



**UNC**  
ENVIRONMENT,  
HEALTH & SAFETY

# Job Safety Analysis


Safety Information for The University of North Carolina at Chapel Hill



**ITEM THAT JSA IS BEING WRITTEN FOR:**

Housekeeping Staff

Cleanup of Broken Mercury CFLs and Light Tubes



Title	Work Task	Hazards	Controls
<b>Cleanup of broken CFLs and light tubes</b>	<ol style="list-style-type: none"> <li>1. Survey area for extent of broken glass and powder.</li> <li>2. Establish a control area and ventilate space if possible</li> </ol>	Mercury vapor and droplets, broken glass and powder	<ul style="list-style-type: none"> <li>• Avoid walking through the broken glass</li> <li>• Ventilate the room by opening windows and doors if possible.</li> <li>• Place cones and warning signs around the cleanup area</li> </ul>
	<ol style="list-style-type: none"> <li>3. Put on personal protective equipment</li> </ol>	Mercury vapor and droplets, broken glass and powder	Personal Protective Equipment (PPE) consisting of: <ul style="list-style-type: none"> <li>• Nitrile or rubber gloves</li> <li>• Booties/shoe covers</li> </ul>
	<ol style="list-style-type: none"> <li>4. Collect broken glass</li> </ol>	Mercury vapor and droplets, broken glass and powder	<ul style="list-style-type: none"> <li>• Collect the majority of the broken pieces of glass using pieces of cardboard or card stock to avoid sharp edges of glass.</li> <li>• Avoid creating further breakage of light tubes</li> <li>• Place pieces of broken glass and cardboard into the waste bag</li> </ul>
	<ol style="list-style-type: none"> <li>5. Use the mercury vacuum cleaner to collect fine pieces of glass and powder</li> </ol> 	Mercury vapor and droplets, broken glass and powder	<ul style="list-style-type: none"> <li>• Use mercury vacuum to cleanup remaining small pieces of glass/powder</li> <li>• Wipe the area clean with damp paper towel or wet wipes (DO NOT USE A MOP)</li> <li>• Wipe the end of the vacuum hose and place used towels/wipes in the waste bag</li> <li>• Cap and seal the end of the vacuum hose with the cap or glove and duct tape</li> <li>• Remove gloves and booties and place in waste bag after the area is clean.</li> </ul>

	<p>6. Package the waste</p> 	<p>Mercury vapor and droplets, broken glass and powder</p>	<ul style="list-style-type: none"> <li>• Seal the plastic bag using duct tape</li> <li>• Place the waste into a plastic container or double bag and seal with duct tape</li> <li>• Label the outer waste bag or container: "Broken Fluorescent Bulb"</li> <li>• Contact EHS for waste pickup at 962-5720</li> <li>• Store the sealed waste container in the locked housekeeping closet.</li> </ul>
	<p>7. If the light tube or CFL was broken on one of the following surfaces:</p> <ul style="list-style-type: none"> <li>➤ Ceramic tile floors with grout</li> <li>➤ Carpet</li> <li>➤ Upholstery</li> </ul> <p>Contact EHS after cleaning stating:</p> <ol style="list-style-type: none"> <li>a. Building name</li> <li>b. Room number</li> <li>c. Location of the spill</li> <li>d. Person calling and telephone number</li> </ol>	<p>Mercury vapor and droplets</p>	<ul style="list-style-type: none"> <li>• EHS will check the spill area for any mercury remaining in these porous materials after housekeeping cleaning.</li> <li>• Additional steps will be determined after this survey.</li> </ul>
<b>Training</b>	EHS Training and Hands-On Activity for proper cleanup of broken mercury containing CFLs and light tubes		
<b>Created by</b>	David Catalano		
<b>Referenced Material</b>	Environment, Health and Safety Handout		
<b>Contact Info</b>	<p>Department of Environment, Health and Safety UNC-CH, 1120 Estes Drive Extension, Chapel Hill NC 27599 CB# 1650 (919) 962-5507 • <a href="http://www.ehs.unc.edu">www.ehs.unc.edu</a></p>		<p><b>UNC</b> ENVIRONMENT, HEALTH &amp; SAFETY</p>