

AREA HAZARD ANALYSIS

Title: Bldg 121 TBF

Location (Bldg & Rm): 121

Instructions:

An Area Hazard Analysis (AHA) is a process that is used to evaluate a work area to 1) determine the hazards that may be present, 2) determine appropriate controls for these hazards and, 3) provide a mechanism to communicate these hazards to someone entering the area. The AHA covers the facility and equipment within the facility. It does not cover specific jobs/tasks that may be performed in the area. Job/task specific hazards and controls are covered by the JHA process.

The AHA should be done by the area manager, in cooperation with the Building Manager. An AHA should be done once for all working areas and whenever there is a change in to the facility or regulations or the introduction of new equipment or new hazard.

Complete instructions and supporting information is available at <web site under development>. Enter information into boxes which will expand to accommodate whatever length of text is entered. Once this AHA is complete, the area responsible person signs.

Processes/Equipment in Area	Hazard(s)	Controls & Recommended Action(s)
1. Machine Tools (grinders, drill press, routers, circular saw, jig saw, etc.) 2. Noise	<ul style="list-style-type: none"> • Cuts or mutilation of limbs, stab wounds, eye injuries from point of operation, flying debris, rotating and reciprocating parts, flywheels, pulleys, belts, and couplings • Hearing loss from chronic noise overexposure 	Use correct tools(s) for the job and make sure they are in good condition. Machine guarding of moving parts where applicable. No loose clothing, long hair to be tied back or wear a cap GFCI for all electrical plug in tools. PPE: Protective Eyewear, earplugs
Hand Tools (non-powered) such as wrenches, hammers, saws, screw drivers.	<ul style="list-style-type: none"> • cut hands/knuckles • stab wound • eye injury 	Use correct tools(s) for the job and make sure they are in good condition. Pay attention to your job and your surroundings. Remove all unsafe tools from use. PPE: Protective eyewear, gloves, as required for level of hazard. <ul style="list-style-type: none"> • Wear gloves when practical • Use liquid wench or similar material to pre-loosen tight bolts. • Apply force away from your body when prying with hand-tools (like a screwdriver)

		<ul style="list-style-type: none"> • Wear safety glasses if something may fly into your eye. • Keep tools sharp
Compressed gasses (air, nitrogen)	<ul style="list-style-type: none"> • Injury, especially to eyes, from flying debris. • Illness from air-bubble injection to bloodstream. 	<p>All open compressed air lines to be fitted with an OSHA compliant nozzle limiting pressure to 30 psi. (nozzle will be marked – if not, replace)</p> <p>All compressed air & gas equipment to be kept in good condition. Replace worn hoses, loose fittings etc.</p> <p>Keep cylinders properly stored and segregated</p> <p>Compressed gas bottles to be stored upright and secured properly at all times. Cylinders in use must always be fitted with a regulator. Must be capped if not in use.</p> <ul style="list-style-type: none"> • Know dangers of the materials you are working with by reading MSDS • If you are working with non-life supporting gasses in an enclosed space, make sure there is adequate ventilation or there is some form of oxygen deficiency monitoring. • PPE: wear eye protection (goggles are best: safety glasses with side shields at minimum) <p>Training: Hazard Communications General Training (Course 103)</p>
Hazardous Materials	<ul style="list-style-type: none"> • Personal exposure via: • Cutting fluids and oils. • Cleaning solvents - acetone, alcohol, propanol etc. < 0.5 liter poly bottles 	<p>Training required for working with hazardous materials: HAZCOM and Introduction to Waste Management.</p> <p>Read and observe MSDS's.</p> <p>Waste to be disposed of through SLAC Hazardous Waste Group.</p> <p>Containers to be labeled as required.</p> <p>All stock quantities stored in appropriate cabinets.</p>
HIGH CURRENT/HIGH VOLTAGE (up to 480V) in circuit breaker panels, motor drivers, transformers, and associated distribution equipment.	<ul style="list-style-type: none"> • Injury or illness from electric shock (fibrillation, burns, freeze and startle reflexes) • Severe burns and blunt-force trauma from arc flash or explosion • Fire 	<ul style="list-style-type: none"> • Talk to area managers before working in areas • Know how to properly use equipment that verifies equipment is de-energized • Understand the equipment • Communicate frequency and clearly with co-workers about the status of electrical work • Don't rush • De-energize and verify before working on systems, or get and

		<p>follow administrative and PPE provisions of electrical hot-work permit issued for that specific activity. (See http://www.slac.stanford.edu/esh/forms/hotwork.pdf .)</p> <ul style="list-style-type: none"> • Follow Equipment Lockout Procedure (ELP) posted on equipment. • Use safe work practices covered in <i>Lock and Tag Program for the Control of Hazardous Energy</i> (Course 157), <i>Electrical Safety for non-electrical workers</i> (Course 239), and <i>Electrical Safety for R&D Equipment</i> (Course 251).
Material handling- moving of heavy and or awkward/bulky materials, tools, and equipment.	<ul style="list-style-type: none"> • Back injury or strain • Crushing/pinching of hands and fingers • crushing of feet • overhead hazards if assisting in crane operation 	<ul style="list-style-type: none"> • Use proper lifting techniques. Ask for help or assistance when moving heavy or bulky objects. • Use appropriate equipment such as, carts, dollies, or pallet jacks. If a crane is necessary, have a certified crane operator operate the crane. • Wear safety shoes • Wear gloves when possible • Wear hardhat when exposed to overhead hazards. • Break down equipment if possible (to make it lighter)
Cranes, hoists, cherry pickers, come-along, chain falls)	<ul style="list-style-type: none"> • Drop load and strike people and damage equipment • Head injury • Rigging can give or break and can lash back at operator or bystanders. 	<ul style="list-style-type: none"> • Keep within load limit of equipment and know the weight of your load • Inspect equipment (including slings, shackles, etc.) before use • Ask for second opinion challenging rigging situations • Make sure people in working zone wear hard hats if appropriate. • Ask for help in moving large/bulky items. • Protect slings from sharp edges. • Have riggers perform lift if it is beyond your ability or qualifications or comfort zone. • Training • Basic Crane Operations and Rigger Training (Course 280) required to operate a hoist/cranes.

<p>Pallet jacks</p>	<ul style="list-style-type: none"> • Back injury • Running over feet • Running into other or objects. 	<ul style="list-style-type: none"> • Push rather than pull, if possible • Wear safety shoes • Do not travel fast with heavy load on pallet jack- they are hard to stop. • Training • Forklift Operator Training (Course 283) required to operate motorized pallet jacks.
<p>Ladders and elevated working surfaces. Use of scissors lift. Climbing on machines and equipment.</p>	<ul style="list-style-type: none"> • Falling • Head injury • People run into ladder 	<ul style="list-style-type: none"> • Inspect ladders before use. Do not use damaged ladders. • Zone off area if there is a potential of falling objects to personnel below. Require use of hardhats if your work may potentially drop something below on workers. • Use hoists/ropes to hoist tools and equipment up to elevated work surfaces. • Wear fall protection when working on elevated surfaces above 4 feet (within 6' of edge). • Have someone hold ladder if it will provide more support • Use barricades or signs to warn of presence of ladder • Do not position ladder in front of closed door that can open into the ladder. • Use the right ladder for the job. For example, do not use an "A" frame ladder to lean against a building...use an extension ladder. • Store ladders so they will not block exits in the event of an earthquake. • Training • Stairway and Ladder Safety (Course 293) highly recommended. • Fall protection training needed to were fall protection equipment required. This is an OJT provided by some SLAC personnel.
<p>2. Walking and working surfaces</p>	<ul style="list-style-type: none"> • Slips, trips, and falls over transient hazards (power cords, temporarily 	<ul style="list-style-type: none"> • Remove trip hazards to keep aisles clear.

	stored machinery, and work-in-progress)	<ul style="list-style-type: none"> • Clean up spills immediately. • Do not run. Keep eyes on path while walking.
9. Vehicles around the building (Cars/trucks, forklifts, mopeds, bicycles, electric carts).	<ul style="list-style-type: none"> • Accident • injuries • Dropping of loads • Falling off vehicle 	<ul style="list-style-type: none"> • Watch Out, Be Alert For Traffic • Drive defensively; report violations • Only licensed drivers should operate a motor vehicle or mopeds • Follow all traffic rules • Wear motorcycle helmet when riding moped. • Wear bike helmet when riding bike (suggested) • Secure unsteady or unbalanced loads in vehicles or on forklifts. • Training: • Forklift Operator Training (Course 283) is required to operate a forklift.
General Occupant Issues	<ul style="list-style-type: none"> • egress • enter hazardous area • fire 	<ul style="list-style-type: none"> • Know the path of egress and where the emergency assembly point is located. • Areas within a building have entry requirements posted. Look for and comply with these requirements. Examples include hearing protection required, clean room clothing required for entry. • Fire extinguishers are only to be used by personnel who have been trained by the SLAC.
Other	Please report other hazards not on this list to the Building Manager	

Signatures:	Print Name	Signature or Initialed	Date
Area Responsible:	Matt McCulloch		1/15/2007
Participants:	J. Kenny		

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