



SHOP MACHINERY GUIDELINES FOR SUPERVISORS

Shop machinery users may encounter numerous potential hazards when in proximity to or working with hand tools and stationary machines (e.g., lathes, saws, drills) including:

- **Mechanical hazards:** points of operation, pinch points, shear points, power transmission points, etc.
- **Operational hazards:** heat, metal chips, noise, etc.
- **Chemical hazards:** coolants, cleaning solvents, lubricants, etc.
- **Electrical hazards:** exposed wiring, malfunctioning equipment, etc.

TRAINING AND SUPERVISION OF USERS

- Ensure local safety training is provided to shop users before access, including but not limited to:
 - Potential hazards associated with each type of shop tool
 - Follow manufacturer's instruction manual or shop-developed safety procedure for each shop tool
 - Proper attire and use of appropriate personal protective equipment
 - General safe work practices and procedures
 - Reporting accidents/incidents
 - Emergency procedures
- Document such training using [SU's Site-Specific Shop Machinery Safety Training Documentation](#) form or equivalent and retain for at least one year.
- EH&S provides general safety training for shop machinery use. Contact EH&S at 723-0448 for more information.
- Control access to prevent unauthorized equipment use (e.g., on-duty staff, card-keys, equipment lockout).
- When using shop machinery and tools, at least one other authorized person is to be present in the shop.
 - **Requests to work alone, after hours, or on the weekend must be approved by the Shop Supervisor and user's Principal Investigator/Supervisor.**
 - Evaluation of a request must take into consideration:
 1. Task and machinery/tools to be used
 2. Possibility of an accident or incident that would prevent the user from calling for help
 3. User's training and experience
 4. User's physical conditions and/or handicaps
- Supervisors have the responsibility to revoke access privileges or take other disciplinary action for shop users who fail to follow shop safe work practices or procedures.

PERSONAL PROTECTIVE EQUIPMENT

- Enforce the proper use of appropriate street clothing and use of Personal Protective Equipment (PPE) with all shop users:

Street Clothing:

- Wear long pants and closed-toed shoes.
- Wear closely fitting clothing (no loose shirt sleeves, loose apron ties/straps, etc.).
- Confine long hair/beards to prevent entanglement in machinery (hair long enough to be put up via bun, pinning-up ponytail, or hairnet).
- Do not wear jewelry (rings, necklaces, etc.).

Personal Protective Equipment (PPE):

- **Eye protection:** ANSI Z87.1 safety glasses or goggles are required when working around machines or with hand tools.
- **Face protection:** Face shields are required if flying fragments/particles are likely to be generated.
- **Hand/body protection:** Properly selected gloves are required when using hazardous chemicals and handling scrap metal or wood, sharp-edged stock, and unfinished lumber, as well as protective sleeves, aprons, etc.
 - **IMPORTANT:** *Do not wear gloves while machining, as they can get caught in moving equipment.*
- **Foot protection:** ASTM F2412-05 approved steel-toed boots (ANSI Z41 approved if boots purchased on or before 1/26/07) may be required where potential dropping of heavy objects exists.
- **Hearing/respiratory protection:** For loud work or operations with respiratory hazards, contact EH&S at 723-0448 for assessment and recommendations.

WORK PRACTICES

- Enforce the [SU's Safe Operation of Shop Machinery](#).
- Enforce good housekeeping.
- Conduct periodic inspections using [SU's Shop Area Inspection Checklist](#) or equivalent.
- Remove, tag (lock) out of service, and promptly repair any malfunctioning or damaged equipment.

EQUIPMENT SETUP

- Locate equipment in area with adequate clearance for safe operation.
- Equipment operating in wet areas must only be plugged into GFCI-protected outlets.
- Stationary machines are to be leveled and securely anchored to the floor.
- All attachments used with machining tools must be consistent with manufacturer's recommendations.
- Equipment controls must be protected from unexpected or accidental activation.

NON-ROUTINE EQUIPMENT SERVICING

- Equipment repair or special adjustment shall only be conducted by qualified service technicians. Consult equipment manufacturer for recommendation.
- To ensure personnel safety during non-routine cleaning or maintenance performed in-house, lock out and tag out procedures shall be followed as specified in the University's Lock Out/Tag Out Safety Program. Contact EH&S at 723-0448 for assistance.

ACCIDENT/INCIDENT REPORTING AND FOLLOW UP

- Document and follow up any incidents, accidents, or near misses per [SU's Injury Illness Prevention Program](#).
- For serious injury/illness (emergency medical care required) or fatality, report by phone to EH&S **immediately** at 725-9999.