# Biosafety Level One/Two (BSL-1/2) Inspection Checklist

SHSU's research & teaching laboratories that work with biohazards are required to have annual inspections using this checklist. Laboratory personnel should use this checklist to identify safety and regulatory deficiencies to address them prior to the annual inspection. After each inspection, laboratories will have thirty days to correct deficiencies. If a single laboratory is hosting multiple research projects, each must have their own inspection.If you have any questions, please contact [safety@shsu.edu.](mailto:safety@shsu.edu.)

Biohazards *may* include: Agents that can infect &/or cause disease in humans, animals, or plants; biohazardous waste; experimentally-infected animals & animals naturally harboring zoonotic infectious agents; genetically- modified organisms; human blood, tissue, organs, cell lines, or other materials of human origin; recombinant & synthetic nucleic acid molecules; select agents & toxins; transgenic plants & animals.

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| **Date:** | **BSL:** | **Lab Location:** |
| **Principal Investigator:** | | **Research Project:** |
| **Inspector(s):** | |  |

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| **STANDARD PRACTICES** | | | | |
| Applicable to BSL-1 & BSL-2 | **Yes** | **No** | **N/A** | **Reference(s)** |
| 1. Laboratory access is controlled. |  |  |  | BMBL CDC: BSL-1 A1 p. 32; BSL-2 A1 p. 37; NIH G-II- A-1-a p.82; NIH G-II-B-1-a p.83; NIH G-II-B-2-b p.83 |
| 1. Records are available to demonstrate that personnel have received training relevant to the hazards in the laboratory. |  |  |  | BMBL CDC: BSL-1 A2 p.32; BSL 2 A2 p. 37; 1910.1030 (g)(2)(i) |
| 1. Lab specific biosafety manual is readily available and has been reviewed by personnel. |  |  |  | BMBL CDC: BSL-1 A2 p.33; BSL-2 A2 p. 37 |
| 1. The laboratory-specific biosafety manual includes the following elements, if applicable:    * Nature of work being performed,    * training requirements,    * laboratory security,    * standard laboratory practices,    * personal protective equipment,    * safe handling of sharps,    * transporting biohazardous materials,    * spill procedures,    * waste disposal procedures,    * medical surveillance,    * emergency response procedures, and    * laboratory contact information. |  |  |  | BMBL CDC: BSL-1 A4ab p.33; BSL-2 A4ab p. 38 |
| 1. Laboratory signage is posted at all entrances and includes the following elements: biohazard symbol, PI name and contact information, PPE requirements, occupational health requirements, entry and exit procedures. |  |  |  | BMBL CDC: BSL-1 A5 p.33; BSL-2 A5 p.38; NIH G-II-B-2-d p.83 |
| 1. Long hair is restrained in a manner that prevents potential contamination or injury. |  |  |  | BMBL CDC: BSL-1 A6 p.33; BSL-2 A6 p.38 |
| 1. Personnel wear appropriate gloves to prevent contact/exposure with hazardous materials, specimens or animals. |  |  |  | BMBL CDC: BSL-1 A7 p. 34; BSL-2 A7 p. 38; NIH G-II-B-2-h p.84 |

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| 1. Gloves are removed and hands washed prior to exiting the laboratory. |  |  |  | BMBL CDC: BSL-1 A7b p. 34; BSL-2 A7b p. 38;  29 CFR1910.132 |
| 1. Gloves are changed when contaminated, damaged, or when otherwise necessary. |  |  |  | BMBL CDC: BSL-1 A7c p. 34; BSL-2 A7c p.38; CFR1910.132 |
| 1. Disposable gloves are not reused. Contaminated gloves are properly disposed. |  |  |  | BMBL CDC: BSL-1 A7d p. 34; BSL-2 A7d p. 38;  29 CFR1910.132 |
| 1. Personnel wash their hands after handling potentially biohazardous materials |  |  |  | BMBL CDC: BSL-1 A9 p. 34; BSL-2 A9 p. 38; NIH G-II- A-1-f p.82; NIH G-II-B-1-f p.83 |
| 1. Eating, drinking, smoking, handling contact lenses, applying cosmetics, & storing food for human consumption is prohibited in the lab. |  |  |  | BMBL CDC: BSL-1 A10 p. 34; BSL-2 A10 p. 38; NIH G-II-A-1-e p.82; NIH G-II-B-1-e p.83 |
| 1. Mouth pipetting is prohibited, and mechanical pipettes are used. |  |  |  | BMBL CDC: BSL-1 A11 p. 30; BSL-2 A11 p. 38; NIH G-II- A-1-d p.82; NIH G-II-B-1-d p.83 |
| 1. Materials for the safe handling of sharps are available. |  |  |  | BMBL CDC: BSL-1 A12 p. 34; BSL-2 A12 p. 39 |
| 1. Plasticware is substituted for glassware when appropriate. |  |  |  | BMBL CDC: BSL-1 A12a p. 34; BSL-2 A12a p. 39 |
| 1. Use of sharps is limited to the laboratory. Needle-based safety devices are used whenever possible. |  |  |  | BMBL CDC: BSL-1 A12b p. 34; BSL-2 A12b p. 39 |
| 1. A handsfree device or comparable safety procedure is used when recapping of needles is required (e.g., loading syringes in one room and injecting animals in another). |  |  |  | BMBL CDC: BSL-1 A12biii p. 34-35; BSL-2 A12biii p. 39 |
| 1. Sharps are disposed in an appropriate sharps container that is located near the point of use. |  |  |  | BMBL CDC: BSL-1 A12biv p. 35; BSL-2 A12biv p. 39; 1910.1030(d)(2)(viii)(C) |
| 1. All procedures that may generate aerosols are performed in a biosafety cabinet. |  |  |  | BMBL CDC: BSL-1 A13 p. 35; BSL-2 A13 p. 39; NIH G-II-A-1-g p.82; NIH G-II-B-1-g p.83 |
| 1. Work surfaces and lab equipment are routinely decontaminated with an appropriate disinfectant. |  |  |  | BMBL CDC: BSL-1 A14 p. 35; BSL-2 A14 p. 40; NIH G-II-A-1-b p.82; NIH G-II-B-1-b p.83 |
| 1. Biological spill kits are readily available. |  |  |  | BMBL CDC: BSL-1 A14 p.35; BSL-2 A14 p.40 |
| 1. Contaminated materials are placed in appropriate containers when decontamination requires transporting to a different site than the laboratory. The outside of the container is adequately decontaminated prior to transport. |  |  |  | BMBL CDC: BSL-1 A15ab p. 35; BSL-2 A15ab p. 40; NIH G-II-A-2-a p.82; NIH G-II-B-2-a p.83 |
| 1. There are no visible signs of pests or rodents. |  |  |  | BMBL CDC: BSL-1 A16 p.35; BSL-2 A16 p.40; NIH G-II-A-2-b p. 82; NIH G-II-B-2-e p.84 |
| 1. Animals & plants not associated with the work are prohibited from the laboratory. |  |  |  | BMBL CDC: BSL-1 A17 p.35; BSL-2 A17 p. 40; NIH G-II-B-2-g p.84 |
| ***Standard Practice Comments:*** | | | | | |
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| **PRIMARY BARRIERS & PERSONAL PROTECTIVE EQUIPMENT** | | | | | | |
| Applicable to BSL-1 & BSL-2 | **Yes** | **No** | | **N/A** | **Reference(s)** | |
| 1. Personnel wear lab coats whenever they are in the lab and remove them prior to leaving. |  |  | |  | BMBL CDC: BSL-1 C2 p. 36; BSL-2 C1 p. 41; NIH G-II-A-1-h p.82; NIH G-II-B-2-f p.84; 29 CFR 1910.132 | |
| 1. Personnel wear PPE appropriate for the hazards associated to the task. |  |  | |  | BMBL CDC: BSL 1 C3 p.36; BSL-2 C2 p. 41 | |
| 1. Non-disposable PPE is decontaminated, and disposable PPE is discarded with biohazardous waste after use. |  |  | |  | BMLBL CDC: BSL-1 C3 p.36; BSL-2 C2 p. 41 | |
| 1. Personnel using respiratory protection have been fit-tested. |  |  | |  | BMBL CDC: BSL-2 C3 p. 41 | |
| ***Primary Barriers & PPE Comments:*** | | | | | | |
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| **LABORATORY FACILITIES** | | | | | |
| Applicable to BSL-1 & BSL-2 | **Yes** | **No** | **N/A** | | **Reference(s)** |
| 1. Laboratory has designated sink for handwashing. |  |  |  | | BMBL CDC: BSL-1 D2 p.36; BSL-2 D2 p. 42; NIH G-II-A-4-d p.83; NIH G-II- B-4-d p.85 |
| 1. Eye wash station is functioning, readily accessible, and free of obstructions. |  |  |  | | BMBL CDC: BSL-1 D3 p.36; BSL-2 D3 p.42 |
| 1. Furniture is in good condition and capable of supporting anticipated loads. |  |  |  | | BMBL CDC: BSL-1 D5 p. 36; BSL-2 D5 p. 42; NIH G-II-A-4-c p.83; NIH G-II-A-4-c p. 85 |
| 1. Furniture is made of or covered in non-fabric, chemical resistant material that can be easily decontaminated. |  |  |  | | BMBL CDC: BSL-1 D5b p. 36; BSL-2 D5b p. 42 |
| 1. Laboratory windows that open to the exterior are fitted with screens. |  |  |  | | BMBL CDC: BSL-1 D6 p. 36; BSL-2 D6 p. 42; NIH G-II-A-4-e p.83; NIH G-II- B-4-e p.85 |
| 1. Laboratory lighting is adequate for all activities. |  |  |  | | BMBL CDC: BSL-1 D7 p.36; BSL-2 D7 p. 42 |
| Applicable to BSL-2 | **Yes** | **No** | **N/A** | | **Reference(s)** |
| 1. Laboratory doors are self-closing. |  |  |  | | BMBL CDC: BSL-1 D1 p. 36; BSL-2 D1 p. 42 |
| 1. Vacuum lines in use are protected with liquid disinfectant traps & HEPA filters. Filters are replaced as needed. |  |  |  | | BMBL CDC: BSL-2 D8 p. 42 |
| 1. Biological safety cabinets are located away from heavily traveled areas, doors, exhaust vents, or other potential disruptions to the airflow. |  |  |  | | BMBL CDC: BSL-2 D10a p. 42 |
| 1. Biosafety cabinet is certified annually. |  |  |  | | BMBL CDC: BSL-2 D10c p. 43 |
| ***Laboratory Facilities Comments:*** | | | | | |
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| **ADDITIONAL REQUIREMENTS FOR OSHA BLOODBORNE PATHOGENS, RECOMBINANT & SYNTHETIC NUCLEIC ACID MOLECULES, AND TOXINS** | | | | |
| Applicable to BSL-1 & BSL-2 | **Yes** | **No** | **N/A** | **Reference(s)** |
| 1. Equipment *(e.g., refrigerator, freezers)* used for storage of biohazardous materials is labeled with a biohazard symbol. |  |  |  | 1910.1030(g)(1)(i)(A) |
| 1. PI's recombinant/synthetic nucleic acid research has been reviewed & approved by the Institutional Biosafety Committee. |  |  |  | NIH Section III p.17 |
| 1. Needle-locking or disposable syringes are used for the injection or aspiration of fluids involving recombinant or synthetic nucleic acid molecules. |  |  |  | NIH G-II-B-2-j p.84 |
| ***Additional Requirement Comments:*** | | | | |
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**Summary of Lab Inspection:**

***Deficiencies to be corrected within \_\_\_\_ days.***

# Equipment Inventory for Lab:

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| Autoclave(s) | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Biological Safety Cabinet(s) | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Centrifuge(s) | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Flow Cytometer(s) | | | | | |
| If yes, please include the following information for each: | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Sonicator(s) | | | | | |
| If yes, please include the following information for each: | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Ultrasonic Cleaner(s) | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Homogenizer(s) | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Extra Equipment: | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Extra Equipment: | | | | | |
| **Manufacturer** | **Model Number** | **Serial Number** | **Location** | **Last Cert. Date** | **Cert. Due Date** |
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| Emergency Eye Wash Inspection Log | | | |
| **Date of Inspection:** |  |  |  |