

HEP Division Staff Shop Policy

INTRODUCTION

The High Energy Physics Division maintains Staff Shops within Buildings 362 and 366 for all High Energy Physics Division personnel, and visitors requesting entry to perform small fabrication jobs.

Specific Staff Shop Locations

	<i>Usership</i>	<i>Control</i>	<i>Custodian</i>	<i>Machine Guarding</i>	<i>Electric Tools & GFCIs</i>
Bldg. 362 Staff Shop C-116	HEP Personnel	Dayshift Open (8:30am-5:00pm) Offshift Locked	William Haberichter 2-7525	Yes	Yes
Bldg. 366 Staff Shop	HEP Personnel	Dayshift Open (7:00am-3:30pm) Offshift-Locked	Ken Wood 2-3971	Yes	Yes

ONLY AUTHORIZED INDIVIDUALS ALLOWED TO USE MACHINES AND TOOLS INSIDE THE STAFF SHOPS!

PROCEDURE FOR ENTERING STAFF SHOPS

The Argonne ES&H Manual, section 7.12, "Safe Use of Tools", requires each employee be trained in the proper use of all tools that they intend to use; Staff Shop Custodians may administer the training and orientation session, and authorize the use of all or specific machines upon satisfactory completion.

Contact the Staff Shop Custodians to gain access into the shop.

You must complete the training and safety orientation session, and/or have authorization from the Staff Shop Custodian prior to using any machine in the staff shop.

The Staff Shop Custodians must maintain training documentation.

Safety glasses are required at all times, and steel-toe safety shoes are required when handling heavy material.

Obey all posted hazards communications procedures and requirements for entry.

Use the necessary machines for your job and clean up the area when finished.

If given a key to enter the shop, return the key after you lock the door(s).

Unauthorized personnel inside the staff shop during normal working hours or those who enter the shop after the door(s) have been locked may jeopardize your continued use of the machines in the staff shop.

MACHINE AND TOOL SAFETY

Staff Shops are equipped with a variety of motor-driven and hand tools, which are available for small fabrication jobs.

Employees must inspect tools prior to each use to ensure that it works properly and is safe to use. An employee who suspects a tool is unsafe and can fix the problem (replace broken tool, bit, saw blades, etc.) must make the appropriate repair, and communicate it to the Shop Custodian. If you suspects a tool is unsafe and cannot make the repair or resolve the matter, you must report the findings to the Shop Custodian in a written or verbal form.

Immediately upon the lockout/tagout of any unsafe or inoperable machinery, you are obligated to notify the Shop Custodian verbally, via email or in writing.

Feedback: the Shop Custodian or designee will address issues and inform you of your responsibilities, and corrective actions.

If you are not satisfied with the corrective action taken, you are obligated to contact your immediate Supervisor or write to the Division ES&H Coordinator.

OSHA requires that machinery and equipment be equipped with safety systems, [Machine Guarding](#) in order to eliminate hazards to personnel created by points of operation, pinch points, rotating parts, flying chips, and sparks.

Safety systems for all machines utilize any one or combination of such design features as brakes, restraints, presence-sensing devices, gates, barriers, interlocks, stops, safety blocks, guards, and kickback-prevention devices.

SHOP WORKING ENVIRONMENT

For incidents that involve your co-workers, you feel threatened, treated wrongly or otherwise. Be polite and resolve matters with the other person involved in a straightforward and timely manner.

If for any reason you cannot resolve matters, do not waste time with arguments, discussions, etc., but record the incident via email to your immediate Supervisor or the Division Safety Officer.

Otherwise, the HEP Division Office will consider it a violation and may take action against individuals who do not follow these administrative steps of control measure toward work-related conditions.

TRAINING

All personnel who wish to use tools and machines in the Staff Shops must become familiar with the ANL-E Environment, Safety and Health (ESH) Manual; especially "[Chapter 7.12 "Safe Use of Tools"](#) which requires each employee be trained in the proper use of all tools that they intend to use.

Your supervisor must help you determine what safety courses will be required. The proper use of the Job Hazard Questionnaire (JHQ) will ensure that the correct ES&H Training courses are identified for employees in conformance with the OSHA standards. All training provided through the EQO Training Group is documented in the ANL Training Management System (TMS).

Further ensuring safety in Staff Shops, the High Energy Physics Division requires safety-training sessions for new members seeking to use tools and machines inside, and the familiarization of Argonne National Laboratory, [Environmental, Safety and Health Training](#). Staff Shop Custodians may administer the safety-training session, and authorize the use of all or specific machines upon satisfactory completion.

Training documentation checklists must be in a file maintained by the Staff Shop Custodians.

REFERENCES

- [ANL-E Environment, Safety and Health Manual](http://www.aim.anl.gov/manuals/eshman/)
(<http://www.aim.anl.gov/manuals/eshman/>)
- [ANL-E Waste Handling Procedures Manual](http://www.aim.anl.gov/manuals/whpm/)
(<http://www.aim.anl.gov/manuals/whpm/>)
- [Control of Hazardous Energy and Lockout/Tagout](http://www.tis.anl.gov/db/manuals/)
(<http://www.tis.anl.gov/db/manuals/>)

- [Protective Glove Selection Guide](http://chemistry.anl.gov/ESH/Manuals/gloveguide.pdf)
(<http://chemistry.anl.gov/ESH/Manuals/gloveguide.pdf>)
- [Laboratory and Chemical Safety](https://www.tis.anl.gov/db/manuals) (<https://www.tis.anl.gov/db/manuals>)
- "Accident Prevention Manual for Industrial Operations", National Safety Council, Itasca, Illinois, current edition
- Occupational Safety and Health Standards, 29 CFR 1910
 - Subpart O "Machinery and Machine Guarding,"
 - Subpart S "Electrical"
- "Practice for Occupational and Educational Eye and Face Protection," American National Standards Institute, ANSI Z87.1, current edition
- [Safe Handling of Lead](https://www.tis.anl.gov/db/manuals) (<https://www.tis.anl.gov/db/manuals>)
- American National Standards on Safety Requirements for Construction, Care, and Use of Machine Tools:
 - "Lathes," ANSI B11.6-1984(R1994)
 - "Drilling, Milling, and Boring Machines," ANSI B11.8-1983(R1994)
 - "Grinding Machines," ANSI B11.9-1975(R1987)
 - "Abrasive Wheel Protection," ANSI B7.1-1995

CHEMICALS AND WASTE DISPOSAL

Contact the Building Manager for instructions on disposing empty chemical containers or chemicals that are no longer needed. As a reminder, chips, dirty rags, and other waste must be placed in properly labeled containers. Hazardous Waste Disposal will conform to the [ANL-E Hazardous Waste Disposal Procedure](#), using the Chemical Waste Disposal Requisition form WMO-197, obtained from Waste Management.

The Chemical Management System ([CMS](#)) is the ANL-E chemical information system that includes a module for the chemical tracking system (CTS) for chemical inventory, and a module for material safety data sheets (MSDS) that provides an MSDS for each chemical in inventory.

MATERIAL HANDLING

In handling materials, the largest number of injuries occurs to the fingers and hands. Training in safe work habits, breaking down and studying the simplest job operations can help minimize these accidents. The following should be observed while handling material:

- Proper Protective Equipment, (PPE) will depend on the nature of the job and the physical, chemical, or biological hazards present. ([Personal Protective Equipment](#))

- If you do not know the hazards of particular material handling, you may familiarize yourself with hazards through [Hazard Recognition](#)
- If the material is heavy, obtain assistance to move it. Personnel lifting restrictions and recommendations do apply
- Use proper lifting procedures - lift from the knees
- Inspect materials for splinters, jagged or sharp edges, burrs, rough or slippery surfaces
- Grasp the material with a firm grip
- Keep fingers away from pinch and shear points, especially when setting down materials

DEFINITIONS

Material Safety Data Sheet (MSDS) - A document that provides information on synonyms, physical and chemical properties, identification of hazardous properties and health effects from exposure, precautions for handling, and first aid procedures, prepared for a chemical compound.

Feeding Device - A device of metal or wood to keep the operator's hands at a safe distance from the danger zone.

Guarding - Any means of effectively preventing personnel from coming in contact with the moving parts of machinery or equipment that could cause physical harm to the personnel.

Pinch Points - A hazard created by two or more mechanical components rotating in opposite directions, and in the same plane in close conjunction or interaction.

Point of Operation - That area on a machine where material is positioned for processing or change by the machine, work performed on the material.

Shear Points - A hazard created by a reciprocal (sliding) movement of a mechanical component past a stationary point on a machine.

GENERAL SAFETY PRINCIPLES AND HOUSEKEEPING PRACTICES

The following rules apply to the safe operation of any machine tool:

- The Machine should never run unattended.
- Loose clothing especially loose sleeves or shirt should be restrained in a way that keeps them from becoming entangled in the machinery. Jewelry (including finger rings) which could be trapped by moving parts should not be worn around the rotating parts of machinery.
- All operators and others in the area must wear eye protection.

- Safety shoes required when operators handle heavy items.
- In cases where it is necessary to use air, the line pressure should be as low as possible. Sufficient pressure should be 10-15 psig (70-100 kPa).
- Guards must be in place and used during operation of the machine.
- The operator must know the location of the emergency shut-off switch prior to operating power equipment and must have ready access to this switch during operation.
- All machines and areas around the machine should be clean of any debris or oil after each use. In addition, tools should be returned to their proper storage place.