## Job Safety Analysis

### Operating a Portable Tile Saw

<table>
<thead>
<tr>
<th>Title</th>
<th>Work Task</th>
<th>Hazards</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preplan the work</td>
<td>Gather proper tools</td>
<td>Improper tools</td>
<td>Using improper tools or parts can lead to lead to injury</td>
</tr>
<tr>
<td></td>
<td>Gather Proper PPE for the job and inspect it (safety glasses and safety shoes)</td>
<td>Improper PPE inspection/selection</td>
<td>Improper PPE use and inspection can lead to unnecessary hazards created by wrong PPE or faulty PPE.</td>
</tr>
<tr>
<td></td>
<td>Dress properly</td>
<td>Loose clothes, jewelry or long hair can be caught in moving parts.</td>
<td>Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.</td>
</tr>
<tr>
<td>Before the job</td>
<td>Don necessary PPE</td>
<td>Improper Donning</td>
<td>Ensure all PPE is on correctly and passed inspection</td>
</tr>
<tr>
<td></td>
<td>Fill water basin with water to the proper water level mark.</td>
<td>Eye Contact with debris</td>
<td>Fill water and replace when it is low to ensure constant levels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lacerations</td>
<td>DO NOT use and TAG OUT saw if it is misaligned, the grounding plug is missing, or the cord is damaged.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hand Injury</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Excessive dust</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hand Injury</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electrical shock</td>
<td></td>
</tr>
<tr>
<td><strong>parts, function of guards, grounding plug and cord.</strong></td>
<td><strong>Ensure switch is in the off position before plugging in</strong></td>
<td><strong>Check switch position before plugging in saw</strong></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Secure and inspect workpiece</strong></td>
<td><strong>Injury from accidental starting</strong></td>
<td><strong>Secure workpiece with clamps or other appropriate manner. Ensure there are no nails or foreign objects in workpiece.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ensure work area is clean and well lit</strong></td>
<td><strong>Injury from loss of control of workpiece or from flying objects</strong></td>
<td><strong>Remove clutter and provide proper lighting prior to job. Ensure there is no debris between the workpiece and the table or fence.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Check blade to ensure it is sharp and clean</strong></td>
<td><strong>Injury from items interfering with saw operation. Injury from unseen hazards.</strong></td>
<td><strong>Replace blades that are dull. Clean dirty blades.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Select proper blade for application (i.e., metal, wood, etc.)</strong></td>
<td><strong>Injury from binding or loss of control during use</strong></td>
<td><strong>Refer to operator manual or manufacturer for correct blade selection</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Using the saw**

<table>
<thead>
<tr>
<th><strong>Be sure to only use the easy grip handle when handling saw</strong></th>
<th><strong>Loss of control of the power tool</strong></th>
<th><strong>Maintain firm grip on handle</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Keep proper footing and balance</strong></td>
<td><strong>Tripping/Falling</strong></td>
<td><strong>Do not overreach</strong></td>
</tr>
<tr>
<td><strong>Adjusting tool or workpiece</strong></td>
<td><strong>Injury from contact with moving parts</strong></td>
<td><strong>Do not adjust until the saw has come to a complete stop. Unplug from power supply before adjusting.</strong></td>
</tr>
<tr>
<td><strong>General cutting</strong></td>
<td><strong>Injury from accidental startup</strong></td>
<td><strong>Keep hands and fingers out of the “no hands zone” area marked on the saw table.</strong></td>
</tr>
</tbody>
</table>

**Injury from using improper blade for application**
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Hazard</th>
<th>对策/预防措施</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand injury</td>
<td>Bring the saw blade down to the workpiece to see the cutting path of the blade. Squeeze trigger switch to start saw. Lower blade into workpiece with a firm downward motion. Release trigger when cut is complete. Keep the cut off piece free to move sideways after it is cut off.</td>
<td></td>
</tr>
</tbody>
</table>

| Storage and Clean up | Properly cleanup work area. Make sure the saw is clean and properly stored. | Slips/trips/falls Improper Storage of Equipment/PPE Clean dust and debris from tool with damp cloth. Only use mild soap to clean. Store the saw in designated area. |

| Training           | Employees must have hands on training in the proper use of this tool. | Supervisor is to fill out the ‘Supervisor Led Training Form’ and turn in the form to UNC-CH Environment, Health and Safety for documentation of proper training. |

| Created By         | David Catalano, Industrial Hygienist |

| Contact Info       | For more information about this JSA and other JSAs, contact: UNC-CH Department of Environment, Health and Safety 1120 Estes Drive Extension, Chapel Hill NC 27599 CB# 1650 (919) 962-5507 [36] [http://ehs.unc.edu](http://ehs.unc.edu) |