# BIOSAFETY CHECKLIST (Biosafety Level 2 [BSL-2])

Re: Centers for Disease Control and Prevention (CDC) Biosafety in Microbiological and Biomedical Laboratories (BMBL) 6th Edition

## Inspection Information

Building: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Room: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Department: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Principal Investigator (PI): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inspection Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Purpose Statement: This document serves as guide for ensuring laboratory compliance with the BMBL and outlines practices that shall be in place within the laboratory while performing BSL2 work. Reach out to the Biosafety Officer with any questions and/or concerns.

## Standard Microbiological Practices

*N/A = Not Applicable*

| **Biosafety Level 2** | **Yes** | **No** | **N/A** | **Comments** |
| --- | --- | --- | --- | --- |
| 1. The Principal Investigator (PI) establishes and enforces policies that limit access to the lab. |  |  |  |  |
| 1. Persons must wash hands after working with potentially hazardous materials and before leaving the lab. |  |  |  |  |
| 1. Eating, drinking, storing food, applying cosmetics, etc., is not permitted in the lab. |  |  |  |  |
| 1. Mouth pipetting prohibited; mechanical pipetting devices must be used. |  |  |  |  |
| 1. Policies for the safe handling of sharps, such as needles, scalpels, pipettes, and broken glassware must be developed and implemented. |  |  |  |  |
| 1. Perform procedures to minimize the creation of splashes and aerosols. |  |  |  |  |
| 1. Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with disinfectant. |  |  |  |  |
| 1. Decontaminate all infectious material before disposal using an effective method. Durable leak proof containers must be used if decon takes place outside of lab. |  |  |  |  |
| 1. A sign incorporating the universal biohazard symbol must be posted at the entrance to the lab. Should show agent, BSL level, Personal Protective Equipment (PPE), name, phone numbers. |  |  |  |  |
| 1. PI must ensure that lab personnel receive appropriate training regarding their duties, precautions to prevent exposures and exposure evaluation procedures. |  |  |  |  |

## Special Practices (when required)

| **Biosafety Level 2** | **Yes** | **No** | **N/A** | **Comments** |
| --- | --- | --- | --- | --- |
| 1. All persons entering the lab must be advised of the hazards and meet specific entry/exit requirements. |  |  |  |  |
| 1. Lab personnel must be provided medical surveillance and offered appropriate immunizations for agents handled in the lab. |  |  |  |  |
| 1. Laboratory specific **biosafety** manual/Standard Operating Procedures (SOP) must be prepared and adopted as policy. This manual must be available, accessible and read and understood by all. |  |  |  |  |
| 1. The PI must ensure that lab personnel demonstrate proficiency with BSL-2 microbiological practices before working with these agents. |  |  |  |  |
| 1. Potentially infectious materials must be placed in a durable, leak proof container during collection, handling, processing, storage, or transport. |  |  |  |  |
| 1. Lab equipment should be routinely decontaminated, as well as after spills, splashes, or other potential contamination. |  |  |  |  |
| 1. Incidents that may result in exposure to infectious materials must be immediately evaluated and treated according to procedures in the **biosafety** manual/SOPs. |  |  |  |  |
| * 1. All such incidents must be reported to the PI. PI must also report incident to Risk and Safety Management and the Manager, Biosafety & Biosecurity. |  |  |  |  |
| * 1. Medical evaluation, surveillance, and treatment should be provided when required and appropriate records maintained. |  |  |  |  |
| 1. Animals and plants not associated with the work being performed are not to be permitted in the lab. |  |  |  |  |
| 1. All aerosol generating procedures are conducted in a biosafety cabinet (BSC) or other appropriate physical containment devices (not laminar flow workbenches) such as sealed centrifuge rotor cups/heads. |  |  |  |  |

## Safety Equipment (Primary Barriers)

| **Biosafety Level 2** | **Yes** | **No** | **N/A** | **Comments** |
| --- | --- | --- | --- | --- |
| 1. Biosafety cabinet (Class II), certified annually, and other containment devices or PPE used when: | Intentionally left blank | Intentionally left blank | Intentionally left blank | Intentionally left blank |
| * 1. Potential for aerosols or splashes exists. These may include centrifuging, grinding, blending, inoculating animals intranasally, harvesting infected tissues, etc. |  |  |  |  |
| * 1. High concentrations/titers or large volumes of agents are used. These may be centrifuged outside the BSC using sealed rotor cups/heads. |  |  |  |  |
| 1. Face protection used for work outside BSC that may generate splashes. |  |  |  |  |
| 1. Lab coats worn and removed prior to leaving lab. Lab coats must not be taken home. |  |  |  |  |
| 1. Gloves must be worn to protect hands from exposure to agents. Glove selection should be based on risk assessment. Gloves must not be reused and must be removed prior to leaving lab. |  |  |  |  |

## Laboratory Facilities (Secondary Barriers)

| **Biosafety Level 2** | **Yes** | **No** | **N/A** | **Comments** |
| --- | --- | --- | --- | --- |
| 1. Lab doors must have locks in accordance with university policy. |  |  |  |  |
| 1. Labs must have a hand washing sink. It should be located near the exit door. |  |  |  |  |
| 1. Lab should be designed so that it can be easily cleaned and decontaminated. Carpets and rugs not permitted. |  |  |  |  |
| 1. Benchtops impervious to water and resistant to chemicals. |  |  |  |  |
| 1. Lab furniture (chairs, tables, etc.) is appropriate for loading and use. Spaces accessible for cleaning. |  |  |  |  |
| 1. BSCs must be installed properly to avoid room air fluctuations that might impede proper functioning of the cabinet. |  |  |  |  |
| 1. Eyewash readily available and tested periodically. |  |  |  |  |
| 1. Lab windows that open to exterior are not recommended. If a lab does have such windows, they must be fitted with screens. |  |  |  |  |
| 1. Negative room airflow relative to the hallway recommended. |  |  |  |  |
| 1. Vacuum lines should be protected with HEPA (High Efficiency Particulate Air) filters. Liquid disinfectant traps may be required. |  |  |  |  |
| 1. HEPA filtered exhaust air from a Class II BSC can be safely recirculated if cabinet is tested and certified annually. |  |  |  | **BSC Certification Date:** |
| 1. Are autoclaving procedures verified? If yes, explain how. |  |  |  |  |

## Training of Personnel

| **Training of Personnel** | **Yes** | **No** | **N/A** | **Comments** |
| --- | --- | --- | --- | --- |
| 1. Documented lab safety training? |  |  |  |  |
| 1. Documented bloodborne pathogens training (if required)? |  |  |  |  |
| 1. Documented chemical safety training (if required)? |  |  |  |  |

## Additional Comments:

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## Signature

The Principal Investigator is responsible for full compliance with the policies, practices and procedures set forth in the Biosafety in Microbiological and Biomedical Laboratories – 6th Edition, the University of Maine’s Biosafety Policy and the laboratory’s specific Biosafety manual. The PI is responsible for assuring the appropriate training of employees and for correcting unsafe working conditions.

PI Signature (Mandatory): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Form prepared by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_