



SHOP SAFETY MANUAL

CSUN[®]

**ENVIRONMENTAL
HEALTH AND SAFETY**



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Revision History

Version	Date Approved	Author	Revision Notes:
1.0		John Wiesenfeld	Initial- Copied and modified (with permission) from UC Davis Shop Safety Manual by Mark Martin.
1.1		John Wiesenfeld	Modified Shop Hazard Assessments to Shop Equipment Safety Checklists and created a new Shop Hazard Assessment based on the General Shop Hazard Assessment checklist. Modified Shop Safety Review Checklist. Updated the rest of the manual to reflect these changes. Added Chemical Hygiene to Section 7 & Chemical Hygiene Program to Definitions. Added List of Shop Monitors to Shop Safety Plan template.

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**ENVIRONMENTAL
HEALTH AND SAFETY**

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CSUN Shop Safety Manual

1. Purpose

This CSUN Shop Safety Manual is a guide to help departments and shops comply with the [CSUN Shop Safety Program](#). Proper use of this manual will also ensure compliance with CSU Executive Order 1039, as well as local, state, and federal regulations.

This manual describes the proper access controls, training, engineering controls, safe work practices and procedures to be followed by faculty, staff, students, visitors, and all other personnel working in shops at CSUN. It also outlines the requirements for establishing a written Shop Safety Plan specific for each shop, as is required by the [CSUN Shop Safety Program](#). This manual must be made available to all applicable personnel.

2. Who Does This Apply To?

CSUN recognizes a shop as a place, room(s), or designated area that has stationary equipment for uses including: fabrication, manufacturing, modification, and repair. Examples include:

- Metal working, including sheet metal forming, machining, grinding, riveting, cutting, threading, casting, forging, heat-treating, quenching, welding, brazing, soldering, etc.
- Carpentry and woodworking, including cutting, drilling, sanding, carving, routing, grinding, planing, gluing, bonding, fastening, etc.
- Surface modification and coating, including sandblasting, painting, surface preparation, laminating, burning, etching, masking, etc.
- Glass work, including glass blowing, glazing, annealing, tempering, bonding, grinding, drilling, hot-work with glass materials, etc.
- Electrical / electronic work, including equipment building, circuit design / building, wiring, control system building/repair, etc.
- Plastics and composites work, including machining, bending, burning, bonding, cutting, drilling, gluing, melting, forming, etc.
- Sewing or other textiles work, including sewing, embroidery, weaving, steaming, and pressing.
- Equipment development / model building work, including machine building, hydraulics building / use, compressed air use, equipment building, research equipment repairs / maintenance, model building, etc.

Site work areas and laboratories with hand tools should follow guidelines and policies listed here as appropriate.

If you would like assistance determining if this policy applies to your work area, please contact ehs@csun.edu.

3. Definitions

- **Authorized User:** A person who is authorized by the Shop Coordinator to work in a specific Restricted Area.
- **Building Emergency:** A fire, large chemical spill, earthquake, or similar emergency that threatens the safety of building occupants. Some or all of the building may need to evacuate during a Building Emergency. It is required by law to evacuate when the fire alarm sounds or when directed to do so by emergency responders.
- **CSUN Chemical Hygiene Program:** Describes the policies and procedures for working with hazardous chemicals at CSUN, including storage, waste collection/disposal, training and regulatory compliance requirements.
- **CSUN Shop Safety Manual:** A guide to help shops comply with the [CSUN Shop Safety Program](#). The manual describes how to adhere to policies, designate roles and responsibilities, and establish a Shop Safety Plan, including templates.
- **CSUN Shop Safety Program:** Describes the shop safety policy at CSUN, including definitions, roles, and responsibilities.
- **Department Head:** The supervisor, chair, or person otherwise ultimately responsible for the department in which the shop(s) covered by this program exist.
- **Department Safety Coordinator (DSC):** The person at the department level that is responsible for the implementation of safety programs in their department. This person serves as the liaison between their department and the Office of Environmental Health & Safety. The DSC should serve as a central contact between the labs, shops, classrooms, and offices of the department regarding safety matters.
- **Environmental Health & Safety (EH&S):** The office at CSUN that provides guidance and services that promote a safe and healthy environment for students, employees, and the CSUN community.
- **Escorted Visitor:** People, other than Authorized Users, permitted by the Shop Coordinator to enter the unrestricted areas of the shop. Entry to Restricted Areas by Shop Visitors should generally be avoided.
- **Hierarchy of Hazard Controls:** A list of methods to reduce risk from a hazard. From most effective to least effective, these are: elimination or substitution of the hazard, engineering controls, administrative controls, and Personal Protective Equipment (PPE).
- **Injury and Illness Prevention Program (IIPP):** The CSUN program that includes a wide range of interactive policies, procedures and practices that are intended to help identify and control workplace hazards for CSUN employees.
- **Personal Protective Equipment (PPE):** Any device or system of clothing and devices that protects the wearer from the obvious harmful substances, activities, conditions or environment at the workplace.
- **Personnel:** Any person in a shop environment covered by this program. Includes Shop Coordinators, Authorized Users, and Escorted Visitors.

- **Restricted Area:** An area identified by the Shop Coordinator as containing hazards requiring controlled access that is delineated by visual indicators. A Restricted Area may be an entire shop.
- **Shop Hazard Assessment Checklist:** A document to assist in identifying hazards and establishing required PPE associated with shop activities. Must be conducted by the Shop Coordinator or their designee (though ultimately certified by the Shop Coordinator) initially and then after any change to the shop environment, such as the addition of new equipment or processes. Acknowledgement of the latest Shop Hazard Assessment must be documented for all Personnel.
- **Shop Equipment Safety Checklist:** Document to assist in identifying and addressing present or potential hazards associated with specific pieces of stationary equipment in the shop. Must be conducted by the Shop Coordinator or their designee periodically (at least annually).
- **Shop Coordinator:** The person responsible for oversight, management and supervision of shop activities and equipment. The Shop Coordinator has exclusive authority to authorize users and designate Shop Monitors.
- **Shop Monitor:** An Authorized User who has been designated by the Shop Coordinator to oversee shop operations on their behalf. Shop Coordinators may grant limited or full operational authority and responsibility to Shop Monitors.
- **Shop Safety Plan:** A document created by the Shop Coordinator to comply with the requirements of the [CSUN Shop Safety Program](#). The Shop Safety Plan includes documentation such as shop policies, inventories of equipment, standard operating procedures, training materials, and training records. Must be recertified and signed by the Department Head annually.
- **Shop Safety Review Checklist:** A document to assist in periodic (at least annual) inspection of a shop by the Shop Coordinator or their designee to ensure compliance with institutional, local, state, and federal regulations, as well as to ensure the promotion of a safe working environment for shop personnel. This document will help the Shop Coordinator and EH&S identify and assess present and potential violations and/or hazards in the shop that need correcting, as well as adherence to [CSUN's Shop Safety Program](#).
- **Standard Operating Procedures (SOPs):** Documents that outline established or prescribed methods for each potentially hazardous process, equipment, or material to be followed routinely for the safety of shop personnel.

4. Roles and Responsibilities

Shop Coordinator

The Shop Coordinator is responsible for enforcing the [CSUN Shop Safety Program](#) and implementing the CSUN Shop Safety Manual as it pertains to the hazards and processes in their shop. Any plan or program created or implemented must be developed in consultation with, and approved by, the Department Head (or their delegate). Shop Coordinators are encouraged to collaborate with each other on best practices and efficient and effective ways to implement this manual.

The Shop Coordinator must create and/or maintain a written Shop Safety Plan and maintain all records under the site-specific Shop Safety Program requirements as described in [section 6](#). This plan must be reviewed or updated annually, and re-approved by the Department Head with a signature and date each time.

On an operational level, the Shop Coordinator is responsible for ensuring that each Authorized User has received appropriate documented training and has sufficient experience to safely operate each piece of equipment that they use. Authorized users may be limited to enter only specific Restricted Areas and to operate only specific pieces of equipment. The Shop Coordinator is responsible for ensuring that Authorized Users abide by the safe practices established in their Shop Safety plan including:

- Working only in the Restricted Areas in which they are authorized.
- Using only the tools and equipment that they have been trained to operate safely.
- The use of Personal Protective Equipment (PPE).

The Shop Coordinator has the authority and responsibility to grant, suspend or revoke user authorization, or stop work at any time. The Shop Coordinator is also responsible for conducting periodic shop self-inspections (Shop Hazard Assessments, Shop Equipment Safety Checklists, and Shop Safety Reviews) and coordinating corrective action with EH&S.

Authorized Users

Authorized Users may include faculty, staff, students or non-CSUN affiliated persons. Authorized Users are responsible for obtaining authorization from the Shop Coordinator and using only those pieces of equipment for which they are authorized. Authorization in one shop or Restricted Area does not necessarily imply authorization in another shop or Restricted Area. Working alone or unsupervised requires Authorized Users to obtain additional permission from a direct supervisor or advisor using the Working Solo/Unsupervised Authorization Form (example: [Appendix B2](#)).

Shop Monitors (optional)

Shop Monitors are Authorized Users who have been designated by the Shop Coordinator to oversee shop operations on their behalf. Shop Coordinators may grant limited or full operational authority and responsibility to Shop Monitors.

Escorted Visitors

Anyone entering a shop who is not an Authorized User or Shop Coordinator is an Escorted Visitor. Escorted Visitors must be escorted by an Authorized User, and receive appropriate safety orientation and wear PPE. Generally, Shop Visitors are required to stay in unrestricted areas.

Department Safety Coordinator (DSC)

The Department Safety Coordinator role may vary by department. The DSC should consult with their Department Head and Shop Coordinator(s) to determine their role in the implementation of this manual. This may include assisting with hazard analyses, auditing, training and other program elements. At a minimum the DSC should serve as liaison between their department and the Office of Environmental Health & Safety, as well as central point of contact between any shops, labs, classrooms, and offices in their departments regarding safety matters.

Office of Environmental Health & Safety (EH&S)

EH&S coordinates health & safety programs on campus and helps ensure compliance with CSU, local, state, and federal regulations. EH&S is responsible for maintaining the CSUN Shop Safety Manual. EH&S also provides information about the program on its [website](#), informs responsible departments of the program requirements, and conducts periodic Shop Safety Reviews.

Department Heads

Department Heads are responsible for implementing shop-specific safety programs to provide a safe and healthy work environment for employees, students, visitors, and volunteers. These responsibilities may be delegated to Shop Coordinators or other departmental personnel, providing the Department Head is consulted on program development. Programs must also receive approval from Department Heads before implementation. Department Heads must provide the resources necessary to mitigate risk from potential hazards, ensure appropriate training is administered, and help in the application of campus policies and procedures. Department Heads must also annually re-approve site-specific Shop Safety Plans with a signature and date.

5. Shop Hazards and Controls

A hazard assessment must be conducted and appropriate hazard controls integrated into the shop safety plan. This includes identifying hazards in the workplace and implementing hazard controls. The Shop Hazard Assessment Checklist ([Appendix D](#)) should be used by the Shop Coordinator to assess hazards and inform their decisions about which hazard controls to implement in their shop and incorporate into their Shop Safety Plan. Hazards must periodically be re-evaluated and the site-specific Shop Safety Plan updated as hazards change.

The Shop Safety Plan must use the following Hierarchy of Hazard Controls. The control of some hazards requires the combined use of all four control methods to reduce the hazard as much as possible and to meet regulatory standards. Generally, using a combination of these controls when possible achieves a greater level of worker safety than if only one approach was used.

Hierarchy of Hazard Controls

1. Eliminate the Hazard or Find a Safe Substitute

The most effective means to improve safety is to eliminate hazards so they cannot cause injury or loss. Shops are encouraged to eliminate hazards if possible. An example would be replacing a machine that makes excessive noise with a quieter model – thereby eliminating the noise hazard.

2. Engineering Controls

Whenever possible, hazards should be eliminated or controlled at their source – as close to where the problem is created as possible – using engineering controls. The basic concept behind engineering controls is that, to the extent feasible, the work environment and the job itself should be designed to eliminate hazards or reduce exposure to hazards. Examples of such controls would be machine guards, guardrails, dust collection systems, fail-safe controls, interlocks, hazardous material detectors/alarms, and Emergency Power Off (EPO) buttons.

3. Administrative Controls

Administrative controls are commonly used in conjunction with engineering controls. When engineering controls alone cannot mitigate a hazard, administrative controls should be used to further mitigate the hazard to a level that is as low as reasonably achievable. Examples include lock-out/tag-out protocols, safe work practices, Standard Operating Procedures (SOPs), policies, rules, and training programs.

4. Personal Protective Equipment (PPE)

People in shops will need to use PPE to reduce the potentially harmful effects of exposure to hazards. PPE may reduce the hazard to the wearer, but is only effective if used appropriately. PPE is not a substitute for other hazard control measures. Examples of PPE include gloves, protective eyewear, hair nets, aprons, long-sleeve shirts, long pants, hearing protection, respiratory protection, and safety footwear. Workers must be trained on the proper use, selection, and limitations of the PPE they are required to use.

6. Site-Specific Shop Safety Plan Requirements

The Shop Coordinator of each shop must create and maintain a written, site-specific Shop Safety Plan (See [Appendix A](#) for template). This plan must be updated annually and the Department Head must approve and sign it. The Shop Safety Plan includes:

I. Statement of Purpose

- A. A brief statement of the department's policies and procedures for implementing the [Shop Safety Program](#). This section must be endorsed with the Department Head's signature and dated annually or after changes to the plan.

II. General Shop Information

- A. Identify the shop and the Shop Coordinator.
- B. Identify groups that have access to the shop.
- C. Identify how access to the shop is controlled.

III. Shop Policies and Procedures

- A. Define the shop's hours of operation.
- B. List the minimum appropriate shop policies and procedures for each shop.

IV. Inventory of Shop Equipment

- A. List of all the powered portable and stationary tools in the shop.
- B. Include the manufacturer, model number, and CSUN Asset Tag number.

V. Shop Hazard Assessment

- A. Develop a site-specific Shop Hazard Assessment or use the template provided in [Appendix D1](#) to identify and communicate hazards and proper PPE selection to all shop personnel.
- B. Include documented acknowledgement of the Shop Hazard Assessment for all Personnel (example: [Appendix D2](#)).

VI. Shop Equipment Safety Checklists

- A. Develop a site-specific equipment safety checklist for each machine type or use the templates provided in [Appendix E](#).

VII. Shop Safety Review

- A. Develop a site-specific shop safety review form or use the general shop safety review template provided in [Appendix F](#).

VIII. Standard Operating and Maintenance Procedures

- A. Develop SOPs for each machine type or use the templates on the [EH&S website](#).
- B. Develop maintenance and adjustment procedures for each machine type.

IX. Training

- A. List a general description of the training programs for each type of machine or process. Must include review of the SOP and hands-on instruction.
- B. Develop a training sign-in roster or use the template from [Appendix C](#) of the Shop Safety Manual or the EH&S website.

X. Record Keeping

- A. Completed User Authorization form (example: [Appendix B1](#)) for each Authorized User. This document must be kept for the duration of employment, tenure, work-study, or volunteer term plus 3 years.
- B. Completed Working Solo/Unsupervised Authorization Form (example: [Appendix B2](#)) for each Authorized User approved for solo or unsupervised work. This document must be kept for the duration of employment, tenure, work-study, or volunteer term plus 3 years.
- C. Copies of any training rosters (example: [Appendix C](#)) and training content must be kept for the duration of employment, tenure, work-study, or volunteer term plus 3 years.
- D. Copies of any procedures or protocols developed for shop safety must be kept for as long as they are current.
- E. Copies of Shop Hazard Assessments and Personnel acknowledgements (example: [Appendix D](#)) must be kept on file for 5 years.
- F. Copies of annual Shop Equipment Safety Checklists (example: [Appendix E](#)) must be kept on file for 5 years.
- G. Copies of annual Shop Safety Review checklists (example: [Appendix F](#)) must be kept on file for 5 years.

EH&S maintains the following documentation:

- H. A master copy of the [Shop Safety Program](#). EH&S maintains this program to meet or exceed Cal/OSHA requirements.
- I. A web-based library that contains material specific to shop equipment and safe-work practices.
- J. Any documents relating to shop incident investigations and corrective actions.

XI. Authorized Users

- A. List of Authorized Users for each shop.
- B. Include completed Shop User Authorization forms (example: [Appendix B1](#)).
- C. Include completed Working Solo/Unsupervised Authorization Forms for Authorized Users that will be working alone or unsupervised (example: [Appendix B2](#))

XII. Shop Monitors

- A. List of Authorized Users that the Shop Coordinator has designated as Shop Monitors, including the areas they are authorized to oversee.

XIII. Restricted Areas

- A. Provide a floor plan of the restricted areas for the shop.

XIV. Signage

- A. Provide a graphic showing the signage to be posted on each shop entrance & restricted area.

7. Mandatory Safe Work Practices

Controlled Access

The Shop Coordinator is responsible for the creation and enforcement of a process to limit access to the shop's Restricted Areas and equipment to Authorized Users only. Authorized User access should be determined by specific certification for each piece of equipment.

Impairment

Under no circumstance will anyone use equipment under an impaired state. This includes:

- Being under the influence of alcohol or illicit/mind-altering substances.
- Being under the influence of medications with a warning to avoid driving or using equipment, unless a release is provided by a licensed physician.
- Being distracted by the use of phones, ear buds, or other electronic devices.
- Feeling fatigued as might be caused by sleep deprivation or other conditions.

Working Solo/Unsupervised

Working outside of supervised hours or working solo carries additional risk, therefore the following practices should be adhered to:

- Solo work and working outside of normal hours should be avoided if possible, and individual shops may choose to prohibit all solo/unsupervised work.
- Shop access outside of supervised hours will be restricted to a specific subset of Authorized Users based upon the Shop Coordinator's discretion.
- Solo work shall only be conducted with approval of the Shop Coordinator and with Authorization from the requesting personnel's direct supervisor or advisor. A Working Solo/Unsupervised Authorization Form ([Appendix B2](#)) must be completed and filed with the Department Safety Coordinator before work begins, and kept on file for 3 years.
- The Shop Coordinator shall discuss issues of solo work and working outside of normal hours with the Department Head before authorizing clearance.

Personal Protective Equipment

PPE must be stocked and supplied to all Authorized Users by the Shop Coordinator. Selection and use of PPE for any piece of equipment must be in accordance with the Hazard Assessment described in [Section 5](#).

At minimum, any person entering a Restricted Area will:

- Wear closed-toe shoes, long pants (or equivalent), and safety glasses.
- Remove or otherwise secure loose clothing, jewelry, or hair.
- Wear other PPE as required for each specific piece of equipment.

Pre-Use Equipment Inspection

Prior to use of any piece of equipment, the Authorized User should perform a pre-inspection to verify:

- All safety guards are in place and working correctly.
- The machine stop control is functional and in an easily accessible location.
- Equipment is in a clean, orderly state and entrance/egress areas are clear to allow freedom of movement.

If any maintenance, repair, or safety issues are noticed during the pre-inspection, the Authorized User will unplug or otherwise disconnect the equipment, post a “DO NOT USE” notice on the equipment, and immediately notify the Shop Coordinator that a repair is warranted. See CSUN’s [Lockout/Tagout](#) program for more specific procedure information.

Equipment Failure or Malfunction

In the event of an equipment failure, the Authorized User will immediately turn off the equipment and notify the Shop Coordinator.

In the event of equipment malfunction or operational abnormality that was not covered under training, the Authorized User will immediately turn off the equipment and notify the Shop Coordinator.

In either of the above cases, if the Shop Coordinator is not available, the Authorized User will disconnect power to the equipment if possible, and post a “DO NOT USE” notice on the equipment until the Shop Coordinator corrects the problem. See CSUN’s [Lockout/Tagout Program](#) for more specific procedure information.

Chemical Hygiene

All activities involving hazardous chemicals and materials including use, storage, transfer, and waste generation/collection must adhere to the [CSUN Chemical Hygiene Program](#). Personnel working with or around chemicals, having been trained, are responsible for remaining aware of the hazards associated with the materials and handling the chemicals in a safe manner. All personnel are responsible for knowing how to handle a hazardous chemical safely according to its types of hazards. If one is unsure of a hazard or proper procedure, they should consult the Safety Data Sheet for the material(s) they are working with and/or ask for assistance before using that particular chemical.

Hazardous Waste Disposal

Absolutely NO hazardous waste is to be poured down a drain. Waste is considered hazardous if it is ignitable (aka flammable), corrosive, reactive, toxic or contains heavy metals.

All hazardous materials and hazardous chemicals must be picked up by EH&S. See CSUN’s [Hazardous Waste Management Program](#) for rules and procedures for collecting and transferring hazardous waste. Pickups can be arranged on the [EH&S website](#).

Compressed Air

Compressed air or other compressed gas streams shall not be directed toward any person. Use suction devices or other cleaning methods instead. Compressed gases used for cleaning equipment shall be regulated to 30 psig and the air hose must be equipped with a safety nozzle to prevent end-of-line pressures from exceeding 30 psig.

Building Emergency

In the event of a Building Emergency (such as when the fire alarm goes off or an earthquake occurs), the Authorized User will shut down the machinery and immediately exit the building.

Incident Reporting

An unanticipated event that caused or could have caused damage to the equipment or injury to the user or other personnel shall be reported to the Shop Coordinator immediately. First and foremost, it must be ensured that any injured personnel receive immediate medical attention and that no one else is at risk for injury. The incident must then be reported to the Office of Environmental Health & Safety within 8 hours. The Shop Coordinator will then utilize the reporting mechanism outlined in [CSUN's Accident/Illness Investigation Procedure](#).

Finishing Work

The Authorized User will leave the machine and work space in a clean and orderly condition prior to leaving the work area.

Restricted Areas

Only persons who are Authorized Users may work in Restricted Areas of shops on campus. Any person who is not an Authorized User may only enter Restricted Areas of shops as an Escorted Visitor, meaning they will be accompanied by an Authorized User from that shop.

The Shop Coordinator must determine the physical space within the shop that is the Restricted Area, and take measures to clearly demarcate these areas as separate from other non-restricted shop space.

A person may only conduct work in a shop for which they have specifically been authorized. Shop Coordinators who oversee multiple shops may authorize a person to work in more than one shop under their direction, but this must be clearly stated on the authorization documented for that individual.

Escorted Visitors

The Shop Coordinator is responsible for determining the appropriate safety orientation and PPE requirements for visitors.

8. Resources & References

CSUN Resources

[Environmental Health & Safety](#)

[CSUN's Health and Safety Programs](#)

- [Shop Safety Program](#)
- [Lockout/Tagout Program](#)
- [Energized Electrical Work Program](#)
- [Injury/Illness Prevention Program \(IIPP\)](#)
- [Chemical Hygiene Program \(CHP\)](#)
- [Hazard Communication \(HazComm\)](#)
- [Hearing Conservation](#)
- [Personal Protective Equipment Program](#)
- [Respiratory Protection Program](#)
- [Hazardous Waste Management](#)
- [Hazardous Materials Spill](#)

[CSU Records Retention and Disposition Schedules & FAQ](#)

Shop Safety Resources

- [NIOSH PPE Information](#)
- [OSHA PPE Information](#)
- [OSHA Electrical](#)
- [OSHA Eye & Face Protection](#)
- [OSHA Hand and Power Tools](#)
- [OSHA Metalworking Fluids](#)
- [OSHA Nailgun Safety](#)
- [OSHA Occupational Noise Exposure](#)
- [OSHA Respiratory Protection](#)
- [OSHA Spray Operations](#)
- [OSHA Synthetic Mineral Fibers \(including fiberglass\)](#)
- [OSHA Textiles](#)
- [OSHA Welding, Cutting, and Brazing \(hotwork\)](#)
- [OSHA Wood Dust](#)
- [OSHA Woodworking](#)

Regulations

[OSHA Occupational Safety and Health Standards – 29 CFR §1910](#)

[OSHA PPE General Requirements – 29 CFR §1910.132](#)

[Cal/OSHA Title 8 CCR Quick Links:](#)

- [Hazard Communication: §5194](#)
- [Hearing Conservation: §5097](#)
- [Hoisting Machines: §1605.14](#)
- [Low Voltage Electrical: §2320](#)
- [Machinery & Equipment: §3328](#)
- [Machine Guarding: §4184](#)
- [Metal Working: §4225-4243](#)
- [Points of Operation: §4184-4647](#)
- [PPE & Safeguards: §3380-3400](#)
- [Machines/Parts: §3940-4086](#)
- [Wood Working: §4296-4325](#)

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Appendix A: Shop Safety Plan Template

(Shop Name)

SHOP SAFETY PLAN

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1. STATEMENT OF PURPOSE

This Shop Safety Plan documents the commitment of this department and this shop to comply with the requirements CSU Executive Order 1039, as well as local, state, and federal regulations, including 29 CFR 1910. It has been developed by the Shop Coordinator and it will be reviewed annually or when new or modified equipment is introduced into the shop. A complete list of Authorized Users will be kept current.

Documentation, including shop policies, inventories of equipment, standard operating procedures, training materials, training records, and authorization forms will be kept in a central location and readily available for review.

Signature, Department Head

Date

2. GENERAL SHOP INFORMATION

Shop Name: _____

Machine Shop Wood Shop Combination Hot Work Operations Other

Department: _____ Lab: _____

Building: _____ Location: _____

Supervisor: _____ Phone: _____

Email Address: _____

Shop Coordinator: _____ Phone: _____

Email Address: _____

Primary Use: Maintenance Hobby Research
 Teaching Other: _____

Student Access: Yes No
 If yes: Undergraduate Students Graduate Students
 Interns (Seasonal/Term) Post-Doctoral/Fellows

Access Controls: Yes No
 If yes: Card Key Access Energy Isolating
 Other: _____

Keys Maintained by: _____

3. SHOP POLICIES AND PROCEDURES

HOURS OF OPERATION

Day	Hours
Sunday:	_____
Monday:	_____
Tuesday:	_____
Wednesday:	_____
Thursday:	_____
Friday:	_____
Saturday:	_____

GENERAL POLICIES AND PROCEDURES

- Tools and machines may only be operated by Authorized Users.
- Only work with tools and machines that you have been authorized to use.
- Do not operate tools and machines when you are fatigued.
- Do not use equipment if you are using any medications with a warning to avoid driving or using machinery, unless a release is provided by a licensed physician.
- Do not use equipment if you are under the influence of alcohol, illicit substances, or mind-altering drugs.
- Do not use phones, headphones, ear-buds, or other electronic devices while operating machinery or tools.
- Safety glasses must be worn at all times while in a restricted area.
- Wear other PPE as required for each specific piece of equipment.
- Do not work alone in a shop unless you have written authorization from the Shop Coordinator.
- Open-toed footwear is not permitted in the shop.
- Wear non-slippery, thick, leather work shoes, preferably rubber-soled.
- Long pants (or equivalent) must be worn. (A shop apron cannot be worn in lieu of long pants.)
- Neck ties, necklaces, bracelets, jewelry, watches, long sleeves, etc. must be removed or rolled up before operating machinery.
- Long hair must be tied back to avoid entanglement in machinery or tools.
- Safety guards must be in place at all times; ensure guides and fences are tight.
- Report damaged safety guards, machines, and tools to the Shop Coordinator.
- Report unsafe conditions to the Shop Coordinator.
- Keep your work area clean, do not place tools and materials on the machine table.
- Put tools away when you are finished used them.

- Never leave tools unattended.
- Only one person may work on a machine at a time.
- Keep blades covered as much as possible.
- Never make heavy cuts with planers, jointers, or routers.
- Plywood and particleboard must **NOT** be worked with the jointer or planer.
- Do not work small pieces with power machinery. Instead, use hand tools.
- Always secure the work piece with clamps or a vise.
- Never remove metal chips, turnings, or shavings with your hands.
- Never use compressed air to clean clothing.
- Compressed air used for cleaning equipment must be regulated to 30 psig and be equipped with a safety nozzle.
- No running or horseplay.
- No eating in the shop area.
- Always follow the Shop Coordinator’s directions.
- Report all injuries (even small ones) to the Shop Coordinator.

- The First Aid Kit (if available) is located _____
- The eyewash station (if available) is located _____
- The safety shower (if available) is located _____
- The spill kit (if available) is located _____

ADDITIONAL POLICIES AND PROCEDURES

- _____
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5. SHOP HAZARD ASSESSMENT

- Documented hazard assessments of all activities to be performed in the shop must be conducted initially and after any change to the shop environment, such as after the addition of new equipment or processes.
- All hazards identified by the Shop Hazard Assessment must be controlled by one or more methods of the Hierarchy of Hazard Controls (see [CSUN Shop Safety Manual Section 5](#)). At minimum, appropriate PPE must be selected and provided to all Personnel.
- All hazards identified by the Shop Hazard Assessment must have controls applied within 30 days of identification. If controls cannot be established in that time, a plan with specific dates of projected implementation must be developed and in progress within 30 days.
- All personnel must acknowledge the latest Shop Hazard Assessment that has been conducted, and that acknowledgement must be documented.

A blank copy of the Shop Hazard Assessment Checklist and Personnel Acknowledgements should be inserted here or on the next pages of the Shop Safety Plan.


The Shop Hazard Assessment Checklist and Personnel Acknowledgement templates are available on the [EH&S website](#) or the [CSUN Shop Safety Manual \(Appendix D\)](#).

If you currently use your own Shop Hazard Assessment Checklist or form, please insert it here instead.

Example:

CSUN.
Shop Safety Manual

Shop Hazard Assessment



Shop Name: _____ Date: _____

Assessor: _____ Phone: _____

Shop Coordinator: _____ Department: _____

Building/Rm #: _____

The Shop Coordinator or their designee will conduct and certify the Shop Hazard Assessment. EH&S personnel are available to assist and may be contacted at ehs@csun.edu or (818) 677-2401. The Shop Coordinator is responsible for ensuring the PPE identified in this Shop Hazard Assessment is being used properly by all shop personnel.

Hazard identification should be an ongoing process in the shop, and the shop will take active steps to eliminate or control all of the identified hazards using the Hierarchy of Hazard Controls described in Chapter 5 of the CSUN Shop Safety Manual.

1. Use this form to identify the tasks in the shop that expose users to hazards. Hazards may include physical hazards like noise, hot work (welding, brazing, grinding, etc.), rotating equipment, electricity, compressed gases, and chemical hazards (flammable, toxic, corrosive, or reactive solids and liquids). The Shop Hazard Assessment will assist in identifying activities where personal protective equipment (PPE) is required to protect shop users from hazardous exposures.

Check the "YES" box if the activities on the following pages are performed in the shop being assessed.

2. For each activity being performed, fill in which processes or tools fall under that activity. Check the applicable boxes to indicated the specific required PPE. Use the "Notes" section for additional information as needed.
3. Sign and file this form as part of the Shop Safety Plan.

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6. SHOP EQUIPMENT SAFETY CHECKLISTS

- Each individual tool or piece of stationary equipment must be assessed for present or potential hazards periodically (no less than annually) by the Shop Coordinator or their designee using Shop Equipment Safety Checklists, a separate checklist is to be used or developed for each tool or piece of equipment.
- All findings or failures identified by the Shop Equipment Safety Checklists must be corrected within 30 days of identification. If the finding cannot be corrected in that time, a plan with specific dates of projected correction must be developed and implemented within 30 days.
- The Shop Coordinator must determine whether findings from the Shop Equipment Safety checklists require a stop work order or temporary non-use of that piece of equipment. In that case, informative signage must be used and [lockout/tagout](#) procedures must be implemented to prevent unauthorized use.

Blank copies of all Shop Equipment Safety Checklists should be inserted here or on the next page(s) of your Shop Safety Plan.

The Shop Equipment Safety Checklists are available on the [EH&S website](#) or the [CSUN Shop Safety Manual \(Appendix E\)](#).

If you currently use your own Shop Equipment Safety Checklists, please insert them here instead.

Example:

CSUN. Shop Safety Manual

Shop Equipment Safety Checklist – CNC Cutting Machine

Date: _____ Name of Assessor: _____
 Dept: _____ Building & Room: _____ Shop: _____
 Machine Manufacturer: _____ Model: _____ Serial No: _____
 Type: Mill Lathe Router Plasma Cutter Waterjet Laser Cutter EDM
 Supply Voltage: _____ V 1 phase 3 phase
 OEM Operator's Manual Readily Available? Yes No

All items marked "NO" must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer's recommendations or sound engineering practices. 8 OCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine's electrical attachment plug is connected directly to the building's wiring and that wiring's ampacity is rated for at least 125% of the machine's full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine's power cord and plug are in good condition with no cuts or fraying of the insulation. 8 OCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 OCR §4501		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building's wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

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7. SHOP SAFETY REVIEW


- Documented self-inspections of shops by the Shop Coordinator or their designee must be conducted on a periodic basis, no less than annually.
- Shops should be well organized and housekeeping closely monitored.
- Equipment should be periodically inspected to ensure safe operations and proper guarding.
- Unsafe equipment should be removed or locked out / tagged out until repaired.
- Never use damaged equipment or equipment that is missing its machined guard(s).

A blank copy of the Shop Safety Review Checklist should be inserted here or on the next page(s) of your Shop Safety Plan.


The Shop Safety Review Checklist is available on the [EH&S website](#) or the [CSUN Shop Safety Manual \(Appendix F\)](#).

If you currently use your own Shop Safety Review Checklist or form, please insert it here instead.

Example:


Shop Safety Manual

Shop Safety Review



Shop Name: _____

Reviewer: _____ Date: _____

Shop Coordinator: _____ Phone: _____

Building/Rm #: _____ Department: _____

Please check "Yes", "No", or "N/A" (Not Applicable) for each item.

All "No" responses require follow-up within 30 days, or 3 days for Serious Violations.

*Serious Violation #	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Administration & Documentation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The shop has a Shop Safety Plan that is current and has been reviewed. CSUN SSP		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shop Coordinator emergency contact information is posted at the entrance to the shop. CSUN SSP		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency Action Plan is available and up-to-date. 8 CCR §3220(a-e)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A Shop Hazard Assessment has been performed in the Shop. 8 CCR §3380 (f)		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annual Shop Equipment Safety Checklists are being completed for all stationary equipment. CSUN Shop Safety Program, 8 CCR §3203		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All findings from the Shop Equipment Safety Checklists have been corrected. CSUN SSP		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety Data Sheets (SDS's) are readily available. (Hard copy or digital). 8 CCR §5194(g)		
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shop Personnel are aware of the procedure to report exposures, incidents, near-misses, hazards and unsafe conditions. 8 CCR §3203		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Written Standard Operating Procedures (SOP's) are available and current. Equipment-specific SOP's are posted at or near the equipment (either in full or as QR-code links to full SOP). CSUN SSP		

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8. STANDARD OPERATING PROCEDURES

Standard Operating Procedures (SOPs) for shop equipment are located on the [CSUN Environmental Health & Safety website](#).

The Shop Coordinator is responsible for providing SOPs for all shop equipment. They may develop SOPs themselves, or use the ones provided on the EH&S website. If there is not an SOP available from EH&S for a particular piece of equipment, then it must be developed by the Shop Coordinator.

- SOPs must be readily available in the shop area. EH&S recommends posting them at the machine, or providing a QR-code sticker on or near the machine that links to the SOP. EH&S can provide these QR-code stickers for SOPs hosted on the EH&S website.
- The SOPs provide quick safety references/tips on safe equipment use. This information is not a substitute for manufacturer, OSHA, or other equipment training materials.






























Example SOP:



Jan 2023

STANDARD OPERATING PROCEDURES
Metal Lathe

DO NOT use this machine unless you have received authorization from the Shop Manager

<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p> Safety glasses must be worn at all times.</p> <p> Sturdy, closed-toe footwear must be worn at all times in work areas.</p> <p> Gloves <u>must not</u> be worn when using this machine.</p> </div> <div style="width: 45%;"> <p> Long and loose hair must be contained.</p> <p> Close fitting/protective clothing must be worn. Roll up long sleeves.</p> <p> Rings and jewelry must not be worn.</p> </div> </div>	<p>Potential Hazards and Injuries</p> <ul style="list-style-type: none">  Hair /clothing / gloves getting caught in moving spindle (entanglement or amputation possible).  Flying swarf and chips (eye injury).  Sharp edges and burrs (cuts).  Struck by ejected objects, e.g. chuck key (blunt trauma).  Exposure to cutting coolants (skin irritation). <p>Pre-Operational Safety Checks</p> <ul style="list-style-type: none">  Locate and ensure you are familiar with all machine operations and controls.  Ensure all guards are fitted, secure and functional. Do not operate if guards are missing or faulty.  Check workspaces and walkways to ensure no slip/trip hazards are present.  Ensure the chuck key (if used) has been removed from the chuck or use a spring loaded chuck key.  Follow correct clamping procedures to ensure work is secure in chuck.  Remove all tools from the bed and slides of the machine.  De-energize and lock-out machine before attempting any maintenance or when adjusting spindle speeds.
<p>Safe Practices During Operation</p> <ul style="list-style-type: none">  Before making adjustments or before cleaning swarf accumulations, switch off and bring the machine to a complete standstill.  Feed cutting tool at a moderate rate to prevent overheating or binding.  Avoid letting swarf build up on the tool or job. Stop the machine and remove it.  If power fails, turn machine off and retract drill bit from workpiece. <p>Ending Operations and Cleaning Up</p> <ul style="list-style-type: none">  Switch off the machine and wait until spindle comes to a complete stop.  Leave the machine in a safe, clean and tidy state. <p>DON'T</p> <ul style="list-style-type: none">  Do not use faulty equipment. Immediately report suspect equipment.  Do not try to lift chucks or face plates that are too heavy for a single person.  Never leave the machine running unattended.  Do not attempt to slow or stop the chuck or revolving work by hand.  Do not leave equipment on top of the machine. 	<p style="text-align: center;"><i>SOP must be used <u>in conjunction</u> with an effective training program</i></p>

9. TRAINING AND RECORD KEEPING

TRAINING

Each shop is responsible for training its users. Training content should include two components:

1. **Classroom Training** to discuss shop rules, policies, and safety procedures
2. **Practical (Hands-On) Training** for each piece of equipment the user will have access to.

Please list in detail the subjects you will train each user on. **NOTE:** if you already have forms, factsheets, or other documents used for training, simply insert the most updated version here. These forms must include (but are not limited to):

- Employee's names (or another identifier)
- Training dates
- Subject matter covered
- Training provider(s)

Example:

Bench Grinder Training

Classroom Training Outline:

- Grinder operation – turning on/off, adjusting work rest and tongue guards.
- Nomenclature- parts of the grinder.
- Approved work materials – i.e. no Aluminum.
- Abrasive wheel types and their limitations.
- Proper PPE.

Practical (Hands-On) Training Outline:

- Perform proper lock out before changing wheel.
- Remove and replace wheel– use of blotters, proper flanges, torque mounting nut.
- Perform ring test of wheel.
- Verify RPM rating of wheel is greater than motor RPM.
- Adjust work rest and tongue guard to proper clearances.
- Demonstrate proper dressing of wheel.
- Demonstrate proper grinding techniques.

Record Keeping

The following documents must be maintained by the Shop Coordinator:

- A completed User Authorization Form ([CSUN Shop Safety Manual Appendix B](#)) for each Authorized User. This document must be kept for the duration of employment, tenure or work-study term plus 3 years.
- All training rosters ([CSUN Shop Safety Manual Appendix C](#)) and training content must be kept for 3 years.
- All procedures or protocols developed for shop safety must be kept for as long as they are current.
- All completed Shop Hazard Assessment Checklists ([CSUN Shop Safety Manual Appendix D1](#)) must be kept on file for 5 years.
- All Shop Hazard Assessment Acknowledgements ([CSUN Shop Safety Manual Appendix D2](#)) must be kept on file for the duration of personnel employment, tenure, or work-study term plus 3 years.
- All completed Shop Equipment Safety Checklists ([CSUN Shop Safety Manual Appendix E](#)) must be kept on file for 5 years.
- All completed annual Shop Safety Review Checklists ([CSUN Shop Safety Manual Appendix F](#)) must be kept on file for 5 years.
- Crane and hoist inspection reports and proof load tests, if applicable, must be kept on file.

10. LIST OF AUTHORIZED USERS

Please list any shop-specific requirements for Authorized Users here or on the following pages.

Shop User Authorization Forms for each user listed must also be attached, in addition to any Working Solo/Unsupervised Authorization Forms that have been completed (see [Appendix B](#)).

Name	CSUN ID	Phone	Training Completed	Date Authorization Given	Shop Coordinator's Initials
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		
			<input type="checkbox"/> Yes / <input type="checkbox"/> No		

11. LIST OF SHOP MONITORS (OPTIONAL)

The Authorized Users listed here are granted authority by the Shop Coordinator to oversee shop operations. Shop Coordinators may grant limited or full operational authority and responsibility to Shop Monitors, and any such limitations must be documented here.

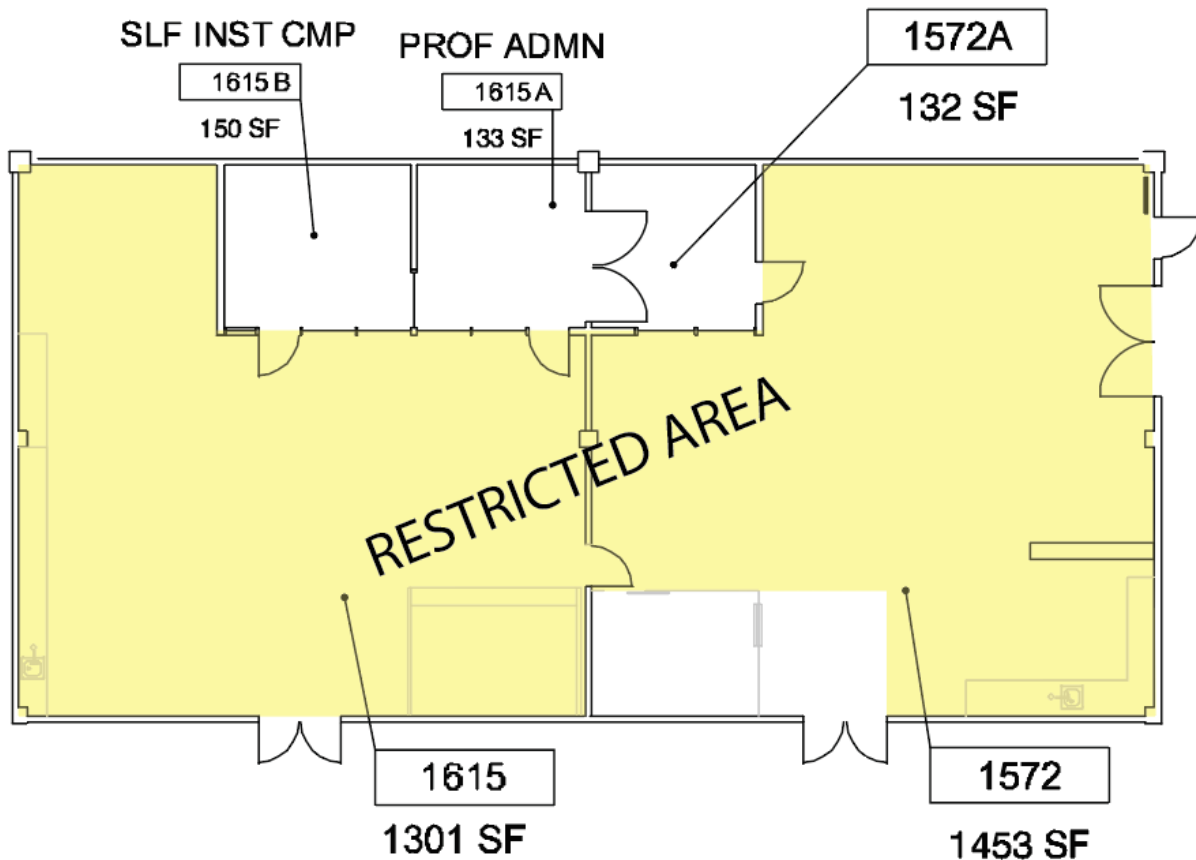
Name	CSUN ID	Area(s) of Responsibility	Date Authorization Given	Shop Coordinator's Initials

12. RESTRICTED AREAS

SITE MAP:

Please insert a floorplan drawing below (or on the following page) showing the restricted areas of the shop. A restricted area may be the entire shop or a portion thereof. If a restricted area is only the area surrounding a machine or process, the floor around that tool or process should be marked with a high visibility paint (or equivalent).

Example:



SIGNAGE:

Entrances to all restricted shop areas must have notices posted stating that entry is only allowed for Authorized Users. Personnel, including visitors, should be directed to the Shop Coordinator and telephone contact information should be provided.

Example:



Appendix B: Authorization Forms

Appendix B1: Shop User Authorization Form

Shop User Authorization Form

Shop Coordinators are encouraged to edit this form to fit their needs.

User Information

First name Last name

Department Shop name / Location

Authorized Tools / Processes

Shop Coordinator comments:

By signing below, I confirm that the Authorized User above has met all training requirements for working in this shop.

Shop Coordinator's Signature Date

Authorized User's Signature Date

Appendix B2: Working Solo/Unsupervised Authorization Form

Working Solo/Unsupervised Authorization Form

SECTION I: ACKNOWLEDGEMENTS

By completing this form, the requestor acknowledges the following:

- I understand that I am not obligated to work solo or unsupervised and that it is discouraged if it can be avoided.
- If working unsupervised is necessary, then working solo should be avoided by implementing a “buddy system”.
- I understand that risk levels are higher when working alone on hazardous activities where limited assistance exists in the case of an emergency.
- I will not work alone without having first reviewed safety procedures and emergency protocols with the authorizer of this form.
- I will always adhere to standard operating procedures.
- I understand that the working solo/unsupervised policy requires periodic check-ins either physically or remotely by the Authorizing Individual or their designee while conducting activities, and I will adhere to the communication conditions described in Section III of this form.
 - I understand that although low-risk activities do not require a second person to be enlisted for check-ins, this form is still required for all solo and/or unsupervised work.
- I have been informed of my shop/laboratory’s specific safety and working solo/unsupervised policies and will abide by these.
- I will always adhere to the following general standard operating procedures, in particular while working alone:
 - All required PPE and appropriate attire will be worn, (e.g., safety glasses, long pants, closed-toe shoes, gloves (when appropriate), etc.)
 - All efforts will be made to minimize exposure to hazardous materials, including minimizing quantities handled, and avoiding particularly hazardous chemicals (e.g., highly toxic, corrosive, reactive, pyrophoric, and/or explosive materials) whenever possible.
 - All efforts will be made to avoid working with shop or laboratory equipment that presents sizable risks for entanglement, amputation, electrocution, or other serious bodily harm.
 - All efforts will be made to utilize the hierarchy of hazard controls described in Section 5 of the [CSUN Shop Safety Manual](#) (i.e., conducting work in a fume hood, using shields when needed, avoiding high-risk hazards such as working in confined spaces, etc.)

Working Solo/Unsupervised Authorization Form

Requestor must read Section I on the previous page, complete Section II below and sign at the bottom of the form. Approver must complete Section III and sign at the bottom of the form.

Completed forms must be shared with Department Safety Coordinator and retained for 3 years.

SECTION II: REQUESTOR

Name: _____ ID#: _____

Phone: _____ Email: _____

Position: Undergraduate Graduate Employee Volunteer Other: _____

Emergency Contact: _____ Phone: _____

Shop/Lab Name: _____ Location: _____

Shop Coordinator / Lab Owner: _____ Phone: _____

SECTION III: AUTHORIZER

Authorizing Individual: _____ Title: _____

Phone: _____ Email: _____

DATE PERMISSION EXPIRES: _____

Description of Authorized Processes & Limitations:

Description of access permissions to areas/rooms:

Communication Conditions: Physical check-in Check-in performed by: _____

Remote check-in Received by: _____

Not required (low risk work)

Communication procedures (include names of those checking in or receiving communications):

Authorizer Signature: _____ Date: _____

Requestor Signature: _____ Date: _____

Appendix C: Training Roster Template

Shop Safety Training Roster

Course Title: _____ Date: _____ Hours: _____ to _____

Instructor(s): _____

Course Outline Attached OEM Operator's Manual LMS SOP

Your Department and/or Supervisor's Name	Print Your Name	Sign Your Name

Appendix D: Shop Hazard Assessment

Appendix D1: Shop Hazard Assessment Checklist

Shop Hazard Assessment



Shop Name: _____

Assessor: _____ Date: _____

Shop Coordinator: _____ Phone: _____

Building/Rm #: _____ Department: _____

The Shop Coordinator or their designee will conduct and certify the Shop Hazard Assessment. EH&S personnel are available to assist and may be contacted at ehs@csun.edu or (818) 677-2401. The Shop Coordinator is responsible for ensuring the PPE identified in this Shop Hazard Assessment is being used properly by all shop personnel.

Hazard identification should be an ongoing process in the shop, and the shop will take active steps to eliminate or control all of the identified hazards using the Hierarchy of Hazard Controls described in [Chapter 5](#) of the [CSUN Shop Safety Manual](#).

1. Use this form to identify the tasks in the shop that expose users to hazards. Hazards may include physical hazards like noise, hot work (welding, brazing, grinding, etc.), rotating equipment, electricity, compressed gases, and chemical hazards (flammable, toxic, corrosive, or reactive solids and liquids). The Shop Hazard Assessment will assist in identifying activities where personal protective equipment (PPE) is required to protect shop users from hazardous exposures.

Check the “YES” box if the activities on the following pages are performed in the shop being assessed.

2. For each activity being performed, fill in which processes or tools fall under that activity. Check the applicable boxes to indicated the specific required PPE. Use the “Notes” section for additional information as needed.
3. Sign and file this form as part of the Shop Safety Plan.

Section 1 – Physical Hazards					
*Minimum PPE:		Safety glasses.	Long pants or equivalent.	Closed-toe shoes.	No loose clothing, jewelry, or hair.
	YES	Activity	Processes/Tools	Potential Hazards	PPE
1	<input type="checkbox"/>	Working with rotating equipment.		Injury from being struck, injury from getting caught in moving parts	<input type="checkbox"/> Minimum PPE* Notes:
2	<input type="checkbox"/>	Lifting >50 pounds.		Musculoskeletal injury such as sprains or strains	<input type="checkbox"/> Minimum PPE* Notes:
3	<input type="checkbox"/>	Working with saws or other cutting equipment		Cuts, lacerations, amputations, repetitive motion injury	<input type="checkbox"/> Minimum PPE* Notes:
4	<input type="checkbox"/>	Working with compressed gases.		Asphyxiation, inhalation of toxic gases, injury from rapid pressure release or falling cylinder, injury from hose whipping during unregulated release.	<input type="checkbox"/> Minimum PPE* Notes:
5	<input type="checkbox"/>	Working with an apparatus containing materials under pressure or vacuum, including air compressors.		Injury from being struck, hearing loss, injury to skin, eyes, or tissue, injury from hose whipping during unregulated release.	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Face shield <input type="checkbox"/> Gloves Notes:

Section 1 – Physical Hazards					
*Minimum PPE:		Safety glasses.	Long pants or equivalent.	Closed-toe shoes.	No loose clothing, jewelry, or hair.
	YES	Activity	Processes/Tools	Potential Hazards	PPE
6	<input type="checkbox"/>	Working with exposed or disassembled electrically powered equipment during maintenance or repair.		Electric shock	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Coveralls <input type="checkbox"/> Insulated gloves <input type="checkbox"/> Electrical isolation mat Notes:
7	<input type="checkbox"/>	Working with exposed high voltage.		Electric shock, arc flash.	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Arc flash garments & overalls <input type="checkbox"/> Insulated gloves/boots <input type="checkbox"/> Electrical isolation mat Notes:
8	<input type="checkbox"/>	Working with power or hand tools.		Cuts, lacerations, injury from getting caught in moving parts, strain, contusions, broken bones, skin /eye/tissue injury, electric shock, repetitive motion injury	<input type="checkbox"/> Minimum PPE* Notes:
9	<input type="checkbox"/>	Working with hand tools on sharp sided materials (such as wood or metal) or equipment.		Cuts, lacerations, amputations, repetitive motion injury	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Gloves Notes:
10	<input type="checkbox"/>	Working with machines or equipment that produce noise above 85 dBA.		Hearing/ear damage	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Hearing protection (ear plugs or muffs) Notes:

Section 1 – Physical Hazards					
*Minimum PPE:		Safety glasses.	Long pants or equivalent.	Closed-toe shoes.	No loose clothing, jewelry, or hair.
	YES	Activity	Processes/Tools	Potential Hazards	PPE
11	<input type="checkbox"/>	Working with welding equipment (Exposure to welding fumes, noise, electric arcs, and/or UV radiation).		Conjunctivitis, corneal damage, skin burns, flash burns, hearing/ear damage, welding fume fever, electric shock	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Welder’s hood, face shield, and/or goggles with proper shades. <input type="checkbox"/> Leather safety-toed shoes <input type="checkbox"/> Head cover <input type="checkbox"/> Hearing protection (ear plugs or muffs) <input type="checkbox"/> Approved respirator with HEPA cartridges or supplied air Notes:
12	<input type="checkbox"/>	Working with fine powders.		Inhalation of particulates or toxic materials, eye injury, dust explosion hazard	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Approved respirator with HEPA cartridges or supplied air. <input type="checkbox"/> Chemical-resistant gloves Notes:
13	<input type="checkbox"/>	Working with grinders.		Injury from being struck, eye damage, inhalation of particulates or toxic materials	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Approved respirator with HEPA cartridges or supplied air Notes:

Section 1 – Physical Hazards					
*Minimum PPE: Safety glasses. Long pants or equivalent. Closed-toe shoes. No loose clothing, jewelry, or hair.					
	YES	Activity	Processes/Tools	Potential Hazards	PPE
14	<input type="checkbox"/>	Working with furnaces, kilns, open flame, or other hot equipment.		Skin burns, respiratory burns, cataracts	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Thermally insulated gloves/clothing <input type="checkbox"/> Long sleeves <input type="checkbox"/> Face shield Notes:
15	<input type="checkbox"/>	Working with scalding liquids.		Skin burns, respiratory burns, cataracts	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Thermally insulated gloves/clothing <input type="checkbox"/> Long sleeves <input type="checkbox"/> Face shield <input type="checkbox"/> Safety goggles Notes:
16	<input type="checkbox"/>	Working with sharps (e.g., razor blades, X-acto knives)		Cuts, lacerations	<input type="checkbox"/> Minimum PPE* Notes:
17	<input type="checkbox"/>	Working on elevated surfaces, platforms, ladders, suspension devices, or harnesses		Injury from falls, blunt force trauma, positional asphyxiation	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Fall arrest harness <input type="checkbox"/> Appropriate gloves <input type="checkbox"/> Safety-toed shoes <input type="checkbox"/> Hard hat Notes:

Section 1 – Physical Hazards					
*Minimum PPE:					
		Safety glasses.	Long pants or equivalent.	Closed-toe shoes.	No loose clothing, jewelry, or hair.
	YES	Activity	Processes/Tools	Potential Hazards	PPE
18	<input type="checkbox"/>	Working with any quantity of flammable solvents/materials when there are reasonable ignition sources present; or working in areas where flammable concentrations of vapors or gas may be present.		Burns, injury from being struck, explosion hazard, inhalation of toxic vapors	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Thermally insulated gloves and/or clothing <input type="checkbox"/> Face shield <input type="checkbox"/> Respiratory protection Notes:
19	<input type="checkbox"/>	Working with power industrial lifts (forklifts, jacks, scissor lifts)		Injury from falls, being struck, crushed, or caught between, blunt force trauma.	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Safety-toed shoes <input type="checkbox"/> Hard hat Notes:
20	<input type="checkbox"/>	Working with simulation eyewear, darkrooms, or other simulators.		Motion sickness, vomiting, disorientation, injury from collision	<input type="checkbox"/> Minimum PPE* (except for safety glasses when eyewear is used) Notes:
21	<input type="checkbox"/>	Working in confined spaces. **Requires specific training and records per CSUN's Confined Space Entry Program **		Atmospheric toxicity, flammability, or explosivity, asphyxiation, heat illness, becoming trapped or suffocated.	<input type="checkbox"/> Minimum PPE* <input type="checkbox"/> Respiratory protection <input type="checkbox"/> Long sleeves <input type="checkbox"/> Face shield <input type="checkbox"/> Safety-toed shoes <input type="checkbox"/> Hard hat Notes:

Next Page – Section 2: Chemical Hazards

Section 2 – Chemical Hazards					
†Minimum chemical PPE:		Safety glasses (goggles if there is a splash potential).	Long pants or equivalent, long-sleeved shirt, chemical resistant shop coat, overalls, or apron with closed-toe shoes.	Chemical-resistant gloves appropriate for the chemical being used (consult SDS)	No loose clothing, jewelry, or hair.
	YES	Activity	Processes/Tools	Potential Hazards	PPE
1	<input type="checkbox"/>	Working with degreasers, corrosives, or other toxic liquids.		Inhalation of toxic fumes/vapors, skin or eye damage, poisoning or damage through skin contact	<input type="checkbox"/> Minimum chemical PPE[†] <input type="checkbox"/> Respiratory protection <input type="checkbox"/> Safety goggles (or safety glasses and a face shield) Notes:
2	<input type="checkbox"/>	Working with machine oils, coolant, etc.		Inhalation of toxic fumes/vapors, skin or eye damage, poisoning or damage through skin contact	<input type="checkbox"/> Minimum chemical PPE[†] <input type="checkbox"/> Respiratory protection <input type="checkbox"/> Safety goggles (or safety glasses and a face shield) Notes:
3	<input type="checkbox"/>	Working with a spill kit.		Injury or irritation to skin and eyes, inhalation of particulates or toxic fumes/vapors	<input type="checkbox"/> Minimum chemical PPE[†] <input type="checkbox"/> Shoe covers as needed <input type="checkbox"/> Safety goggles (or safety glasses and a face shield) <input type="checkbox"/> Respiratory protection <input type="checkbox"/> Other PPE as needed according to spilled material's SDS or SOP Notes:

Section 2 – Chemical Hazards					
†Minimum chemical PPE:		Safety glasses (goggles if there is a splash potential).	Long pants or equivalent, long-sleeved shirt, chemical resistant shop coat, overalls, or apron with closed-toe shoes.	Chemical-resistant gloves appropriate for the chemical being used (consult SDS)	No loose clothing, jewelry, or hair.
	YES	Activity	Processes/Tools	Potential Hazards	PPE
4	<input type="checkbox"/>	Working with flammable solvents or other flammable materials.		Burns, inhalation of toxic fumes/vapors, explosion	<input type="checkbox"/> Minimum chemical PPE[†] <input type="checkbox"/> Respiratory protection <input type="checkbox"/> Safety goggles (or safety glasses and a face shield) <input type="checkbox"/> Flame-resistant shop coat or overalls Notes:
5	<input type="checkbox"/>	Working with lithium-ion or lithium-polymer batteries.		Burns, inhalation of toxic fumes/vapors	<input type="checkbox"/> Minimum chemical PPE[†] <input type="checkbox"/> Non-conductive garments, gloves, or shoes Notes:

Comments:	
Assessor Signature:	Date:
Shop Coordinator Signature:	Date:

Appendix D2: Shop Hazard Assessment Acknowledgement Template

Shop Hazard Assessment Acknowledgement

Shop Name: _____ Shop Coordinator: _____

Shop Location: _____ Date of Assessment: _____

By signing and dating below, you acknowledge that you have viewed or received a copy of the latest Shop Hazard Assessment conducted on the above date, and thereby have been made aware of the hazards and PPE recommendations identified therein.

Print Your Name	Sign Your Name	Date of Acknowledgement

Appendix E: Shop Equipment Safety Checklists

Shop Equipment Safety Checklists

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Shop Equipment Safety Checklist – CNC Cutting Machine

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Type: Mill Lathe Router Plasma Cutter Waterjet Laser Cutter EDM

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All points of operation, tool magazines, chip collection systems, or other danger zones created by machine operations are adequately safeguarded by one of the following: fixed guard, movable interlocked guard, presence sensing safety device (PSSD) or awareness barrier. 8 CCR §4184(a), 4188		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All power transmission pulleys, belts, chains, gears, and lead screws are adequately guarded. 8 CCR §4070(a)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All protruding shaft ends are guarded (unless protruding less than 1/2 of the shaft's diameter beyond the bearing and with smooth edges) 8 CCR §4051(a)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Only authorized persons whose duties include performing cleaning, repairing, servicing, setting-up, or adjusting operations on the machine are allowed to access set-up mode, if applicable. 8 CCR §3314(b)		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All CNC plasma cutting areas are equipped with non-combustible shields that will protect the eyes of bystanders during operation. 8 CCR §4850(b)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eye protection that meets the requirements of ANSI Z49.1-94 is available for operators of CNC plasma cutting equipment. 8 CCR §4850(b)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All class IV laser CNC cutting systems are being operated in accordance with the CSUN Laser Safety Program . CSU EO 1039		

Shop Equipment Safety Checklist – Bench/Floor Stand Grinder

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Each wheel is supported by a mounting flange on each side that is no less than 1/3 of the wheel's diameter. 8 CCR §3579(a)		
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Both flanges used to mount the abrasive wheel are of equal diameter and bearing surface. 8 CCR §3579(d)		
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Blotters are being used between each flange and the abrasive wheel. 8 CCR §3579(g)		
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All abrasive wheels have been ring tested prior to installation. 8 CCR §3580(a)		
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inorganic, organic, and vitrified bonded wheels are being replaced after a set life span as specified by the wheel's manufacturer. 8 CCR §3328(b)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The abrasive wheel is protected by a fixed guard that allows no more than 90 degrees of the wheel's periphery to be exposed, and this guard opening begins at a point no more than 65 degrees above the horizontal plane of the wheel spindle. 8 CCR §3578(a)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Each wheel guard is equipped with a tongue guard at the top and the tongue is adjusted to be no more than 1/4" from the wheel surface. 8 CCR §3578(g)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The abrasive wheel's maximum rated speed is greater than or equal to the maximum speed of the grinder's motor. 8 CCR §3328(a)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Each abrasive wheel is equipped with a tool rest that is adjusted to be within 1/8" of the wheel's periphery. 8 CCR §3577(e)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shields are in place that will prevent flying metal particles from contacting the operator. 8 CCR §3303		
Section C – Industrial Hygiene						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All hazardous airborne by-products of machine operations are being controlled to safe levels. 8 CCR §5141(a)		

Shop Equipment Safety Checklist – Milling Machine

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All points of operation or other danger zones created by machine operations are adequately safeguarded by one of the following: fixed guard, movable interlocked guard, or awareness barrier. 8 CCR §4184(a), 4188		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All power transmission pulleys, belts, chains, gears, and lead screws are adequately guarded. 8 CCR §4070(a)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All protruding shaft ends are guarded (unless protruding less than 1/2 of the shaft's diameter beyond the bearing and with smooth edges) 8 CCR §4051(a)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shields are in place that will prevent flying metal particles from contacting the operator. 8 CCR §3303		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All raw turnings, chips, and swarf are being collected daily and placed in closed-top metal containers located in a safe storage area. 8 CCR §5175(a)		
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Shop Equipment Safety Checklist – Metal Lathe

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All points of operation or other danger zones created by machine operations are adequately safeguarded by one of the following: fixed guard, movable interlocked guard, or awareness barrier. 8 CCR §4184(a), 4188		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All power transmission pulleys, belts, chains, gears, and lead screws are adequately guarded. 8 CCR §4070(a)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All protruding shaft ends are guarded (unless protruding less than 1/2 of the shaft's diameter beyond the bearing and with smooth edges) 8 CCR §4051(a)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On lathes where revolving bar stock is being machined, that portion of the bar stock which extends beyond the machine is guarded by a trough or tube or by other effective means. 8 CCR §4233		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All raw turnings, chips, and swarf are being collected daily and placed in closed-top metal containers located in a safe storage area. 8 CCR §5175(a)		
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Shop Equipment Safety Checklist – Drill Press

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All points of operation or other danger zones created by machine operations are adequately safeguarded by one of the following: fixed guard, movable interlocked guard, or awareness barrier. 8 CCR §4184(a), 4188		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All power transmission pulleys, belts, chains, gears, and lead screws are adequately guarded. 8 CCR §4070(a)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All protruding shaft ends are guarded (unless protruding less than 1/2 of the shaft's diameter beyond the bearing and with smooth edges) 8 CCR §4051(a)		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
---	--------------------------	--------------------------	--------------------------	---	--	--

Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All raw turnings, chips, and swarf are being collected daily and placed in closed-top metal containers located in a safe storage area. 8 CCR §5175(a)		
---	--------------------------	--------------------------	--------------------------	--	--	--

Shop Equipment Safety Checklist – Vertical Band Saw

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All portions of the saw blade (both above and below the work table) are guarded except that portion between the bottom of the guide rolls and the table. 8 CCR §4310		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Both wheels are fully enclosed. 8 CCR §4310		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The saw is equipped with a blade tension device and indicator that prevent blade over-tightening. 8 CCR §4310		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All raw turnings, chips, and swarf are being collected daily and placed in closed-top metal containers located in a safe storage area. 8 CCR §5175(a)		
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Shop Equipment Safety Checklist – Horizontal Band Saw

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator's Manual Readily Available? Yes No

All items marked "NO" must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer's recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine's electrical attachment plug is connected directly to the building's wiring and that wiring's ampacity is rated for at least 125% of the machine's full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine's power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building's wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All portions of the saw blade are guarded except that portion at the point of operation. 8 CCR §4310		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Both wheels are fully enclosed. 8 CCR §4310		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The saw is equipped with a blade tension device and indicator that prevent blade over-tightening. 8 CCR §4310		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All raw turnings, chips, and swarf are being collected daily and placed in closed-top metal containers located in a safe storage area. 8 CCR §5175(a)		
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Shop Equipment Safety Checklist – Metal Shear

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All portions of the cutting blade are guarded except that portion at the point of operation. 8 CCR §4227(a)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hold downs are sufficiently guarded. 8 CCR §4227(b)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The back side of the shear is guarded by an awareness barrier or pressure sensing safety device (PSSD). 8 CCR §4227(e)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Foot-operated controls are protected from unintended operation. 8 CCR §4185		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The foot treadle is enclosed to prevent contact by personnel. 8 CCR §4184(a)		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hand tools are provided for retrieving all scrap pieces with potentially sharp edges and waste is being placed in hard-sided waste containers on at least a daily basis. 8 CCR §3330(a)		
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Shop Equipment Safety Checklist – Power Press or Press Brake

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The point of operation is guarded by one of the following: pressure sensing safety device (PSSD), restraint device, pullback device, two-handed control, type A or B gate or movable barrier or fixed barrier guard 8 CCR §4214(a)(b)(e)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Foot-operated controls are protected from unintended operation. 8 CCR §4185		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hand tools are provided for retrieving all scrap pieces with potentially sharp edges and waste is being placed in hard-sided waste containers on at least a daily basis. 8 CCR §3330(a)		
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Shop Equipment Safety Checklist – Table Saw

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The saw is equipped with a guard which completely encloses the blade and the bottom of which is ¼” above the material being cut. 8 CCR §4300.1(a)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The saw is equipped with a spreader for ripping operations. 8 CCR §4300.1(b)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The saw is equipped with anti-kickback devices for ripping operations. 8 CCR §4300.1(c)(1)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Push sticks are readily available for ripping narrow boards. 8 CCR 4300.1(c)(2)		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If so equipped, the saw’s power cord is positioned so that it does not become a tripping hazard to the operator or their assistants? 8 CCR §3273(a)		
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Shop Equipment Safety Checklist – Radial Arm Saw

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The saw is equipped with a guard which completely encloses the upper one-half of the blade and covers the arbor ends. 8 CCR §4309(a)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The saw is equipped with a guard which forms a physical barrier and visual warning for the lower one half of the blade. 8 CCR §4309(a)(2)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If used for ripping, the saw is equipped with anti-kickback devices. 8 CCR §4309(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	When released from any point of its travel, the saw carriage returns to the back of the table smoothly without rebounding. 8 CCR §4309(d)		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If so equipped, the saw's power cord is positioned so that it does not become a tripping hazard to the operator or their assistants? 8 CCR §3273(a)		
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Shop Equipment Safety Checklist – Jointer and Hand Fed Planer

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a guard which automatically adjusts to cover the portion of the cutting head not protected by material during operation, and which is capable of protecting the entire length of the cutting space in the table. 8 CCR §4311(b)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Automatic feeding mechanisms are adequately guarded. 8 CCR §4311 (d)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cutter knives below the table are fully guarded. 8 CCR §4311(e)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cutter knives protrude no more than 1/8” above the cutter head. 8 CCR §4311(a)		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If so equipped, the machine’s power cord is positioned so that it does not become a tripping hazard to the operator? 8 CCR §3273(a)		
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Shop Equipment Safety Checklist – Belt/Disc Sander

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is securely restrained to prevent movement in accordance with the machine manufacturer’s recommendations or sound engineering practices. 8 CCR §3328(d)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s electrical attachment plug is connected directly to the building’s wiring and that wiring’s ampacity is rated for at least 125% of the machine’s full load current. 24 CCR 3 §670.4(A) (2022)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All points of operation are adequately guarded. 8 CCR §4184(a) & 4188		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The belt sander is equipped with guards that prevent contact with the nip points formed by the sanding belt and pulleys. 8 CCR §4312		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disc sander is protected by a guard around the entire periphery of the disc. 8 CCR §4313		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The table of the disc sander is adjusted to within ¼ inch of the disc at all points. 8 CCR §4313		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All belt and pulley power transmission parts are adequately guarded. 8 CCR §4070		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If so equipped, the machine’s power cord is positioned so that it does not become a tripping hazard to the operator? 8 CCR §3273(a)		
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Shop Equipment Safety Checklist – R&D Special Equipment

Date: _____ Name of Assessor: _____

Dept: _____ Building & Room: _____ Shop: _____

Machine Manufacturer: _____ Model: _____ Serial No: _____

Hazardous Energy: Hydraulic Pneumatic Vacuum Laser Radio Freq.
 X-Ray Tube Radioactive Materials Magnetic Fields
 Hazardous Process Materials Temperature Extremes

Supply Voltage: _____ V 1 phase 3 phase

OEM Operator’s Manual Readily Available? Yes No

All items marked “NO” must be corrected.

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
Section A – Installation						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The installation of all special electrical equipment <i>designed and built by the department</i> for R&D purposes has undergone a field evaluation by a person or parties acceptable to the Authority Having Jurisdiction. NFPA 70E §350.6 (2021)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A Competent Person has been identified for each piece of special equipment. NFPA 70E §350.5 (2021)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine’s power cord and plug are in good condition with no cuts or fraying of the insulation. 8 CCR §3328(c)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The machine is equipped with a means to promptly disconnect power, such as a switch, in case of emergency. 8 CCR §4001		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the machine is powered by permanent conductors from the building’s wiring, the incoming power supply circuit is terminated at a disconnecting means located immediately adjacent to the machine. 24 CCR 3 §670.4(B) / NFPA 79 §5.1.9.6 (2021)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The disconnecting means is legibly marked to indicate the equipment it disconnects. 24 CCR 3 §110.22 / NFPA 79 §5.1.9.2 (2021)		

#	YES	NO	N/A	Checklist Item	Comment	Date Corrected
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All disconnecting means enclosures are marked with a safety sign in accordance with ANSI Z535.4 to warn qualified persons of potential electric shock and arc flash hazards. 24 CCR 3 §110.16 / NFPA 70E §130.5(H)		
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A minimum of 36 inches of clearance is provided in front of disconnecting means to ensure safe maintenance. 24 CCR 3 §110.26 (2022)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A written and verified Hazardous Energy Control procedure (Lock Out Tag Out / LOTO) is readily available for the machine. 8 CCR §3314(G)		

Section B – Safeguarding

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All points of operation or other danger zones created by machine operations are adequately safeguarded by one of the following: fixed guard, movable interlocked guard, or awareness barrier. 8 CCR §4184(a) & 4188		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shields are in place that will prevent flying metal particles from contacting the operator. 8 CCR §3303		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All belt and pulley power transmission parts are adequately guarded. 8 CCR §4070		

Section C – Industrial Hygiene

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A noise survey has been performed while the machine is in normal operation. 8 CCR §5097(b)		
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Section D – Housekeeping

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If so equipped, the machine’s power cord is positioned so that it does not become a tripping hazard to the operator? 8 CCR §3273(a)		
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Appendix F: Shop Safety Review

Shop Safety Review



Shop Name: _____

Reviewer: _____ Date: _____

Shop Coordinator: _____ Phone: _____

Building/Rm #: _____ Department: _____

Please check “Y” (Yes), “N” (No), or “N/A” (Not Applicable) for each item.

All “No” responses require follow-up within 30 days, or 3 days for Serious Violations.

** Indicates findings that constitute Serious Violations if not in compliance.*

#	Y	N	N/A	Checklist Item	Comment	Date Corrected
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Section A – Administration & Documentation

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The shop has a Shop Safety Plan that is current and has been reviewed. CSUN SSP, 29 CFR 1910		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shop Coordinator emergency contact information is posted at the entrance to the shop. CSUN SSP		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The shop has, or is part of, an up-to-date emergency action plan. 8 CCR §3220(a-e)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A Shop Hazard Assessment has been performed in the Shop. 8 CCR §3380 (f)		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annual Shop Equipment Safety Checklists are being completed for all stationary equipment. CSUN Shop Safety Program, 8 CCR §3203		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All findings from the Shop Equipment Safety Checklists have been addressed. CSUN SSP		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shop personnel are aware of the procedure to report exposures, incidents, near-misses, hazards and unsafe conditions. 8 CCR §3203		
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Written Standard Operating Procedures (SOP's) are available and current in the site-specific Shop Safety Plan. Equipment-specific SOP's are posted at or near the equipment (either in full or as QR-code links to full SOP). CSUN SSP		

#	Y	N	N/A	Checklist Item	Comment	Date Corrected
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Training records are complete and up to date for every Authorized User, and are being retained for the duration of their employment, tenure, work-study, or volunteer term, plus 3 years. CSU EO 1039		
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Machinery is being inspected and maintained as recommended by the manufacturer. 8 CCR §3328(b)		
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All cranes, portable gantries, overhead travel cranes, and hoists are undergoing a documented inspection on a quarterly basis, are being subjected to a proof load test every 4 years, and are legibly marked with their capacity. 8 CCR §4973, §5022(a), §5031(c)		
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hot work (welding, grinding, brazing, etc...) is only being performed with a temporary permit issued by a permit authorizing individual (PAI) or in designated hot work areas. 8 CCR §4848 (a), NFPA 51B		
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Designated Hot work areas are being inspected annually by a PAI. 8 CCR §4848 (a), NFPA 51B		
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shop users can readily access Safety Data Sheets (SDS's) (hard copy or digital) for all hazardous materials used in shop processes or maintenance activities. 8 CCR §5194(g)(8)		
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The shop's chemical inventory has been entered into RSS and certified within the last year. 8 CCR §5194(e) (1)		
16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Administration & Documentation – OTHER		
Section B – Electrical						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate clearance exists in front of electrical panelboards, switchboards, and switchgear: 36" depth, 30" width (or width of panel if greater), and 78" height (or top of box if greater). 8 CCR §2340.16		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plugs, cords, and receptacles are in good condition. 8 CCR §2500.25, 2473.1, 2340.1		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extension cords are only being used for temporary applications (<90 days), do not pose trip hazards, and are not affixed to structures nor extending through walls, ceilings, or floors, or under doors or floor coverings. 8 CCR §2405.1(a-c), 24 CCR 9 §603.6 (2022)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Power outlets are not overloaded, extension cords and/or power strips are not "daisy-chained", spliced or tapped. 8 CCR §2340.2, 8 CCR §2500.9(a)		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All unused openings (including conduit knockouts) in electrical enclosures and fittings are closed with appropriate covers, plugs, or plates. 8 CCR §2473.1(b)		

#	Y	N	N/A	Checklist Item	Comment	Date Corrected
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ground Fault Circuit Interruption (GFCI) devices are used for power receptacles within 6' of water sources. 24 CCR 3 §210.8(B)(5)		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High voltage (>600V) rooms or enclosures are clearly labeled, and high voltage equipment is properly guarded. 8 CCR §2932, 8 CCR §2930		
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All shop Authorized Users have been trained in hazardous energy control procedures (LOTO) to be followed when making minor tool adjustments, tool changes, and other minor servicing activities. 8 CCR §3314(d)(1),(l)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Motorized or high amperage equipment is plugged directly into wall receptacles. 8 CCR §2340.2		
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All power cords rated at 20 amps and below are equipped with a grounding prong on the attachment plug. (Exception: power tools rated as double insulated by an NRTL) 8 CCR §2395.45, NFPA 70		
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All power cords rated at 20 amps and above meet the following criteria: Are switch rated, Are first make, last break design, Are within sight of the machine operator. NFPA 70 §430.102, NFPA 79		
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Electrical – OTHER		

Section C – Equipment

1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Equipment is properly guarded at the point of operation and at power transmission belts, pulleys, leadscrews, etc. 8 CCR §4184		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All stationary machines are restrained to prevent movement in accordance with the machine manufacturer's recommendations or sound engineering practices. 8 CCR §3328(d)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Machines or equipment are located and guarded so that the product, waste stock, or material being worked or processed does not endanger personnel. 8 CCR §3273(h)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All machines and equipment that have the ability to start unexpectedly or that can restart unexpectedly after a power outage are marked with an appropriate warning label/sign. 8 CCR §3320		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Compressed air that is used for equipment cleaning is limited to 30 psig and the air hose is equipped with a safety nozzle. 29 CFR §1910.242(b)		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Equipment – OTHER		

#	Y	N	N/A	Checklist Item	Comment	Date Corrected
Section D – Fire & Life Safety						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All shop aisles and walkways are clear and in good repair, and at least 36 inches wide (or at least 24 inches wide for maintenance-only access). 8 CCR §3272(b)		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All areas of the workplace, store rooms, personal service rooms, and passageways are being kept in a clean, orderly, and sanitary condition. 8 CCR §3362 (a-g)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Employee emergency alarms can be heard or seen while operating machines and wearing hearing protection devices. 8 CCR §6184(b)(3)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is an adequate number of fire extinguishers such that one is available within 50 feet of anywhere in the shop. 8 CCR §6151(d)		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All fire extinguishers are unobstructed, unobscured, and in conspicuous locations. 24 CCR 9 §906.1, 906.5, 906.6		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire extinguishers are properly mounted (bottom is ≥4" from floor, top of handle is ≤5' from the floor). 24 CCR 9 §906.7		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Additional fire extinguishers are present in any areas that require them. E.g., hot work areas, combustible liquid storage, etc. (consult EH&S for requirements, or reference 24 CCR 9 table 906.1) 24 CCR 9 §906.1		
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire extinguishers are being inspected monthly and serviced annually. Maintenance tags are current (< 1 year old). 8 CCR §6151(e)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	In shops that produce combustible metallic shavings (e.g., magnesium, aluminum, titanium, etc.) there is at least one class D fire extinguisher available. 8 CCR §6151(d)(6), NFPA 484		
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sprinklered buildings: 18" of clearance exists between the sprinklers and stored items. Non-sprinklered buildings: 24" of clearance exists between the ceiling and stored items. 24 CCR 9 §315.3.1		
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Materials stored overhead are secured against falling. 29 CFR §1910.176(b)		
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	* No more than 60 gallons of flammable liquid is stored in any approved storage cabinet. 8 CCR §5533(a)		
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	* Less than 10 gallons (in aggregate) of flammable liquids are being stored outside of flammable storage cabinets. 24 CCR 9 §5704.3.4.4		

#	Y	N	N/A	Checklist Item	Comment	Date Corrected
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Individual flammable liquid container volumes are not greater than 1 gallon each (5-gallon or smaller approved safety cans are allowed). 8 CCR §5532, 29 CFR §1926.152(a)(1)		
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flammable solid wastes such as metal turnings and sawdust are being cleaned up promptly and stored in closed, non-combustible containers. 8 CCR §3221		
16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The shop has an adequately stocked First Aid Kit that is readily accessible and with contents that are not past their expiration dates. 8 CCR §3400(c)		
17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If required, the shop has a compliant emergency eyewash and/or safety shower within an unobstructed 10-second travel time from work areas. 8 CCR §5162(a-e)		
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the shop floor area is larger than 2,500 sq. ft. and the shop produces combustible dust, it is protected throughout by a supervised fire suppression system. 24 CCR 9 §903.2.4.1 (2019)		
19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire & Life Safety – OTHER		
Section E – Compressed Gases						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cylinders of incompatible compressed gases (e.g., oxygen & acetylene) are being stored with adequate separation (at least 20 ft. or a physical, non-combustible barrier). 24 CCR 9 §5003.9.8		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No more than a single oxygen cylinder and single acetylene cylinder are securely fastened in a suitable cart, secured in suitable racks, or secured to a rigid structure to prevent falling over, and only if they are in use. 8 CCR §4650		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Compressed gas cylinders are stored upright and adequately secured. 8 CCR §4650		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Compressed gas cylinders are labeled with contents and hazards. 8 CCR §4649		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Toxic gases are properly stored in a ventilated cabinet or fume hood. 24 CCR 9 §6004.1.2		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Compressed gas cylinders are capped when not in use. 24 CCR 9 §5003.10.1		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Compressed Gases – OTHER		

#	Y	N	N/A	Checklist Item	Comment	Date Corrected
Section F – Industrial Hygiene						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High noise areas and loud equipment (>85 dB) have hearing protection required signs posted, and adequate hearing protection is available. 8 CCR §5098		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous airborne by-products of machine operations are being controlled to safe levels. 8 CCR 5141(a)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All potentially affected personnel are being protected from UV exposure associated with welding and plasma cutting operations by appropriate barrier shields and welding goggles/helmets. 8 CCR §3382, 8 CCR §4851(a)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ambient lighting levels are adequate at each machine point of operation. 8 CCR §3317(a)		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Industrial Hygiene – OTHER		
Section G – Personal Protective Equipment (PPE)						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum PPE requirements (as described in the Shop Safety Manual Section 7 and the Shop Hazard Assessment) are posted and being followed by shop personnel. 8 CCR §3380, CSUN SSP		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PPE, such as safety eyewear, face shields, hearing protection devices, welding helmets, UV/IR glasses, etc. are in good repair, sanitary, and readily available. PPE in disrepair is being disposed of. 8 CCR §3380(d)		
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All shop personnel have been made aware of tasks where it is unsafe to wear gloves, jewelry, or unsecured long hair. 8 CCR §3384(b)		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Respirator users have been medically evaluated and fit tested as per the CSUN Respiratory Protection Program. 8 CCR §3384(b)		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Personal Protective Equipment (PPE) – OTHER 8 CCR §5144		
Section H – Waste						
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous waste containers are compatible with contents and in good condition (free of damage, deterioration, or evidence of leaks). 40 CFR §262.15(a)(1)&(2), 22 CCR §66265.171, 172		
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous waste is stored in compatible secondary containment. 24 CCR §5005.2.1.4		

#	Y	N	N/A	Checklist Item	Comment	Date Corrected
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous waste containers are properly tagged/dated/labeled. 22 CCR §66262.34 (f), CSUN CHP		
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No more than 55 gallons of hazardous waste (or one quart of acutely hazardous waste) is being stored. Waste is transferred to EH&S within 3 days of reaching these limits. 22 CCR §66262.34(e)(1)		
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous waste is being transferred to EH&S within 270 days of the first drop entering the container. 22 CCR §66262.34(e)(1)(B), CSUN CHP		
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No food or drink containers are being used to store waste. 24 CCR §5003.2.1		
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chemical waste containers are closed except when in use. 40 CFR §262.15(a)(4)		
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Universal waste is properly labeled, discarded, contained, and transferred to EH&S within one year of generation. 22 CCR §66273.35(a)		
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The shop has adequate spill control materials for minor spills of coolants, solvents, oils, and other hazardous liquids. 22 CCR§66265.32		
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Waste - OTHER		

Comments:	
Correction Action Items:	
Follow-up:	
Reviewer Signature:	Date:
Shop Coordinator Signature:	Date:

CSUN SSP – CSUN Shop Safety Program
 CSUN CHP – CSUN Chemical Hygiene Program
 CCR – California Code of Regulations
 CFR – Code of Federal Regulations
 NFPA – National Fire Protection Agency

Appendix G: Emergency Procedures

EMERGENCY PROCEDURES

Emergency – CALL CSUN POLICE

- 911
- Non-emergency: (818) 677-2111

Fire

- Activate nearest fire alarm and evacuate
- Call 911 / CSUN Police
- Fire Extinguisher Instructions
 - P – Pull safety pin from handle
 - A – Aim nozzle at base of the fire
 - S – Squeeze the trigger handle
 - S – Sweep from side to side (watch for reflash)

Active Shooter Survival

- GET OUT!
- HIDE OUT!
- HELP OUT!
- FIGHT!

Earthquake

- DROP, COVER, HOLD ON
 - Get under a table or desk or against an interior wall until the shaking stops.
- COVER YOUR HEAD AND NECK
 - After shaking stops, check yourself and others for injuries
 - Evacuate only if the fire alarm is sounding or if directed by emergency personnel

Bomb Threat

Report all threatening calls to 911 / CSUN Police.

Be sure to ask caller:

- When is the bomb going to explode?
- Where is the bomb?
- What kind of bomb is it?
- What does it look like?
- Why did you place the bomb?
- Listen carefully and remember details to tell police

Medical Emergency

- Call 911 / CSUN Police
- Be ready to provide your location and describe the nature and severity of medical problem and provide gender and estimated age of victim.
- Look for medical emergency ID on victim

Shelter in Place

STAY IN BUILDING: close and lock windows and doors.

- Move into an interior room away from windows.
- Do not use the elevators.
- Keep track of who is with you and call 911.
- Remain in shelter until emergency authorities announce all clear.

Hazardous Spills

- If immediate hazard exists, call 911 / CSUN Police.
- If contaminated, remove clothes and rinse with water for 15 minutes.
- For small spills/those not involving immediate danger, confine spill and call EH&S at (818) 677-2401, **then call CSUN Police at (818) 677-2111.**

Evacuation Information

- Take personal belongings (keys, wallet/purse, clothing, etc).
- Do not use elevators, use nearest stairs.
- Follow directions given by building marshals and emergency personnel.
- Assist persons with disabilities.
- Every person **MUST** evacuate the building.
- Go to designated evacuation point, as per your department Emergency Action Plan; do not return to building until instructed to do so by emergency personnel.