

Job Name: _____ Job Site Location: _____

Date: _____ Start Time: _____ Finish Time: _____ Foreman/Supervisor: _____

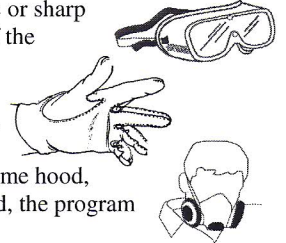
Topic 414: Machine Shop Safety

Introduction: During a typical workday in a machine shop, a machinist will encounter and deal with a wide variety of safety and health hazards. When working in a shop a competent machinist or technician must understand all the hazards in the work area and do everything possible to avoid them. Safe work practices are an important part of a machinist's, apprentice's, or technician's job description.

Personal Protective Equipment (PPE): Everyday hazards in the shop require that nearly all types of PPE be worn during one operation or another. PPE includes eye protection, gloves, respiratory protection, and protective clothing. The need for PPE depends on the type of operations and the nature and quantity of the materials in use, and must be assessed on a case by case basis.



- **Workers who use PPE** must understand the function, proper use, and limitations of the PPE used.
- **Everyone must wear safety glasses in the shop** - Even when you're not working on a machine, you must wear safety glasses. A chip from a machine someone else is working on could fly into your eye. Non-safety prescription glasses are not sufficient protection for your eyes.
- **Glove selection and use** - Gloves should be worn whenever the possibility of skin contact with hazardous chemicals or sharp points/edges exists. The permeability of a particular glove varies with the chemical being used, the length of time of the exposure, and the thickness of the glove. Review the Material Safety Data Sheet (MSDS) for the chemical used. In addition to protecting hands and skin from chemical exposures, there are many gloves which offer protection from physical hazards, such as high or low temperatures, electrical shock, skin abrasions, vibration or sharp objects. Determine the physical resistance properties required of the glove. Always match the glove to the hazard.
- **Respiratory protection** - A respirator may be required when engineering controls, such as general ventilation or a fume hood, are not feasible, or do not reduce the exposure of a chemical to acceptable levels. If respiratory protection is required, the program for use must meet the requirements of OSHA regulations contained in 29 CFR §1910.134.
- **Protective clothing** - Loose clothing (such as overlarge smocks or ties), skimpy clothing (such as shorts), torn clothing, and unrestrained hair may pose a hazard. Perforated shoes, sandals, or cloth sneakers should not be worn in areas where chemicals are used, or where mechanical work is being performed. When the possibility of chemical contamination exists, protective clothing, which resists physical and chemical hazards, should be worn over street clothes. Smocks are appropriate for minor chemical splashes and spills, while plastic or rubber aprons are best for protection from corrosive or irritating liquids.



Safe Conduct in the Shop:

- **If you do not know** how to perform a task safely, ask your supervisor.
- **Be aware** of your surroundings and what is going on around you. For example, be careful not to bump into someone while they are running a machine; you could cause an injury.
- **Take the time** to do your job safely. Concentrate on what you're doing. Do not rush. If you get tired, request a break.
- **Always double check** to ensure that the part you are to machine is securely held. Be sure to remove chuck keys and wrenches.
- **Do not rush** machine speeds or feeds. You might end up damaging your part, the tools, the machine, or possibly injuring yourself.
- **Inspect all machinery** prior to use. Check for loose or missing screws, bolts, or parts. Ensure that all safety guards or systems are in place and functioning properly.
- **Listen to the machine.** If something does not sound right, turn the machine off and check for a problem. Always use proper lockout/blockout/tagout procedures before performing any inspection, servicing, maintenance, or repairs on machinery.
- **Do not attempt** to measure a part that is moving.
- **Never leave** machines running unattended.
- **Always clean up** a machine after you are through using it. A dirty machine is unsafe and uncomfortable to work on. Do not use compressed air to blow machines clean. This creates flying particle hazards and can force dirt into machine bearings.
- **Keep scrap disposal** areas clear of walkways and personnel traffic areas.
- **Keep the shop cleaned up.** Keep work areas free of trip hazards, clutter, and debris. Keep floors and work platforms free of oil, grease, or any spills or slip/trip hazards.
- **Do not "horseplay" in the shop.**



Conclusion: A machine shop should be a safe work environment. All personnel; employers, supervisors, and employees, must make a commitment to keep the workplace professional and safe.

Work Site Review

Work-Site Hazards and Safety Suggestions: _____

Personnel Safety Violations: _____

Employee Signatures:

(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.