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# RSS Lab Inspection

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## Checklist Training

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1. Medical/Biohazard waste: Biohazard waste containers are labeled with the words “Biohazardous Waste” or with the international biohazard symbol and the word “Biohazard” on the lid and all exterior sides so as to be visible from any lateral direction.

**Category: Biohazards**

- HSC, §118280(c): Biohazardous waste containers may be of any color (although they are typically red) and shall be labeled with the words, "Biohazardous Waste" or with the international biohazard symbol and the word "BIOHAZARD" on the lid and sides, so as to be visible from any lateral direction.
- Corrective Action: Ensure the required labeling is in place



## 2. Medical/Biohazard waste: Biohazardous wastes are stored in rigid, leak-resistant containers lined with red biohazard bags.

### Category: Biohazards

- HSC, §118280(c): Waste shall be bagged and placed for storage, handling, or transport in a rigid container that may be disposable, reusable, or recyclable. Containers shall be leak resistant, have tight-fitting covers, and be kept clean and in good repair.
- Corrective Action: Store biohazardous waste in rigid container with tight fitting covers that are leak resistant.



### 3. Medical/Biohazard Waste: Red bags meet ASTM D1922 and D1709 standards and are appropriate for the waste stream and container.

#### Category: Biohazards

- HSC, §1117630(b): "The biohazard bag that is used to collect medical waste within a facility shall be manufacturer-certified to meet the ASTM D1709 dart drop test."
- Corrective Action: Remove non-compliant red bags and replace with ASTM-compliant bags. Compliant bags will have ASTM certification clearly identified.



## 4. Medical/Biohazard Waste: Biohazardous waste is not stored in the lab at room temperature for more than 7 days.

### Category: Biohazards

- HSC, §118280(e): Institutions that generate 20 pounds or more of biohazardous waste per month shall not contain or store waste above 32 degrees F. on-site for more than 7 days. Medical waste generators are allowed to store biohazardous waste at or below 32 degrees F for up to 90 days.
- Corrective Action: Assure that biohazardous waste is either autoclaved (so it's non biohazardous), or placed in a freezer (for up to 90 days), or transferred to the designated biohazardous waste accumulation for pick-up and disposal by the University's biohazardous waste vendor within 7 days of generation.



## 5. Medical/Biohazard waste: Biohazardous waste containers are closed (with tight-fitting lids).

### Category: Biohazards

- HSC, §118280(c): Waste shall be bagged and placed for storage, handling, or transport in a rigid container that may be disposable, reusable, or recyclable. Containers shall be leak-resistant, have tight-fitting covers, and be kept clean and in good repair.
- Corrective Action: Assure biohazardous waste container is closed at all time, except when adding or removing waste. To prevent over-filling, as a Good Management Practice, empty containers when the are 2/3-3/4 full (to enable the container to close securely).

6. Sharps: Biohazardous sharps are placed in a red sharps container designed for the collection of discarded needles or other sharps. The container displays the words, “Sharps Waste” or the international biohazard symbol and the word, “Biohazard”.

### Category: Biohazards

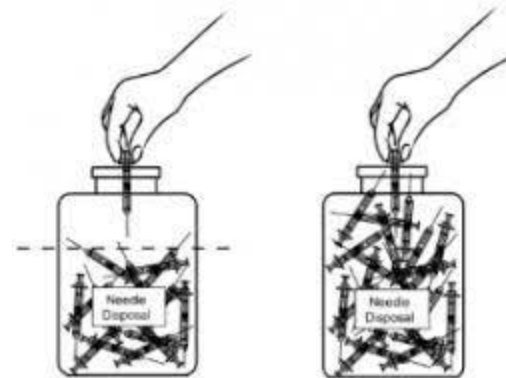
- HSC, §118285 requires that sharps waste be placed into a container; containers be tightly closed or taped (to prevent loss of contents); containers be labeled with the words “sharps waste” and the international biohazard symbol and the word “BIOHAZARD”.
- Sharps which are NOT a biohazard can be taped and labeled as "sharps" but NOT biohazard. They can go into the garbage or with hazardous waste if they have chemicals in them (e.g., a syringe).
- Corrective Action: Obtain and install correct container type.



## 7. Sharps: Sharps containers have no protruding contents.

### Category: Biohazards

- 8 CCR, §5193(d)(C)3(c): "...containers for contaminated sharps shall be replaced as necessary to avoid overfilling...."
- Also HSC, §118285(c): Store sharps containers ready for disposal for not more than thirty days.
- Corrective Action: Replace sharps container as necessary to avoid over-filling.





8. BSL-2: A valid Biohazardous Use Authorization (BUA) is available for review where the IBC requires it for biohazards use or storage.

**Category: Biohazards**

- Good Management Practice (and BMBL): When required, the Biohazard Use Authorization (BUA) must be available for review in the main laboratory or work space. If biohazards are used in a temporary location or stored in a cabinet outside the main space, post the location of the BUA in the room or near the door. Cal Poly does NOT require a BUA on file unless the work requires approval from the IBC. All work with biohazardous material does require a Biological Risk Assessment (BRA) to be on file. The Biological Safety Officer (BSO) will review the BRA and determine if further IBC review is warranted at which time a BUA is required.
- Corrective Action: Submit a BRA (available on EHS's website: <https://afd.calpoly.edu/ehs/biosafety>) to the current BSO. Wait for further instruction.

## 9. BSL-2: Doors to spaces with biohazardous materials (BSL-2, BSL-3) display a biohazard sign.

### Category: Biohazards

- Good Management Practice: (and BMBL) Rooms, cabinets, refrigerators, and freezers containing biohazards such as BSL-2 organisms and unfixed human blood or tissue must be posted as having BSL-2 (or BSL-3) and include the biohazard symbol. Access should be restricted in these areas to trained personnel only.
- Corrective Action: Post the appropriate wording and biohazard symbol on all access doors. Sign can be found in Appendix B.5 of Cal Poly's Biosafety Program (<https://afd.calpoly.edu/ehs/biosafety>).



**BIOSAFETY LEVEL 2**

**AUTHORIZED PERSONNEL ONLY!!**

Hazard:

Location:

Instructions: PPE-lab coat, gloves, eye protection required.

Contact Cal Poly Biosafety Officer for exposures at 756-6628

Principal Investigator	Name:	Phone:
Alternate		

## 10. Security: Biohazardous organisms or unfixed human blood or tissue is stored in a labeled and locked container or room with limited access.

### Category: Biohazards

- Good Management Practice: (and BMBL) Limit unauthorized access to biohazards and prevent potential exposure to untrained personnel.
- Corrective Action: Limit access to areas where work with unfixed human blood or tissue is being performed. A locked container is a "Good Management Practice" and NOT a requirement, although all work with unfixed human blood or tissue is classified as BSL-2 containment and requires only authorized access while work with unfixed human blood or tissue is being performed.



## 11. Biohazards - Other

### Category: Biohazards

- This item gives you the opportunity to document other issues related to biosafety that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. Hazardous liquid chemicals are stored below eye level (approximately 4.5 to 5 feet).

## Category: Chemical Storage

- Good Management Practice: To avoid spilled chemicals from getting in one's eyes. Note that even a well-secured chemical (such as contained in a cabinet with a door) can break or leak, especially during emergencies, and would still present a drip hazard for the person responsible for cleaning the chemical spill.
- [https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural\\_eq\\_tech\\_manual.pdf](https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural_eq_tech_manual.pdf)
- Corrective action: Move to below eye level.

2. All incompatible hazardous materials are stored separately from and segregated to prevent accidental mixing (e.g. acids from bases; poisons from flammables; oxidizers from flammables; acids/bases from flammables or oxidizers; etc.

**Category: Chemical Storage**

- 24 CCR, §2704.3.3; CFC, §5003.9.8
- Cal/OSHA Title 8, §5164: Substances which, when mixed, react violently, or evolve toxic vapors or gases, or which in combination become hazardous by reason of toxicity, oxidizing power, flammability, explosibility, or other properties, shall be evaluated for compatibility before storing. Incompatible substances shall be separated from each other in storage by distance, or by partitions, dikes, berms, secondary containment or otherwise, so as to preclude accidental contact between them.
- Materials that are incompatible shall not be stored within the same cabinet or exhausted enclosure, unless segregated within secondary containment
- Corrective Action: Separate and segregate chemicals according to their hazard class.  
<https://codes.iccsafe.org/public/public/chapter/content/9887/>

3. All peroxide-forming chemicals (e.g. diethyl ether, tetrahydrofuran, etc.) are within their expiration date and are labeled with the date of opening.

**Category: Chemical Storage**

- 24 CCR, §2703 & NFPA, 13.3.2: Organic peroxides can be explosive, shock sensitive, and unstable.
- Corrective Action: Date containers upon initial receipt and when opened. Test for peroxide formation before expiration date and contact EHS for disposal if peroxide count is above 100 ppm.
- Resource: See Chemical Health & Safety, September/October 2001, p 1. Common peroxide formers at cal Poly include, unstabilized tetrahydrofuran, isopropyl ether, 1,4-dioxane, diethyl ether (glass containers are more susceptible to peroxide formation than cans), etc. <https://pubs.acs.org/doi/full/10.1016/S1074-9098%2801%2900247-7>

4. Highly toxic chemicals or infectious materials are stored in a separate locked safety storage cabinet or room. (Examples include: arsenic and cyanide compounds, organic mercury compounds.)

**Category: Chemical Storage**

- Good Management Practice: To restrict unauthorized access to highly toxic chemicals. This is NOT a requirement.
- "Highly Toxic" chemicals are defined in the California Fire Code and in Sergen's Medical Dictionary as chemicals with an LD-50 (oral) of 50 mg/kg or less. Chemicals with a health hazard classification of Acute Toxicity, Category 1 or 2 are considered "highly toxic" (See SDS).
- Corrective Action: Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or limit access to the room.





## 5. Chemical containers are labeled with the chemical name and hazard properties (e.g. flammable, toxic, corrosive).

### Category: Chemical Storage

- 8 CCR, §CCR 5194(f)(6)(B): Except for portable containers which are intended only for the immediate use of the employee who performs the transfer; containers must be marked with identifiers and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.
- Corrective Action: Affix a hazard warning label to the container which either specifies the hazard in writing (such as flammable, toxic), or using symbols or pictograms.



## 6. Oxidizers are stored away from incompatibles – by distance or in secondary containment.

### Category: Chemical Storage

- 8 CCR, §5164: Strong oxidizers must be stored in a compatible secondary containment.
  - E.G., polyethylene or stainless steel trays
  - Stored in a separate location.
- Corrective Action: Store strong oxidizing chemicals in a secondary container.



7. Hazardous materials are stored on shelves of compatible materials. Storage shelves are anchored, braced, and constructed with lip guards.

**Category: Chemical Storage**

- Good Management Practice:
- Shelving for hazardous materials shall be of substantial construction, and shall be braced and anchored in accordance with the seismic design requirements of the California Building Code for the seismic zone in which the material is located.
- Shelving shall be treated, coated or constructed of materials that are compatible with the hazardous materials stored.
- Shelves shall be provided with a lip or guard where used for the storage of individual containers.
  - Exceptions: 1. Storage in hazardous material storage cabinets or laboratory furniture specifically designed for such use.
- Corrective Action: Store hazardous chemicals in approved storage containers or on approved shelves.

8. Hazardous materials containers are in good condition (e.g., no evidence of leaks, cracks, formation of crystals, etc.) and hazardous material labels are legible.

### Category: Chemical Storage

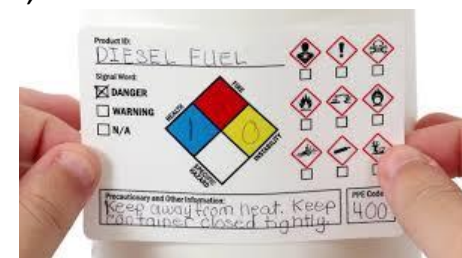
- Good Management Practice: Chemical containers that are not in good condition can be designated as inherently "waste-like" and must be managed as a hazardous waste. As such they must be labeled as a hazardous waste, and transferred to the designated hazardous waste storage area for disposal as a hazardous waste.
- Corrective Action: Ensure that all chemical containers are in good condition and labels are legible. If possible, re-label the chemical container, or transfer the chemical to a secondary container and label it properly. If not possible to fix containers that are in poor condition, manage them as a hazardous waste.



## 9. Secondary chemical containers (i.e., “in-use” containers) are labeled with the chemical name and hazardous properties, OR a “user-defined label” that includes an identification of the contents and information about the hazardous properties.

### Category: Chemical Storage

- 8 CCR, §5194: OSHA Hazard Communication rules require manufacturers to label chemical containers with the chemical name and hazardous properties (e.g., toxic, flammable, corrosive, etc.). When transferring a chemical from the manufacturer's container (aka "primary container") to a smaller container for lab use (aka "in-use" or "secondary" container), a label needs to be placed onto the secondary container that displays the chemical name and hazardous properties (that were provided by the original manufacturer/supplier). Smaller containers (such as vials) may be labeled with a "user defined label" with an identification of the contents and information about the hazards of the contents.
- Corrective Action: Assure all secondary containers display a label with the chemical name and hazardous properties, or a "user-defined label," as described above. For example, minimum labeling on a secondary container: NO ABBREVIATIONS, do not write EtOH, write ETHANOL and FLAMMABLE (or affix GHS label for hazard warning).



## 10. Chemical inventory and SDS list updated at least annually.

### Category: Chemical Storage

- 8 CCR, §5194: Lab chemical inventory list and lab SDSs need to be updated at least annually. During inspection ask when the lab's inventory was last updated, and how the lab's list of SDSs is kept up-to-date.
- Corrective Action: Update the chemical inventory list and SDSs.
  - Chemical inventory should be maintained in RSS – must be certified within the last year.
  - If keeping physical copies of SDSs, this must be updated annually.



Last certified as accurate on Oct 30, 2019 by Aubrey Arain

[Recertify Inventory](#)

## 11. Safety Data Sheets (SDSs) are readily accessible for all substances in the lab.

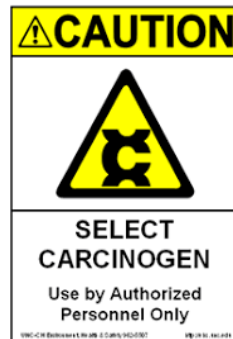
### Category: Chemical Storage

- 8 CCR, §§5191(f)(3)(E) & (h)(1)(B) & (h)(2)(C): Employees shall be informed of the location and availability of known reference material on the hazards, safe handling, storage and disposal of hazardous chemicals found in the laboratory including, but not limited to, Safety Data Sheets received from the chemical supplier.
- Employers shall maintain in the workplace any safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible to laboratory employees during each work shift when they are in their work area(s).
- 8 CCR, §5194 (b)(5)(I)(2): Employers are required to provide information to their employees about the hazardous chemicals to which they may be exposed, by means of a hazard communication program, labels and other forms of warning, safety data sheets, and information and training.
- Inspectors do a spot check to see if there are SDSs for several chemicals in use in the lab, or if the RSS SDS online repository is accessible on a computer or tablet within reasonable distance to the lab, and with access for students and others to use.
- Corrective Action: Maintain ready access to Safety Data Sheets. Access to SDS sheets may be electronic provided there is access to a computer in the general work area AND the employees are trained on where to find the SDS. Cal Poly has RSS SDS available for online SDS retrieval.

## 12. There is signage designating areas using particularly hazardous materials.

### Category: Chemical Storage

- 8 CCR, §5191(e)(3)(H): "Provisions for additional employee protection for work with particularly hazardous substances. These include "select carcinogens," reproductive toxins and substances which have a high degree of acute toxicity. Specific consideration shall be given to the following provisions which shall be included where appropriate;
  1. Establishment of a designated area;"
- Corrective Action: Define and post signage in designated areas for work with "Particularly Hazardous Chemicals.".





## 13. Chemical storage: Other

### Category: Chemical Storage

- This item gives you the opportunity to document other issues related to chemical storage that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. Hazardous waste containers are closed.

## Category: Hazardous Waste

- 22 CCR, §66262.34(a)(1), which extends the requirements of 22 CCR, §66265.173 to generators: A container holding hazardous waste shall always be closed during transfer and storage, except when it is necessary to add or remove waste.
- Corrective Action: Ensure that hazardous waste containers are closed except when adding or removing waste. As needed, use self-closing funnels, funnels with lids, or pressure venting caps. Contact EHS for assistance, if necessary.



## 2. Incompatible wastes are separated and placed in segregated secondary containment.

### Category: Hazardous Waste

- 22 CCR, §66262.34(a)(4), which extends the requirements of 22 CCR, §66265.31 to generators: Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
- As a Good Management Practice to avoid mixing of incompatible wastes, hazardous waste containers should be placed in segregated secondary containment pans.
- Corrective Action: Separate incompatible hazardous waste containers by providing segregated secondary containment.



### 3. Liquid waste containers are provided with appropriate secondary containment free of spills and exterior contamination.

#### Category: Hazardous Waste

- 22 CCR, §66262.34(a)(1)(A) or §66262.34(d)(2) §66265.17:
- All liquid waste containers must be in secondary containment which will hold 110% of the capacity of the largest container.
- Corrective Action: Place all liquid waste containers in secondary containment which will hold 110% of the capacity of the largest container.



## 4. In satellite accumulation areas, the accumulation start date is less than 9 months.

### Category: Hazardous Waste

- 22 CCR, §66263.34(e): Generators may accumulate as much as 55 gallons of a hazardous waste, one quart of acutely hazardous waste, or one quart of an extremely hazardous waste at or near any point of generation for up to one year [Cal Poly sets limit at 9 months to ensure quarterly pickup before 1 year], provided that the generator complies with applicable hazardous waste requirements specified in Sections (e)(1)-(3).
- Corrective Action: Follow the satellite waste accumulation time limits established by Cal Poly which is 270 days. Campus generators of hazardous waste must contact EHS for a waste pick-up before the 270 days from start date has expired.



5. Hazardous waste containers display hazardous waste tags (or labels) which include all of the required information (if required for identification purposes), accumulation start date, description of hazardous waste, physical state (solid, liquid), and hazardous properties (corrosive, toxic, flammable, reactive).

**Category: Hazardous Waste**

- 22 CCR, §66263.34(a)(2) & (f): Generators who accumulate hazardous waste on site without a permit or grant of interim status shall comply with the following requirements:

(1) the date upon which each period of accumulation begins shall be clearly marked and visible for inspection on each container and portable tank;

(2) the date the applicable accumulation period specified in subsection (a) or (d) of this section begins, for purposes of subsections (a) and (b) of this section, shall be clearly marked and visible for inspection on each container and tank; and

(3) each container and tank used for onsite accumulation of hazardous waste shall be labeled or marked clearly with the words, "Hazardous Waste." Additionally, all containers and portable tanks shall be labeled with the following information: (A) composition and physical state of the wastes; (B) statement or statements which call attention to the particular hazardous properties of the waste (e.g., flammable, reactive, etc.); (C) name and address of the person producing the waste (SFSU). As a Good Management Practice, where required by the University, the NAME AND LAB ROOM NUMBER OF THE PERSON(S) PRODUCING THE WASTE must also be included on the label or tag.

- Corrective Action: Affix a hazardous waste label or tag on each hazardous waste container complete with all required information (tags generated from RSS WASTE will contain the above required information).

## 6. Hazardous wastes are stored in compatible containers.

### Category: Hazardous Waste

- 22 CCR, §66262.34(a)(1), which extends the requirements of 22 CCR, §66265.171 to generators: Hazardous wastes must be stored in compatible containers.
- Corrective Action: Provide an approved hazardous waste container that does not contain an incompatible waste or material.
- Consult chemical compatibility charts. For example:  
[https://research.wayne.edu/oehs/chemical/19-006f\\_chemical-incompatibility-chart.pdf](https://research.wayne.edu/oehs/chemical/19-006f_chemical-incompatibility-chart.pdf)

## 7. Hazardous waste containers are in good condition (i.e., no evidence of spills, leaks, or crystal formation).

### Category: Hazardous Waste

- 22 CCR, §66262.34(a)(1), which extends the requirements of 22 CCR, §66265.171 to generators: If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects), or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this chapter.
- Corrective Action: Assure hazardous waste containers are in good condition. If necessary and feasible, transfer contents of compromised container into another container and manage BOTH containers as hazardous waste. Contact EHS for assistance, if necessary.





## 8. Standard trash cans are free of what appears to be contaminated laboratory material, chemical containers, or sharp-edged objects capable of piercing the plastic trash

### Category: Hazardous Waste

- Good Management Practice: General trash cans should be free of glass, chemical residues, or contaminated laboratory materials that can pose a safety hazard to personnel handling trash.
- 22 CCR, Chapters 12 and 15; Medical Waste Management Act: Assure regulated waste, such as biohazardous waste, chemical containers, debris used to clean up hazardous material spills, aerosol cans, mercury-containing devices (such as thermometers), batteries, fluorescent light bulbs, etc., are not disposed of in the general trash.
- Corrective Action: Remove inappropriate items from general trash and manage appropriately. For unused lab trash or items never contaminated with biohazards or other hazardous materials, place these in a thick dark plastic bag, tape it closed, and have lab personnel take it to dumpster themselves to avoid confusion with custodians or municipal trash workers. Place non-contaminated glass in separate labeled boxes for glass, to protect custodial or municipal trash workers from getting cut.

## 9. Hazardous waste - other

### Category: Hazardous Waste

- This item gives you the opportunity to document other issues related to chemical storage that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. 3-prong plugs are un-altered from original manufacturer's condition.

## Category: Electrical Safety

- 29 CFR, §1910.334(a)(3)(ii): Third prong provides grounding, a safety feature that may prevent electric shock and electrocution. Avoid unplugging work in progress during inspection.
- Corrective Action: Remove equipment from service and replace electrical cords that have altered three prong plugs.



## 2. All electrical outlets have cover plates.

### Category: Electrical Safety

- 24 CCR, §605.6: All electrical outlets must have approved covers.
- Corrective Action: Enter a work order using the link on the EHS website to place an approved cover plate on the electrical box.

<https://afd.calpoly.edu/ehs/rss/inspect/>

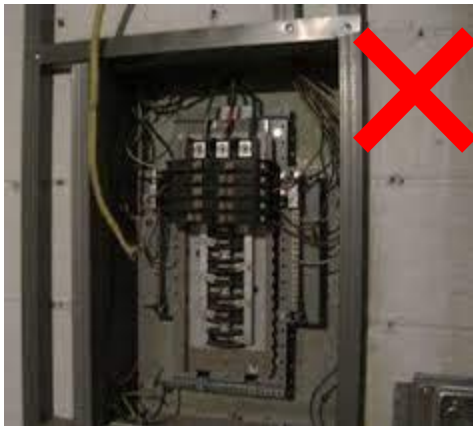


### 3. Electrical panels are covered to protect against electrocution or shock. Missing circuit breakers are replaced with blanks.

#### Category: Electrical Safety

- 8 CCR, §2473.2: Ensure that electrical panels, etc. have covers to prevent electrical exposures.
- Corrective Action: Enter a work order using the link on the EHS website to place an approved cover plate on the electrical box.

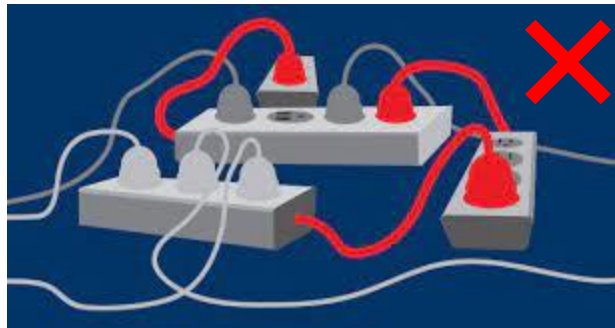
<https://afd.calpoly.edu/ehs/rss/inspect/>



## 4. Extension cords and multiple plug adapters are not “daisy-chained”.

### Category: Electrical Safety

- 24 CCR, §§605.4.2 and 5.1: Extension cords and power outlet strips may not be plugged into extension cords or into another power outlet strip.
- Corrective Action: Plug power cords into a single wall receptacle or power outlet strip that is directly plugged into a hard wired outlet. Replace extension cords used for permanent equipment with a surge protected power outlet strip appropriate for the current required. When needed, request an additional outlet be installed closer to the equipment.



## 5. Power cords do not travel under doors, and are not left as a trip hazard on the floor.

### Category: Electrical Safety

- Title 8 §2584.5: Cables shall not be arranged so as not to present a tripping hazard.
- Corrective Action: Move cords out of the way, do not run cords under doors. If appropriate, flexible cords and cables shall be covered with approved nonconductive mats, which shall be arranged to not present a tripping hazard.



## 6. Potentially live, bare electrical conductors (wires) are not left exposed.

### Category: Electrical Safety

- 8 CCR, §2510.4; Good Management Practice: Live parts shall not be exposed to contact. Although there is debate about what voltages are high enough to overcome the natural electrical resistance of human skin, and allow a current to flow into the body, many electrical devices are designed to use 24V circuits to control their operation as a safety feature.
- Corrective Action: If equipment-related, remove from service until repaired. If facilities-related, enter a work order using the link on the EHS website to place an approved cover plate on the electrical box.

<https://afd.calpoly.edu/ehs/rss/inspect/>





7. Emergency access to electric panels is unobstructed, AND workspace access to electric panels is at least 30" wide, 36" deep and 78" high (or more as necessary to access equipment).

**Category: Electrical Safety**

- 8 CCR, §2340.16: Working Space and Clearance. Not less than 30 inches in width, 36 inches in depth, and 78 inches in height. Where wider the working space shall not be less than the width of the equipment. Also prohibited is storage in this space .
- Corrective Action: Maintain a clear working space and emergency access to electrical panels.



## 8. Outlets nearest to sinks and other water sources are ground fault circuit interrupter (GFCI) protected.

### Category: Electrical Safety

- Uniform Building Code: requires the outlet within 6 feet from a water source (6 feet from the outer edge of the sink) to be protected by a ground fault circuit interrupter (GFCI) device.
- GFCIs are safety devices which (when installed and operating correctly) can stop the flow of electricity quickly enough to prevent damaging electric shocks.
- Corrective Action: Test outlets nearest to sinks or other water sources for GFCI protection. Place a work order with Facilities for missing GFCI outlets within 6 feet from the outer edge of sinks using the EHS link:

<https://afd.calpoly.edu/ehs/rss/inspect/>



## 9. Electrical safety - Other

### Category: Electrical Safety

- This item gives you the opportunity to document other issues related to electrical safety that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. Emergency procedures, phone numbers, and evacuation routes, are posted.

## Category: Emergency Safety

- Good Management Practices: 19 CCR, §3.09 and 8 CCR, §3220; Emergency Action Plan
- Emergency phone contact numbers should be posted on the exterior of the door leading to the lab.
- Emergency phone numbers should be posted near or on the phones.
- Evacuation routes should be posted in the lab near the lab exits. (this is NOT required at the lab)
- Emergency procedures should ideally have a consistent format be placed in a consistent location in each lab
- Corrective Action: Submit a work order using the EHS link: <https://afd.calpoly.edu/ehs/rss/inspect/>
- This It is prudent to post emergency contact numbers near the phone or exit from the lab. Buildings over 2 stories high must have evacuation maps at stairwells, elevators, and near public entrances.

## 2. Aisles have a minimum 24” in width and 6’8” clear headroom in the lab.

### Category: Emergency Safety

- 8 CCR, §3272(b). Aisles, Walkways, and Crawlways: Where aisles or walkways are required, machinery equipment, parts, and stock shall be so arranged and spaced as to provide clear walkways or aisles of not less than 24 inches in width and 6 feet 8 inches clear headroom to a safe means of egress from the building.
- Corrective Action: In existing installations, which do not comply with the minimum headroom clearance specified above, the obstruction shall be removed, or if this is impracticable, a suitable warning sign shall be placed near or on the obstruction so as to notify employees of its presence. When the nature of the hazard is such that padding it will increase safety, this also shall be done. In no case shall the clear headroom be less than 6 feet.

### 3. Exits from the lab are clearly marked, illuminated, and free of obstructions.

#### Category: Emergency Safety

- 8 CCR, §3225(a): Every required exit shall be maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency. Exit signs must be clearly marked and illuminated.
- Corrective Action: Ensure that all exit doors, corridors and aisles are clear at all times and exit signs are illuminated.



#### 4. Fire doors are not blocked or wedged open. (Hallway doors to laboratories are kept closed.)

##### Category: Emergency Safety

- 19 CCR, §716.5.9: Fire doors must not be kept open unless they use an approved automatic magnet release device (a device which will release the door when any emergency alarm device is activated).
- Corrective Action: Make sure the door is not kept open with door props/wedges.



## 5. Eyewash and safety showers are unobstructed, and tested monthly.

### Category: Emergency Safety

- 8 CCR, §5162(c) and (e): The area of the eyewash and shower equipment must be kept free of items that obstruct their use at all times. Must be able to reach the eyewash within a "10 second blind stagger". "Plumbed eyewash and shower equipment shall be activated at least monthly to flush the line and to verify proper operation."
- Corrective Action: Make sure path to eyewash/shower is unobstructed and the tag shows that the equipment has been inspected within the last month. It is the department's responsibility to do monthly flushing of eyewash and showers. After doing the monthly flushing, you must document on the tags attached to your safety equipment. Contact EHS if you need additional training or tags to document the flushing.





## 6. A basic first aid kit is available.

### Category: Emergency Safety

- 8 CCR, §3400(c): There shall be adequate first-aid materials, approved by the consulting physician, readily available for employees on every job. Such materials shall be kept in a sanitary and usable condition. A frequent inspection shall be made of all first-aid materials, which shall be replenished as necessary.
- Corrective Action: Make sure the lab's first aid kit's supplies are adequately maintained. The Cal Poly physician-approved list of MINIMUM first aid supplies is:
  - disposable gloves
  - plenty of band-aids (multiple sizes preferred)
  - a stack of sterile gauze squares (4x4 cm, at least 10 in the stack)
  - 2 rolls of sterile gauze (maybe 4 rolls of 4 cm wide)
  - 2 rolls of 4 cm wide "Coban" type tape (aka "vet wrap")



## 7. Spill clean-up materials (absorbent/pads) are available in the lab.

### Category: Emergency Safety

- 22 CCR, §66262.34(a)(4), which extends 22 CCR, Chapter 15, Article 3 (Section 66265.32 - Required Equipment) to generators: All facilities shall be equipped with the spill control equipment, and decontamination equipment.
- Spill absorbent materials appropriate to the hazards present, must be available in areas where hazardous materials spills can occur. Used supplies need to be replaced.
- Corrective Action: Maintain a reserve supply of spill clean-up materials.



8. Fire extinguishers (appropriate to the hazards of the location) are available in the lab, identified by signage, and unobstructed.

**Category: Emergency Safety**

- 8 CCR, §6151(c)(1)(2): The employer shall provide portable fire extinguishers (appropriate to the hazards of the location) and shall mount, locate and identify them so that they are readily accessible to employees without subjecting the employees to possible injury.
- Corrective Action: Contact EHS to obtain a new fire extinguisher. Enter a work order to mount fire extinguisher using EHS's link:

<https://afd.calpoly.edu/ehs/rss/inspect/>



## 9. Portable fire extinguishers display a tag showing an annual maintenance certification date within the last year, and an inspection within the last month.

### Category: Emergency Safety

- 8 CCR, §6151(e): The employer is responsible for the inspection, maintenance, and testing of all portable fire extinguishers in the workplace. Portable fire extinguishers shall be visually inspected monthly and have an annual maintenance check. The employer shall record the annual maintenance date and retain this record for one year after the last entry or the life of the shell, whichever is less.
- 22 CCR, §66262.34(a)(4), which extends the requirements of 22 CCR, §66265.33 to generators: All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.
- Corrective Action: Report uninspected or out of certification extinguishers to EHS.

## 10. Emergency safety - other

### Category: Emergency Safety

- This item gives you the opportunity to document other issues related to emergency safety that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

1. Flammable storage cabinets are in good condition (not severely rusted, no holes), labeled “Flammables”, and are self-closing and self-latching.

### Category: Fire Safety

- CFC, §3404.3.2.1.3: Self-closing doors are required. Self-latching doors are not required, but this feature can provide additional safeguard against fire and is a Good Management Practice in earthquake zones.
- Action Plan: Contact the manufacturer to see if they offer an after market self closing mechanism that can be installed to retrofit the existing flammables cabinet. Departments will need to replace all non-conforming flammable cabinets with self-closing doors and should include self-latching.



2. Materials are stored at least 18” below fire sprinkler heads. When the room is not sprinkled, materials are stored at least 24” below ceiling.

**Category: Fire Safety**

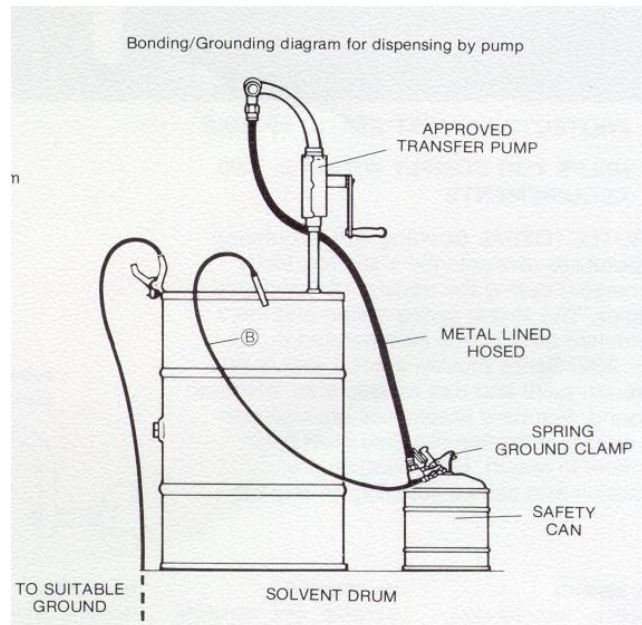
- 24 CCR, §315.3.1; 8 CCR, §6170(c)(10): Ceiling Clearance. Storage shall be maintained 2 feet or more below the ceiling in areas without fire sprinklers and 18 inches below sprinkler head deflectors in areas with sprinklers.
- Corrective Action: Remove all storage within 18 inches of the ceiling; within 24 inches if the room does not have fire sprinklers.



### 3. When transferring flammable liquids (>1 gallon/4 liters) from one container to another, both containers are bonded and grounded.

#### Category: Fire Safety

- 8 CCR, §6775: When transferring flammable liquids from one container to another, both containers shall be effectively bonded and grounded to dissipate static electricity.
- Corrective Action: Check for the presence of bonding and grounding wires where flammables are transferred.





#### 4. Flammable liquid containers greater than 1 liter and not in current use are stored in a flammables cabinet.

##### Category: Fire Safety

- 8 CCR, §5418(a): Carboys or drums containing flammable liquids shall not be stored near steam coils or other source of heat.
- Corrective Action: Refer to the Cal Poly Chemical Hygiene Plan for Flammable Liquid Storage (sec. 1.22). Keep all flammable containers away from heat sources and open flames. Store containers in secondary containment.



## 5. Flammable liquids are kept away from sources of ignition.

### Category: Fire Safety

- 8 CCR, §5545: Store flammable liquids away from potential ignition sources.
- Corrective Action: Keep flammable materials away from ignition sources. Correct deficiencies immediately (during the inspection) to prevent a fire or explosion.



## 6. Fire safety - other

### Category: Fire Safety

- This item gives you the opportunity to document other issues related to fire safety that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

1. Flammable material is not stored in a refrigerator or freezer unless it has been designed by the manufacturer for this purpose and displays a sign that reads “Flammable Storage”. All other refrigerators or freezers display a sign that says “No Flammable Storage”.

### Category: Refrigerator/Freezer Safety

- NFPA, 45: Flammable material is not to be stored in a refrigerator/freezer which is not designed (intrinsically safe or explosion-proof) for this purpose.
- Corrective Action: Remove the flammable chemicals from this refrigerator/freezer and store in an approved refrigerator/freezer.



## 2. Refrigerators and freezers display a sign that reads, “Laboratory Use Only – No Food Allowed” or equivalent language.

### Category: Refrigerator/Freezer Safety

- Good Management Practice: Posting this information reminds users that these appliances are for scientific use only.
- Corrective Action: Ensure postings are in place.



### 3. No food, food storage, or beverages are present in laboratories.

#### Category: Refrigerator/Freezer Safety

- 8 CCR, §3368(b): Food and beverages shall not be stored or consumed in an area where they may be contaminated by any toxic material.
- 8 CCR, §5191: Food and beverages are not permitted in locations where hazardous materials are handled or stored.
- Corrective Action: Remove all food and beverages from lab. Store food/water outside the lab or in EHS approved designated areas.



## 4. Ice making machines display a sign that reads, “Not for Human Consumption.”

### Category: Refrigerator/Freezer Safety

- Good Management Practice: Posting this information reminds users that the ice is not fit for consumption.
- Corrective Action: Post a "Not for Human Consumption" sign on the front of the ice machine.



## 5. Microwave ovens display a sign that reads, “Not for Food Use”.

### Category: Refrigerator/Freezer Safety

- 8 CCR, §3368(b) & Chemical Hygiene Plan: Microwaves intended to be used for scientific purposes are not be used to heat up food due to the potential for the microwave to become contaminated.
- Corrective Action: Post a "Not for Food Use" sign on the microwave.





## 6. Refrigerators have no obvious signs of contamination.

### Category: Refrigerator/Freezer Safety

- Corrective Action: Clean or replace the refrigerator/freezer. Contact EHS, as necessary, to assist with decontaminating chemical refrigerators/ freezers.



## 7. Freezer does not have excessive ice buildup. Freezer contents are free of frost.

### Category: Refrigerator/Freezer Safety

- Good Management Practice: The freezer requires defrosting to prevent damage to containers and for freezer to operate efficiently. Chemicals must not be stored covered in frost.
- Corrective Action: This is NOT a requirement. Schedule defrosting of the freezer. Having an empty spare freezer on a dolly available to store chemicals while a freezer is defrosting will make this an easier task.



## 8. Food and beverage containers are not used to store hazardous materials and/or hazardous wastes.

### Category: Refrigerator/Freezer Safety

- Good Management Practice: To avoid ingesting hazardous materials by mistake, food and beverage containers must never be used to store hazardous materials.
- Corrective Action: Eliminate food and beverage containers from the lab. Mark appropriate food storage locations (outside of the lab).

REFRIGERATOR FOR  
FOOD ONLY



## 9. Refrigerator/Freezer Safety - other

### Category: Refrigerator/Freezer Safety

- This item gives you the opportunity to document other issues related to refrigerator/freezer safety that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. Gas cylinders are stored away from excessive heat.

## Category: Gas Cylinder Safety

- Good Management Practice: Guidance from the compressed gas cylinder association.
- Excess heat could cause gas inside of cylinder to expand, increasing pressure and creating an explosion hazard.



2. Compressed gas cylinders are stored upright and adequately secured (typically with two non-combustible chains at 1/3 and 2/3 height of cylinder).

### Category: Gas Cylinder Safety

- 8 CCR, §4650(e)(h): All gas cylinders in service shall be securely held in substantial racks or secured to other rigid structures so that they will not fall or be knocked over.
- Corrective Action: Compressed gas cylinders must be stored upright and adequately secured (typically with two non-combustible chains or straps 1/3 and 2/3 height of cylinder. Submit work order using EHS link: <https://afd.calpoly.edu/ehs/rss/inspect/>



### 3. Gas cylinders have protective valve caps in place when not in use or hooked up to a regulator.

#### Category: Gas Cylinder Safety

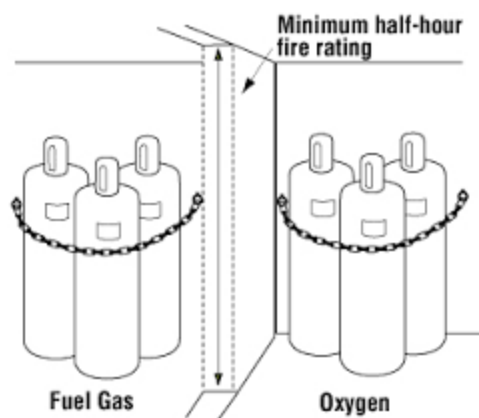
- 8 CCR, §4650(f): All cylinders which are designed to accept valve protection devices shall be equipped with such devices when the cylinders are not in use or connected for use.
- Corrective Action: Use protective valve cap when cylinder is not hooked up to the regulator.



4. Oxidizing gas (e.g., oxygen) cylinders are separated from flammable gas (e.g., hydrogen) cylinders and flammable/combustible material storage by at least 20 feet or a non-combustible barrier.

### Category: Gas Cylinder Safety

- 8 CCR, §4650 (d): Cylinders in storage shall be separated from fuel gas cylinders or combustible materials (especially oil or grease) a minimum distance of 20 feet or by a non-combustible barrier at least 5 feet high, or a minimum of 18 inches (46 centimeters) above the tallest cylinder and having a fire-resistance rating of at least one hour.
- Corrective action: Relocate the cylinder 20 feet away or install appropriate barrier.





## 5. Compressed gas cylinders are clearly marked with the name of the contents.

### Category: Gas Cylinder Safety

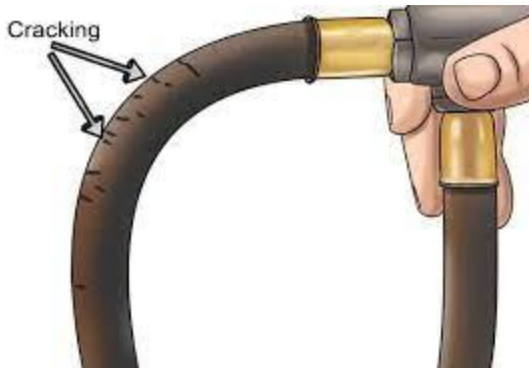
- 19 CCR, §3.18(b): Cylinders shall have clear markings and labels.
- Compressed gas cylinders shall be clearly marked with the name of the gas.
- Corrective action: Apply appropriate label to cylinder body.



## 6. Gas cylinder hoses, lines, and regulators are in good condition.

### Category: Gas Cylinder Safety

- Good Management Practice - Guidance from the compressed gas cylinder association. Equipment does not show evidence of significant wear and tear.
- Corrective action: Replace worn equipment.



## 7. Gas cylinder - other

### Category: Gas Cylinder Safety

- This item gives you the opportunity to document other issues related to gas cylinder safety that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

1. Only ladders appropriate for the use and location are in use.

### Category: Machinery and Equipment

- 8 CCR, §3276(d): Use only ladders appropriate for the task and environment.
- Corrective Action: Ensure that the ladder selected is used for the purpose for which it was designed, and the environment it is used in. Generally speaking, fiberglass ladders are compatible with lab environments. Avoid metal ladders around electrical equipment and wood ladders where sterile work is performed.



## 2. Ladders and step stools are in good condition. (Properly maintained, free from damage and free of oil/slippery materials.)

### Category: Machinery and Equipment

- 8 CCR, §3276(e)(1) and (3): Ladders must be kept in good working conditions at all times.
- Corrective Action: Repair or replace the ladder to ensure that it is suitable for working use. Ladders that have developed defects shall be withdrawn from service for repair or destruction; and tagged or marked as "Dangerous, Do Not Use" or with similar language. Ladders with broken or missing steps, rungs, cleats, safety feet, side rails, or other defects shall not be used.



### 3. Moving parts of machinery or equipment are properly guarded.

#### Category: Machinery and Equipment

- 8 CCR, §4184: All machinery where a person can come into contact with grinding/shearing/cutting must be guarded.
- Corrective Action: Provide guarding or equivalent protection for employees so that they cannot "slip, trip or fall" into the "point of operation" of machinery.



## 4. Portable power and hand tools are in good operating condition and are used as intended.

### Category: Machinery and Equipment

- 8 CCR, §3556: Use tools only for which manner in which they were intended.
- Corrective Action: Check power cords and insulation for wear and tear. Replace or repair any damaged power/hand tools/other lab equipment.



## 5. Work platforms have secure handrails, guarding, or fences.

### Category: Machinery and Equipment

- 8 CCR, §3209 - Standard Guardrails
- 8 CCR, 3210: Guardrails shall be provided on all open sides of unenclosed elevated work locations, such as: roof openings, open and glazed sides of landings, balconies or porches, platforms, runways, ramps, or working levels MORE than 30 inches above the floor, ground, or other working areas of a building as defined in Section 3207 of the General Industry Safety Orders.
- Corrective Action: Ensure that appropriate guardrail or equivalent protection is provided to prevent falls. Submit a work order using EHS link: <https://afd.calpoly.edu/ehs/rss/inspect/>





6. Machines driven by electrical motors that are automatically controlled have legible signs warning that they “May start at any time”.

**Category: Machinery and Equipment**

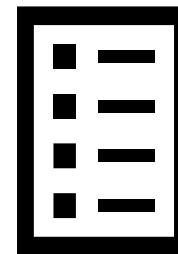
- 8 CCR, §3320: All machines (including air compressors) that are driven by electrical motors must have legible signs warning they are automatically controlled and may start at any time.
- Corrective Action: Ensure that appropriate signage is displayed with the equipment.



## 7. Operating procedures are posted or available for each machine/piece of equipment.

### Category: Machinery and Equipment

- Good Management Practice: Operating procedures should be posted at each machine/equipment location or available in a central location, such as a binder.
- Corrective Action: This is NOT a requirement. Ensure that operating procedures are located at each machine/equipment location or in a central location within lab.



## 8. Machinery and equipment - other

### Category: Machinery and Equipment

- This item gives you the opportunity to document other issues related to machinery and equipment that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

1. Lab areas requiring the use of PPE for specific lab hazards have posted signage.

**Category: Personal Protective Equipment**

- 8 CCR, §3382(a): Lab areas requiring the use of PPE for specific lab hazards have posted signage.
- Corrective action: Post PPE signs UNLESS there are written procedures that have required PPE listed, such as lab exercises, standard operating procedures, etc. Ensure all personnel wear appropriate PPE when working with or adjacent to hazardous materials or operations.



## 2. Gloves are worn for laboratory procedures where contact with skin hazards may occur.

### Category: Personal Protective Equipment

- 8 CCR, §3384(a): Appropriate gloves are required for work with hazardous materials/conditions. Check for information that defines which gloves are appropriate hand protection for specific lab activities and hazards. In the absence of such specific information. Check also for the presence of gloves appropriate to the types of hazards in the lab.
- Corrective Action: Write specific lab procedures that identify appropriate hand protection, or post a glove selection chart appropriate for the lab's hazards.



### 3. Minimum requirements for proper lab attire are followed at all times by visitors and room occupants.

#### Category: Personal Protective Equipment

- Minimum attire includes: lab coat, safety glasses w/ side shields, with no exposed skin from the waist down and closed toe shoes.
- Additional PPE may be required for specific operations in the lab as defined by the ASSESS software.



## 4. PPE - other

### Category: Personal Protective Equipment

- This item gives you the opportunity to document other issues related to personal protective equipment that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. Containers holding licensed radioactive materials and/or radioactive wastes are properly labeled.

## Category: Radiation Safety

- 17 CCR, §17-30346.1: All containers must have a label bearing the radiation symbol, the words "CAUTION, RADIOACTIVE MATERIAL" or "DANGER, RADIOACTIVE MATERIAL, radionuclide(s) present, an estimate of the quantity of radioactivity, the date for which the activity is estimated, radiation levels and kinds of materials.
- Corrective Action: Do not remove manufacturer's label. If label is unreadable, place a new label on it with the required information. For containers with samples or diluted liquids in an experimental process, include the radiation symbol, "Caution, Radioactive Material", date of preparation, and estimated activity.





## 2. Personnel working with radioactive materials or equipment are up-to-date on all trainings per Cal Poly's Radiation Safety Manual.

### Category: Radiation Safety

- Radioactive material users (not including students performing activities associated with a course activity, but including students using radioactive materials for research, projects, etc.) must complete Cal Poly's radiation training manual and submit to the RSO. Annual refresher training the required thereafter on Learning Hub. See: <https://afd.calpoly.edu/ehs/radiationsafety>
- Corrective Action: Complete and document required trainings. Contact Radiation Safety Officer for information.



**RADIATION  
SAFETY &  
TRAINING**

### 3. Required information and signage is posted in rooms where radioactive materials are used or stored.

#### Category: Radiation Safety

- 17 CCR, §30255: The following information or notices must be conspicuously posted: The most current copy of Radiologic Health Branch Form RH-2364, "Notice to Employees", copy of operating and emergency procedures applicable to work with sources of radiation. In addition, a copy of the radioactive materials license and Title 17 of the California Code of Regulations, a copy of Chapter 1, Part 20 of the Federal Code of Regulations, and additional procedures must also be posted. If the posting of these documents are not practical, a posted notice describing where the documents may be examined is required.
- Post at each entrance to the room "Caution, Radioactive Material(s)" or "Danger, Radioactive Material(s)".
- Corrective Action: Obtain and post the required documents where they are clearly visible to room occupants. Assure that documents and notices appear in a sufficient number of places to permit individuals engaged in work under the license or registration to observe them on the way to or from any particular work location to which the document applies.

#### 4. X-ray-producing equipment has proper signage indicating the presence of the equipment.

##### Category: Radiation Safety

- 21 CFR, §1020: All X-Ray producing equipment must be labeled with a sign stating “Caution – this equipment produces x-rays when energized.” A fail-safe warning light or device with words “X-Ray's On” must be located near any switch that energizes an x-ray tube. There must also be an ammeter indicator showing x-ray tube current.
- Corrective Action: Replace missing or illegible labels on x-ray equipment.  
<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm?fr=1020.30>



5. A radiation use authorization has been issued for the use of radioactive materials or radiation-producing machines for research or classroom use.

**Category: Radiation Safety**

- Cal Poly requires that all radioactive materials users, or users of machines that produce radiation, obtain a radiation use authorization. For more information, see: <https://afd.calpoly.edu/ehs/radiationsafety>
- Corrective Action: Contact the Radiation Safety Officer (RSO) in EHS.



## 6. Radiation safety - other

### Category: Radiation Safety

- This item gives you the opportunity to document other issues related to radiation safety that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. Heavy items are stored on lower shelves.

## Category: Seismic Safety

- Good Management Practices: Nonstructural Seismic hazard abatement Guidance available through FEMA & CalOES: Good Management Practice: [https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural\\_eq\\_tech\\_manual.pdf](https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural_eq_tech_manual.pdf)



## 2. High overhead storage is secured.

### Category: Seismic Safety

- Good Management Practices: Nonstructural Seismic hazard abatement Guidance available through FEMA & CalOES:
- Corrective Action: Secure or remove unsafe overhead storage.
- [https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural\\_eq\\_tech\\_manual.pdf](https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural_eq_tech_manual.pdf)



### 3. Shelves are equipped with restraints.

#### Category: Seismic Safety

- Good Management Practices: Nonstructural Seismic hazard abatement Guidance available through FEMA & CalOES: [https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural\\_eq\\_tech\\_manual.pdf](https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural_eq_tech_manual.pdf)





## 4. Cryogenic liquids – tanks and dewars over 20L are seismically secured.

### Category: Seismic Safety

- Good Management Practice: to prevent blocking egress, (and to avoid spilling liquid nitrogen).
- Corrective Action: This is NOT a requirement.



## 5. Furniture taller than 60” is seismically anchored to avoid tipping over.

### Category: Seismic Safety

- 8 CCR, §3241(c): Storage units shall be permanently braced or anchored to the wall to prevent tipping or falling.
- Corrective Action: Submit a work order using the EHS link:

<https://afd.calpoly.edu/ehs/rss/inspect/>



## 6. Large equipment such as refrigerators, freezers, and Chemical storage cabinets have seismic restraints.

### Category: Seismic Safety

- Good Management Practice: Nonstructural Seismic hazard abatement Guidance available through FEMA & CalOES: [https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural\\_eq\\_tech\\_manual.pdf](https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural_eq_tech_manual.pdf)
- Freezers and Refrigerators are often found immediately adjacent to lab entry doors. As such they may fall over during an earthquake and block egress from the lab.
- Corrective Action: Use seismic bracing IF you determine that refrigerators and freezers could fall and block egress during an earthquake.



## 7. Seismic safety - Other

### Category: Seismic Safety

- This item gives you the opportunity to document other issues related to seismic safety that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. Laboratory personnel receive appropriate safety training.

## Category: Training

- HSC, §25507(a); 19 CCR, §2651; 8 CCR, §5191: The employer shall provide employees with information and training to ensure that they are apprised of the physical and health hazards of the chemicals present in their work area, and about how to detect chemical releases, protective measures, including emergency procedures, proper work practices, and personal protective equipment.
- 8 CCR, §5194: All employers are to provide information to their employees about the hazardous chemicals to which they may be exposed, by means of a hazard communication program, labels and other forms of warning, safety data sheets, and information and training.
- Corrective Action: PI and Lab Supervisors are responsible for training all of their workers in the chemical hazards and safety precautions to prevent exposure for the hazardous materials in their work environment. Contact EHS for assistance determining the type of training required for personnel working in labs and for information on instructor-led training or online training resources.

2. Employees who generate or handle hazardous waste as part of their regular job duties are trained in proper waste management procedures.

**Category: Training**

- 22 CCR, §66263.34(a)(4) which extends the training requirements of 22CCR, §66265.16 to generators: Hazardous waste employees shall be trained in hazardous waste management procedures, including emergency procedures, monitoring equipment, alarm systems, response to fires/explosions and shutdown operations.
- Corrective Action: Contact EHS to receive hazardous waste management training.

### 3. Training has been provided to all employees who handle or may be exposed to any of the Cal-osh regulated carcinogens.

#### Category: Training

- 8 CCR, §§5198 -5220: Ensure that the individuals using any of the listed chemicals are specifically trained on the hazards, and their use is restricted to the fume-hood. This training should be documented. The listed chemicals include benzene, methylene chloride, and formaldehyde which are often used in labs. Full list:

<https://www.dir.ca.gov/title8/sb7g16a110.html>

- Corrective Action: Ensure that all lab personnel working in areas where there is possible exposure to the listed carcinogens are trained in its proper use.

#### 4. Employees who treat bioHazardous waste (i.e., autoclave BSL-2 wastes) receive annual training.

##### Category: Training

- HSC, §117967: Large quantity generators that treat medical waste onsite using steam sterilization, incineration, microwave technology, or other department-approved treatment technology to treat medical waste shall train the operators of the equipment in its proper use, proper protective equipment to wear, if necessary, and how to clean up spills to ensure that the equipment is being operated in a safe and effective manner. Annual training for the operators shall be provided after the initial training has been completed. Training shall be documented; documentation shall be retained for a minimum of two years. Training shall comply with applicable OSHA regulations, including those found at 29 CFR, §1910.
- Corrective Action: Ensure all relevant personnel receive training. Contact EHS for more information.



## 5. SOP's for work with hazardous chemicals are available for training lab personnel.

### Category: Training

- 8 CCR, §5191(e)(3)(A): "The Chemical Hygiene Plan shall include...(A) Standard operating procedures relevant to safety and health considerations to be followed when laboratory work involves the use of hazardous chemicals"
- Start with SOPs for "particularly hazardous chemicals" as defined in the regulation.
- Corrective Action: Provide SOPs to train lab personnel on work with hazardous chemicals.

## 6. Training - other

### Category: Training

- This item gives you the opportunity to document other issues related to safety training that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.

# 1. Biological safety cabinets and chemical fume hoods have been tested and certified within the last 12 months.

## Category: Ventilation

- 8 CCR, §5154.2(f): Biological Safety Cabinets shall be tested and certified annually.
- 8 CCR, §5143(a)(5): Lab fume hoods must be tested and certified annually.
- Hoods and cabinets must also be tested and certified after repairs, renovations, relocations, or the addition of large equipment, etc. which may affect air flow.
- Check date of certification on each fume hood. Check operation of the hood alarms, and smooth movement of the sashes.
- Corrective Action: Mark fume hoods out of service when they are out of certification or not functioning properly. Contact the service provider for repairs and recertification for biological safety cabinets. Contact EHS for certification of fume hoods.

2. There are no unnecessary holes or openings in the lab's walls or ceilings.

**Category: Ventilation**

- 8 CCR, §3362(c) and 24 CCR, §703.1: Maintain all walls (and ceilings) free of unnecessary holes and openings to prevent the movement of hot smoke and gasses during a fire. Ceiling openings can mess up the lab's general ventilation and air changes per hour.
- Corrective Action: Submit a work order using the EHS link:

<https://afd.calpoly.edu/ehs/rss/inspect/>

3. Fume hoods are in good working condition. Maximum sash height is indicated, low flow audible and visual alarms appear functional.

**Category: Ventilation**

- 8 CCR, §5154.1(d): Damaged fume hoods should be reported to Facility Services immediately, as work cannot be performed with volatile chemicals until the fume hood is repaired.
- Corrective Action: Submit a work order using the EHS link:

<https://afd.calpoly.edu/ehs/rss/inspect/>

## 4. Fume hood sashes are closed when not in use.

### Category: Ventilation

- 8 CCR, §5191; Good Management Practice: Note: Sash height indicator arrows show the maximum height that sashes may be opened that meets exhaust ventilation regulations. Fume hood sashes should be closed when not in immediate use. This helps to contain fires and explosions, minimizes potential exposure to hazardous materials and reduces energy use.
- Corrective Action: Close the fume hood when not in use.

5. All chemical containers and equipment (other than those currently in use) have been removed from inside the fume hoods, and remaining material inside the hood is arranged to allow proper airflow.

**Category: Ventilation**

- Good Management Practice: Containers and equipment in the hood can block the proper airflow of the hood affecting the hood's ability to properly exhaust fumes in the hood.
- Corrective Action: Remove excess containers and equipment from the hood. Avoid blocking air entering the hood - keep materials several inches inside the hood away from the opening. Avoid blocking airflow with large objects sitting in front of the rear of the hood - elevate them so that air can flow under them.

# 1. General safety and housekeeping - other

## Category: General Safety and Housekeeping

- This item gives you the opportunity to document other issues related to general safety and housekeeping that you may note in your lab during your inspection. These checklists are designed to cover safety issues that are either very common or have the potential to cause serious injury, illness, or damage to property. It is the space owner's responsibility to ensure they are complying with all of Cal Poly's requirements, along with those of local, state, and federal regulations.
- If you notice something that needs correction, please note it in this question. You may mark it with an x, and then go back and mark it as corrected after the appropriate corrective action is in place.



# 1. The lab's hazard assessment is fully supported by the results of the lab's inspection.

## Category: Assessment

- Obtain a copy of the lab's assessment (in RSS) to identify and located hazards in the lab at the start of the inspection. During the inspection, be alert to note any hazards missed by the assessment.
- The purpose of this question is to double-check that nothing was missed on the assessment. The lab inspection is more in-depth than the assessment, so you may realize there are hazards that you need to go back and add to the assessment that were missed.
- If you did miss a hazard, please go back and edit the assessment. Once you do so, you can select the checkmark. Otherwise, you must select the x.