

# JOB SAFETY ANALYSIS

Safety Information for the University of California, Berkeley

## FACILITIES SERVICES

### USING AN OXY-ACETYLENE WELDER

\* A welding area of a minimum of 35 feet in diameter must be established. Flammable materials must be removed from the welding area. A fire extinguisher with a minimum rating of 2A20B:C must be readily available to the welder. A fire alarm must be readily available. Ensure that ventilation is sufficient to avoid setting off a smoke-detector fire alarm.

TASK	HAZARDS	CONTROLS
1. Close off welding area.	Flashing	Close welding curtain to shield outsiders from flashing.
2. Prepare for welding.	Inhalation of fumes	Turn on exhaust fan and timer.
	Flashing	Wear welding hood.
	Sparks	Wear welding jacket, apron, gloves, work shoes.
	Slag splatter	Wear welding jacket, apron, gloves, work shoes.
3. Set gauges, turn on gas cylinders.	Pinching fingers and hands	Avoid pinch points
4. Clean tip, make sure hose valves are tight, unwrap hoses.	Pinching fingers	Avoid pinch points.
	Tripping	Keep hoses untangled and free from feet.
5. Use striker to light torch	Burning fingers, hands body; flashing	Wear welding hood, welding jacket, apron, gloves, work shoes.
6. Apply flame to material.	Flashing, sparks, slag splatter	Wear welding hood, welding jacket, apron, gloves, work shoes.
7. Allow material to cool on workbench.	Burn to hands or fingers	Wear gloves. Chalk mark welded area "Hot."
8. Close valves, bleed off regulators, wrap hoses.	Pinching fingers	Avoid pinch points.
	Tripping	Keep hoses untangled and free from feet.

	9. Use chipping hammer to remove excess slag.	Eye damage by flying debris from hammer strikes	Wear safety glasses.
		Injuring fingers with hammer	Use caution to avoid striking fingers or hands with hammer.
	<b>Required Training:</b> <ol style="list-style-type: none"> <li>1. Operation of gas welder</li> <li>2. Operation of a fire extinguisher</li> <li>3. Location and use of the fire alarm</li> </ol>	<b>Required Personal Protective Equipment (PPE)</b> <ol style="list-style-type: none"> <li>1. Welding hood</li> <li>2. Welding jacket and apron</li> <li>3. Gloves</li> <li>4. Safety glasses</li> <li>5. Work shoes</li> </ol>	
<b>Other Information:</b> <b>Contributors:</b> <b>Created:</b> <b>JSA Library Number:</b>	Senior EH&S Technician Jim Osttick; Lead Machinist Charles Norris April 2003 FS-01  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 ● <a href="http://www.ehs.berkeley.edu">http://www.ehs.berkeley.edu</a>  <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 ● <a href="http://bas.berkeley.edu/balancedscorecard">http://bas.berkeley.edu/balancedscorecard</a></i>		