

# LABORATORY SAFETY REVIEW CHECKLIST

ENVIRONMENTAL HEALTH & SAFETY  
ONE SHIELDS AVENUE  
DAVIS, CA 95616  
(530) 752-1493



To fill out this checklist online from a tablet or phone, please use the [SIT tool](#) on UC Safety Suite.

Principal Investigator/Laboratory Supervisor: \_\_\_\_\_

Lab Contact: \_\_\_\_\_

Building: \_\_\_\_\_

Date: \_\_\_\_\_

Room Number: \_\_\_\_\_

Chemical	Yes	No	Corrected	NA
<p><b>Abbreviations used on container labels are identified in a prominent place in the lab.</b></p> <p><b>Description/Corrective Action:</b> Abbreviations and/or acronyms used in the laboratory shall be posted in a prominent place and available to all laboratory workers</p>				
<p><b>Chemical containers are clearly labeled with contents (in English) and primary hazard(s).</b></p> <p><b>Description/Corrective Action:</b> Each container of hazardous substance is to be labeled with the identity of the hazardous substance and any appropriate hazard warnings.</p>				
<p><b>Chemical storage containers are in good condition and appropriate for contents.</b></p> <p><b>Description/Corrective Action:</b> Hazardous substances shall be stored in containers which are chemically inert to and appropriate for the type and quantity of hazardous substance. Containers of hazardous substances shall not be stored in such locations or manner as to result in physical damage to, or deterioration of, the container.</p>				
<p><b>Containers of hazardous chemicals are not stored on the floor.</b></p> <p><b>Description/Corrective Action:</b> Floor storage is not recommended for hazardous materials. If it is necessary to do so, secondary containment is required.</p>				
<p><b>Corrosive or potentially hazardous liquid chemicals are stored below eye level.</b></p> <p><b>Description/Corrective Action:</b> To reduce potential for spill or splash injury to face and eyes, corrosives and other potentially hazardous liquids should be stored below eye level (&lt; 56”).</p>				
<p><b>Flammable chemicals are stored separately from combustible materials.</b></p> <p><b>Description/Corrective Action:</b> Storage of flammable liquids shall be separated from incompatible materials, including combustible materials.</p>				
<p><b>Flammable liquid (including waste) storage outside of the flammable storage cabinet is less than 10 gallons.</b></p> <p><b>Description/Corrective Action:</b> The maximum amount of flammable liquids (including waste) in a laboratory allowed outside a flammable storage cabinet is 10 gallons. If no flammable storage available, reduce inventory to less than 10 gallons.</p>				
<p><b>Flammable liquid storage in the lab is below allowable quantities as determined by the campus Fire Marshal (60 gallons per fire-rated area).</b></p> <p><b>Description/Corrective Action:</b> Flammable liquids in the laboratory must not exceed 60 gallons per fire rated area.</p>				

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<p><b>Flammables liquids are not stored in containers that exceed 1 gallon containers (or 2 gallons for approved safety can).</b></p> <p><b>Description/Corrective Action:</b> Flammable liquid storage containers must not exceed 1 gallon, with the exception of 2 gallon if container is a safety can.</p>				
<p><b>Flammables liquids are not used in close proximity to ignition sources.</b></p> <p><b>Description/Corrective Action:</b> Flammable liquids shall be kept as far as possible from open flames, but not less than 12 inches.</p>				
<p><b>Flammables are stored in "laboratory safe" refrigerator/freezer only.</b></p> <p><b>Description/Corrective Action:</b> Flammables must be stored in refrigerators or freezers manufactured to be "laboratory safe" and properly labeled as safe for storage of flammables.</p>				
<p><b>Incompatible chemicals are properly segregated.</b></p> <p><b>Description/Corrective Action:</b> Incompatible substances must be separated from each other by distance, partitions or secondary containment to prevent accidental contact. Store acids from bases, oxidizers from flammables, etc.</p>				
<p><b>Laboratory is free of expired or unneeded chemicals.</b></p> <p><b>Description/Corrective Action:</b> Expired chemicals should be discarded following appropriate disposal procedures. All unneeded chemicals should be removed from the laboratory.</p>				
<p><b>Pyrophoric chemicals are segregated, properly contained, labeled and used only in buildings equipped with automatic sprinkler system.</b></p> <p><b>Description/Corrective Action:</b> Pyrophoric chemicals must be segregated from incompatible materials by a distance of not less than 20 feet or by storing in hazardous material storage cabinets. Pyrophoric chemical use and storage is permissible only in buildings that are equipped throughout with an approved automatic sprinkler system.</p>				
<p><b>Storage cabinets are clearly labeled as to contents.</b></p> <p><b>Description/Corrective Action:</b> Chemical storage cabinets must be conspicuously labeled as appropriate, i.e. "FLAMMABLE "or "CORROSIVES".</p>				
<p><b>Strong acids and strong bases are stored in secondary containers.</b></p> <p><b>Description/Corrective Action:</b> Secondary containment is required for the indoor storage of all corrosives.</p>				
<p><b>Time sensitive chemicals/peroxide formers are labeled with date received, stored away from light and disposed of within 18 months of purchase or expiration date, whichever is sooner.</b></p> <p><b>Description/Corrective Action:</b> Peroxide formers are to be stored away from light and heat and labeled with the date they were received, opened and an expiration date to facilitate hazard control. Organic peroxides can decompose into various unstable compounds over time.</p>				

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<p><b>Water reactive chemicals are properly segregated, contained and labeled.</b></p> <p><b>Description/Corrective Action:</b> Materials which will react with water shall not be stored in the same room with flammable or combustible liquids. Chemicals that may react violently with water must be stored in a moisture free environment and protected from accidental contact with water.</p>				
<b>Documentation</b>	<b>Yes</b>	<b>No</b>	<b>Corrected</b>	<b>NA</b>
<p><b>Appropriate hazard communication signage is posted at laboratory entrance(s).</b></p> <p><b>Description/Corrective Action:</b> Hazard identification signs (biohazard, radiation, carcinogen, toxic, oxidizer, flammable, pyrophoric, water reactive, corrosive, magnetic fields, laser, etc.) are required at the entrances to locations where hazardous materials are stored, dispensed, used or handled.</p>				
<p><b>Building Emergency Evacuation Route is posted near the exit.</b></p> <p><b>Description/Corrective Action:</b> Map of escape route shall be posted near exits.</p>				
<p><b>Chemical inventory has been completed or updated within past 12 months.</b></p> <p><b>Description/Corrective Action:</b> An inventory of all hazardous substances known to be present in the workplace must be maintained and updated at least annually.</p>				
<p><b>Current emergency contacts and PI/supervisor contact are posted at the laboratory entrance.</b></p> <p><b>Description/Corrective Action:</b> The names or regular job titles of persons who can be contacted for further information or explanations during an emergency should be posted at the entrances to all laboratories.</p>				
<p><b>Department Injury and Illness Prevention Plan is available and up-to-date.</b></p> <p><b>Description/Corrective Action:</b> Every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program. The program shall be in writing and updated at least annually.</p>				
<p><b>Emergency Action Plan is available.</b></p> <p><b>Description/Corrective Action:</b> Every employer shall establish, implement and maintain an Emergency Action Plan. The plan shall be in writing and updated at least annually.</p>				
<p><b>Emergency assistance information is posted.</b></p> <p><b>Description/Corrective Action:</b> Effective provisions shall be made in advance for prompt medical treatment in the event of serious injury or illness. This can be accomplished by a communications system for contacting a doctor or emergency medical service, such as access to 911 or equivalent telephone system. Emergency numbers must be posted near telephone.</p>				
<p><b>Hazard assessment is completed and reviewed annually.</b></p> <p><b>Description/Corrective Action:</b> UCOP policy requires a hazard assessment to determine the appropriate personal protective equipment. Any completed hazard assessment that indicates less than the minimum PPE described requires review and approval from EH&amp;S. Hazard assessment must be reviewed on an annual basis and roster must be kept up-to-date.</p>				

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<p><b>If applicable, participation in the Medical Surveillance Program has been established and documented.</b></p> <p><b>Description/Corrective Action:</b> For a Cal/OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements, medical surveillance shall be established for employee as prescribed by the particular standard.</p>				
<p><b>Personnel is aware of location/existence of current campus-wide Chemical Hygiene Plan</b></p> <p><b>Description/Corrective Action:</b> A written Chemical Hygiene Plan is required for any workplace that uses hazardous chemicals. Access to current Chemical Hygiene Plan must be available to all members of the lab. UC Davis campus-wide Chemical Hygiene Plan is contained within the Laboratory Safety Manual: <a href="http://safetyservices.ucdavis.edu/article/laboratory-safety-manual">http://safetyservices.ucdavis.edu/article/laboratory-safety-manual</a>.</p>				
<p><b>Safety Data Sheets are accessible and available.</b></p> <p><b>Description/Corrective Action:</b> Safety data sheets for each hazardous substance must be readily accessible. Electronic access and other alternatives to maintaining paper copies are permitted provided all lab workers have immediate access.</p>				
<p><b>Self-inspections are conducted and documented on an annual basis.</b></p> <p><b>Description/Corrective Action:</b> Records of scheduled and periodic inspections (annual) to identify unsafe conditions and work practices, including person(s) conducting the inspection, the unsafe conditions and work practices that have been identified and action taken to correct the identified unsafe conditions and work practices are required.</p>				
<p><b>Staff is aware of how to report incidents and near-misses.</b></p> <p><b>Description/Corrective Action:</b> Staff should be provided information on the reporting of incidents and near misses.</p>				
<p><b>Standard Operating Procedures are available.</b></p> <p><b>Description/Corrective Action:</b> Written SOPs for hazardous operations in the laboratory, work with particularly hazardous substances, etc., and documented training are required. Consult manufacturers' Safety Data Sheets (SDS) for hazard classification information.</p>				
<p><b>Electrical</b></p>	<p><b>Yes</b></p>	<p><b>No</b></p>	<p><b>Corrected</b></p>	<p><b>NA</b></p>
<p><b>3-Prong plugs have not been modified to plug into 2-prong receptacle.</b></p> <p><b>Description/Corrective Action:</b> Equipment must be properly grounded to operate safely.</p>				
<p><b>A minimum clearance of thirty-six inches in front of electric panel/breaker box is being maintained.</b></p> <p><b>Description/Corrective Action:</b> A minimum clearance must be maintained around electrical panel for easy access in the event of an emergency.</p>				
<p><b>Electrical cords do not pose any trip hazards.</b></p> <p><b>Description/Corrective Action:</b> Cords must be taped down or otherwise secured to prevent tripping.</p>				

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<p><b>Equipment does not have any damaged cord, plug or other condition that constitutes an electrical hazard.</b></p> <p><b>Description/Corrective Action:</b> Remove equipment from service until repaired or replaced.</p>				
<p><b>Extension cords are not being used as permanent or semi-permanent wiring.</b></p> <p><b>Description/Corrective Action:</b> Extension cords may be used in temporary situations where permanent wiring is inappropriate or because equipment is frequently moved. If permanent wiring is required a circuit receptacle should be installed.</p>				
<p><b>Extension cords or power strip are plugged directly into outlet.</b></p> <p><b>Description/Corrective Action:</b> Power strips or extension cords must be directly connected to a permanently installed circuit receptacle, not connected in series.</p>				
<p><b>High voltage equipment is clearly and appropriately labeled.</b></p> <p><b>Description/Corrective Action:</b> "Danger – High Voltage" must be posted on all doors that lead to areas that contain equipment with high voltage (&gt;600 volts). Equipment must be marked as high voltage with permanent, highly visible markings.</p>				
<p><b>High voltage equipment is properly guarded.</b></p> <p><b>Description/Corrective Action:</b> High voltage conductors (&gt;600 volts) must be effectively guarded against danger from accidental contact. All protective panels must be properly installed.</p>				
<p><b>Major appliances/equipment are plugged directly into outlet.</b></p> <p><b>Description/Corrective Action:</b> Refrigerators, freezers, incubators, centrifuges, microwaves, analytical equipment, etc. must be plugged directly into the wall outlet.</p>				
<p><b>Personnel working on hard-wired equipment are trained to the Energy Isolation – Lock Out/Tag Out program.</b></p> <p><b>Description/Corrective Action:</b> The employer's hazardous energy control procedure shall include separate procedural steps for the safe lockout/tagout of each machine or piece of equipment affected by the hazardous energy control procedure. Only trained individuals may work on hard-wired equipment.</p>				
<p><b>Power strips near liquids have surge protection.</b></p> <p><b>Description/Corrective Action:</b> Surge protection is required for all power strips that are used near liquid.</p>				
<b>Equipment</b>	<b>Yes</b>	<b>No</b>	<b>Corrected</b>	<b>NA</b>
<p><b>Appropriate safety information is posted on equipment.</b></p> <p><b>Description/Corrective Action:</b> Required safety information, including danger and hazard warning must be posted on equipment.</p>				

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<p><b>Moving parts of equipment are properly guarded.</b></p> <p><b>Description/Corrective Action:</b> Belts, pulleys, sprockets and chains, shafts or other rotating parts of mechanical equipment must be properly guarded (opening &lt;math&gt;&lt;1/2''&lt;/math&gt;).</p>				
<p><b>Secondary containment for vacuum pumps that use oil is provided.</b></p> <p><b>Description/Corrective Action:</b> Secondary containment must be provided for vacuum pumps to collect oil leakage.</p>				
<b>Fire</b>	<b>Yes</b>	<b>No</b>	<b>Corrected</b>	<b>NA</b>
<p><b>Aisles, exits and/or hallways are not obstructed.</b></p> <p><b>Description/Corrective Action:</b> Aisles must meet minimum clearance guideline of 24" to facilitate departure in the event of an emergency.</p>				
<p><b>Fire Extinguisher is available in the room with flammable or combustible liquids.</b></p> <p><b>Description/Corrective Action:</b> A portable fire extinguisher must be located in the area where flammable or combustible liquids are stored, used or dispensed.</p>				
<p><b>Fire extinguisher annual maintenance tag is present and up-to-date.</b></p> <p><b>Description/Corrective Action:</b> Fire extinguisher must be inspected annually by Fire Prevention and documented on inspection tag. Contact Rocci Twitchell at <a href="mailto:rtrtwitchell@ucdavis.edu">rtrtwitchell@ucdavis.edu</a> to arrange for annual maintenance or replacement tag.</p>				
<p><b>Fire extinguisher is properly mounted.</b></p> <p><b>Description/Corrective Action:</b> Fire extinguisher must be mounted and easily accessible in the event of an emergency.</p>				
<p><b>Fire extinguisher monthly visual inspection is documented and up-to-date.</b></p> <p><b>Description/Corrective Action:</b> Fire extinguishers must be visually inspected monthly and documented.</p>				
<p><b>Fire extinguishers are available as required.</b></p> <p><b>Description/Corrective Action:</b> Portable fire extinguishers must be available within 75' or less for class A fires or within 50' for class B fires (flammable liquids).</p>				
<p><b>Fire extinguishers are fully charged, pin and/or security seal is intact.</b></p> <p><b>Description/Corrective Action:</b> Fire extinguishers must be fully charged and operational at all times.</p>				
<p><b>Fire-rated doors are not propped open.</b></p> <p><b>Description/Corrective Action:</b> Fire-rated doors must not be propped open. Magnetic hold-opens, linked to building alarm systems, are acceptable.</p>				

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<p><b>Items stored such that minimum clearance of 18" of sprinklers or 24" of ceiling without sprinklers is met.</b></p> <p><b>Description/Corrective Action:</b> Title 8, §6170 requires 18" clearance between sprinklers and materials below and 24" from ceiling to materials below without sprinklers. Move items that prevent this required clearance.</p>				
<p><b>Fume Hoods</b></p>	<b>Yes</b>	<b>No</b>	<b>Corrected</b>	<b>NA</b>
<p><b>Audible/visual alarm is functional and/or visual airflow indicator is working.</b></p> <p><b>Description/Corrective Action:</b> Fume hood must be equipped with a quantitative airflow monitor that continuously indicates air is flowing or an audible or visual alarm that is activated if airflow decreases to less than 80% of required airflow.</p>				
<p><b>Chemical work is conducted more than 6" from front of hood.</b></p> <p><b>Description/Corrective Action:</b> To minimize potential for injury or exposure, hazardous chemicals and/or reactions should be kept at least 6" behind the plane of the sash.</p>				
<p><b>Fume hood has been certified within the past year.</b></p> <p><b>Description/Corrective Action:</b> Annual check of fume hood is required to ensure the ability to maintain inward airflow.</p>				
<p><b>Fume hood illumination is functional.</b></p> <p><b>Description/Corrective Action:</b> If fume hood illumination is available, it must be functional.</p>				
<p><b>Fume hood is not cluttered or used for storage.</b></p> <p><b>Description/Corrective Action:</b> Fume hood should not be used for long-term storage of equipment, chemicals or supplies not regularly used. Fume hood should be kept clean and free of clutter at all times for improved airflow across the work surface.</p>				
<p><b>Fume hood users know how to check their airflow monitor to verify that the hood airflow is functioning properly. Users know how to check the certification sticker for annual testing.</b></p> <p><b>Description/Corrective Action:</b> Fume hood operators must know where the quantitative airflow monitor or alarm system is located on the hood and how it is used to indicate an inward airflow during hood operation, and be able to determine the date of the last performance test and if the hood performance met the requirements.</p>				
<p><b>Proper sash height is indicated. Sash position does not exceed approved working height. Fume hood is kept closed when not in use.</b></p> <p><b>Description/Corrective Action:</b> The sash and/or jamb of the fume hood must be marked to show the maximum opening at which the hood face velocity meets the required airflow. Fume hood should be kept closed when not in use.</p>				

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Gas	Yes	No	Corrected	NA
<p><b>Compressed gas cylinders are adequately secured.</b></p> <p><b>Description/Corrective Action:</b> Compressed cylinders must be stored upright and adequately secured. Two, non-combustible restraints (upper 1/3 and lower 1/3) are recommended. "C"-clamps are not adequate to secure large cylinders.</p>				
<p><b>Compressed gas cylinders are labeled with contents and hazards.</b></p> <p><b>Description/Corrective Action:</b> Compressed gas cylinders are required to have a shoulder label that includes contents and hazard information.</p>				
<p><b>Oxygen and combustible cylinders are separated by an appropriate distance or barrier.</b></p> <p><b>Description/Corrective Action:</b> Oxygen cylinders in use or in storage shall be separated from fuel gas cylinders or combustible materials 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.</p>				
<p><b>Toxic gases are properly stored in a ventilated cabinet/fume hood.</b></p> <p><b>Description/Corrective Action:</b> Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.</p>				
<p><b>Valves of gas cylinders are capped when not in use.</b></p> <p><b>Description/Corrective Action:</b> Valve protection devices must be in place when cylinder is not in use. The regulator must not remain installed when cylinder is not in-use.</p>				
General Safety	Yes	No	Corrected	NA
<p><b>Ceiling tiles/panels are not missing and are in good condition.</b></p> <p><b>Description/Corrective Action:</b> Individual ceiling tiles adjacent to sprinkler heads must be in place to ensure activation of the sprinkler system during a fire. Groups of three or more ceiling tiles missing in areas not adjacent to sprinkler heads must be replaced to ensure activation.</p>				
<p><b>Floor is free of defects that could cause slipping, tripping or falling.</b></p> <p><b>Description/Corrective Action:</b> Laboratory floor needs to be free of defects that could cause slip, trips and falls.</p>				
<p><b>Hand wash sink is available with soap and paper towels.</b></p> <p><b>Description/Corrective Action:</b> Employees must be able to wash and dry their hands after working with potentially hazardous materials, after removing gloves and prior to leaving laboratory.</p>				



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<p><b>Lab areas are clean and uncluttered.</b></p> <p><b>Description/Corrective Action:</b> Lab area should be clean and uncluttered, excess materials should be stored in neat, secure manner that provides easy access and reduces the potential for falling, collapsing, rolling or spreading of the material. Equipment, chemicals, glassware and supplies not in regular use should be stored in areas other than workstations. Paper on work surfaces and walls should be kept to a minimum. There should be minimal glassware on bench top, in sink, and in fume hood.</p>				
<p><b>Laboratory sinks delivering non-potable water, are labeled "Industrial Water - Do Not Drink"</b></p> <p><b>Description/Corrective Action:</b> Water for industrial purposes must be posted in a manner to indicate that the water is unsafe and is not to be used for drinking.</p>				
<p><b>Laboratory ventilation pressure is negative with respect to corridors and offices.</b></p> <p><b>Description/Corrective Action:</b> Negative pressure should be maintained between the laboratory and adjacent non-laboratory spaces to prevent uncontrolled chemical vapors from leaving the laboratory.</p>				
<p><b>Refrigerators/freezers are labeled appropriately for the use of the refrigerator/freezer. i.e. "not for storage of food for consumption", "not for storage of flammable materials".</b></p> <p><b>Description/Corrective Action:</b> Permanent warning labels against the storage of food and beverages must be affixed to all laboratory refrigerators and freezers, i.e., "not for storage of food for consumption," "not for storage of flammable materials," etc.</p>				
<p><b>Spills are promptly and properly cleaned.</b></p> <p><b>Description/Corrective Action:</b> All spills shall be cleaned promptly, using appropriate protective apparel and equipment.</p>				
<p><b>There is no eating or drinking in the laboratory or food storage with hazardous materials.</b></p> <p><b>Description/Corrective Action:</b> Eating and drinking in areas where laboratory chemicals are stored or handled is prohibited. Workers should be directed to consume food and beverages outside the laboratory.</p>				
<p><b>Vacuum systems (both house systems and stand-alone vacuum pumps) are fitted with traps and/or protection (HEPA/hydrophobic) filter, if required.</b></p> <p><b>Description/Corrective Action:</b> Improper trapping can allow vapor to be emitted from the exhaust of the vacuum system, resulting in either reentry into the laboratory and building or potential exposure to maintenance workers.</p>				
<b>PPE</b>	<b>Yes</b>	<b>No</b>	<b>Corrected</b>	<b>NA</b>
<p><b>Appropriate gloves are available for use with hazardous activities conducted within the laboratory.</b></p> <p><b>Description/Corrective Action:</b> Gloves that are appropriate for the activity must be available in the laboratory. Chemical resistant gloves are required for handling hazardous materials.</p>				
<p><b>Equipment or process sound levels do not exceed 85 dBA.</b></p>				

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<p><b>Descriptive/Corrective Action:</b> Protection against the effects of noise exposure shall be provided when the sound levels exceed 90 dBA for 8 hours. If the sound levels may exceed 85 dBA, a sound level check should be completed.</p>				
<p><b>Face shields are worn as appropriate.</b></p> <p><b>Description/Corrective Action:</b> Face shields must be worn over safety glasses or chemical splash goggles when using cryogenics, large amounts of corrosives, or other eye/face splash hazards.</p>				
<p><b>Gloves are worn for laboratory procedures where skin contact with hazards may occur.</b></p> <p><b>Description/Corrective Action:</b> Gloves are required for employees whose work involves exposure of hands to cuts; burns; harmful physical or chemical agents; or radioactive materials.</p>				
<p><b>If applicable, respirator use has been evaluated by EH&amp;S and users are included in the campus respiratory protection program.</b></p> <p><b>Description/Corrective Action:</b> Every employee that is required to wear a respirator must participate in the respiratory protection program which includes a medical evaluation and fit-testing.</p>				
<p><b>If applicable, specialty PPE needed (i.e. UV/IR glasses, lab aprons, cryogenic gloves) is available in the laboratory.</b></p> <p><b>Description/Corrective Action:</b> The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment.</p>				
<p><b>Lab coats, appropriate to the activity, are worn.</b></p> <p><b>Description/Corrective Action:</b> An appropriate lab coat must be worn when actively working in the laboratory unless an exemption to the UCOP PPE policy has been granted.</p>				
<p><b>Lab coats, properly fitted, are available.</b></p> <p><b>Description/Corrective Action:</b> Employer is responsible for providing required PPE for protection against hazardous materials.</p>				
<p><b>Lab workers remove gloves before accessing common items, door knobs, elevator buttons, etc.</b></p> <p><b>Description/Corrective Action:</b> Gloves should be removed before exiting the laboratory. In the event that hand protection is required for transport of chemical, one glove should be removed to access common items.</p>				
<p><b>Long pants (legs covered) and closed-toe/heel shoes are worn in the lab.</b></p> <p><b>Description/Corrective Action:</b> UCOP PPE policy requires that long pants or equivalent and close-toed/close-heeled shoes be worn in the laboratory unless an exemption to the policy has been granted.</p>				
<p><b>Safety glasses or chemical splash goggles are worn in the laboratory when there is a risk of eye injury.</b></p>				

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Safety Equipment	Yes	No	Corrected	NA
<p><b>Description/Corrective Action:</b> Eye protection is required when there is a risk of eye injury, such as puncture, abrasion, contusion or burn as a result of contact with flying particles, hazardous substances, projections or injurious light rays.</p>				
<p><b>A plumbed emergency eyewash /safety shower or emergency eyewash is immediately available where corrosive liquids are handled or used.</b></p> <p><b>Description/Corrective Action:</b></p> <p><b>Description/Corrective Action:</b> An emergency eyewash or emergency eyewash/safety shower must be available in the room where corrosive liquids are handled or used.</p>				
<p><b>A plumbed emergency eyewash/safety shower or emergency eyewash is available within 10 seconds.</b></p> <p><b>Description/Corrective Action:</b> An emergency eyewash and deluge shower must be accessible within 10 seconds of all chemical splash or eye injurious hazards.</p>				
<p><b>Access to emergency eyewash/shower is free of items that obstruct their use.</b></p> <p><b>Description/Corrective Action:</b> The area of the eyewash and shower equipment must be free of items that obstruct their use.</p>				
<p><b>Annual test of emergency eyewash/safety shower or emergency eyewash has been completed or documented.</b></p> <p><b>Description/Corrective Action:</b> A flow verification test and inspection of plumbed eyewash and shower equipment must be completed annually.</p>				
<p><b>Appropriate chemical spill kit is available.</b></p> <p><b>Description/Corrective Action:</b> Spill control kits tailored to deal with the potential risk associated with the materials being used in the laboratory are required.</p>				
<p><b>Calcium gluconate for Hydrofluoric acid (HF) exposure first aid is available. Calcium gluconate has not expired. Training on HF first aid is documented.</b></p> <p><b>Description/Corrective Action:</b> Exposure to HF can lead to hypocalcemia. Therefore, hydrofluoric acid exposure is often treated with calcium gluconate, a source of Ca<sup>2+</sup> that sequesters the fluoride ions. Non-expired calcium gluconate should be available and staff should be trained in HF first aid.</p>				
<p><b>First Aid Kit is available.</b></p> <p><b>Description/Corrective Action:</b> Title 8, §3400 requires adequate first-aid materials be readily available for employees on every job. Purchase simple first aid kit and replenish as needed.</p>				
<p><b>Monthly activation of emergency eyewash/safety shower is documented.</b></p> <p><b>Description/Corrective Action:</b> Plumbed eyewash and shower equipment must be activated at least monthly to flush the line and verify operation.</p>				
<b>Seismic</b>	<b>Yes</b>	<b>No</b>	<b>Corrected</b>	<b>NA</b>

# LABORATORY SAFETY REVIEW CHECKLIST

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<p><b>Heavy items and precariously situated items are not stored on higher shelves.</b></p> <p><b>Description/Corrective Action:</b> For seismic concerns, heavier items must be secured or placed on lower shelves.</p>				
<p><b>Large equipment is seismically anchored.</b></p> <p><b>Description/Corrective Action:</b> To reduce potential injury and the blocking of doors and/or exits during seismic events, items over 5' tall, i.e., file cabinets, bookcases and other tippable items, should be anchored.</p>				
<p><b>Overhead storage is secured.</b></p> <p><b>Description/Corrective Action:</b> To decrease the potential for injury or blocking aisles during seismic events, items stored overhead must be secured. Either move overhead storage or secure.</p>				
<p><b>Shelves have restraints to prevent items from falling.</b></p> <p><b>Description/Corrective Action:</b> Shelves used for the storage of hazardous materials must have a lip or guard to reduce the potential for chemical spills during a seismic event.</p>				
<b>Training</b>	<b>Yes</b>	<b>No</b>	<b>Corrected</b>	<b>NA</b>
<p><b>Laboratory personnel have completed UC Laboratory Safety Fundamentals training.</b></p> <p><b>Description/Corrective Action:</b> All laboratory workers are required to complete the UC Laboratory Safety Fundamentals e-Course prior to beginning work in the laboratory and every three years thereafter. Log on to LMS and complete required e-Course.</p>				
<p><b>Specialized training for lab-specific hazards has been documented.</b></p> <p><b>Description/Corrective Action:</b> Documented training is required for all hazardous substances, processes, procedures and equipment in the work area (regulated carcinogens, Blood borne Pathogens, radiation, lasers use, etc.). Site-specific orientation training is required for all new laboratory personnel.</p>				
<p><b>Spill response training is documented.</b></p> <p><b>Description/Corrective Action:</b> All employees should be trained in the appropriate spill response procedures for both minor and major chemical spills. Annual retraining is required.</p>				
<p><b>Training on laboratory specific Standard Operating Procedures (SOP) is documented.</b></p> <p><b>Description/Corrective Action:</b> Documented training on all SOPs is required and specific and unambiguous training records must be available upon request.</p>				
<p><b>Training on the Chemical Hygiene Plan is documented.</b></p> <p><b>Description/Corrective Action:</b> Documented training is required for the Chemical Hygiene Plan.</p>				
<p><b>Training on the Emergency Action Plan is documented.</b></p> <p><b>Description/Corrective Action:</b> Documented training is required for the Emergency Action Plan. Annual retraining is required.</p>				

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<p><b>Training on the Injury and Illness Prevent Plan (IIPP) is documented.</b></p> <p><b>Description/Corrective Action:</b> Documented training is required for the IIPP. Annual retraining is required.</p>				
<p><b>Training to manage or handle hazardous waste is documented.</b></p> <p><b>Description/Corrective Action:</b> Laboratory workers that generate or handle hazardous waste must be trained in storing, labeling, proper disposal and accumulation times for hazardous waste.</p>				
<b>Waste</b>	<b>Yes</b>	<b>No</b>	<b>Corrected</b>	<b>NA</b>
<p><b>All containers holding hazardous waste are closed except when adding or removing waste.</b></p> <p><b>Description/Corrective Action:</b> A container holding hazardous waste must be closed except when adding or removing waste.</p>				
<p><b>All hazardous waste containers are compatible with the contents and in good condition.</b></p> <p><b>Description/Corrective Action:</b> All hazardous waste containers must be compatible with the contents and in good condition. If a container holding hazardous waste is not in good condition, or if it begins to leak, the contents shall be transferred into a container that is in good condition. A container shall be made of or lined with materials which will not react with and are otherwise compatible with, the hazardous waste to be transferred or stored, so that the ability of the container to contain the waste is not impaired.</p>				
<p><b>All sharps are disposed of in a sturdy container or a hard-walled sharps container (non-red without biohazard label or red with biohazard) as appropriate.</b></p> <p><b>Description/Corrective Action:</b> All sharps must be disposed of in a sturdy container (clean lab glass) or a hard-walled sharps container (non-red without biohazard label or red with biohazard) as appropriate. Improper disposal of sharps can cause injury and can also be a source of infectious, chemical or radiological aerosol and surface contamination.</p>				
<p><b>Biomedical waste containers have a tight-fitting lid in place.</b></p> <p><b>Description/Corrective Action:</b> Biomedical waste containers must have a tight-fitting lid in place to prevent leakage during collection, handling, processing, storage, transport or shipping.</p>				
<p><b>Biomedical waste in red bags is being properly disposed in accordance with UCD Policy.</b></p> <p><b>Description/Corrective Action:</b> All red bag waste must be disposed of in accordance with the Medical Waste Management Act.</p>				
<p><b>Biomedical waste secondary containment is used.</b></p> <p><b>Description/Corrective Action:</b> If the outside of the primary biomedical container is contaminated, the primary container shall be placed in a second container which prevents leakage during collection, handling, processing, storage, transport or shipping.</p>				
<p><b>Hazardous waste is being properly disposed through EH&amp;S.</b></p> <p><b>Description/Corrective Action:</b> All hazardous waste must be disposed of through EH&amp;S not evaporated in fume hoods or disposed of in regular trash.</p>				

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<p><b>Hazardous waste in secondary containment.</b></p> <p><b>Description/Corrective Action:</b> All hazardous waste must be managed so as to ensure that incompatible laboratory wastes are not mixed, and are otherwise prevented from coming in contact with each other. All hazardous materials must be in secondary containment.</p>				
<p><b>Hazardous waste is not being accumulated beyond regulatory time limits (i.e., 90 days for extremely hazardous waste, 9 months for other hazardous waste).</b></p> <p><b>Description/Corrective Action:</b> Extremely Hazardous waste may be accumulated for no greater than 90 days and other hazardous waste for no greater than one year. Due to EH&amp;S waste processing time, hazardous waste can be held in laboratory no longer than 9 months.</p>				
<p><b>Hazardous waste is properly labeled.</b></p> <p><b>Description/Corrective Action:</b> Hazardous waste must be labeled with "Hazardous Waste", the start date of accumulation, the contents, the hazard classification, the physical state and the name and address of the person producing the waste.</p>				
<p><b>Sharps containers are properly labeled, as to contents, hazard, etc.</b></p> <p><b>Description/Corrective Action:</b> Sharps containers must be labeled with the words "sharps waste". Biohazard sharps containers must include the international biohazard symbol and the word "BIOHAZARD".</p>				
<p><b>Sharps container's contents are not past the fill line.</b></p> <p><b>Description/Corrective Action:</b> Sharps containers must be prepared for disposal when <math>\frac{3}{4}</math> full and be taped closed or tightly lidded to preclude loss of contents.</p>				
<p><b>Universal waste is properly labeled/discarded/contained.</b></p> <p><b>Description/Corrective Action:</b> Universal waste must be contained in a manner that prevents breakage and release of components to the environment. The container shall be structurally sound and compatible with the contents. Universal waste must be labeled or marked to identify the type of universal waste (i.e. Universal Waste-Battery(ies), Universal Waste-Mercury-Containing Equipment, Universal Waste-CRT(s)). Universal waste shall be accumulated for no longer than one year from the date the universal waste was generated, or received from another universal waste handler.</p>				