

SAFETY AUDIT GUIDELINES FOR SHOPS

Safety audits represent one of the most important elements in the implementation of an effective occupational health and safety program. The importance of auditing is underscored in UNL's Injury and Illness Prevention Plan, which requires supervisors to conduct regular work area safety inspections. The benefits and purposes of conducting work area surveys are listed below:

- Identify uncontrolled hazardous conditions, processes, and work practices that may lead to injury, illness, or prohibited releases to the environment.
- Serve as a communication tool by which responsible individuals are made aware of the potentially hazardous processes, conditions, or work practices and appropriate control measures.
- Identify regulatory risk by assessing compliance with various regulatory standards.

The checklist and information provided below is not meant to cover every possible hazard that may exist in shops, but rather as abridged guidelines to assess hazardous conditions and operations common to these types of spaces. Add additional inspection items as appropriate, based on past inspections, accident or near miss analysis, unique facility/equipment attributes, etc.

Problems? (Yes/No)	Inspection Item
General Electrical Safety	
	Power strips and extension cords are plugged directly into a permanently installed electrical outlet (not each other).
	Extension cords are used only for temporary applications.
	Electrical cords are protected from damage and are in good repair (no loose plugs, broken insulation, etc.).
	Unused openings in cabinets, boxes, and fittings are closed with appropriate covers, plugs, or plates and outlet faceplates are present and in good condition.
	Equipment and/or outlets are enclosed to protect against shock or electrocution.
	Ground Fault Circuit Interrupters (GFCI) are installed on outlets/circuits in damp/wet locations (e.g., near sinks and in "wash down" locations).
	Electrical appliances and power strips are UL or FM approved and have not been altered in a manner that compromises the UL or FM approval.
	Three feet of clearance is maintained in front of electrical panels and breaker boxes; emergency shut-off controls to equipment are accessible.
General Considerations for All Machines/Equipment	
	Machines/equipment are clean and well maintained.
	Cords and plugs are in good condition.
	Covers are in place to prevent operator exposure to power transmission components (e.g., belts, pulleys, rotating shafts, etc.).
	If hard-wired, disconnect means to facilitate lockout/tagout is present, unobstructed, and capable of receiving a lockout/tagout device.

	Positioning of machines/equipment is such that a hazardous condition is not created (e.g., too cramped considering the size of feedstock, too close to other machines/equipment, placed near foot traffic where operator can be bumped, etc.).
	Tools or excess materials are not left on/near the machine.
	On/off controls are clearly labeled as to their function and are located in a safe manner (e.g., easily accessible, not located where an operator has to reach over a point of operation, etc.).
	Local ventilation controls are present and well maintained to minimize exposure to dusts and fumes.
	Equipment and machinery designed to be fixed in place is securely anchored.
Sander- Spindle, Horizontal or Vertical Belt	
	Guards for unused portions of the sanding belt/spindle are securely in place.
	Work rest is properly adjusted (<1/8").
Radial Arm Saw	
	Carriage travels easily.
	Hood guard is present and in good condition.
	Lower blade guard is present and in good condition.
	Blade does not extend past any edge of the work table.
Table, Chop, or Panel Saws	
	Blade guard is present and in good condition.
	Blade is in good condition, clean, and appropriate for the stock material.
	Rip fence and miter gauge are present and in good condition.
	Anti-kickback device and splitter are used when ripping lumber.
	Push sticks are used when cutting materials that place the hands closer than 6" to the blade
Band or Scroll Saws	
	Guard is present and positioned for unused portions of the blade above the work surface.
	Band saw wheels are fully guarded.
Abrasive Wheels/Grinders	
	Guards and work rests are present and in good condition.
	Work rests are adjusted to a maximum opening of 1/8" with respect to the wheel.
	The tongue is adjusted such that it is no more than 1/4" from the wheel.
	Wheels are in good condition (free of chips, cuts, warping, etc.).
Hand and Portable Power Tools	
	Hand and portable power tools are in good condition (e.g., handles, housings, cords, plugs, accessories, etc.).
	Guards, interlocks, shields, shutoff devices, or other safety interlocks/devices/accessories are present and operable.
	Tools are used for their intended purpose.
	Ancillary accessories are in good condition (e.g., bits, etc.)
Compressed Air Receivers	
	Pressure relief valve and/or pressure gauges are in good condition and operable.
	Tank has good integrity and does not show signs of cracking, rusting, etc.
	Compressed air is not used for cleaning purposes.
Welding & Cutting	
	Arc welding machine is disconnected from its power source when welding operations are suspended.
	Hoses, regulators, cables, electrode holders, or other welding equipment/accessories are clean, in good condition, and are properly stored to protect against damage.
	A fire extinguisher is readily available and combustible materials are not within 35' of the welding area.
	Welding cylinders are secured from tipping; and regulators are removed when not in use.

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	Appropriate Personal Protective Equipment (PPE), including welding lenses are readily available and in good condition.
	Ventilation is sufficient to prevent accumulation of fumes and vapors and designed such that contaminated air is not circulated to other areas of the building.
Cranes and Hoists	
	Cranes, hoists (including hooks), and their controls are in good condition and marked with the rated load capacity.
	Slings and other lifting devices are in good condition and marked with their rated load capacity.
	Cranes, hoists, and associated lifting equipment is inspected at least annually.
General Chemical Safety	
	Entrances to areas where hazardous chemicals are stored are identified with a legible and accurate NFPA placard.
	An accurate inventory of hazardous chemicals stored or used in the area is available.
	Employees are aware of procedures for accessing Safety Data Sheets (SDSs) for hazardous chemicals that are used in the area.
	Chemical containers are adequately labeled (labels are not missing, illegible, or incomplete and are consistent with the name on the SDS).
	Chemicals are stored in a safe and proper manner.
	Food/drink are not stored or consumed in areas where hazardous chemicals are used or stored.
Regulated Waste Management	
	Waste containers are appropriately labeled (chemical name and indication of whether used/spent).
	Collection containers are in good condition and/or compatible with the contents.
	Collection containers are closed.
	Volumes of waste in storage do not exceed satellite accumulation limits (55 gallon or one quart of P-listed material).
	Waste is stored in the same room where it is generated while awaiting EHS pickup.
	There is no evidence of improper disposal (e.g., trash, drain, evaporation, etc.).
	Unwanted/abandoned/unlabeled chemicals are not present.
	Spent fluorescent lamps are contained in a sealed box, labeled as "Universal Waste Lamps," and dated with a date less than 6 months old.
	Spent/unwanted non-alkaline batteries are labeled as "Universal Waste Batteries," dated with a date less than 6 months old, and placed in an outer container if leaking, and are disposed via EHS or a reputable battery recycler.
	Aerosol cans are not discarded. They are placed in the designated drum or container for collection/disposal by EHS.
	Rags used with solvents are collected for disposal by EHS.
	Bead/sand blaster waste is collected for disposal by EHS.
	Soldering wastes are collected for disposal by EHS (including contaminated sponges, rags, etc.).
Miscellaneous	
	Aisles, exits, and/or stairwells are maintained free of obstructions or tripping hazards.
	Furnishings are stable, designed for the intended load, or used/secured in a manner to prevent injury.
	Portable fire extinguishers are present, of the appropriate class, fully charged, mounted in their intended cabinet or bracket, and have been inspected within the last year.
	General housekeeping is sufficient to prevent excessive storage of ordinary combustible, build-up of dusts, etc.
	18" of clearance is maintained from sprinkler heads, and 24" of clearance to the ceiling is maintained in non-sprinkled areas.
	Fire alarm pull stations and fire strobes are not obstructed.
	Lighting is sufficient to support safe conduct of work activities.

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	Employees have completed appropriate EHS safety training (Injury and Illness Prevention, Emergency Preparedness, Lockout/Tagout, Chemical Safety, etc.).
	Lockout/tagout procedures have been developed and implemented when appropriate.
	Ladders and step stools are structurally sound, of the appropriate rated capacity, in good condition, and appropriate for the intended use.
	Personal protective equipment (PPE) is available, accessible, consistently used by employees, is appropriate to the operation, sized to the employee, and properly maintained.
	All persons are trained on the specific machines/equipment that they use and have demonstrated competency to an experienced person before being allowed to operate independently.
	User manuals for each piece of equipment/machine are readily accessible to operators.
Additional Items	