



Safe Operating Procedures

SOPs are designed to help employees identify hazards, limitations, PPE, & safety training for specific equipment/tasks. Environmental Health and Safety, 414 J.M. Smith Hall

	Equipment/ Task Name	Operating Ceramic Gas Kilns
	Departments Impacted	Art & Architecture Department
	Purpose	A kiln is a heating chamber used to transform materials at high temperatures. Kilns harden ceramic bodies, heat treat steel, melt glass into crucibles, fuse layers of stained glass, melt enameling powder onto copper jewelry, fire porcelain dolls, fuse clay silver, etc.
TASK	HAZARDS	CONTROLS
1. Prior to operating kilns.	Burn hazard.	Make sure kiln is turned off and not hot.
	Fire and explosion hazard.	<ul style="list-style-type: none"> Check the structural condition of kiln. Report any problems. Ensure that combustible and flammable materials are not stored in kiln areas. Make sure that location and use of fire extinguishers are known.
	Trip hazard.	Remove all tripping hazards. Keep the power cord out of the way.
	Inhalation hazard.	<ul style="list-style-type: none"> Make sure the ventilation system is working properly. Wear dust masks or respirator when cleaning shelves.
	Laceration hazard.	Clean the kiln before firing. Little pieces of glaze on a kiln shelf are glass and can easily create a laceration hazard.
2. Loading kilns.	Bodily injury hazard.	<ul style="list-style-type: none"> Secure lid while loading. Use proper lifting techniques to put less strain on the body. Use a firm grip when moving items. Do not wear open toed shoes while operating a kiln.
	Burn and electrocution hazard.	Make sure kiln is off. Do not touch heating elements with anything since they carry high voltage.
	Laceration hazard.	Use leather gloves to prevent laceration from sharp objects.
3. Firing kilns.	Explosion hazard.	<ul style="list-style-type: none"> Open door to the kiln. Wait several minutes for any escaped gas to clear the firing chamber and then light the kiln. Follow manufacture's operating procedures when firing gas kilns.



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	Burn hazards.	<ul style="list-style-type: none"> Avoid touching any of the metal flashing around the kilns. Use leather gloves when lowering the lid and shutting it to avoid burns. Keep hair tied up and avoid wearing loose clothing when dealing with the heat. 			
	Fire hazard.	Do not leave kiln unattended while firing.			
	Inhalation hazard.	Make sure ventilation is on.			
4. When kilns are in use.	Eye damage.	Never look into a hot kiln without properly tinted safety glasses (infrared goggles, welding shield, or welder's glasses). Sunglasses only block ultraviolet rays.			
	Fire hazard.	If you smell burning plastic, turn the kiln off. Examine the wall outlet and power cord for signs of burning.			
5. Unloading kilns.	Burn hazard.	<ul style="list-style-type: none"> Turn of kiln prior to unloading and do not open the kiln until it has cooled to room temperature. Wear leather gloves and safety glasses when opening kilns and removing items from kilns. 			
6. After operating kilns.	Inhalation hazard.	Wear, safety glasses, gloves, and dust masks or respirator when cleaning shelves.			
Required Training:		Required Personal Protective Equipment (PPE)			
<ol style="list-style-type: none"> Kiln operation. Fire extinguisher. PPE. 		<ol style="list-style-type: none"> Gloves Goggles Dust Mask Infrared goggles, welding shield, or welder's glasses (If necessary) 			
SOP ID	A010	Related Documents	Art Shop Manual	Creation/Revision Date	9/2018

Suggestions, questions, or comments? Please contact EH&S