

Lab Safety Inspection Checklist

Category	#	INSPECT Statement	References and Action Plan
BIOLOGICAL MATERIALS	1	A sink for hand washing is available and accessible in the lab.	CDC BMBL, 5th ed. Section II, Biosafety levels (page 25); (D)(2): Laboratories must have a sink for hand washing. BSL-1 represents a basic level of containment that relies on standard microbiological practices with no special primary or secondary barriers recommended, other than a sink for hand washing.
BIOLOGICAL MATERIALS	2	BIOWASTE TAGS: A completed, blue, BIOWASTE tag is affixed to each biological waste collection container to provide required information on the generator and contents.	SFSU Biosafety Program: Section E. Biological Waste: The blue BIO-WASTE tag provides information on the generator of the waste and what is inside the container. A completed tag is required on every bio-waste container, including sharps boxes, for the entire time waste is being accumulated. Corrective Action: Affix a blue "biowaste" tag and ensure generator and content information is included.
BIOLOGICAL MATERIALS	3	Biological waste collection containers are not overfilled, spilling over, or leaking.	SFSU Biohazard Program: Section E. Biological Waste: Container is not over-filled. No spill-over is evident. Corrective Action: Get another container for the excess waste or overpack the initial container to contain all the material.
BIOLOGICAL MATERIALS	4	BSL-1 WASTE: Non-biohazardous, biological wastes are collected in clear autoclave bags without a biohazard symbol.	SFSU Biosafety Program: Section E. Biological Waste: Waste to be autoclaved shall be stored in CLEAR autoclavable bags inserted in a rigid outer container. Clear bags are used to differentiate non-biohazardous biological waste from BSL-2 (biohazardous/medical) waste. If BSL-1 waste is stored in red biohazard bags or biohazard containers, then BSL-2 requirements apply (CA Medical Waste Management Act). Corrective Action: Waste already inside red biohazard bags must be tagged and treated as biohazardous. Remove the waste bag and dispose of it as biohazardous waste. Put a clear autoclave bag into the collection container for future waste. Contact the stockroom for bags.
BIOLOGICAL MATERIALS	5	BSL-1 WASTE: Biological waste collection containers are labeled as "BSL-1" or "Non-biohazardous" Since these wastes are not biohazardous, they must not have a biohazard symbol on their container.	SFSU Biosafety Program: Section E. Biological Waste: Proper use of the biohazardous symbol is necessary to avoid treating non-biohazardous waste as more costly biohazardous waste. Corrective Action: If non-biohazardous waste was erroneously put in container with a biohazardous symbol, remove or completely coverup the biohazard symbol. Label the outer container so it is clear the waste inside is not biohazardous.
BIOLOGICAL MATERIALS	6	BSL-1 WASTE: The 30-day storage limit is not exceeded. (see bio-waste tag or label)	SFSU Biosafety Program: Section E. Biological Waste: BSL-1 lab waste may not accumulate in the container for more than 30 days at room temperature. Dispose or treat promptly. Old biological waste can start to stink, becoming a nuisance. Use containers that are in good condition and clean up leaks or spills promptly. Corrective Action: Remove and dispose (or treat) waste. Waste that has started to emit an unpleasant odor must be removed as soon as it becomes noticeable even if it has been in the lab less than 30 days.
BIOLOGICAL MATERIALS	7	BSL-1 Animal tissues, organs, and carcasses are stored in leak-proof, closed containers. (This is not "waste" while still needed for teaching or research purposes.)	SFSU Biosafety Program: BSL-1 animal parts may be stored as non-biohazardous until ready for disposal. When no longer needed (waste), then the pathology waste rules apply. Waste must then be kept frozen until ready for contractor pickup BSL-1 animal tissues, organs, and carcasses, while not biohazardous or pathogenic, need to be packaged as biohazardous when ready for disposal as required by the waste contractor. SFSU Biosafety Program: Small amounts of non-biohazardous animal parts, tissues, etc. may be disposed of in municipal trash when they are double-bagged in heavy-duty dark trash bags then taped or tied firmly closed. Corrective Action: Double-bag or place leaking or cracked containers into a larger undamaged one. Close or put on container lids whenever items are not being removed or inserted into container.
BIOLOGICAL MATERIALS	8	BIOLOGICAL MATERIALS - OTHER	
SHARPS	1	All types of SHARPS waste containers...have no protruding contents (i.e are not overfilled), so containers can be tightly closed or taped for disposal.	8CCR, §5193(d)(C)3(c) ..."containers for contaminated sharps shall be... Replaced as necessary to avoid overfilling." Corrective Action: Replace sharps container as necessary to avoid overfilling.
SHARPS	2	Bio Waste SHARPS: Collected in a red, hard-sided container that displays the words, "SHARPS WASTE" or the International Biohazard symbol and the word, "BIOHAZARD."	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" or with the international biohazard symbol and the word "BIOHAZARD" Corrective Action: Replace missing or illegible labels. Discard or re-purpose sharps containers that are not properly labeled or otherwise don't meet CA regulations and do not purchase more of these. Other colors are acceptable but not desirable.
SHARPS	3	Bio Waste SHARPS: The SHARPS Biowaste tag is attached to sharps container.	SFSU Biohazard Program The generator must affix a blue sharps waste tag to the sharps container exterior and provide generator information. The sharps waste tag is different from the biowaste tags and has no storage limit until full. Corrective Action: Affix a filled out bio-waste tag or label onto the container.

SHARPS	4	Bio Waste SHARPS: Full sharps container stored more than 30 days of the full date are not present.	<u>HSC, §118285(c)</u> "Store sharps containers ready for disposal for not more than thirty days" <u>Corrective Action:</u> Remove sharps from the lab and relocate to the biohazardous waste storage room. Contact dept. stockroom or operations staff for access.
SHARPS	5	Chemically Contaminated Sharps tagged and stored as hazardous waste.	Sharps containers used to collect chemically contaminated sharps must NOT be colored red or have a biohazard symbol on it. They are treated as dry hazardous chemical waste with a green hazardous waste tag attached. <u>Corrective Action:</u> Remove or completely cover up all biohazard symbols, since this is chemical waste. If the tag is missing, affix a filled out green hazardous waste tag to the container.
SHARPS	6	SHARPS - OTHER	
CHEMICAL STORAGE	1	Hazardous liquid chemicals are stored below eye level (~ 4.5' to 5').	<u>Good Management Practice:</u> To avoid spilled chemicals from getting in one's eyes. https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural_eq_tech_manual.pdf
CHEMICAL STORAGE	2	Chemicals that can form peroxides over time such as: diethyl ether, tetrahydrofuran, etc. are within their expiration date OR within 1 year of opening date, whichever comes first.	<u>24CCR, §2703 & NFPA, 13.3.2:</u> Organic peroxides can be explosive, shock sensitive, and unstable. <u>Corrective Action:</u> Date containers upon initial receipt and when opened. Remove expired chemicals from use and prepare for hazardous waste disposal.
CHEMICAL STORAGE	3	Highly toxic chemicals are stored in a separate locked safety storage cabinet or room. (Examples include: arsenic and cyanide compounds, organic mercury compounds...)	<u>Good Management Practice:</u> To restrict unauthorized access to highly toxic chemicals. "Highly Toxic" chemicals are defined in the California Fire Code 24CCR, §202 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." <u>Corrective Action:</u> Store highly toxic materials in a separate locked storage cabinet or room.
CHEMICAL STORAGE	4	Oxidizers such as nitric acid, hydrogen peroxide, etc. are stored separately from organics and other incompatibles by distance or secondary containment.	<u>8CCR, §5164:</u> Strong oxidizers must be stored in a compatible secondary containment. <u>Corrective Action:</u> Store strong oxidizing chemicals in a secondary container.
CHEMICAL STORAGE	5	Current (updated within 1 year) chemical inventory and SDSs are available for review	<u>8CCR, §5194:</u> 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. <u>Corrective Action:</u> Location of SDSs are clearly marked. Update the chemical inventory list and SDS's.
CHEMICAL STORAGE	6	There is signage designating areas using particularly hazardous materials	<u>8CCR, §5191(e)(3)(H):</u> "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;" <u>Corrective Action:</u> Define and post signage in designated areas for work with "Particularly Hazardous Chemicals" .
CHEMICAL STORAGE	7	Cabinets storing hazardous materials have labels correctly identifying the hazard class.	<u>8CCR, §5164:</u> Incompatible chemicals shall not be stored together. <u>Corrective Action:</u> Contact EH&S or stockroom for appropriate labes.
CHEMICAL STORAGE	8	CHEMICAL STORAGE - OTHER	Look for things like obvious hazardous waste issues, strong odors, chemicals that stored in the wrong labeled cabinet, containers aren't broken, leaking, or covered with residue.
ELECTRICAL	1	3-prong plugs are un-altered from original manufacturer's condition.	<u>29CFR, 1910.334(a)(3)(ii):</u> Third prong provides grounding, a safety feature that may prevent electric shock and electrocution. Avoid unplugging work in progress during inspection. <u>Corrective Action:</u> Replace electrical cords that have altered three prong plugs or take out of service.
ELECTRICAL	2	All electrical outlets have cover plates.	<u>24CCR, §605.6:</u> All electrical outlets must have approved covers. <u>Corrective Action:</u> Contact Stockroom or Dept office to place a work request for Facility Services to place an approved cover plate on the electrical box.
ELECTRICAL	3	Electrical panels are covered to protect against electrocution or shock. Missing circuit breakers are replaced with blanks.	<u>8CCR, §2473.2:</u> Ensure that electrical panels, etc. have covers to prevent electrical exposures. <u>Corrective Action:</u> Contact Facility Services for assistance.
ELECTRICAL	4	All multi-plug adapters and power strips are equipped with overcurrent protection (circuit interrupter) in case of overload.	<u>CFC 604.4.1:</u> Relocatable power taps (aka multipug adapters and power strips) shall be of the polarized or grounded type, equipped with overcurrent protection like a circuit interrupter that will turn off the unit if overloaded to prevent electrical fires. <u>Corrective Action:</u> Check if the power outlet strip or other multipug adapter has a reset button. If there isn't one, replace the unit with one that has a working reset button. Contact the stockroom or dept staff to obtain a replacement. Cut the cord off of the old unit to render it unusable.

ELECTRICAL	5	Extension cords, multiple plug adapters, and power strips are not "daisy-chained".	<u>24CCR, §605.4.2 and 5.1:</u> Extension cords and power outlet strips may not be plugged into extension cords or into another power outlet strip. ... (They) "Shall be directly connected to a permanently installed receptacle." <u>Corrective Action:</u> 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.
ELECTRICAL	6	Power cords do not travel under doors, or through pinch points	<u>CFC 604.5:</u> Extension cords...shall not be...extended through walls, ceilings, or floors, or under doors or floor coverings, nor shall such cords be subject to environmental or physical impact. <u>Corrective Action:</u> Request an additional outlet be installed closer to the equipment.
ELECTRICAL	7	Power cords are not left as a trip hazard on the floor.	<u>8CCR, §3203 Injury Illness Prevention Program</u> <u>Corrective Action:</u> Provide cover or protection for the cord.
ELECTRICAL	8	Potentially live, bare electrical conductors (wires), are not left exposed.	<u>8CCR, §2510.4:</u> 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. <u>CFC 604.6:</u> Open junction boxes and open-wiring splices shall be prohibited. Approved covers shall be provided for all switch and electrical outlet boxes. <u>Corrective Action:</u> Contact Facility Services to repair conductor/wiring.
ELECTRICAL	9	ELECTRICAL - OTHER	For example: Power cords are not damaged or sitting in water. Extension cords are intended to provide power to portable equipment on a temporary basis. Extension cords are not to be used in place of permanent wiring for stationery equipment. Light household extension cords are not used to power lab equipment. Power outlets and cords in wet areas are designed for wet conditions.
EMERGENCY	1	Emergency procedures, phone numbers are posted.	Emergency phone contact names and 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. Emergency procedures should ideally have a consistent format be placed in a consistent location in each lab <u>Corrective Action:</u> Post emergency procedures and information. http://www.cgcc.ca.gov/documents/enabling/2010/California_Code_of_Regulations.pdf 19CCR, §3.09 and 8CCR, 3220 Emergency Action Plan.
EMERGENCY	2	Fire doors are not blocked or wedged open. (Hallway doors to laboratories are kept closed.)	<u>19 CCR, §716.5.9:</u> 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). Doors from laboratories to fire corridors must be kept closed at all times to prevent fumes from moving from labs to corridors. <u>Corrective Action:</u> Make sure lab doors are not kept open with door props/wedges.
EMERGENCY	3	A basic first aid kit is available (in the lab)	<u>8 CCR, §3400(c):</u> There shall be adequate first-aid materials and readily available for employees on every job. Such materials shall be kept in a sanitary and usable condition. <u>Corrective Action:</u> Make sure the lab's first aid kit's supplies are adequately maintained.
EMERGENCY	4	Exit paths, aisles, and paths around equipment are maintained clear of obstructions.	<u>CFC §1003.6</u> Obstructions shall not be placed in the path of egress.
EMERGENCY	5	EMERGENCY - OTHER	
FIRE	1	Flammable storage cabinets are in good condition (not severely rusted, no holes) and labeled "Flammable-Keep Fire Away".	<u>8 CCR §5533 (b):</u> Cabinets shall be labeled in conspicuous lettering, "FLAMMABLE-KEEP FIRE AWAY." <u>CFC, §5704.3.2.1.2:</u> Cabinets shall be provided with a conspicuous label in red letters on contrasting background that reads: FLAMMABLE—KEEP FIRE AWAY.
FIRE	2	Flammable storage cabinets have working self-closing doors and otherwise meet CA fire code and Cal/OSHA regs	<u>CFC, §5704.3.2.1.3:</u> Doors shall be well fitted, self-closing and equipped with a three-point latch. 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.
FIRE	3	Materials are stored at least 24" below below the ceiling, 18" if fire sprinkler heads are present.	<u>24 CCR, §315.3.1:</u> and <u>8 CCR, §6170(c)(10):</u> Ceiling Clearance. Storage shall be maintained 2 feet or more below the ceiling in non- sprinklered areas of buildings and more than 18 inches below sprinkler head deflectors <u>Corrective Action:</u> Remove all storage within 24 inches of the ceiling; within 18 inches from sprinkler heads if present.
FIRE	4	Flammable gas cylinders are grounded when in use. Examples: Hydrogen, Carbon monoxide	<u>CFC §5803.1.5.1:</u> Flammable gas cylinders and static-producing equipment located in flammable gas storage or use areas shall be grounded. <u>Corrective Action:</u> Ensure a bonding wire is affixed to the gas cylinder top to a metal wire or metal plumbing that goes to ground.

FIRE	5	Electrical equipment, used with flammables such as electronic stirrers or hot plates, are labeled as approved for use with flammables by the manufacturer	<u>CFR §5803.1.4.1</u> : Ignition sources are kept away from areas containing flammable gases . <u>Corrective Action</u> : Contact Stockroom to replace improper equipment immediately.
FIRE	6	FIRE - OTHER	
FREEZER, FRIDGES & FOOD	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".	<u>NFPA, 45</u> : Flammable material is not to be stored in a refrigerator/freezer which is not designed (intrinsically safe or explosion proof) for this purpose. <u>Corrective Action</u> : Remove the flammable chemicals from this refrigerator/freezer and store in approved refrigerator/freezer.
FREEZER, FRIDGES & FOOD	2	Lab refrigerators and freezers display a sign that reads "Not for flammable material storage", or equivalent language, IF not designed to store flammable materials.	<u>Good Management Practice</u> : Posting this information reminds users that flammables storage is not permitted in these units. <u>Corrective Action</u> : Affix the label if missing. Relocate flammable materials to another refrigerator or freezer design to store them
FREEZER, FRIDGES & FOOD	3	Refrigerators and freezers display a sign that reads, "Laboratory Use Only - No Food Allowed" or equivalent language.	<u>Good Management Practice</u> : Posting this information reminds users that these appliances are for scientific use only. <u>Corrective Action</u> : Ensure postings are in place. Purchase or make labels or postings with this prohibition.
FREEZER, FRIDGES & FOOD	4	Lab microwave ovens display a sign that reads, "Not for Food Use".	<u>8CCR, §3368(b) & Chemical Hygiene Plan</u> : Microwaves intended to be used for scientific purposes are not be used to heat up food. Food is not allowed in the lab. <u>Corrective Action</u> : Post a "Not for Food Use" sign on the microwave.
FREEZER, FRIDGES & FOOD	5	No food, food storage containers, or beverages are present inside lab refrigerators, freezers, microwaves, etc.	<u>8CCR, §3368(b)</u> : Food and beverages shall not be stored or consumed in an area where they may be contaminated by any toxic material. <u>8CCR, §5191</u> : Food and beverages are not permitted in locations where hazardous materials are handled or stored. <u>Corrective Action</u> : Remove all food and beverages from lab.
FREEZER, FRIDGES & FOOD	6	No food, beverages, or condiments are visible and no room occupants were observed eating in the lab.	<u>8CCR, §3368(b)</u> : Food and beverages shall not be stored or consumed in an area where they may be contaminated by any toxic material. <u>8CCR, §5191</u> : Food and beverages are not permitted in locations where hazardous materials are handled or stored. <u>Corrective Action</u> : Remove all open food and beverages from lab. Sealed food and drink containers must be put away.
FREEZER, FRIDGES & FOOD	6	Refrigerators have no obvious signs of contamination.	<u>Corrective Action</u> : Clean or replace the refrigerator/freezer. Contact EHS, as necessary, to assist with decontaminating chemical refrigerators/ freezers.
FREEZER, FRIDGES & FOOD	7	Freezer does not have excessive ice buildup. Freezer contents are free of frost.	<u>Good Management Practice</u> : The freezer requires defrosting to prevent damage to containers and for freezer to operate efficiently. Chemicals must not be stored covered in frost. <u>Corrective Action</u> : 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.
FREEZER, FRIDGES & FOOD	8	Food and beverage containers are not used to store hazardous materials and/or hazardous wastes.	<u>Good Management Practice</u> : Intended to avoid ingesting hazardous materials by mistake <u>Corrective Action</u> : Eliminate food and beverage containers from the lab.
FREEZER, FRIDGES & FOOD	9	Ice making machines display a sign that reads, "Not for Human Consumption".	<u>Good Management Practice</u> : Posting this information reminds users that the ice is not fit for consumption. <u>Corrective Action</u> : Post a "Not for Human Consumption" sign on the front of the ice machine. Contact EHS for appropriate signage.
FREEZER, FRIDGES & FOOD	10	FREEZER, FRIDGES & FOOD - OTHER	
PERSONAL PROTECTIVE EQUIPMENT	1	Lab areas requiring the use of PPE for specific lab hazards have posted signage.	<u>8CCR, §3382(a)</u> : and others. Lab areas requiring the use of PPE for specific lab hazards have posted signage. For example: Cryo gloves and faceshields for working with liquid nitrogen. <u>Corrective action</u> : Ensure all personnel wear appropriate PPE when working with or adjacent to hazardous materials or operations.
PERSONAL PROTECTIVE EQUIPMENT	2	Minimum requirements for proper lab attire are followed at all times by visitors and room occupants.	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.
PERSONAL PROTECTIVE EQUIPMENT	3	Gloves are worn for laboratory procedures where contact with skin hazards may occur.	<u>8CCR§3384(a)</u> : 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. <u>Corrective Action</u> : Write specific lab procedures that identify appropriate hand protection, or post a glove selection chart appropriate for the lab's hazards.
PERSONAL PROTECTIVE EQUIPMENT	4	When dust masks are used in the lab they are rated N95 by NIOSH.	<u>8CCR§5144</u> : Dust masks issued for use in labs at SFSU are issued under the voluntary use guidelines in Appendix D. <u>Corrective Action</u> : Remove from use and replace other dust masks with N95 respirators. Ensure each person provided an N95 dust mask has signed a copy of the the required voluntary use form.

PERSONAL PROTECTIVE EQUIPMENT	5	PPE - OTHER	
SEISMIC	1	Heavy items, including ≥ 1 gallon chemical containers, are stored on lower shelves.	<u>Good Management Practices:</u> Nonstructural Seismic hazard abatement Guidance available through FEMA & CalOES: <u>Good Management Practice:</u> https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural_eq_tech_manual.pdf
SEISMIC	2	High overhead storage is secure.	<u>Good Management Practices:</u> Nonstructural Seismic hazard abatement Guidance available through FEMA & CalOES: <u>Corrective Action:</u> Secure or remove unsafe overhead storage. https://www.fema.gov/media-library-data/20130726-1738-25045-6673/nonstructural_eq_tech_manual.pdf
SEISMIC	3	Shelves are equipped with restraints.	<u>Good Management Practices:</u> 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
SEISMIC	4	Cryogenic liquids - tanks and dewars are seismically secured.	<u>Good Management Practice:</u> to prevent blocking egress, (and to avoid spilling liquid nitrogen). <u>Corrective Action:</u> Contact Facility Services to assist with seismic securing .
SEISMIC	5	Furniture taller than 60" is seismically anchored to avoid tipping over.	<u>8CCR, §3241(c):</u> Storage units shall be permanently braced or anchored to the wall to prevent tipping or falling. <u>Corrective Action:</u> Contact Facility Services to assist with bracing.
SEISMIC	6	Chemical storage and flammable liquid storage cabinets are seismically anchored to prevent tipping over.	<u>FEMA.gov. Chapter 6 Earthquake Prevention 6.5.4.1 (2011)</u> Seismically brace and anchor all shelving units or cabinets used for storage of hazardous materials.
SEISMIC	7	Large equipment such as refrigerators, freezers, that can fall blocking an exit have seismic restraints.	<u>Good Management Practice:</u> 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 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. <u>Corrective Action:</u> Use seismic bracing to ensure large lab equipment cannot fall and block egress during an earthquake.
SEISMIC	8	SEISMIC - OTHER	
VENTILATION	1	Chemical Fume Hoods and Biological Safety Cabinets have been tested and certified within the last 12 months as shown on the certification label on the hood.	<u>8 CCR, §5154.2(f):</u> Biological Safety Cabinets shall be tested and certified annually. <u>8 CCR, §5143(a)(5):</u> Lab fume hoods must be tested and certified annually. <u>8 CCR, §5141.1(3)(3)(B)(2):</u> Testing shall "Indicate the ability of the hood to maintain an inward airflow at all openings of the hood...on an annual basis". 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. <u>Corrective Action:</u> Check date of certification on each fume hood. Notify Linda Vadura, EH&S Liaison to COSE, if a hood is out of certification. EH&S will contact the service provider for testing and recertification.
VENTILATION	2	Fume hoods are in good working condition. (Air flow is present, sash has no cracks, sash is raising and lowering properly, outlets and utilities appear in good working order)	<u>8 CCR 5154.1(d):</u> Mechanical (exhaust) ventilation shall remain in operation at all times when hoods are in use and for a sufficient time thereafter to clear hoods of airborne hazardous substances. When exhaust ventilation is not in operation, hazardous substances in the hood shall be covered or capped off. <u>Corrective Action:</u> Notify dept stockroom or operations staff to submit a work order to make necessary repairs. Stockroom will notify EHS (EH&S Liaison to COSE) that repairs are needed. Work with hazardous materials cannot be performed until the hood is repaired.
VENTILATION	3	Fume hoods' low flow audible and visual alarms are functional and certified within the last 12 months. Test low flow alarm (by raising the sash or blocking the monitor's intake in the hood) as a quick function check.	<u>8CCR, §5141(e)(3):</u> [Lab fume] hoods shall be equipped with a working air flow monitor that provides an audible or visual alarm. <u>Corrective Action:</u> Contact EHS (EH&S Liaison to COSE) to check air flow monitor function. EH&S will contact vendor if repair or replacement is needed.
VENTILATION	4	Fume hoods or biosafety cabinets that are not in service or not working properly are posted as not in service.	<u>Good Management Practice:</u> Inform potential users that fume hoods and/or biosafety cabinets may not be used until the issue is resolved. The sign should be visible so the user will notice it and not attempt to use it. <u>Corrective Action:</u> Affix a Not-In-Service sign if needed.
VENTILATION	5	Fume hood sashes are closed when not in use (also when lab is unoccupied).	<u>Good Management Practice and 8 CCR, §5191:</u> 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. <u>Corrective Action:</u> Close the fume hood when not in use.
VENTILATION	6	When in use, hood sashes are not raised higher than the maximum sash height indicator on the hood (see arrow marked "maximum sash height")	<u>Good Management Practice and 8 CCR, §5191:</u> Note: Sash height indicator arrows show the maximum height that sashes may be opened that meets exhaust ventilation regulations. This is important if the hood doesn't meet minimum air flow with the sash all the way open.
VENTILATION	7	Hood interior is not cluttered with trash or spilled material. Chemical containers and equipment not currently needed have been removed.	<u>Good Management Practice:</u> 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. <u>Corrective Action:</u> 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. Remove trash, clutter, and spilled material.

VENTILATION	8	Material and equipment inside the hood is arranged to allow proper airflow. a. Large containers and equipment are raised up b. Items are not too close to rear baffle c. Items are a few inches from front air foil d. Rear baffles and front airfoil are not blocked	<u>Good Management Practice:</u> 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. <u>Corrective Action:</u> 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. Remove bench liners, tape and other materials covering the baffles or other air flow openings.
VENTILATION	9	There are no unnecessary holes or openings in the lab's walls or ceilings (no missing ceiling tiles).	<u>8CCR, §3362(c) and 24CCR, §703.1:</u> 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. <u>Corrective Action:</u> Contact Facility Services to repair wall and ceiling openings
VENTILATION	10	VENTILATION - OTHER	
BSL-2 LABS	1	Entrance doors to rooms with biohazardous materials display a biohazard sign, including the symbol, biosafety level and contact information.	<u>CDC/NIH BMBL, Ch.4, p. 34:</u> A sign incorporating the universal biohazard symbol must be posted at the entrance to the laboratory when infectious agents are present. Posted information must include: the laboratory's biosafety level, the supervisor's name (or other responsible personnel), telephone number, and required procedures for entering and exiting the laboratory. Agent information should be posted in accordance with the institutional policy. <u>Corrective Action:</u> Affix the appropriate wording and biohazard symbol on all access doors.
BSL-2 LABS	2	Biohazardous materials used in the space are listed on the door or clearly posted in the room.	<u>CDC/NIH BMBL, Ch.4, p. 34:</u> A sign incorporating the universal biohazard symbol must be posted at the entrance to the laboratory when infectious agents are present. Agent information should be posted in accordance with the institutional policy that appears in the Biosafety Program Manual on the EHS website.. <u>Corrective Action:</u> Post the names of BSL-2 infectious agents used or stored (or that are occasionally used) in the area.
BSL-2 LABS	3	Cabinets, refrigerators, and freezers have a legible biohazard label if used to store BSL-2 materials, human blood or unfixed human tissues.	<u>Good Management Practice</u> Identify location of biohazardous materials. <u>Corrective Action:</u> Post appropriate biohazard sign.
BSL-2 LABS	4	A valid Biohazard Use Authorization (BUA) is available for review upon request.	<u>SFSU Biohazard Program:</u> 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.
BSL-2 LABS	5	A copy of the Campus Biohazard Safety Manual is present in the lab or its location is posted.	<u>CDC/NIH BMBL, Ch.4:</u> A laboratory-specific biosafety manual must be prepared and adopted as policy. Note: Campus Biohazard Program applies to all BSL-2 work. Specific SOPs are included with BUA. The biosafety manual must be available and accessible. <u>Corrective Action:</u> Provide a hard or post access to the digital copy of the Campus Biohazard Safety Manual on the EH&S website.
BSL-2 LABS	6	BSL-2: Biohazardous materials or unfixed human blood or tissue is stored in a room that is kept locked when unoccupied. A locked storage cabinet or fridge may be acceptable.	<u>Good Management Practice and BMBL, Ch. 4:</u> Limit unauthorized access to biohazards and prevent potential exposure to untrained personnel. <u>Corrective Action:</u> If the room can't be kept locked, lock refrigerators, cabinet, and freezers containing biohazardous materials.
BSL-2 LABS	7	BSL-2: BIOWASTE TAGS: Blue tags are affixed to waste collection containers providing information on the generator and contents. The BSL-2 side is filled out.	<u>SFSU Biohazard Program:</u> Tags are provided to departments to identify the generator, contents, and type of biological waste. The blue color makes it easy to identify biohazardous waste versus chemical hazardous waste. The tags are two-sided: BSL-1 on one side and BSL-2 with biohazard symbol on the other. <u>Corrective Action:</u> Obtain a tag and affix it to the container after filling out the BSL-2 side with the required information.
BSL-2 LABS	8	BSL-2 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	<u>HSC, §118280(c):</u> 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. <u>Corrective Action:</u> Ensure the required labeling is in place on all exterior sides.
BSL-2 LABS	9	BSL-2-WASTE: 7 day storage limit is not exceeded in the lab if stored at room temperature.	<u>HSC, §118280(e):</u> (Labs)... shall not contain or store waste <i>above</i> 32° F. on-site for more than 7 days. Biohazardous waste may be stored at or <i>below</i> 32° F for up to 90 days. <u>Corrective Action:</u> 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. See accumulation start date on tag.
BSL-2 LABS	10	BSL-2 WASTE: Biohazardous wastes are stored in rigid, leak-resistant containers lined with red biohazard bags.	<u>HSC, §118280(c):</u> 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. <u>Corrective Action:</u> Store biohazardous waste in rigid, self closing container with tight fitting covers that are leak resistant.

BSL-2 LABS	11	BSL-2 WASTE: Containers with medical or biohazardous waste are closed - with tight-fitting lids. (Containers are not overfilled which would interfere with the lid closing properly.)	<u>HSC, §118280(c)</u> : 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. <u>Corrective Action</u> : 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 they are 2/3-3/4 full (to enable the container to close securely).
BSL-2 LABS	12	BSL-2 WASTE: Red bags stamped as meeting ASTM D1922 and D1709 standards are used.	<u>HSC, §1117630</u> : Red Biohazardous waste bags must now meet ASTM D1922 and D1709 standards, and be appropriate for the waste and the container. <u>Corrective Action</u> : Remove non compliant red bags and replace with ASTM compliant bags
BSL-2 LABS	13	Vacuum lines have an inline filter to prevent contaminants from entering building systems.	<u>CDC BMBL, 5th Ed, Biosafety Level 2(D)(7)</u> : Vacuum lines should be protected with liquid disinfectant traps.
BSL-2 LABS	14	Windows are kept closed or are equipped with screens.	<u>CDC BMBL, 5th Ed, Biosafety Level 2(D)(2)</u> : ...if a laboratory does have windows that open to the exterior, they must be fitted with screens. <u>Corrective Action</u> : Keep windows that open to the outside closed. Consider having screens installed.
BSL-2 LABS	15	A sink for hand washing is available by an exit.	<u>CDC BMBL, 5th Ed, Biosafety Level 2(D)(5)</u> : Laboratories must have a sink for hand washing. The sink may be manually, hands-free, or automatically operated. It should be located near the exit door.
BSL-2 LABS	16	BSL-2 or PATHOLOGY WASTE: No leaks or damage to collection bags or containers observed.	<u>CA MWMA:HSC, §118275</u> : Containers of medical waste must be in good condition without leaking.
BSL-2 LABS	17	BSL-2: PATHOLOGY WASTE: Pathology waste, such as human and animal tissues and organs, are segregated from other waste.	<u>HSC, 118275(a)(1) and (a)(5)</u> : Medical waste shall be contained separately from other waste at the point of origin. Pathology waste shall be segregated for storage and, when placed in a secondary container, that container shall be labeled with the words "Pathology Waste." <u>Corrective Action</u> : Store tissue/pathology waste separate from other waste.
BSL-2 LABS	18	BSL-2: PATHOLOGY WASTE: Pathology waste that is or may be pathogenic is stored in red biohazard bags inside a hard-sided container labeled with the words, "PATHOLOGY WASTE," or "PATH" on the lid and all sides.	<u>HSC, §118275(a)(1) and (a)(5)</u> : Potentially infectious pathology waste must be stored as required for biohazardous waste with waste labels that contain the words "Pathology Waste", or "PATH" on the lid and sides. <u>Corrective Action</u> : Replace containers and labels that don't meet the minimum requirements. Double-bag with red biohazard bags if first bag is leaking or damaged.
BSL-2 LABS	19	BSL-2 LABS - OTHER	