

SIUE EB0044 MATERIAL TESTING LABORATORY

Job Safety Analysis

JOB/TASK NAME EB0044 MATERIAL TESTING LABORATORY		DATE 12/22/2011	
JOB TITLE PERFORMING THE JOB/TASK Instructors, Teaching Assistants, Students			
REQUIRED PERSONAL PROTECTIVE EQUIPMENT		Safety glasses, gloves, work boots/shoes as required by the particular work being done. See detailed instructions in individual laboratory experiment procedure handouts for Personal Protective Equipment required for certain operations.	
EQUIPMENT / TOOLS REQUIRED FOR JOB (Complete Tool Inspection Prior to Start of Job): Instron universal load frame, Tinius-Olsen load frame, Tinius-Olsen torsion test machine.			
JOB STEPS		POTENTIAL HAZARDS	HAZARD CONTROL METHOD
1.	Safety Training	See items listed below	1) All persons actively engaged in laboratory activities must have safety training. The training shall include the following parts: a) General Laboratory Rules b) Laboratory Experiment Procedures c) Personal protective equipment (PPE)
2.	Housekeeping	a. Slips, trips, falls b. Dust	2) Keep work area clean and clear of debris and liquids. 3) Be aware of everything going on around you. 4) Keep an eye on fellow workers and alert them of any potential risk/harm.
3.	Attire	a. Cuts, abrasions b. Entanglement	5) All persons in the area where sanding, grinding, cutting operations are occurring must wear safety glasses. 6) Eye protection shall also be worn when doing destructive testing. a) Exception: Where equipment guards designed to protect people from flying debris are provided and they are in place, safety glasses are not required to be worn. 7) No open-toe shoes are allowed in the lab.

			<p>8) Long pants must be worn whenever there is risk that heavy or sharp or abrasive materials could pose a risk of injury.</p> <p>9) Do NOT wear loose clothing or jewelry that could be caught or entangled in machinery.</p> <p>10) Tie back long hair wear headwear to prevent long hair that be caught or entangled in machinery.</p>
3.	Tools and Equipment	<p>a. Cut/Burn</p> <p>b. Electrical Hazards</p> <p>c. Pinch points</p>	<p>11) While certain tools or equipment are being used properly fitted personal protective equipment must be worn by the operator and others in the area.</p> <p>12) Before use of any powered equipment or tool, a thorough inspection must be completed to insure proper working condition. Make any proper necessary corrections before use of the equipment.</p> <p>13) Do not use equipment or tool that is damaged beyond repair or has any safety features missing (guards). Report damaged tool/equipment to team captain or safety advisor for "DO NOT OPERATE" tag.</p> <p>14) Portable power equipment shall be unplugged when not in use.</p> <p>15) All power cords shall be inspected before the cord or tool is used, periodically while being used and when work with the cord or equipment is done for the day. Any damaged cord must be taken out of service immediately.</p> <p>16) Do not use or touch electrical equipment if water or other fluids are on the equipment, the floor around it, or your clothes are wet</p> <p>17) If while operating the equipment or power tool a circuit breaker trips for any reason, the instructor, lab TA or other qualified person must determine the cause and correct it before resetting the breaker.</p> <p>18) Only authorized, trained persons may operate the Instron load frame and Tinius-Olsen load frame.</p> <p>19) Before turning the load frame power ON or OFF, or causing the load frame crosshead to move, announce "Clear Loadframe" or similar warning to let everyone in the area know and also visually inspect the load frame area to be sure no one is in harm's way.</p>