

## **Carcinogen**

- ☐ **Access to designated carcinogen work and storage areas is not properly marked or controlled.**

Carcinogen work and storage areas must be posted with Carcinogen warning and access must be restricted to authorized, trained personnel.

- ☐ **California-regulated carcinogen inventory is not reported to EH&S.**

All regulated carcinogens must be entered in the laboratory's Chemical Inventory System (CIS) account. This CIS account must be updated at least annually.

- ☐ **Carcinogen Self Audit not complete.**

All UC Davis carcinogen users must complete an annual carcinogen safety self-audit.

- ☐ **Standard operating procedure(s), specific to the carcinogen(s) in use are not being followed or are not available.**

Workers are required to follow all established regulated procedures with regard to carcinogen use in the laboratory, include those for the use, storage and disposal of regulated carcinogens.

## **Chemical**

- ☐ **Chemical containers not clearly labeled with contents and primary hazard(s).**

Each container of hazardous substance is to be labeled with the identity of the hazardous substance and any appropriate hazard warnings.

- ☐ **Chemical storage containers are not in good condition.**

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.

- ☐ **Chemicals stored above eye level.**

To reduce potential for spill or splash injury to face and eyes, corrosives and other potentially hazardous liquids should be stored below eye level (< 56").

- ☐ **Combustible materials stored with flammable chemicals.**

Storage of flammable liquids shall be separated from incompatible materials, including combustible materials.

- ☐ **Common abbreviations used on container labels are not identified in a prominent place in the lab.**

Abbreviations used in the laboratory on a regular basis for the identification of non-hazardous materials should be posted in a prominent place and available to all laboratory workers.

- ☐ **Containers of hazardous chemicals are stored on the floor.**

Floor storage is not recommended for hazardous materials. If it is necessary to do so, secondary containment is required.

- ☐ **Expired or unneeded chemicals in laboratory.**

Expired chemicals should be discarded following appropriate disposal procedures. All unneeded chemicals should be removed from the laboratory.

- ☐ **Flammable liquid storage in the lab exceeds allowable quantities as determined by the campus Fire Marshal.**

Flammable liquids in the laboratory must not exceed 60 gallons per fire rated area.

**☐ Flammable liquid storage outside of the flammable storage cabinet exceeds 10 gallons.**

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.

**☐ Flammables are used in close proximity to ignition sources.**

Flammable liquids should not be used in close proximity to ignition sources, i.e, Bunsen burners, electrical power strips, etc.

**☐ Flammables stored in large containers.**

Flammable liquid storage containers must not exceed 1 gallon, with the exception of 2 gallon if container is a safety can.

**☐ Flammables stored in non-"laboratory safe" refrigerator/freezer.**

Flammables must be stored in refrigerators or freezers manufactured to be "laboratory safe" and properly labeled as safe for storage of flammables.

**☐ Incompatible chemicals are stored together.**

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.

**☐ Pyrophoric chemicals not segregated, contained or labeled. Entire building not equipped with automatic sprinkler system.**

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.

**☐ Storage cabinets are not clearly labeled as to contents.**

Chemical storage cabinets must be conspicuously labeled as appropriate, i.e."FLAMMABLE – KEEP FIRE AWAY" or "CORROSIVES"

**☐ Strong acids and strong bases not stored in secondary containers.**

Secondary containment is required for the indoor storage of all regulated hazardous materials.

**☐ Time sensitive chemicals/peroxide formers stored inappropriately.**

Peroxide formers are to be stored away from light and heat and labeled with the date they were opened and an expiration date to facilitate hazard control. Organic peroxides can decompose into various unstable compounds over time.

**☐ Water reactive chemicals not segregated, contained or labeled.**

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.

## **Documentation**

**☐ All group members are not listed in the LHAT**

Please log into LHAT [ehs.ucop.edu/lhat](https://ehs.ucop.edu/lhat) and update the lab roster. The following individuals are on your roster:

**☐ Appropriate hazard communication signage is not posted at laboratory entrance(s).**

Hazard identification signs (biohazard, radiation, carcinogen, poison, 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.

**☐ Building Emergency Evacuation Route not posted.**

Emergency escape procedures and emergency escape route assignments must be included in the emergency action plan. Map of escape route shall be posted near exits.

**☐ Chemical hygiene plan is not available or not reviewed within past 12 months.**

A written Chemical hygiene plan is required for any workplace that uses hazardous chemicals. The plan must be reviewed on an annual basis.

**☐ Chemical inventory has not been completed or updated within past 12 months.**

An inventory of all hazardous substances known to be present in the workplace must be maintained and updated at least annually.

**☐ Current emergency contacts and PI/supervisor contact are not posted at the laboratory entrance.**

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.

**☐ Department Illness and Injury Prevention Plan not available and/or up-to-date.**

Every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program. The program shall be in writing.

**☐ Emergency Action Plan unavailable.**

The Emergency Action plan must be available and include information and documented training for steps to safely secure processes during an emergency, evacuation routes and meeting points, location and use of fire extinguishers, how to get medical help, spill response, etc.

**☐ Emergency assistance information not posted**

Effective provisions shall be made in advance or 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.

**☐ Hazard Assessment not completed and/or reviewed.**

Under UCOP's March 1, 2013 PPE Policy, supervisors are required to perform a hazard assessment to determine the appropriate use of personal protective equipment. Absent the required hazard assessment, the minimum PPE required when occupying a laboratory/technical area where hazardous materials are used or stored is long pants, closed toe/heel shoes, protective eyewear and lab coat. Any completed hazard assessment that indicates less than the minimum PPE described requires review and approval from EH&S. Hazard Assessment must be reviewed on an annual basis.

**☐ Lab Hazard Assessment Tool (LHAT) is incomplete.**

Please log into [ehs.ucop.edu/lhat](https://ehs.ucop.edu/lhat) At this point you can assign a delegate to complete the remaining tasks. A hazard assessment must be completed for the lab. Add all lab workers to the LHAT. After reading the hazard assessment and completing the LHAT training, workers can pick up free PPE from EHS.

**☐ Laboratory Safety Plan Supplement is not complete**

Please download and fill out lab safety plan supplement (LSPS) at <http://ehs.ucmerced.edu/research-safety> The link to the supplement is halfway down the page.

**Laboratory Safety Representative not designated.**

Provide name and email for Laboratory Safety Representative (LSR) to EH&S.

**Medical Surveillance Program needs documentation.**

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.

**No documented laboratory self-inspection.**

At least once per year, document a laboratory self-inspection and place a copy in the lab safety binder.

**Prudent Practices book is not in lab.**

Prudent Practices was given to all PIs. It should be kept in the lab for reference by the lab workers.

**Safety Data Sheets are not available.**

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.

**Self-inspections are not accomplished and documented on a regular basis.**

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.

**Staff is unaware of how to report concerns or exposures to materials that should have medical consult.**

Staff should be provided information on when medical surveillance monitoring may be required and how to report concerns or exposures to materials that may require a medical consult.

**Staff is unaware of how to report incidents and near misses.**

Staff should be provided information on the reporting of incidents and near misses.

**Standard Operating Procedures unavailable.**

Written SOPs for hazardous operations in the laboratory, work with particularly hazardous substances, etc., and documented training are required.

## **Electrical**

**3-Prong plugs have been modified to plug into 2-prong receptacle.**

Equipment must be properly grounded to operate safely.

**A minimum clearance of thirty-six inches in front of electric panel/breaker box is not being maintained.**

A minimum clearance must be maintained around electrical panel for easy access in the event of an emergency.

**Electrical cords pose trip hazard.**

Cords must be taped down or otherwise secured to prevent tripping.

**Equipment has damaged cord; plug or other condition that constitutes an electrical hazard**

Remove equipment from service until repaired or replaced.

**☐ Extension cords are being used as semi-permanent wiring.**

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.

**☐ Extension cords or power strip not plugged directly into outlet.**

Power strips or extension cords must be directly connected to a permanently installed circuit receptacle, not connected in series.

**☐ GFCI protection not installed with receptacles that are within 6 feet of the sink.**

GFCI protection is required for all new construction and laboratory renovations (post 2010) for receptacles that are installed within 6 feet of the outside edge of a sink.

**☐ High voltage equipment not clearly labeled.**

“Danger – High Voltage” must be posted on all doors that lead to areas that contain equipment with high voltage (>600 volts). Equipment must be marked as high voltage with permanent, highly visible markings.

**☐ High voltage equipment not properly guarded.**

High voltage conductors (>600 volts) must be effectively guarded against danger from accidental contact. All protective panels must be properly installed.

**☐ Hot plate left plugged in.**

Unplug hot plate when not in use.

**☐ Major appliances/equipment not plugged directly into outlet.**

Refrigerators, freezers, incubators, centrifuges, microwaves, analytical equipment, etc. must be plugged directly into the wall outlet.

**☐ Personnel, working on hard-wired equipment are not trained to the Energy Isolation – Lock Out/Tag Out program.**

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.

**☐ Power strips near liquids lack surge protection.**

Surge protection is required for all power strips that are used near liquid.

## **Equipment**

**☐ Appropriate safety information not posted on equipment.**

Required safety information, including danger and hazard warning must be posted on equipment.

**☐ Centrifuges are not properly maintained to ensure safe operation.**

Rotors must be properly maintained, cleaned and inspected. Maintenance must be recorded in log.

**☐ Moving parts of equipment not properly guarded.**

Belts, pulleys, sprockets and chains, shafts or other rotating parts of mechanical equipment must be properly guarded (opening <1/2").

**No secondary containment for vacuum pump.**

Secondary containment must be provided for vacuum pumps to collect oil leakage.

**Fire**

**Aisles, exits and/or hallways are obstructed - 36".**

Aisles must meet minimum clearance guideline of 36" to facilitate departure in the event of an emergency.

**Aisles, exits and/or hallways are obstructed.**

Aisles must meet minimum clearance guideline of 24" to facilitate departure in the event of an emergency.

**Clearance not maintained 18" to ceiling**

Remove items stored closer than 18" to ceiling.

**Fire alarm bells, horns and/or strobes are obstructed and could hamper proper operation or reduce the sound.**

Tampering with, removing or altering fire alarm devices, is prohibited except for the purposes of training or making repairs, or when approved by the fire code official.

**Fire extinguisher is not properly mounted.**

Fire extinguisher must be mounted and easily accessible in the event of an emergency.

**Fire extinguisher maintenance tag is missing or not up-to-date.**

Fire extinguisher must be visually inspected monthly and documented on inspection tag.

**Fire extinguishers not available as required.**

Portable fire extinguishers must be available within 75' or less for class A fires or within 50' for class B fires (flammable liquids).

**Fire extinguishers not fully charged, pin and/or security seal is missing.**

Fire extinguishers must be fully charged and operational at all times.

**Fire-rated doors blocked open.**

Fire-rated doors must not be propped open. Magnetic hold-opens, linked to building alarm systems, are acceptable.

**Flammable cabinets aren't self-closing**

Install self closing units on doors.

**Items stored such that minimum clearance of 18" of sprinklers or 24" of ceiling without sprinklers is not met.**

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.

**Fume Hoods**

**Audible/visual alarm is non-functional or visual airflow indicator is not working.**

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.

**Chemical work occurring less than 6" from front of hood.**

To minimize potential for injury or exposure, hazardous chemicals and/or reactions should be kept at least 6" behind the plane of the sash.

**Fume hood has not been certified within the past year.**

Annual check of fume hood is required to ensure the ability to maintain inward airflow.

**Fume hood illumination is non-functional.**

If fume hood illumination is available, it must be functional.

**Fume hood is cluttered or used for storage.**

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.

**Fume hood users don't know how to check their airflow monitor to verify that the hood airflow is functioning properly. Users don't know how to check the certification sticker for annual testing.**

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.

**Fume hood users have not completed specific fume hood training.**

Users of laboratory fume hoods must be trained in the correct use of the hood and its safety features.

**Proper sash height not indicated or sash position exceeds approved working height, or improper horizontal placement, and is left open when not in use.**

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.

## **Gas**

**Compressed gas cylinders are not adequately secured.**

Compressed cylinders must be stored upright and adequately secured. Two, non-combustible restraints (upper 1/3 and lower 1/3) are recommended. Bench clamps are not adequate to secure large cylinders.

**Compressed gas cylinders are not labeled with contents and hazards.**

Compressed gas cylinders are required to have a shoulder label that includes contents and hazard information.

**Cylinders missing full/empty tags.**

For hazard awareness, compressed gas cylinders should have full or empty tags attached.

**Oxygen and combustible cylinders stored together.**

Oxygen cylinders 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.

**Toxic gases are not properly stored in a ventilated cabinet/fume hood.**

Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

**Valves of gas cylinders are not capped when not in use.**

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.

## **General Safety**

### **□ Ceiling tiles/panels are missing or not in good condition.**

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

### **□ Ergonomic evaluations have not been completed for laboratory employees who use a computer for four or more hours per day.**

To reduce the risk of musculoskeletal disorders, ergonomic evaluation should be completed as appropriate.

### **□ Evidence of eating or drinking in the laboratory where hazardous materials are being used or stored. Food stored with hazardous materials.**

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.

### **□ Evidence of mouth pipetting.**

Mechanical devices must be used when pipetting.

### **□ Evidence suggests spills not promptly or properly cleaned.**

All spills shall be cleaned promptly, using appropriate protective apparel and equipment.

### **□ Floor is in need of repair to preclude slipping, tripping or falling.**

Laboratory floor needs to be free of defects that could cause slips, trips and falls.

### **□ Furnishings used in laboratory are covered with a material that is not easily decontaminated.**

Laboratory chairs should be covered with material that is easy to clean and decontaminate if necessary.

### **□ General housekeeping in laboratory needs improvement.**

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.

### **□ Hand wash sink is not available with soap and paper towels.**

Employees must be able to wash and dry their hands after working with potentially hazardous materials, after removing gloves and prior to leaving laboratory.

### **□ Laboratory sinks, delivering non-potable water, are not labeled "Industrial Water - Do Not Drink"**

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.

### **□ Laboratory ventilation pressure is positive with respect to corridors and offices.**

Negative pressure should be maintained between the laboratory and adjacent non-laboratory spaces to prevent uncontrolled chemical vapors from leaving the laboratory.

**❑ Refrigerators/freezers are not labeled appropriately for the use of the refrigerator/freezer.**

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.

**❑ Repetitive lab activities for extended periods of time have not been evaluated for the risk of long-term injury.**

To reduce the risk of repetitive motion injuries, ergonomic evaluation should be completed as appropriate (pipetting, cap removal and other routine manual manipulations).

**❑ Safety hazard present.**

Work with EH&S to address hazard.

**❑ Vacuum systems (both house systems and stand-alone vacuum pumps) are not fitted with traps and/or protection (HEPA/hydrophobic) filter, if required.**

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.

## **PPE**

**❑ Appropriate gloves are not available for use with hazardous activities conducted within this lab.**

Gloves that are appropriate for the activity must be available in the laboratory. Chemical resistant gloves are required for handling hazardous materials.

**❑ Equipment or process sound levels may exceed 85 dBA.**

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.

**❑ Face shields not worn as appropriate.**

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.

**❑ Gloves are not worn for laboratory procedures where skin contact with hazards may occur.**

Gloves are required for employees whose work involved exposure of hands to cuts, burns, harmful physical or chemical agents or radioactive materials.

**❑ Lab coats, appropriate to the activity, are not worn.**

An appropriate lab coat must be worn when actively working in the laboratory unless an exemption to the UCOP PPE policy has been granted.

**❑ Lab coats, properly fitted, are not available.**

Employer is responsible for providing required PPE for protection against hazardous materials.

**❑ Lab workers were observed wearing gloves while accessing common items, door knobs, elevator buttons, etc.**

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.

**❑ Long pants (legs covered) and closed-toe/heel shoes are not worn in the lab.**

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.

**☐ PPE contaminated with hazardous materials disposed in regular trash.**

PPE that cannot be cleaned must be disposed of as hazardous waste.

**☐ Respirator use has not been evaluated by EH&S and users are not included in the campus respiratory protection program.**

Every employee that is required to wear a respirator must participate in the respiratory protection program which includes a medical evaluation and fit-testing.

**☐ Safety glasses or chemical splash goggles are not worn in the laboratory.**

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.

**☐ Specialty PPE needed (i.e. UV/IR glasses, lab aprons, cryogenic gloves).**

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.

### **Safety Equipment**

**☐ A plumbed emergency eyewash/safety shower or emergency eyewash is not available within 10 seconds.**

An emergency eyewash and deluge shower must be accessible within 10 seconds of all chemical splash or eye injurious hazards.

**☐ Access to emergency eyewash/shower is obstructed.**

The area of the eyewash and shower equipment must be free of items that obstruct their use.

**☐ Annual test of emergency eyewash/shower or emergency eyewashes has not been completed or documented. Monthly activation of eyewash/shower is not documented.**

A flow test of plumbed eyewash and shower equipment must be completed annually. Plumbed eyewash and shower equipment must be activated at least monthly to flush the line and verify operation.

**☐ Appropriate chemical spill kit is not available.**

Spill control kits tailored to deal with the potential risk associated with the materials being used in the laboratory are required.

**☐ Calcium gluconate paste for HF exposure first aid is not available. Calcium gluconate paste has expired. Training on HF first aid is not documented.**

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.

**☐ Fall protection equipment is not available**

For any work at heights above 4 feet, fall protection harnesses must be used.

**☐ First Aid Kit not available.**

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.

## **Seismic**

### **Heavy items and precariously situated items are stored overhead.**

For seismic concerns, heavier items must be secured or placed on lower shelves.

### **Large equipment is not seismically anchored.**

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.

### **Overhead storage not secured.**

To decrease the potential for injury or blocking aisles during seismic events, items stored overhead must be secured. Either move overhead storage or secure.

### **Shelves are missing restraints to prevent items from falling.**

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.

## **Training**

### **Laboratory personnel have not completed UC Laboratory Safety Fundamentals training.**

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.

### **Laboratory Safety Fundamentals training not completed by all lab personnel.**

Complete Laboratory Safety Fundamentals through the UC Learning Center ([learningcenter.ucsc.edu](http://learningcenter.ucsc.edu)). Provide certificate of completion to Laboratory Safety Representative (LSR).

### **Nobody in the lab has taken training on waste management.**

At least one person in the lab that deals with chemical or biological waste should take the next available Waste Management course. Go to <http://ehs.ucmerced.edu/node/43>, click the blue button, search "waste" and register.

### **Specialized training for lab-specific hazards has not been documented.**

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.).

### **Spill response training is not documented.**

All employees should be trained in the appropriate spill response procedures for both minor and major chemical spills.

### **The following individuals need to take biosafety training:**

Names:

### **The following individuals need to take bloodborne pathogens training:**

### **The following individuals need to take fire safety training:**

### **The following individuals need to take hazmat spill response:**

### **The following individuals need to take lab safety fundamentals training:**

Names: These people cannot work in the lab until they have completed this training. It is available online at <http://ehs.ucmerced.edu/node/43> Click the blue button, log in, search "fundamentals", select the ecourse option, then "start"

**The following individuals need to take radiation safety training:**

**Training on laboratory specific Standard Operating Procedures (SOP) is not documented.**

Documented training on all SOPs is required and specific and unambiguous training records must be available upon request.

**Training on the Chemical Hygiene Plan is not documented.**

Documented training is required for the Chemical Hygiene Plan.

**Training on the Illness and Injury Prevent Plan (IIPP) is not documented.**

Documented training is required for the IIPP.

**Training to manage or handle hazardous waste is not documented.**

Laboratory workers that generate or handle hazardous waste must be trained in storing, labeling, proper disposal and accumulation times for hazardous waste.

## **Waste**

**Biomedical waste in red bags improperly disposed.**

All red bag waste must be disposed of in accordance with the Medical Waste Management Act.

**Biomedical waste secondary containment is not used.**

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.

**Biowaste container not closed.**

Biowaste containers must be closed unless adding material to the container at that moment.

**Biowaste improperly labeled**

Biowaste containers must be labeled on three sides and the lid.

**Biowaste not in red bags.**

Use only red bags for biowaste disposal.

**Chemical waste containers in poor condition/not compatible with waste.**

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.

**Hazardous waste container opened when not in use.**

A container holding hazardous waste must be closed except when adding or removing waste.

**Hazardous waste container or secondary containment contaminated.**

Clean container and/or secondary containment.

**☐ Hazardous waste found being improperly disposed.**

All hazardous waste must be disposed of through EH&S not evaporated in fume hoods or disposed of in regular trash.

**☐ Hazardous waste not in secondary containment.**

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.

**☐ Hazardous waste not properly labeled.**

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.

**☐ Hazardous waste not properly stored.**

Store waste in secondary containment in designated location.

**☐ Hazardous wastes accumulated beyond regulatory time limits.**

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&S waste processing time, hazardous waste can be held in laboratory no longer than 9 months.

**☐ Sharps containers are not properly labeled, as to contents, hazard, etc.**

Sharps containers must be labeled with the words "sharps waste". Biohazard sharps containers must include the international biohazard symbol and the word "BIOHAZARD".

**☐ Sharps container's contents are past the fill line.**

Sharps containers must be prepared for disposal when  $\frac{3}{4}$  full and be taped closed or tightly lidded to preclude loss of contents.

**☐ Sharps found disposed improperly in regular trash. Appropriate sharps container not available.**

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.

**☐ Tight fitting lid not in place.**

Biomedical waste containers must have a tight fitting lid in place to prevent leakage during collection, handling, processing, storage, transport or shipping.

**☐ Universal waste improperly labeled/discarded/contained; over 1 year**

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.

**☐ Waste not stored in secondary containment**

The 55 gallon drum must be stored on a spill pallet.