

## Radioactive Waste Pickup Checklist

Step	Task	Done?
<b>Contaminated with Infectious Materials</b>	<b>If the radioactive waste is contaminated with infectious materials</b> , I have ensured that all the biological hazards were killed or inactivated as described in the UAB Bio-Safety Manual.	
	<b>If the radioactive waste is contaminated with infectious materials</b> , I have identified compounds that are present at levels greater than 0.5 percent by weight on the manifest and adjust solutions for a pH in the range 5 to 9 before pickup.	
<b>Inventorizing</b>	I have accurately inventoried or accounted for the activity or amount of radioactive material in the waste.	
<b>Segregating and Special Permissions</b>	I have properly segregated the radioactive waste according to the following categories: <ul style="list-style-type: none"> <li>• liquids (LIQ),</li> <li>• solids (SOL),</li> <li>• liquid scintillation counter vials, (LSV or LSC), or</li> <li>• animal tissue (AT).</li> </ul>	
	<b>I have permission/approval from the OH&amp;S RSP to combine categories. (This may not apply this may not apply to your license.)</b>	
	<b>I have permission/approval to combine categories is listed on the Radioactive Materials License. (This may not apply to your license.)</b>	
	<b>I have obtained special permission/ approval on the license for experimental protocol or laboratory test required a dual or multiple labeling procedures that made separation impossible.</b>	
	I have segregated the waste according to its half-life: <ul style="list-style-type: none"> <li>• Less than 19 days</li> <li>• Equal to or greater than 19 days but less than 37 days.</li> <li>• Equal to or greater than 37 days but less than 72 days.</li> <li>• Equal to or greater than 72 days but less than 91 days.</li> <li>• Equal to or greater than 91 days.</li> </ul>	
<b>Box size</b>	I have obtained cardboard/fiberboard boxes that were 24 inches high or less for packing the radioactive waste.	

**See the Procedures Manual for the proper labeling of the containers that go *inside* the boxes. Each category has its own label.**

*\*There is a \$50.00 fee for the disposal of liquid scintillation vials containing freestanding liquid. There is no charge for empty vials. In order to avoid this charge, aspirate (remove the liquid) into an acceptable container. See the manual for a list of appropriate containers.*

Step	Task	Done
<p><b>Packing Radioactive Liquids</b></p> <p>Any liquid waste except that which is contained in Liquid Scintillation Vials (LSVs)</p> <p>Liquids must NOT include any solid waste (no more than 0.5% (by weight) of free standing liquids).</p>	<p>I have packed radioactive liquids as follows:</p> <ul style="list-style-type: none"> <li>• Collected liquid radioactive wastes that are aqueous and contain 2.5% (or less) chemicals in regular polyethylene and polypropylene containers.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Collected other radioactive liquid wastes, especially those containing organic solvents, in the following types of containers. <ul style="list-style-type: none"> <li>❖ durable glass,</li> <li>❖ acetal plastic, or</li> <li>❖ high-density polyethylene fluorocarbon treated plastic, which is similar to Nalgene.</li> </ul> </li> </ul>	
	<ul style="list-style-type: none"> <li>• Properly secured a tightly fitting cap for the glass or plastic containers.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Written or labeled each container with the name of the isotope and the activity.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Placed the containers in two (2) plastic bags.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Packed the glass or plastic containers in a cardboard box for transport.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Padded the containers inside the cardboard box (with Styrofoam, extra garbage bags, shredded paper, etc.) to prevent movement and breakage.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Labeled the box with the isotope and physical form (LIQ or LSV) clearly on the top of the box.</li> <li>• Placed a radioactive symbol label or write "Radioactive" in large legible letters in several places on the box.</li> </ul>	
<p><b>Packing Radioactive Solids</b></p> <p>Any dry waste, except lead or metals</p> <p>Examples are paper, plastic, glassware, gloves, bench paper, and animal bedding.</p>	<p>I have packed radioactive solid waste as follows:</p> <ul style="list-style-type: none"> <li>• Placed the radioactive solid waste in fiberboard boxes lined with a plastic liner of at least two mil thickness.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Sealed the liner to prevent leaks.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Packed sharps in a sharps containers and then placed the containers in a fiberboard box.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Labeled each container going into the fiberboard box with the name of the isotope and the activity.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Labeled each box on the outside with the name of the isotope(s) inside and physical form (SOL or SHARPS) clearly on the top of the box.</li> </ul>	
	<ul style="list-style-type: none"> <li>• Placed a radioactive symbol label or write "Radioactive" in large legible letters in several places on the box.</li> </ul>	

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Step	Task	Done?
Packing Radioactive <b>LSV</b> Vials containing liquid radioactive materials	I have packed radioactive liquid scintillation vials as follows: <ul style="list-style-type: none"> <li>Used the original shipping trays, <b>OR</b> used a plastic liner of at least four mil thickness, <b>OR</b> used two plastic liners of two mil minimum thickness to hold the vials.</li> </ul>	
	<ul style="list-style-type: none"> <li>Placed the trays or bags of vials in fiberboard boxes for disposal and subsequent transport to the HMF.</li> </ul>	
	<ul style="list-style-type: none"> <li>Followed the instructions for packing and labeling the outside box as directed until the liquid section of this document.</li> </ul>	
Packing Radioactive <b>Animal Tissue</b> All contaminated animal tissues and body fluids. Animal waste products are <b>not</b> deemed animal tissue.	I have packed radioactive animal tissue as follows: <ul style="list-style-type: none"> <li>Formed carcasses to take up as little space as possible.</li> </ul>	
	<ul style="list-style-type: none"> <li>Double bagged in radioactive waste bags or biohazardous waste bags (preferred).</li> </ul>	
	<ul style="list-style-type: none"> <li>Labeled the outside bag with the name of the isotope</li> </ul>	
	<ul style="list-style-type: none"> <li>Returned the bags to the freezer until the HMF employee picks radioactive animal tissue up.</li> </ul>	
<b>Labeling</b>	I have labeled all the radioactive waste correctly for the HMF personnel. That is: <ul style="list-style-type: none"> <li>I have written the words in large letters <b>RADIOACTIVE WASTE</b> on the box OR put radiation stickers on the box to indicate it contains radioactive waste materials.</li> </ul>	
	<ul style="list-style-type: none"> <li>I have taped the radioactive waste manifest to the box and highlighted the materials contained in that box. (In order words, the manifest highlighted materials are those that are inside that box.)</li> </ul>	
	<ul style="list-style-type: none"> <li>I have written the word “<b>Sharps</b>” in several places on the box if sharps are inside.</li> </ul>	
	<ul style="list-style-type: none"> <li>If there are non-biodegradable LSVs, I have marked them appropriately – either I.E. Toluene or Xylene.</li> </ul>	
<b>Verification of the Boxes Waiting for Pickup</b>	I have weighed each box or bag to ensure that it does NOT weigh more than 50 pounds.	
	I have properly sealed all the waste in the proper cardboard/fiberboard with strong tape (like duct tape – not bench tape or radioactive waste tape).	
	I have made sure that biohazardous waste bags or medical waste bags were <b>NOT</b> used except with radioactive animal tissue.	
	I have checked to make sure that all of the waste packages are not or will not leak while awaiting pickup or during transport.	

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