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1. PURPOSE

The purpose of this procedure is to outline the process used for conducting laboratory inspections at University of Memphis.

2. SCOPE

This procedure applies to all laboratories of University of Memphis.

3. **DEFINITIONS**

- 3.1 <u>Deficiency:</u> A problem found during an inspection that must be corrected.
- 3.2 <u>PI:</u> Principal Investigator
- 3.3 <u>Laboratories</u>: All labs belonging to University of Memphis campus including those off campus that contain biological, chemical, physical, or radiological hazards.
- 3.4 <u>PPE:</u> Personal Protective Equipment
- 3.5 <u>DSL:</u> Department Safety Liaison
- 3.6 <u>Inspection team:</u> The person or persons inspecting a lab
- 3.7 <u>IDLH:</u> Immediately Dangerous to Life or Health

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4. **RESPONSIBILITIES**

- 4.1 University of Memphis Department Heads
 - 4.1.1 Communicate the importance of following safety policies and procedures identified in the University of Memphis Laboratory Safety Manual, Biological Safety Manual, Radiation Safety Manual and Hazardous Waste Management Plan.
 - 4.1.2 Encourage and support laboratories to conduct self-inspections using the self-inspection checklist and explanation key.
 - 4.1.3 Encourage Principal Investigators to correct deficiencies noted by the inspection team.
- 4.2 University of Memphis Principal Investigators and Lab Managers
 - 4.2.1 Understand and follow safety policies and procedures identified in University of Memphis Laboratory Safety Manual, Biological Safety Manual, Radiation Safety Manual and Hazardous Waste Management Plan.
 - 4.2.2 Be aware of the self-inspection checklist and explanation key and use them to prepare for lab inspections.
 - 4.2.3 Ensure all deficiencies found during lab inspections are corrected by the appropriate deadline.
- 4.3 University of Memphis EHS
 - 4.3.1 Maintain and update the inspections webpage, self-inspection checklist and explanation key and other resources to assist researchers meet their safety and compliance responsibilities.
 - 4.3.2 Schedule and perform laboratory inspections according to the goals and objectives and this SOP.
 - 4.3.3 Follow-up on noted deficiencies according to this SOP.

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5. LABORATORY INSPECTION SCHEDULING

- 5.1 The following steps are involved for scheduling laboratory inspections.
 - 1) Send out email memo to PIs two weeks prior to the planned start date for inspections. Included in the email memo should be a link to the inspection template and a lab characterization sheet. The PI or lab representative may have to fill out and return the lab characterization sheet which includes a lab roster.
 - 2) Send out a subsequent email memo one week prior to the initiation of inspections. This memo should include a list of the labs in a facility with the name of the person responsible for the lab attached. Request the PI or lab representative to ensure the information in the list is still correct.
 - 3) Set schedule based on time requests by Principal Investigators or other lab representative.
 - 4) Add inspection time to calendar with an invite for the appropriate DSL.
 - 5) Complete the inspections per the schedule.
 - 6) Notify PI or lab representative if critical deficiencies are found that will result in imminent closure of the lab (see DEFICIENCIES section below).
 - 7) Give inspection results to the lab representative at the end of the inspection. A more detailed report may follow at a later time if further information is needed or is requested.
- 5.2 While the scheduling period for a facility should be over the course of 4-6 weeks, exceptions should be made for labs whose PI wishes to be present for inspections but whose schedule does not allow it during the given time period.

6. LABORATORY REPRESENTATION DURING INSPECTION

- 6.1 The PI or designee should be present during the lab inspection. The lab representative should be knowledgeable of the daily operations of the lab and must be employed by University of Memphis.
- 6.2 If the PI refuses to have lab representation for the inspection, carry out the inspection with the appropriate DSL present.

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- 6.3 If the PI refuses to have lab representation for the inspection and the appropriate DSL is not available, conduct the inspection in the absence of both.
- 6.4 If possible, the appropriate DSL should be present during some of the inspections.

7. INSPECTION

- 7.1 Before the lab visit, a roster of the lab workers should be provided by the PI or other lab representative. Based on the lab characterization, the inspection team should check to be sure that all lab workers have completed all appropriate training.
- 7.2 Prior to the inspection, the Principal Investigator in charge of the lab should have the lab users examine the inspection template to see items that will be checked. Correcting deficiencies prior to the inspection is allowed and encouraged.
- 7.3 A representative of the lab should meet the inspection team outside of the lab to ensure that the inspection team is apprised of the hazards of the lab and have the appropriate PPE.
- 7.4 During the inspection, the lab representative should stay with the inspection team to answer any question the team may have.
- 7.5 The inspection should take anywhere from 20 minutes to an hour. Large labs may take longer than an hour. (Note: On the first round of inspections, the process may take longer due to the new procedure and the length of time since previous inspections).
- 7.6 Only items addressed on the inspection form may be counted as deficiencies. If a critical item is found that is not on the checklist, it may be counted as a deficiency at the discretion of the Director of EHS.
- 7.7 At the end of the inspection or by the end of the inspection day a copy of the inspection results is given to the lab representative. A more detailed report may be provided at a later time if necessary.
- 7.8 It is the goal of EHS to visit each lab once per year. After going through the first round it may be determined that higher risk labs need more frequent visits while lower risk labs may only require biannual (every other year) inspections.

8. DEFICIENCIES

8.1 Deficiencies are classified as non-compliant and critical

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8.2 Critical Deficiencies

- 8.2.1 Deficiencies found that are IDLH can result in immediate closure of the lab. If such a deficiency is found:
 - 8.2.1.1 Contact the PI responsible for the lab for immediate resolution.
 - 8.2.1.2 If the deficiency cannot be corrected immediately, the PI refuses to correct this deficiency or the PI or another lab representative cannot be reached:
 - 8.2.1.2.1 Contact the Director of EHS
 - 8.2.1.2.2 Once the director gives approval for closure of the lab, post signage stating that the lab is unsafe for entry and contact information.
 - 8.2.1.2.3 Contact the appropriate DSL to lock the lab
- 8.2.2 If a deficiency is critical but is not IDLH, a time frame must be established for correction of the deficiency.
- 8.3 Re-inspection on the basis of deficiencies
 - 8.3.1 A lab will be re-inspected if:
 - 8.3.1.1 A critical deficiency is found
 - 8.3.1.2 The number of other deficiencies is high enough to cause the total inspection percentage to be below 80%
 - 8.3.2 Re-inspection of labs will not be announced, but at least one week will be given to correct non IDLH deficiencies
- 8.4 Correction of Deficiencies
 - 8.4.1 Whether or not re-inspection occurs, it is the responsibility of the PI to ensure that ALL deficiencies are corrected.
 - 8.4.2 Correction of deficiencies, can, in some cases, be evidenced to the inspection team by photograph.
 - 8.4.3 Continued failure to correct deficiencies to an acceptable level will result in an escalation process described in the next section

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9. ESCALATION PROCESS

- 9.1 Unless the deficiencies found are sufficiently critical to the life and health of the lab workers or the regulatory status of the laboratory, laboratories will be given a minimum of two weeks to correct deficiencies.
- 9.2 If upon follow-up inspection critical deficiencies remain unresolved or the laboratory inspection correct percentage remains below 80% an email message will be sent reminding the PI in charge of the lab and the appropriate DSL as to the status of the lab. An additional seven days will be given to bring the lab into compliance.
- 9.3 If after these seven days the lab is still non-compliant (does not meet the criteria of 9.2), another email communication will be sent to the PI, the appropriate DSL and the Chair of the appropriate department. An additional seven days will be given to bring the laboratory into compliance.
- 9.4 At this point the PI has had a minimum of 28 days to bring the lab into compliance. If the lab is still not in compliance, then a third email communication will be sent to the PI, the appropriate DSL, the Chair or the appropriate department and the Dean for the appropriate college.
- 9.5 If the lab still fails to comply after two weeks of the dean being contacted, the Vice President of Research or the Provost (depending on whether the lab is a research lab or a teaching lab) will be contacted to inform them of the imminent closure of the lab due to non-compliance. Human Resources may also be contacted.
- 9.6 Failure to bring a lab into compliance after the 28 days will also result in the refusal of the EHS to sign any safety documentation regarding grants or permits until such time as the lab is in compliance.
- 9.7 Extensions to any of these periods may be granted at the discretion of EHS. A request for an extension should be requested by an email to the inspection team.
- 9.8 The escalation process will NOT be used for lab inspection findings that are out of the control of the PI. For items outside the control of the PI a separate escalation process will be used.

10. REFERENCE DOCUMENTS FOR SELF-INSPECTION

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- 10.1 Included in the email to the PI regarding the scheduling of the inspection will be links to the following documents:
 - 10.1.1 A blank copy of the inspection form
 - 10.1.2 An explanation of the criteria for each inspection item to achieve the highest level of compliance
 - 10.1.3 The Laboratory Safety Manual
 - 10.1.4 The Chemical Hygiene Plan
 - 10.1.5 The Biological Safety Manual
 - 10.1.6 The Hazardous Waste Management Plan
- 10.2 Requirements to meet the minimum compliance level will be linked to the appropriate regulation or standard as a demonstration of why the item is being checked in the inspection.

11. BENEFITS FOR HIGH COMPLIANCE RATINGS

- 11.1 Laboratories that have no critical deficiencies, score higher than 95% minimum compliance and meet the highest compliance level (currently called *excellent*) on 50% or more of the inspection items will have the advantage of the following benefits:
 - 11.1.1 A streamlined process for signing off on safety documentation for permits or grants wherever EHS has that responsibility
 - 11.1.2 Priority on inspection scheduling
 - 11.1.3 The opportunity to self-inspect in lieu of EHS inspections (high risk labs do not qualify)
 - 11.1.4 Other benefits TBD