Environmental Health & Safety Policy Manual		
Date: 6/30/2011	*Revised: 11/1/2022*	Policy # EHS 400.13
Laboratory Inspection Program		

1.0 PURPOSE

This policy establishes guidelines for performing safety inspections in laboratories to assist personnel in the safe execution of work, and ensure compliance with applicable laws and standards, State of Louisiana Office of Risk Management (ORM) guidelines, and LSUHSC policies.

2.0 SCOPE

Environmental Health and Safety issues in the laboratory, including regulatory compliance items, are ultimately the responsibility of the Principal Investigator or Laboratory Supervisor. This inspection program is designed to aid the Principal Investigator with ensuring that lab personnel:

- Are aware of the risks associated with the work in the lab, including physical, biological, radiological and chemical hazards.
- Are trained on how to mitigate those risks through engineering controls, safe work practices, and protective equipment.
- Comply with regulatory requirements, ORM guidelines and LSUHSC policies.

It is important that laboratory personnel are present during the inspection to capitalize on the opportunity for dialogue. Scheduled inspections provide a forum for discussion and where laboratory personnel can seek assistance from EH&S staff members on safety and compliance matters. Every active laboratory will be inspected at a minimum of every 24 months.

3.0 RESPONSIBILITIES

3.1 Environmental Health and Safety Department (EH&S) shall:

- Maintain a list of all LSUHSC labs to include the responsible Principal Investigator, the lab status and lab type (e.g., BSL1, BSL2).
- Inspect each laboratory at a minimum every 24 months. Schedule inspections with the PI or lab representative.
- Provide report of inspection results to the PI.
- On the occasion when critical safety hazards are identified, perform a prompt follow-up and assist with corrective action as required.

3.2 Principal Investigators shall:

- Accompany EH&S on the inspection. If the PI is not available, the individual accompanying EH&S on the inspection should be familiar with all of the work occurring in the laboratory.
- All inspection findings will be reported to the PI for oversight of corrective action.
- After consultation with EH&S, submit work requests to correct any facilities-related deficiencies found during the inspection.
- Within 30 calendar days of lab inspection, forward documentation of the corrections for all deficiencies noted to the Laboratory Safety Officer.

3.3 Department Heads shall:

- Notify EH&S when a new Principal Investigator is hired or when a Principal Investigator is departing the Health Sciences Center.
- Ensure newly reported Principal Investigators contact EH&S to schedule an initial laboratory inspection.
- Notify EH&S if there are changes to laboratory assignments so the laboratory listing remains accurate.
- Ensure that shared research spaces are assigned a space lead to serve as point of contact for lab inspections and corrective actions and work orders associated with the space.
- Review inspection results and ensure corrective actions are implemented.
- Assume responsibility for inactive laboratories.

4.0 IMPLEMENTATION

4.1 Routine Inspection Scheduling

EH&S will contact the PI to schedule an appointment for the inspection. A representative from the lab will be present for the entire inspection. Every laboratory will undergo a routine inspection at least every 24 months. Note that the Radiation Safety Officer will conduct a separate inspection every quarter to assess radiation safety in the laboratories. The inspection will be conducted using Appendix A, Laboratory Inspection Checklist. Elements of the inspection include hazard communication, containment equipment, general housekeeping practices, safety equipment, chemical use and storage, electrical and mechanical safety, personal protective equipment, biological safety and gas cylinders.

4.2 Reporting

EH&S will verbally debrief the PI or lab representative upon completion of the inspection to discuss any deficiencies. Inspection results will be reported to the PI via the EH&S compliance software SafetyStratus.

4.3 Correcting Deficiencies

- The PI or lab designee will correct any deficiencies resulting from the inspection within 30 calendar days of receiving the report. Critical safety hazards will be corrected immediately. The lab can document these corrections in SafetyStratus.
- After consultation with EH&S, submit work requests to correct any facilities-related deficiencies found during the inspection.
- On the occasion when critical safety hazards are identified, EH&S will perform a prompt follow-up and assist with corrective action as required.

5.0 EMPLOYEE TRAINING AND EDUCATION

All laboratory personnel shall complete "Laboratory Safety" training upon initial employment and then every year thereafter.

6.0 RECORDKEEPING

All laboratory inspection results will be maintained by EH&S.

7.0 APPENDICES:

Appendix A, Laboratory Inspection Form

Laboratory Inspection Form **Inspector's Name:_____** **Date of Inspection: _____**
Building / Room #:_____ **Department:_____** **Principal Investigator:_____**

1.0 TRAINING AND HAZARD COMMUNICATION	Y/N or NA	REGULATORY GUIDANCE	COMMENTS
1.1 List the current labels on door signage:	Radiation	☐ Biological ☐ Flammable ☐ Corrosives ☐ Toxic ☐ Carcinogens ☐ Oxidizers ☐	
1.2 Do laboratory entrance(s) have appropriate hazard signage with emergency numbers posted		OSHA 1910.1200 & NFPA 704	
1.3 Has laboratory-specific training been conducted annually and properly documented using the Laboratory Specific Training Checklist?		29CFR 1910.1450, State of Louisiana Office of Risk Management and BMBL Section III	
1.4 Is SDS library available (on hard drive or hard copies)?		EHS 400.12, Hazard Communication Program & OSHA 1910.1200 (h)	
1.5 Are the chemical & biological materials inventory current?		EHS 200.07, Chemical Inventory & Control & EHS 300.03, Biological Materials Inventory Control Policies	
2.0 HOUSEKEEPING	**Y/N or NA**	**REGULATORY GUIDANCE**	**COMMENTS**
2.1 Is there a 36 inch aisle clearance throughout the laboratory?		NFPA Life Safety Code	
2.2 Is there at least 18 inches of vertical clearance maintained between all stored items and the ceiling mounted fire sprinklers ? *(Note: Where wall shelves installed and sprinkler is not directly overhead, 18 inch clearance does not apply.)*		NFPA 45 and 29 CFR 11910.159	
2.3 Are laboratory surfaces clean and sanitary with no excess visible contamination?		Prudent Laboratory Practices - National Research Council	
2.4 Is there no presence of food, drink, application of cosmetics, and smoking in laboratory?		Prudent Laboratory Practices	
2.5 Is glassware free of chips, cracks, sharp edges, and other defects?		Prudent Laboratory Practices	
2.6 Are glass bottles not being stored on the ground?		Prudent Laboratory Practices	
2.7 Are all ceiling tiles in place and in good condition?		NFPA Life Safety Code	
3.0 CHEMICAL USE, STORAGE AND CONTAINMENT EQUIPMENT	**Y/N or NA**	**REGULATORY GUIDANCE**	**COMMENTS**
3.1 Is a chemical spill clean-up kit available and procedures known to staff?		EHS 200.02, Chemical Spill Response Procedure	
3.2 Are all chemicals properly labeled and legible?		EHS 200.06, Chemical Signage and Labeling Policy & OSHA 1910.1450	
3.3 Are chemicals not in use stored in cabinets and not left on open benches?		Prudent Laboratory Practices	
3.4 Are all chemicals properly segregated (i.e., acids / bases; oxidizers / flammables; water-reactives; carcinogens; pyrophorics)?		Prudent Laboratory Practices	
3.5 Are strong acids and strong bases stored in secondary containers?		Prudent Laboratory Practices	
3.6 Are peroxide formers, such as isopropyl ether and diethyl ether, stored away from light and heat and labeled with the date they were opened?		Prudent Laboratory Practices Peroxide Forming Chemicals Web Page	

3.0 CHEMICAL USE, STORAGE AND CONTAINMENT EQUIPMENT (cont.)	Y/N or NA	REGULATORY GUIDANCE	COMMENTS
3.7 Are all expired and deteriorated chemicals removed from lab?		Prudent Laboratory Practices 4.E.1	
3.8 Are flammable liquids not stored by sources of ignition?		NFPA 45	
3.9 Are flammable materials stored in labeled flammable cabinets (if more than 10 gallons)?		NFPA 45	
3.10 Are refrigerators that are used to store flammables UL approved and rated for flammable material storage?		Underwriters Laboratory 250 Standard	
3.11 If high hazard chemicals are used in the lab, have SOPs been developed and are personnel trained on the SOPs?		29 CFR 1450 and EHS 200.09, High Hazard Chemical policy	
3.12 Hazardous Waste:		EPA 265.170	
3.12.1 Are containers clearly marked with the words "Hazardous Waste"?		EHS 200.04, Chemical Waste Management Procedures	
3.12.2 Do waste containers prepared for EH&S pickup have at least a 2 inch air gap?		EHS 200.04, Chemical Waste Management Procedures	
3.12.3 Is liquid waste located away from floor drains and sinks?		EPA 265.173	
3.13 Chemical Fume Hood:		ANSI Z9.5-2003	
3.13.1 Is the chemical fume hood in good working condition and certified within one year?		ANSI Z9.5-2003 & NSF 49	
3.13.2 If applicable (CSRB & Lions 8/9), is audible/visual alarm functional?		ANSI Z9.5-2003	
3.13.3 Is the sash and interior lighting in good condition?		ANSI Z9.5-2003 & NSF 49	
3.13.4 Is equipment not crowded, cluttered, or dirty?		ANSI Z9.5-2003	
3.13.5 Are objects in fume hoods beyond 6 inches of sash to not obstruct flow?		ANSI Z9.5-2003	
4.0 PERSONAL PROTECTIVE EQUIPMENT	**Y/N or NA**	**REGULATORY GUIDANCE**	**COMMENTS**
4.1 List PPE in use:	Gloves ☐ Lab Coat ☐ Disposable Gown ☐ Respirator ☐ Other:_____		
4.2 Is appropriate PPE used and maintained in proper condition?		EHS 400.03, PPE Policy & OSHA 1910.133-138	
4.3 Are closed toed shoes and long pants worn by lab personnel?		Prudent Laboratory Practices	
4.4 Are respirators in use and if so, have medical evaluations and fit testing been completed?		EHS 200.08, Respiratory Protection Program & OSHA 1910.134	
5.0 GAS CYLINDERS	**Y/N or NA**	**REGULATORY GUIDANCE**	**COMMENTS**
5.1 Are gas cylinders secured using bracket and strap / chain?		OSHA 1910.101	
5.2 Are gas cylinders properly labeled?		ANSI Z48.1-1954	
5.3 Are cylinders stored properly (heat, compatible materials, distance from combustibles and not touching electrical contacts)?		OSHA 1910.253	

5.0 GAS CYLINDERS (cont.)	Y/N or NA	REGULATORY GUIDANCE	COMMENTS
5.4 Are cylinder valves closed and safety cap in place if not in use?		OSHA 1910.253	
5.5 Are fuel cylinders stored at least 20 feet from O2 cylinders?		OSHA 1910.253	
6.0 SAFETY EQUIPMENT	**Y/N or NA**	**REGULATORY GUIDANCE**	**COMMENTS**
6.1 List available safety equipment:	☐ Eyewash ☐ Shower ☐ Fire Extinguisher ☐ Other _____		
6.2 Are personnel aware of locations of safety equipment (i.e., eyewash, safety showers, fire extinguisher(s), evacuation routes)?		ANSI Z358.1	
6.3 Is all safety equipment properly maintained with proper inspection tags attached? (i.e., eyewash, safety shower, fire extinguisher)		ANSI Z358.1	
6.4 Is there unrestricted access to eye washes, safety showers, and fire extinguishers?		OSHA 1910 & .ANSI Z358.1	
7.0 ELECTRICAL & MECHANICAL SAFETY	**Y/N or NA**	**REGULATORY GUIDANCE**	**COMMENTS**
7.1 Are electrical outlets, switches, cords, plates, and lighting fixtures in good condition?		OSHA 1910	
7.2 Are circuit breaker panels unobstructed and closed?		OSHA 1910	
7.3 Do cords in the work area not represent trip hazards?		OSHA 1910	
7.4 Are electrical outlets not being overloaded / overused?		OSHA 1910	
7.5 If applicable, is mechanical equipment properly guarded?		OSHA 1910	
8.0 BIOLOGICAL SAFETY AND CONTAINMENT EQUIPMENT	**Y/N or NA**	**REGULATORY GUIDANCE**	**COMMENTS**
8.1 RESERVED		EHS 300.03, Biological Materials Inventory and Control Policy	
8.2 What types of biological materials are present?	☐ Animals ☐ Bacteria ☐ Virus ☐ Fungi ☐ rDNA ☐ Toxins/Prions ☐ Blood/Body Fluids ☐ Cells/Tissues		
8.3 What is the highest Biosafety Level (BSL) observed in lab?	☐ BSL1 ☐ BSL2 ☐ BSL3		
8.4 Are sharps and red bagged/biobox waste containers properly maintained (i.e., less than ¾ full), sealed, and labeled for pick-up?		EPA 265.170 Safe Handling/Disposal of Sharps - SOP	
8.5 Are work surfaces and biosafety cabinets decontaminated with appropriate disinfectant after use and kept clutter free?		BMBL Section III Laboratory Disinfection - SOP	
8.6 Are biomaterials decontaminated (i.e., disinfectant, autoclave) prior to disposal?		BMBL Section III Safe Operation of Autoclaves - SOP	
8.7 Is a biological spill kit or bloodborne pathogens spill kit available?		OSHA 1910.1030 & BMBL Section IV	
8.8 For BSL2 and above, is a lab-specific biosafety manual updated, available, and accessible?		BMBL Section IV and State of Louisiana ORM	
8.9 Are lab doors closed while work with BSL 2 materials is in progress?		BMBL Section IV	
8.10 Is a sink available and accessible for hand washing?		BMBL Section IV	
8.11 Are refrigerators, freezers, dewars, and other equipment containing biological materials labeled with appropriate biohazard signage?		OSHA 1910.1030	

8.0 BIOLOGICAL SAFETY AND CONTAINMENT EQUIPMENT (cont.)	Y/N or NA	REGULATORY GUIDANCE	COMMENTS
8.12 If biological material is shipped, have personnel completed "Shipping Biological Material Training" or equivalent dangerous goods training every two years?		EHS 300.05, Shipping Biological Materials Policy and OSHA 49 CFR 100.185.39, CFR20 and 29 CFR 1910.1030	
8.13 Biological Safety Cabinet:			
8.13.1 Is biological safety cabinet in good working condition and certified within one year?		ANSI Z9.5-2003 & NSF 49	
8.13.2 Is the sash and interior lighting in good condition?		ANSI Z9.5-2003 & NSF 49	
8.13.3 Is equipment not crowded, cluttered, or dirty?		ANSI Z9.5-2003	
8.13.4 Are procedures involving high potential for aerosol generation conducted within biosafety cabinet?		BMBL Section IV	
8.13.5 Are objects in cabinet beyond 6 inches of sash to not obstruct flow?		ANSI Z9.5-2003	

Names of personnel who work in the laboratory:

Additional Notes/Comments: