



THE UNIVERSITY OF MAINE SAFETY AND ENVIRONMENTAL MANAGEMENT

Machine Shops

General

This policy applies to all University of Maine employees and students in trade, woodworking, repair, custodial shops or instructional settings that utilize machine shop equipment and/or other power tools.

A comprehensive shop safety program consists of all applicable SEM programs and other general safety information not found in the SEM programs, such as training records, maintenance records, certification records, and any other required documentation.

Regulatory Guidance

Occupational Health and Safety Administration (OSHA) 29 CFR 1910

Maine Department of Labor - Directive 20-6 - Electrical Installation & 13 -05 - Educational Facilities - BLS Enforcement Checklist

National Fire Protection Association (NFPA) - 101 Life Safety Code & 70 E

American National Standards Institute (ANSI) Standards B-11 series.
ANSI B15.1-1984.

Requirements

Shop Safety Program Guide

Below you will find a universal list of the safety and health topics related to shop safety. Please keep in mind that this list of topics is not intended to list all relevant topics (each shop must assess completeness once their safety program has been compiled). Some of the checklist items may only need minor attention in the shop safety program (i.e. If employees will not be trained to cleanup bloodborne pathogens, the program must mention not to clean-up or otherwise touch blood or other body fluids, and what to do in the event of an exposure).

The list of topics is as follows:

- **Documentation**
 - OSHA Poster
 - Chemical Hygiene Plan
 - Material Safety Data Sheets (MSDS's)
 - Lockout Standard Operating Principles (SOP) and Audits
 - Lift and Hoist Inventory
 - Training Records
 - Maintenance Records
 - PPE Assessment & Training Certifications
 - Noise and Air Monitoring Results
 - Confined Space Inventory & Labels

- **Programs / Procedures**
 - Respirator Use
 - Lock Out Tag Out
 - Confined Spaces
 - Noise Control
 - Fall Protection
 - Ergonomics
 - Hazard Communication
 - Bloodborne Pathogens
 - Emergency Action Plan
 - Fork Truck Program
 - Housekeeping Procedures
 - Compressed Gas Procedures

- **Electrical Safety**
 - Flexible wiring should not be used in place of permanent wiring.
 - Electrical equipment should be used in accordance with manufacturer recommendations.
 - Flexible cords protected and in good condition.
 - Ground circuits in place and functional.
 - Live electrical components properly guarded.
 - Adequate clearance around circuit breakers and cutoff switches.
 - Electrical Equipment is label per NFPA 70 E.
 - The University of Maine Facility and Maintenance and Renovation Policy require all repairs, modifications and new construction must be performed by facilities Management personnel or contractors under the Facilities Management supervision.

- **Welding, Cutting, Brazing, and Soldering**

- **Equipment Inspections**
 - Lift & Hoist Inspection Records
 - Power tools
 - Personal Protective Equipment
 - Hand Tools (condition)
 - Vehicle Lifts
 - Jack Stands
 - Machine Guarding

- **Use of Chemical substances That Require Their Own Program**
 - Lead
 - Cadmium
 - Benzene
 - Methylene Chloride
 - Formaldehyde

- Etc.
- **Storage & Use of Flammable Liquids**
- **Emergency Equipment**
 - Fire Extinguishers
 - Eyewash Station
 - Shower
 - Fire Alarms
 - Sprinklers
 - Specialized Monitoring Equipment
- **Ventilation & Other Engineering Controls**
- **Facility Inspections**
 - Stairs and Tread Condition
 - Floor Loading
 - Exits Not Blocked
 - Lift & Hoist Inspection Records

Note on Ergonomics – When commercially available, and feasibility allows, departments should select and use hand tools which allow the user to maintain natural postures of the wrist and other body joints while performing their job task(s).

Responsibilities

Department Heads shall ensure that a comprehensive safety program is implemented in accordance with this policy.

All **individuals** for whom this policy applies are to refer to and the following policies for additional machine shop safety program guidance:

For Additional Information

Contact your Department Safety Coordinator or Safety and Environmental Management Department at 207/581-4055.

Machine Shop Safety Checklist – MF04216

Document History

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