

Physics Division Walk-Around Checklist: Shops

Shop for which this checklist was used: Bldg _____ Room _____ (Use 1 checklist for each shop)

Name of the person filling out the checklist: _____ Date: _____

Sat **Unsat** **N/A** * **Put checks in the appropriate boxes below to answer the questions.**
 * **Record hazard violations ("Unsat") on the Hazard Violation Summary sheets.**

General Safety

- Are safety glasses available and in use in eye hazard areas?
- Has appropriate protective equipment (gloves, respirators, eyewear, shoes, etc.) been selected, made readily available, stored properly, and kept in good condition?
- Are tools, equipment, portable ladders, and work areas maintained in an orderly, clean and safe manner? Is scrap stock cleaned up from the floor and work benches before the end of each shift?
- Are workers adequately trained to use fixed or portable powered shop machines?
- Are compressed air nozzles set to less than 30 pounds per square inch (psi) pressure?
- Are sharp cutting tools (razor blades, scalpels, knives, etc.) stored with the blade covered?
- Does each chair or stool with wheels have a 5-legged base?

Emergency Preparedness

- Are entrances and work areas posted with the appropriate hazard warnings, emergency contact names, and telephone numbers? Are exit signs visible in the dark?
- Are up-to-date Emergency Response Guides posted; do workers know to call x7911 in emergencies?
- Are aisles, passageways, & exit doors unobstructed for > 28"? Is the area free of tripping hazards?
- Have all heavy objects that could fall during an earthquake been secured?
Can anything fall and cause injury or impede egress?
- Are fire extinguishers unobstructed, inspected < 12 months ago, charged, with tie & pin in place?
- Are eyewashes and safety showers unobstructed and inspected < 3 months ago?
- Are all ceiling tiles in place (for smoke/fire detectors to function properly)?

Electrical Safety

- Are interlock systems tested at least yearly?
- Are electrical panels clear with a 30" width and a 36" depth, and a free access path (28" width)?
- Are all electrical panels and individual breakers labeled and numbered?
- Are all receptacles and outlets in good condition?
- Are Ground Fault Circuit Interrupters (GFCIs) located on electrical outlets within 6' of water sources?
- Are electrical feeds to machines in good condition and grounded?
- Are power and extension cords in good condition (ground prong, jackets in good condition, no frayed insulation or exposed wiring, no evidence of modification)?
- Are extension cords used properly (not draped over furniture or fire sprinkler lines; appropriate for the load; taped down or covered with a bridge in walkways; not run through walls, ceilings, windows, floors, under mats, or across doorways; not attached to additional extension cords)?

- Are power strips in good condition? Are power strips being used properly (not daisy chained; no connected equipment over 600 Watts/5 amps, like heaters or cooking appliances)?
- Are all the necessary components (locks, tags) available to perform LOTO?
- Are portable metal ladders labeled "Do Not Use Around Electrical Equipment", and kept away from areas where the ladder or person using the ladder could come in contact with energized equipment?
- Are all pieces of equipment and apparatus in good condition (not damaged, frayed, missing components, or otherwise compromised)?
- Are all pieces of electrical apparatus on metal surfaces grounded to the metal surface?

Machine Guarding and Controls

- Are machine guards in place where needed to prevent workers or falling objects from making contact with moving parts, the point of operation, ingoing nip points, rotating parts, flying chips, and sparks?
- Are starting and stopping controls within easy reach of the operator? Are machines protected from restarting automatically after a power interruption?
- For grinders, is the work rest adjusted closely to the wheel with a maximum clearance of 1/8 inch, and the adjustable tongue or end of the peripheral member at the top of the housing adjusted to within 1/4" of the wheel?
- Are machines designed for a fixed location securely anchored to prevent movement?
- Is there sufficient clearance around and between machines to allow for safe operations, set up and servicing, material handling and waste removal?
- Are exhaust systems functioning adequately to capture debris at/near the point of generation?

Chemical Safety

- Are floors and work surfaces free of chemical residues?
- Are all sinks labeled to prevent discharge of hazardous materials?
- Are chemical containers and gas cylinders in good condition (not leaking, rusted, dented, etc.), and are labeled with the name of the chemical contents and hazards?
- Do workers know how to find and use Material Safety Data Sheets?
- Are areas where food/drink are stored and consumed clearly separated from areas where chemicals are stored or used?
- Are chemicals and gases stored properly? Examples are:
- Acids separated from bases?
 - Corrosives (acids and bases) separated from flammables and toxics?
 - Acetic acid stored with flammables?
 - Flammable liquids >10 gallons (total) stored in flammables cabinet?
 - Flammables and gas cylinders protected from heat and sources of ignition?
 - Stored in approved containers, tightly closed and covered when not in use?
 - Containment pans under liquids?
 - Gas cylinders secured by metal bracket, top and bottom chains, or on a cart secured to prevent rolling or tipping?
 - Regulators removed from gas cylinders not in use, and caps on cylinders?
 - Chemicals and gases stored away from stairs and exits?
 - Overhead storage shelves equipped with shelf lips or latched doors?
 - Hazardous liquids stored away from sinks and drains?