**BSL-1**

**LABORATORY BIOSAFETY COMPLIANCE INSPECTION CHECKLIST**

*This checklist is based on the Biological Safety in Microbiological Biomedical and Laboratories, 5th edition.*

This checklist may be used for in-house assessment or as part of a review completed by the Institutional Biosafety Committee. Contact the IBC ([ibc@liberty.edu](mailto:ibc@liberty.edu)) if you have any questions or require assistance. The following standard and special practices, safety equipment, and facility requirements apply to BSL-1 laboratories:

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| **PROTOCOL INFORMATION** | |
| Date: | Laboratory Location: |
| IBC Protocol #: | Responsible Individual: |
| Person Interviewed: | |

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| **LABORATORY INFORMATION** | | | |
| Biosafety Level: | BSL-1 | BSL-2 | BSL-3 |
| Biological materials manipulated in the laboratory*(list all organisms/materials)*: | | | |

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| **A. STANDARD MICROBIOLOGICAL PROCEDURES** | **YES** | **NO** | **N/A** |
| 1. Access to the laboratory is limited or restricted at the discretion of the PI or laboratory supervisor when experiments are in progress. |  |  |  |
| 2. Personnel wash their hands after they handle viable materials and animals, after removing gloves, and before leaving the laboratory. |  |  |  |
| 3. Eating, drinking, smoking, handling contact lenses and applying cosmetics are not permitted in the laboratory. Persons who wear contact lenses in laboratories should also wear safety glasses, goggles, or face shield. Food is stored outside the laboratory in cabinets or refrigerators designated for this purpose only. |  |  |  |
| 4. Mouth pipetting is prohibited; mechanical pipetting devices must be used. |  |  |  |
| 5. All procedures are performed carefully to minimize the creation of splashes or aerosols. |  |  |  |
| 6. Work surfaces are decontaminated at least once a day and after any spill of viable material with a disinfectant effective against the agents of concern. |  |  |  |
| 7. Cultures, stocks, contaminated plasticware, and other non-sharp wastes are autoclaved prior to disposal. |  |  |  |
| 8. Policies for the safe handling of sharps, such as needles, scalpels, pipettes, and broken glassware must be developed and implemented. Whenever practical, laboratory supervisors should adopt improved engineering and work practice controls that reduce risk of sharps injuries. Precautions, including those listed below, must always be taken with sharp items. These include: |  |  |  |
| 1. Careful management of needles and other sharps are of primary importance. Needles must not be bent, sheared, broken, recapped, removed from disposals syringes, or otherwise manipulated by hand before disposal. |  |  |  |
| 1. Used disposable needles and syringes must be carefully placed in conveniently located puncture-resistant containers used for sharps disposal. |  |  |  |
| 1. Non-disposable sharps must be placed in a hard walled container for transport to a processing area for decontamination, preferably by autoclaving. |  |  |  |
| 1. Broken glassware must not be handled directly. Instead, it must be removed using a brush and dustpan, tongs, or forceps. Plastic-ware should be substituted for glassware whenever possible. |  |  |  |
| 9. Culture fluids and other contaminated liquid wastes are autoclaved or decontaminated with a suitable disinfectant before disposal down the sanitary drain. |  |  |  |
| 10. Materials to be decontaminated outside of the immediate laboratory are placed in a durable, leak-proof container and closed for transport from the laboratory. |  |  |  |
| 11. An insect and rodent control program is in effect. |  |  |  |

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| **B. SPECIAL PRACTICES** | **YES** | **NO** | **N/A** |
| 1. Hypodermic syringes and needles, when not in use, are secured (i.e., locking cabinet, drawer) against unauthorized access. A log of stock materials and their distribution is maintained. |  |  |  |

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| **C. SAFETY EQUIPMENT (PRIMARY BARRIERS)** | **YES** | **NO** | **N/A** |
| 1. Special containment devices or equipment such as a biological safety cabinet is not generally required for manipulations of agents assigned to Biosafety Level 1. |  |  |  |
| 2. If used, biological safety cabinets are certified annually, when cabinets are moved, or when HEPA filters are changed. |  |  |  |
| 3. Protective eyewear should be worn for conduct of procedures in which splashes of microorganisms or other hazardous materials is anticipated. |  |  |  |
| 4. Laboratory coats, gowns, or uniforms are worn to prevent contamination or soiling of street clothes. This protective clothing is removed and left in the laboratory before leaving for or travel through non-laboratory areas (e.g., cafeteria, library, administrative offices, public corridors). All protective clothing is disposed of in the laboratory, laundered by the institution, or autoclaved and laundered at home by personnel. |  |  |  |
| 5. Gloves must be worn to protect hands from exposure to hazardous materials. Glove selection should be based on an appropriate risk assessment. Gloves are disposed of when contaminated, removed when work is completed, and are not worn outside the laboratory. Disposable gloves are not washed or reused. Hands are washed after glove use. |  |  |  |

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| **D. LABORATORY FACILITIES (SECONDARY BARRIERS)** | **YES** | **NO** | **N/A** |
| 1. Each laboratory contains a sink for handwashing. |  |  |  |
| 2. The laboratory is designed so that it can be easily cleaned and decontaminated. Carpets, rugs, and cloth furniture are not appropriate. |  |  |  |
| 3. Bench tops are impervious to water and resistant to moderate heat, acids, alkalis, organic solvents, and chemicals used to decontaminate the work surface. |  |  |  |
| 4. Laboratory furniture is sturdy and capable of supporting anticipated loads and uses. Spaces between benches, cabinets, and equipment are accessible for cleaning. |  |  |  |
| 5. If the laboratory has windows that open, they are fitted with fly screens. |  |  |  |
| 6. An autoclave for pre-treatment of laboratory wastes is available. |  |  |  |
| 7. An eyewash facility is readily available within the laboratory. |  |  |  |