

JOB SAFETY ANALYSIS

Safety Information for the University of California, Berkeley

ASUC ART STUDIO

OPERATING CERAMIC KILNS

TASK	HAZARDS	CONTROLS
<p>1. Load and unload kilns: Place cone on sitter and set the timer. Arrange and/or stack the ware and shelves in an orderly fashion, depending on the type of firing. Unload ware and shelves once fired and cooled.</p>	Heavy lifting and can strain the body.	Proper lifting techniques put less strain on the body.
	Chards can cause lacerations to the hands and arms.	Leather gloves can protect from chards and glazes that cut.
	Hot kilns can burn skin, clothing, and/or hair.	Gloves can protect against intense heat. Generally, one should stay away from hot kilns and should wait until the kiln is cooled to unload.
<p>2. Firing kilns. After loaded, kilns are set to the desired initial temperature, time and speed depending on the load and firing. Kilns are soaked or fired with the lid cracked open until elements glow orange. The kilns raise in temperature, either manually or automatically depending on the kiln. Once the elements glow, the lid is shut.</p>	Raising the temperature and shutting the lids have the potential to burn skin, clothing, and/or hair.	<p>Always be alert when dealing with firings. Avoid touching any of the metal flashing around the kilns.</p> <p>Use leather gloves when lowering the lid and shutting it to avoid the burns.</p> <p>Keep hair tied up and clothing close to the body when dealing with the heat.</p>
<p>3. Maintenance of kiln shelves. Grind down glazes stuck on shelves, using an electric grinder and a manual grinding block. Dusting off shelves. Coat ground shelves with kiln wash.</p>	The electric grinder is a heavy duty piece of equipment which has the potential for great bodily harm. The vibrations of the machine, along with the high speed revolutions of the grinding wheel, can take a toll on the body.	Know your limits. Do not operate equipment that is overwhelming.
	Glass and chards fly off the shelves when ground, creating sharp projectiles that can cut skin and eyes.	Wear gloves to protect your hands from lacerations by tiny pieces which can dig into skin.
	The dust created by grinding is mostly silica, which is extremely harmful if inhaled.	Wear goggles to protect your eyes. Always wear a dust mask when grinding and dusting the shelves.

Other Information: Contributors: Created: JSA Library Number:	<p>4. Maintenance of kiln elements. Take out the old element, carefully unpin and slide out of the brick. Place new element into the kiln, stretch the element so it is long enough, slide into the brick and pin at the corners and wherever the element needs extra support. Rewire the new elements to the electric box on the kiln.</p>	<p>There is a potential for electrocution, causing severe burns, shock, and/or death.</p>	<p>To avoid electrocution, always turn off the power of the box that supplies the kiln with electricity.</p>
		<p>Stretching the element can cause the skin to rip and/or bleed.</p>	<p>Stretch elements while wearing gloves to avoid tearing any skin.</p>
	<p>Required Training: None</p>	<p>Required Personal Protective Equipment (PPE)</p> <ol style="list-style-type: none"> 1. Gloves 2. Goggles 3. Dust mask 	
	<p>October 2002 ASUC-ART-14</p> <p>For more information about this JSA, contact the <i>Office of Environment, Health and Safety</i> at UC Berkeley, 317 University Hall #1150, Berkeley, CA 94720-1150 (510) 642-3073 ● http://www.ehs.berkeley.edu</p> <p><i>The development of Job Safety Analyses is a Balanced Scorecard initiative of the AVC-BAS Safety Committee, sponsored by the Associate Vice Chancellor-Business and Administrative Services (AVC-BAS) and the AVC-BAS Leadership Team ● http://bas.berkeley.edu/balancedscorecard</i></p>		