



## Biosafety Level 2 Checklist (BSL-2)

Reference: CDC BMBL/ 5<sup>th</sup> Edition, NIH Guidelines, Sep 09

|                             |                             |
|-----------------------------|-----------------------------|
| <b>Building &amp; Room:</b> | <b>Inspector:</b>           |
| <b>P.I.:</b>                | <b>Inspection Date:</b>     |
| <b>Laboratory Contact:</b>  | <b>Phone Extension:</b>     |
| <b>PI Signature:</b>        | <b>Inspector Signature:</b> |

| Biosafety Level 2                                                                                                                                                               | Yes                      | No                       | N/A                      | Comments (additional space on p.2)                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>A. Standard/Special Microbiological Practices</b>                                                                                                                            |                          |                          |                          |                                                                                                                     |
| 1. Does the Principal Investigator (PI) establish and enforce policies that control access to the lab?                                                                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| a. Are lab doors self- closing and have locks in accordance with university policies?                                                                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| b. Are all people entering the lab advised of the hazards and meet specific entry/exit requirements?                                                                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| 2. Do personnel wash hands after working with potentially hazardous materials and <b>before leaving</b> the lab?                                                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| a. Does the lab have a hand washing sink? It should be located near the exit door.                                                                                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| 3. Is eating, drinking, storing food, applying cosmetics, etc., permitted in the lab?                                                                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Food must be stored outside the lab area</b>                                                                     |
| 4. Is mouth pipetting prohibited? Are mechanical pipetting devices used instead?                                                                                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| 5. Are policies for the safe handling of sharps, such as needles, scalpels, pipettes, and broken glassware developed and implemented?                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>If possible, safety-engineered needles (i.e., self-retracting) that reduce risk of injury should be adopted.</b> |
| a. <b>Are needles bent, sheared, broken, recapped, removed from disposable syringes or otherwise manipulated by hand before disposal?</b>                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| b. Are used needles and syringes carefully placed in conveniently located puncture-resistant sharps containers?                                                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| c. Are non-disposable sharps placed in a hard -walled container for transport to processing areas for decontamination?                                                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| d. Is broken glass removed with brush and dustpan, tongs, or forceps?                                                                                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| e. Is plastic ware substituted for glassware whenever possible?                                                                                                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Plastic aspirating pipets should be used in place of glass Pasteur pipets.</b>                                   |
| 6. Are procedures carefully performed to minimize the creation of aerosols or splashes of infectious materials and waste?                                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| a. Are all aerosol generating procedures conducted in a Biosafety Cabinet or other appropriate physical containment devices?                                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| 7. Are work surfaces decontaminated after completion of work and after any spill or splash of potentially infectious material with an appropriate disinfectant?                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Disinfectant used:</b>                                                                                           |
| a. Is lab equipment routinely decontaminated? As well as after spills, splashes, or other potential contamination.                                                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| b. Is the lab designed so that it can be easily cleaned and decontaminated? Carpets and rugs not permitted.                                                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| c. Are lab furniture (chairs, tables, etc.) appropriate for loading and use? Are spaces accessible for cleaning? Are bench tops impervious to water and resistant to chemicals? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |
| d. Are chairs used in lab work are covered with non-porous material that can be easily cleaned/decontaminated with disinfectant?                                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                     |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------|
| 8. Are all infectious materials decontaminated before disposal using an effective method?                                                                                                                                                                                                                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| a. Are potentially infectious materials placed in a durable, leak proof container during collection, handling, processing, storage, or transport?                                                                                                                                                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| b. Are all waste dry materials placed in containerized red biohazard bags which are kept closed when not in use?                                                                                                                                                                                                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| c. Is fluid medical waste inactivated by adding chlorine bleach to a final concentration of 10% bleach, mixed thoroughly, held for 30 minutes (minimum), and discarded in the sanitary sewer                                                                                                                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 9. Is a sign incorporating the universal biohazard symbol posted at the entrance to the lab? Does signage include Biosafety level, PI name, phone numbers and required procedures for entering and exiting lab?                                                                                                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 10. Have you had any issues with insect or rodent control?                                                                                                                                                                                                                                                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 11. Does PI ensure that lab personnel receive appropriate training regarding their duties, precautions to prevent exposures and exposure evaluation procedures?                                                                                                                                                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| a. Are initial and refresher trainings documented?                                                                                                                                                                                                                                                                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| b. Are all lab personnel and particularly women of childbearing age provided info regarding immune competence and conditions that may predispose them to infection? <b>(Individuals having these conditions are encouraged to self-identify to their medical service provider for appropriate counseling and guidance).</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| <b>B. Special Practices</b>                                                                                                                                                                                                                                                                                                 |                          |                          |                          |                                                                                                                 |
| 1. Are all persons authorized to enter the lab advised of potential hazards; are lab personnel provided medical surveillance and offered appropriate immunizations (i.e., Hepatitis B) for agents handled in the lab?                                                                                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 2. Are Laboratory specific <b>biosafety</b> manual/Standard Operating Procedures (SOP) prepared and adopted as policy? Is it available and accessible?                                                                                                                                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 3. Does the PI ensure that lab personnel demonstrate proficiency with standard and specialized BSL-2 microbiological practices before working with these agents?                                                                                                                                                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| a. If both high hazard and low hazard experiments are conducted in your lab, are those areas in your lab reserved for experiments of lesser biohazard potential carefully demarcated from higher biohazard areas?                                                                                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 4. Are personnel routinely decontaminating lab equipment, or when the equipment requires repair, maintenance, or removal from the lab?                                                                                                                                                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| If spills occur, are staff properly trained and equipped to work with infectious material?                                                                                                                                                                                                                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 4. If a laboratory exposure should occur, are there written procedures or emergency information available and accessible in the laboratory?                                                                                                                                                                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Incidents that may result in exposure to infectious materials must be immediately evaluated and treated.</b> |
| a. All such incidents must be reported to the PI. PI must also report incidents immediately to Security (x777) and the Biosafety Office (x2-2818).                                                                                                                                                                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| b. Medical evaluation, surveillance, and treatment should be provided when required and appropriate records maintained.                                                                                                                                                                                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 5. Are animals and plants not associated with the work being performed permitted in the lab?                                                                                                                                                                                                                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| <b>C. Safety Equipment (Primary Barriers)</b>                                                                                                                                                                                                                                                                               |                          |                          |                          |                                                                                                                 |
| 1. Are Biosafety cabinet (Class II), certified annually, and other containment devices or PPE used when:                                                                                                                                                                                                                    |                          |                          |                          |                                                                                                                 |
| a. Potential for aerosols or splashes exists? These may include centrifuging, grinding, blending, inoculating animals intranasally, harvesting infected tissues, etc.                                                                                                                                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| b. High concentrations/titers or large volumes of agents are used? These may be centrifuged outside the BSC using sealed rotor heads or centrifuge safety cups.                                                                                                                                                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 2. Are lab coats/gowns/smocks/ worn when in lab, and removed prior to leaving lab (i.e., before leaving for cafeteria, library, and administrative offices)? Dispose or launder protective clothing appropriately (lab coats must not be taken home).                                                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |
| 3. Are eye and face protection (goggles, mask, face shield or other splatter guard) used for work outside biosafety cabinet that may generate splashes or sprays?                                                                                                                                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                                                                                                 |

| Biosafety Level 2                                                                                                                                                                                                                                                                           | Yes                      | No                       | N/A                      | Comments (additional space on p.2) |
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| 4. Are gloves worn to protect hands from exposure to agents? Glove selection should be based on risk assessment. Disposable gloves must not be washed or reused. Gloves must be removed and disposed as biohazardous waste prior to leaving lab. Alternatives to latex should be available. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                    |
| 5. Are eye, face, and respiratory protection used in rooms containing infected animals as determined by risk assessment?                                                                                                                                                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                    |
| <b>D. Laboratory Facilities (Secondary Barriers)</b>                                                                                                                                                                                                                                        |                          |                          |                          |                                    |
| 1. Do the lab windows open to exterior? If a lab does have such windows, they must be fitted with screens or a sign posted that states "Windows must remain closed."                                                                                                                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                    |
| 2. Is the BSC installed properly to avoid room air fluctuations that might impede proper functioning of the cabinet?                                                                                                                                                                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                    |
| 3. Are vacuum lines protected with liquid disinfectant traps?                                                                                                                                                                                                                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                    |
| 4. Are vacuum lines protected with HEPA (High Efficiency Particulate Air) filters?                                                                                                                                                                                                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                    |
| 5. Is the eyewash station readily available? Portable eye wash bottle may be used for initial response if eyewash station is not immediately available.                                                                                                                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                                    |
| 6. HEPA filtered exhaust air from a Class II BSC can be safely recirculated if cabinet is tested and certified annually. Contact EH&S for more information on vendors. Has the hood(s) been recertified in the last 12 months?                                                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>BSC Certification Date:</b>     |

| Personnel Training                                                                                                                                     | Yes                      | No                       | N/A                      | Comments |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|----------|
| Documented lab safety training (i.e., Safety refresher training conducted within the last year, with sign-in sheet available?)                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Documented biological safety training (required <b>bi-annually</b> if working with BSL-2 materials)?                                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |
| Documented bloodborne pathogens training (required <b>annually</b> if working with human cell lines, tissue, blood, or other human-derived materials)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |

Additional Comments:

Click here to enter text.