The purpose of this plan is to inform College of Engineering and Mines (CEM) employees, contractors, students and/or visitors that are working in, or visiting the University of Alaska Fairbanks (UAF), of the hazards in the workplace and to facilitate compliance with the OSHA Hazard Communication Standard, Title 29 Code of Federal Regulations 1910.1200. This is accomplished through communication of hazards present, or likely to be present in the workplace, and the documented review of the contents of this plan.

This plan applies to all work operations and conditions involving the storage or the use of hazardous materials. It also applies to other known physical hazards at the CEM Machine and Carpentry Shop where employees may be exposed under normal working conditions or during an emergency situation.

Communication of hazardous chemicals

The CEM Machine and Carpentry Shop chemical inventory identifies all hazardous chemicals located at the facility. The inventory is updated at least annually and is available at Duckering 109. Detailed information about the physical and health effects of each chemical is included in a material safety data sheet (MSDS); the identity of each chemical on the list matches the identity of the chemical on its material safety data sheet. MSDS's are readily available to employees, students and visitors in the work area.

Identifying containers that have hazardous chemicals

All hazardous chemical containers used at this workplace are labeled to clearly identify the contents, identify appropriate hazard warning(s) and provide the manufacturer’s name and address. No container is released for use until this information is present. The manufacturers contact information will typically not be available or provided for vessels containing hazardous waste. The Machine Shop Supervisor (or designee) ensures that all chemical containers are labeled with a copy of the original manufacturer’s label or a label that has the appropriate identification and hazard warning.
Communication of other hazardous conditions

Physical and/or other known hazards may often be present in the workplace. These include the following: noise, heat, vibration and ultraviolet radiation. Work may include (but is not limited to) the use of metal lathes, milling machines, drill presses, belt sanders, bench grinders, pedestal grinders, arc welders, oxy-acetylene cutting and welding equipment, plasma cutter, foundry, mulling machine, metal shears, hydraulic press, surface grinder, and portable hand tools. Other hazards that are known to exist at the facility include (but is not limited to): the use of hazardous materials and processes (anodizing operations), sharp edges, and heavy materials.

Material Safety Data Sheets

Material safety data sheets are readily available for all hazardous chemicals located at this workplace. Material safety data sheets and physical agent data sheets are at Duckering 109.

Electronic access to material safety data sheets through use of the computer terminals are accomplished by using an internet search engine, such as Google™, or Yahoo™ entering the manufacturer's web page then accessing the material safety data sheet or entering the chemical name in the search bar followed by the letters “MSDS” then performing the search.

The material safety data sheets are updated and managed by the Machine Shop Supervisor (or designee). If a material safety data sheet is not available for a hazardous chemical, immediately notify the UAF Hazardous Materials Supervisor (x 5413).

Training employees about hazards

Prior to working in the CEM Machine and Carpentry Shop, employees must attend a hazard communication training that covers the following topics:

• An overview of the requirements in Alaska OSHA’s Hazard Communication rules.

• The hazardous chemicals and other physical hazards present in the workplace.

• The location and availability of the written hazard communication plan.

• How to read labels and review material safety data sheets.

• The physical and health effects of the hazardous chemicals and other physical hazards.
• The methods used to determine the presence or release of hazardous chemicals in the work area.

• How to reduce or prevent exposure to these hazardous chemicals and other physical hazards through use of engineering controls, work practices and personal protective equipment. This information may be communicated verbally, and by written job hazard analysis and/or standard operating procedures.

• Procedures used to reduce or prevent exposure to chemicals and other physical hazards.

• Emergency procedures to follow if an exposure to chemicals and other physical hazards occurs.

The general online Hazard Communication training located at www.uaf.edu/safety provides the basic plan contents. Site specific hazard communication is accomplished by implementation of this site specific plan and associated documents.

After attending the training, employees will be required to acknowledge that they have been informed of the hazards of the workplace, and understand the contents of the site specific hazard communication plan.

Informing employees of safe work practices and personal protective equipment

Safe work practices and task specific personal protective equipment are identified in written Job Hazard Analysis (JHAs) and Standard Operating Procedures. The core job hazard analyses include (but are not limited to) the following: anodizing operations, electric welding operations, band saw, belt sander, bench grinder, drill press, ceramics kiln, cold saw, engine hoist, foundry furnace, Haas SL20 Turning Center, Haas Vertical Machining Center, Haas TL2 lathe, hydraulic press, metal lathe operations, milling machine operations, mulling operations, oxy-acetylene equipment operations, pedestal grinder, portable hand-operated power tools, plasma cutter, portable parts washer, punch metal shears, table saw, sand blasting cabinet operations and tool sharpener.

Copies of the CEM Machine and Carpentry Shop Job Hazard Analyses are available Duckering 109.

Informing employees who do special tasks

Before employees perform special (non-routine) tasks that may expose them to hazardous chemicals or other physical hazards, the CEM Machine Shop (or designee) will inform them about the hazards. This individual will also will inform
employees about methods to control exposure, and what to do in an emergency. Equipment specific training, and Machine Shop Supervisor approval is required prior to the use of equipment located in Duckering 109 and 110.

**Informing employees about hazardous chemicals in pipes**

Before working in areas where hazardous chemicals are transferred through pipes, or where pipes are insulated with asbestos-containing material, employees will contact UAF Facilities Services for the following information:
- The identification of chemicals in the pipes.
- The physical or health effects of the chemicals or the asbestos insulation.
- The safe work practices to prevent exposure.

**Informing contractors’ employees about hazardous chemicals**

Contractors visiting or working in the CEM Machine and Carpentry Shops are required to be informed of the site specific hazard communication plan and its contents.

It is the responsibility of the Machine Shop Supervisor (or designee) to provide contractors and their employees with the following information for the CEM Machine and Carpentry Shop:

- Review and communication of the content of the site specific Hazard Communication Plan.
- Safe work practices to prevent exposure.
- Documentation that the contractor has completed these tasks.

Contractors are responsible for the availability of materials safety data sheets and informing department employees regarding the materials that they bring to the department. Upon request, the contractor must provide the Machine Shop Supervisor (or designee) with the appropriate hazard information applicable to these hazardous materials, including the material safety data sheets, labels used, and the precautionary measures to be taken for storage and utilization of these chemicals.

**Program Availability**

This written plan will be available at the CEM Machine Shop (Duckering 109) for review by any interested employee. A copy of this program will be made available, upon request, to employees and their representatives.