## JOB SAFETY ANALYSIS

Safety Information for the University of California, Berkeley

## DEPARTMENT OF MECHANICAL ENGINEERING OPERATING AN ELECTRIC POWER SHEAR

	Task	HAZARDS	Controls
1.	Assess work area; is it clear of obstructions and slip/trip/fall hazards?	Slip, trip, or fall	Clear work area of any obstructions or slip/trip/fall hazards
2.	Align material to fence and blade	<ul> <li>Lacerations to fingers/hands on material</li> <li>Pinching hazards for hands/fingers</li> <li>Unintentionally triggering the shear by accidentally stepping on the treadle</li> </ul>	<ul> <li>Deburr material before handling, do not slide hand along edges, wear leather gloves if necessary</li> <li>Keep hands and fingers away from pinch points</li> <li>Turn off machine or engage the treadle lock until you're ready to make the cut</li> </ul>
3.	Depress foot treadle	<ul> <li>Pinching hazards for leg and foot</li> <li>Muscle strain</li> <li>Pinching hazards for hands/fingers</li> <li>Lacerations to fingers/hands on blade</li> <li>Shattering material may cause damage to eyes</li> <li>Excessive noise levels</li> </ul>	<ul> <li>Keep leg and foot free from support arms</li> <li>Position body to maintain balance, maximize use of legs to avoid twisting</li> <li>Keep hands/fingers away from finger guards and material holddowns</li> <li>Keep hands/fingers well behind the cutting blade</li> <li>Always wear safety glasses when operating equipment</li> <li>Wear ear plus/muffs if necessary</li> </ul>

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	4. Retrieve material	<ul> <li>Lacerations to fingers/hands from material</li> <li>Unintentionally triggering the shear by accidentally stepping on the treadle</li> </ul>	<ul> <li>Be aware of fresh sharp edges, deburr material, do not slide hand along edges, wear gloves if necessary</li> <li>Turn off machine or engage the treadle lock while retrieving material</li> </ul>
	Required Training:	Required Personal Protective Equipment (PPE)	
	Student Shop Safety Training Program	Leather gloves, safety glasses, ear plugs/muffs	
	Must complete additional training under guidance of a qualified Student Shop Laboratory Mechanician		
Other Information: Contributors: Created:	rs: Scott G. McCormick; R&D Engineering Manager, Jacob Gallego; Principal Lab. Mech.  July 2020		
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