acquired from the manufacturer and forwarded to EHRS prior to disposing of any light bulbs in the municipal waste stream.</p>
Supplies	The following supplies are available through Environmental Health and Radiation Safety (EHRS). To order these supplies, call (215) 707-2520 or complete the online Chemical waste request form	
	Supply	Description
		<p>The Temple University “Universal Waste” sticker must be affixed on all containers once a container is being used to collect lamps. All containers collecting lamps must contain the following information:</p> <ul style="list-style-type: none"> “Universal Waste – Lamps” Accumulation start date (date the first lamp was placed into the container). Generator name (individual placing the lamp into container) and phone number. Building name or storage location. <p>NOTE: The container of spent bulbs must be collected by EHRS within 10 months from the accumulation start date.</p>

		<p>Waste Lamps must be containerized immediately to prevent breakage. The following containers must be used:</p> <ul style="list-style-type: none"> • Original cardboard packaging if structurally sound (No missing flaps, all packaging removed) and can be closed. • EHRS supplied lamp container (4 and 8-foot cardboard box or tubes) <p>The container must meet the following criteria:</p> <ul style="list-style-type: none"> • Closed when not adding lamps to the container. • Structurally sound and compatible with the contents of the lamps. • Must lack evidence of leakage. • Lamps should not be taped together. 
SAA Management	<p>Accumulation Limits</p>	<ul style="list-style-type: none"> • Spent lamps must be removed for disposal via EHRS within 10 months from the accumulation start date.
	<p>Personal Protective Equipment</p>	
	<p>Collection Procedures</p>	<ul style="list-style-type: none"> • Complete the Universal Waste label and affix to the container. • Keep container closed when not adding bulbs. • Place boxes containing the spent bulbs in a dry, secure location. • Stack the boxes so the Universal Waste label is clearly visible.
	<p>Storage</p>	<ul style="list-style-type: none"> • Keep containers tightly closed in a dry, cool, and well-ventilated area. • Store the collection container so that the “Universal Waste” tag is clearly visible. • Within 6 months from, the accumulation start date, transport the bulbs to a central storage location or dispose via EHRS. <p>MC: Beury Hall Loading Dock HSC – TUH: Garage Basement Ambler: Facilities Shed</p>
Disposal	<p>Removal</p>	<p>Request spent bulbs collection from EHRS using the hazardous waste request or calling EHRS at – 215-707-2520</p>
	<p>Special Collection Request</p>	<p>Contact EHRS to arrange for large collections of waste Lamps</p>

Other	Breakage/ Leakage	<p>Lamps should be cleaned up immediately and placed into a container before any release can occur. Any lamp that is broken or shows evidence of breakage, leakage or damage that could cause the release of mercury or other hazardous constituents to the environment needs to be placed into a structurally sound container.</p> <p>CAUTION: Do not use a vacuum.</p>
	Training	<ul style="list-style-type: none"> • Universal Waste Training for Non-Labs – Should be completed at the time of hire and updated every 3 years. • Training can be completed on EHRS online training website found here.
	Emergencies	<p>In the event of an emergency – Call campus safety at (215) 214-1234. EHRS [(215) 707-2520] should also be notified of the incident.</p> <p>Direct contact – Flush contaminated area with copious amounts of water (eyewash or safety shower) and then seek medical attention.</p> <p>Spill – Refer to the spill management sheet for general spill cleanup. Contact EHRS for additional assistance or guidance.</p> <p>Fire – ABC dry powder fire extinguisher should be adequate.</p>
	Questions	Contact Environmental Health and Radiation Safety (EHRS) at (215) 707-2520