



# OSU EHS Laboratory Survey Checklist



Department				PI				
Building			Building #		Phone #			
Type			Room #		Date		CSL Rating	
						1	2	3
<b>1.0 Signage and Labels</b>								
#	Inspection Item	Explanation/Criteria				Yes	No	NA
1.1	Is laboratory entrance signage available and up-to-date?	Signage at the laboratory entrances should represent the current laboratory hazards. Signage should include GHS hazard pictograms (2 inch), emergency contact information, required PPE ( $\geq 2$ inch), and NFPA 704 diamond ( $\geq 4$ inch). If signage does not exist for laser, radiological, or biological laboratories, refer the lack of signage to URC.						
1.2	Are laboratory refrigerators labeled properly?	Laboratory refrigerators should have "Lab Use Only" label. Food refrigerators should be labeled "Food only - no chemicals".						
1.3	Are laboratory microwaves labeled properly?	Laboratory microwaves should have "Lab Use Only" label. Food microwaves should be labeled "Food only - no chemicals".						
1.4	Are laboratory ice makers labeled "Not for human consumption"?	Self-explanatory.						
1.5	Do the locations of the Laboratory Safety Equipment have appropriate signage?	Locations of the fire extinguisher, eyewash station, and safety shower must have signs that are $\geq 6$ inches for both height and width.						
<b>2.0 Personal Protective Equipment</b>								
#	Inspection Item	Explanation/Criteria				Yes	No	NA
2.1	Are employees wearing appropriate PPE in the laboratory?	Proper PPE includes safety glasses/goggles, closed toe shoes, and other appropriate clothing. For laboratories with offices co-located, the employees should know which portion is designated as office and which portion is designated laboratory.						
2.2	Is appropriate PPE available - safety glasses, gloves, etc?	PPE must be available and compatible for laboratory tasks. This includes glove compatibility, use of fire retardant lab coat (in special cases), face shields, etc.						



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2.3	Is the use of respirators or masks compliant?	If a respirator is used, the user <b>MUST</b> be currently enrolled in the OSU Respiratory Program. Refer respirator findings to EHS Occupational Health Program Manager.			
2.4	Is the noise level within acceptable limits?	If the laboratory (or location within a workspace) is too loud to easily hear normal conversation at 3 feet, hearing protection may be required. Other examples might include operating pumps or running combustion engines in laboratories. Refer any hearing protection findings to EHS Occupational Health Program Manager.			
<b>3.0 Laboratory Safety Equipment (Eyewash, Safety Shower, Fire Extinguisher, and Fume Hood)</b>					
#	Inspection Item	Explanation/Criteria	Yes	No	NA
3.1	Is the eyewash station unobstructed, tested, and available?	No tripping hazards or blockage should impede an employee's access to the eyewash. The eyewash must also be operational and tested by EHS within the last year. In addition, weekly test log should be available. <b>Drench hoses # - Eyewash # -</b>			
3.2	Is the safety shower unobstructed, tested, and available?	No tripping hazards or blockage should impede an employee's access to the safety shower. The safety shower must also be operational and tested by EHS within the last year. <b>Showers # -</b>			
3.3	Is the fire extinguisher unobstructed and available?	Access to the fire extinguisher should not be blocked and employees should know the location. <b>-location of extinguisher: hallway or inside room</b>			
3.4	Are fume hood inspections current?	Ensure the fume hood has been tested by EHS within the last year (sticker), and hood sash height appropriately marked. <b>Fume hood # -</b>			
3.5	Are fume hoods clean with minimal chemical storage?	Ideally, only store chemicals and equipment that is being used for the current experiment in the fume hood. Excessive storage inside a fume hood will decrease the effectiveness by blocking baffles and obstructing flow.			
3.6	Are chemicals and equipment at least 6" inside fume hood?	Hoods are designed to have at least 6" of clearance inside the hood. Equipment or chemicals within the 6" mark will affect the hoods ability to capture vapors.			
3.7	Are sinks, soap and towels available for hand washing?	Self-explanatory.			
3.8	Are all moving parts on machinery guarded?	Vacuum pumps are the most common laboratory equipment that requires guards. Other equipment such as forklift, CNC, lathe, exposed pulley, belt, shaft, chain, etc. may also be present. Refer machinery concerns to EHS Occupational Safety Program Manager.			





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5.2	Are all chemicals labeled? Are lids closed?	All secondary containers must be labeled with common name, chemical name, and NFPA diamond. Dilutions should be labeled with common name, chemical name, concentration, and NFPA diamond (if hazardous).			
5.3	Are peroxide formers properly labeled and not expired?	Peroxide formers pose an explosion hazard. The date opened, expiration, and date tested (if applicable) should be listed.			
5.4	Are flammable chemicals outside flame cabinet compliant?	Amount is dependent on location and fire hazard class. However, try keeping the total volume below 2 gallons per 100 ft <sup>2</sup> of laboratory. For more information, consult the <i>Inspection SOP</i> or the OSU Fire Marshal (or designee).			
5.5	Are flammable chemicals inside flame cabinet compliant?	Amount is dependent on location and fire hazard class. However, try keeping the total volume below 4 gallons per 100 ft <sup>2</sup> of laboratory. For more information, consult the <i>Inspection SOP</i> or the OSU Fire Marshal (or designee).			
5.6	Are chemicals properly stored on floor?	Chemical storage must not cause a tripping hazard, and must have secondary containment.			
5.7	Is secondary containment used for transport and storage?	Bottle containers should be available for carrying chemicals. Secondary containment should be used when storing $\geq 5$ gallons volumes of chemicals or waste to avoid spillage on floors or into drains.			
5.8	Are explosion proof refrigerators used for storing flammable chemicals?	Standard refrigerators are not acceptable for storing flammable chemicals. Explosion proof refrigerators are designed to not have ignition sources. <b>Laboratory grade</b> <span style="float: right;"><b>Explosion proof</b></span>			
5.9	Is liquid hazardous material stored below eye level?	The eyes and skin are vulnerable to damage when exposed to hazardous chemicals. Storing at heights lower than eye level greatly reduces splash or spill incidents that could affect the eyes and typically exposed skin.			
5.10	Are satellite accumulation areas inspected on a regular basis?	Full containers must be removed within 3 days. Only safety cans should be used for storage of liquid waste.			
5.11	Is the waste storage within acceptable limits?	Alert EHS Material Management if $> 1$ quart of acutely hazardous waste (see <i>Inspection SOP</i> ) and/or $> 55$ gallons of hazardous waste are being stored in a laboratory.			
5.12	Is hazardous waste appropriately segregated?	Ensure that reactive chemical classes are not stored together. Also, the OSU waste segregation method should be used in laboratories that generate significant amounts of organic waste (see <i>Inspection SOP</i> ). Refer concerns and/or non-compliance to OSU Material Management.			



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5.13	Do hazardous waste containers have proper labels? Are lids closed?	The label must clearly and neatly indicate the chemical or common name of each substance that is at least 1% by volume of the total contents or mixture.			
5.14	Do chemical storage areas have appropriate signage?	Chemical storage areas should be labeled with signage font that is at least one inch in height.			
5.15	Are spill kits available?	Spill kits should be able to clean applicable laboratory spills, particularly organic and corrosive liquids.			
<b>6.0 Electrical Hazards</b>					
#	Inspection Item	Explanation/Criteria	Yes	No	NA
6.1	Are electrical cords in good condition?	Cords should not have signs of wear or bare wires exposed.			
6.2	Are extension cords being used appropriately?	Extension cords should only be used temporarily with adequate gauge to handle current. Extension cords should not replace permanent wiring or be plugged into a power strip.			
6.3	Are GFCIs by water sources?	GFCI receptacles should be located within 6 feet from water source.			
6.4	Are electrical receptacles, switches, and controls safe from liquid spills?	Water pooled in/by electrical outlets can pose a shock hazard. Similarly, organic liquids that pool near outlets could pose a fire hazard.			
6.5	Are approved power strips being used appropriately?	Power strips must be UL certified and have overcurrent protection. In addition, a power strip should not be plugged into another power strip (daisy chaining).			
6.6	Are flexible cords and cables appropriately routed through laboratory?	Use overhead trays or other similar means of running cables throughout the laboratory. Cable routing should not pose a tripping, shock, or clothes-line hazard.			
6.7	Is access to the circuit breaker box unobstructed?	The breaker box must always be accessible for emergency power shut off. The breaker boxes should have a clear work area of 36" front, 30" width, and 78" high.			
6.8	Is the circuit breaker box compliant?	Circuit breakers should have knockouts in place with no combustible materials in the box. In addition, feed locations for the breakers must be labeled.			
6.9	Are employees properly trained to perform maintenance on equipment > 50 V?	Proper training is required to work on any electrical equipment over 50 V. Refer training needs to the EHS Occupational Safety Program Manager.			



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6.10	Are approved light bulbs used in laboratories?	No halogen light bulbs should be used.			
<b>7.0 Bloodborne Pathogens</b>					
#	Inspection Item	Explanation/Criteria	Yes	No	NA
7.1	Is the Exposure Control Plan (ECP) present and current?	An ECP with attachments should be present in the laboratory and reviewed annually. Refer any concerns or questions to EHS Occupational Safety Program Manager.			
7.2	Is the employee's Hepatitis B vaccine status documented?	The department or PI should have documentation concerning the employee Hepatitis B status, which is a statement of either having or declining vaccination.			
7.3	Is the employee's bloodborne pathogens (BBP) training current and documented?	Bloodborne pathogen training/refresher is required annually.			
7.4	Are needle stick injuries properly reported?	Laboratories should have a needle stick log that is kept for five years. In addition, needle sticks should follow the OSU injury process using the Employee Injury Form.			
7.5	Are sharps and needles handled properly?	Sharps and needles must not be bent, sheared, broken, recapped, removed from disposable syringe, or otherwise manipulated by hand before disposal.			
<b>8.0 Laboratory Documentation and Training</b>					
#	Inspection Item	Explanation/Criteria	Yes	No	NA
8.1	Do employees have access to Chemical Inventory List?	Chemical inventory list should be readily accessible to all employees working in a laboratory – either through electronic or hardcopy.			
8.2	Do employees have access to (M)SDSs?	(M)SDSs should be readily accessible to all employees working in a laboratory – either through electronic or hardcopy.			
8.3	Are the CHP (lab) or HazCom Program (non-lab) and Laboratory Safety Manual available?	Employees must have access to common procedures used for handling hazardous chemicals and communicating hazard information.			
8.4	Are task specific SOPs available?	Procedures are required for operations that are not given in the Laboratory Safety Manual. Laboratories that use acutely hazardous chemicals (see <i>Inspection SOP</i> ) should have special (and specific) handling and safety procedures.			





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8.5	Are laboratory specific procedure training documented?	Laboratory specific training is required for using hazardous materials and/or procedures that are not addressed in the Laboratory Safety Manual. This includes laboratory specific hazard awareness training that is required by the Hazard Communication standard.			
8.6	Is lab specific PPE training provided by the employee's supervisor and documented?	Employees should know when PPE is necessary, what PPE to use, how to use the PPE, limitation of PPE, and effective life of PPE. EHS has a PPE course that addresses usage of standard laboratory PPE.			
8.7	Are general training requirements documented?	Laboratory employees should have general training for Hazard Communication, Laboratory Safety, and Hazardous Waste. General training is provided by EHS.			
<b>9.0 Laboratory Conditions</b>					
#	Inspection Item	Explanation/Criteria	Yes	No	NA
9.1	Are corridors, aisles, & exits unobstructed?	No tripping hazards or obstructions blocking the laboratory exits.			
9.2	Does the laboratory have good general housekeeping?	Self-explanatory.			
9.3	Is the laboratory area devoid of food or signs of food?	Eating is not allowed in laboratories. In laboratories where offices are co-located, there must be a clear demarcation between office space and laboratories.			
9.4	Are the work areas adequately illuminated?	Ensure that all facility lighting is working. Any lights that do not work should be reported to Facility Management by PI. Also, report any locations in the laboratory that do not receive enough light to the EHS Occupational Safety Program Manager.			
9.5	Do laboratory doors operate, close, and latch properly?	Laboratories should have fire rated doors that are in good condition and will close and latch automatically. In addition, laboratory doors should not be propped open. Refer concerns to the OSU Fire Marshal (or designee).			
9.6	Are all ceiling tiles present, in place, and in good condition?	Self-explanatory.			
9.7	Are sharps containers available (where required)?	Needles, scalpels, broken glass, etc. will NOT be disposed in the trash or left out to pose a cut/puncture hazard to employees. The only acceptable method of disposal is a sharps container that is not cracked or broken. Broken glass can be put in a taped and labeled box for disposal in common trash.			



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9.8	Are combustibles stored at heights within acceptable limits?	Combustibles must be <b>18"</b> below the ceiling in sprinkler room and <b>24"</b> in non-sprinklered rooms. <i>*Circle correct one.</i>			
9.9	Is the shelving adequate for loads imposed?	Look for shelving that is bowed or starting to break. Also, ensure enough shelving (or other storage) is available for laboratory chemicals and samples.			
9.10	Are heavy items stored on lower shelves?	Single-person-lift items above 25 lbs should be stored at locations below the waist.			
<b>10.0 Pressure and Vacuum Systems</b>					
#	Inspection Item	Explanation/Criteria	Yes	No	NA
10.1	Is vacuum glassware in good condition?	Glassware should not be cracked or chipped.			
10.2	Are pressure release devices (for vacuum and pressure vessels) present and inspected?	Pressure and vacuum vessels should be rated to operate at maximal or minimal pressures. To avoid ruptures or implosions, pressure safety valves (or rupture disk) should be present and inspected/tested to ensure proper protection.			
10.3	Are glass vessels enclosed or shielded?	Due to the threat of flying debris, pressurized/evacuated glass vessels should be in secondary containment. Containment can be an outer container or fume hood.			