

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.

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.

Date:

BSL:

Lab Location:

Principal Investigator:

IBC Registration:

Inspector(s):

STANDARD PRACTICES				
Applicable to BSL-1 & BSL-2	Yes	No	N/A	Reference(s)
1. Laboratory access is controlled.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
2. Records are available to demonstrate that personnel have received training relevant to the hazards in the laboratory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A2 p.32; BSL 2 A2 p. 37; 1910.1030 (g)(2)(i)
3. Lab specific biosafety manual is readily available and has been reviewed by personnel.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A2 p.33; BSL-2 A2 p. 37
4. The laboratory-specific biosafety manual includes the following elements, if applicable: <ul style="list-style-type: none"> • 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. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A4ab p.33; BSL-2 A4ab p. 38
5. 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A5 p.33; BSL-2 A5 p.38; NIH G-II-B-2-d p.83
6. Long hair is restrained in a manner that prevents potential contamination or injury.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A6 p.33; BSL-2 A6 p.38
7. Personnel wear appropriate gloves to prevent contact/exposure with hazardous materials, specimens or animals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A7 p. 34; BSL-2 A7 p. 38; NIH G-II-B-2-h p.84

8. Gloves are removed and hands washed prior to exiting the laboratory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A7b p. 34; BSL-2 A7b p. 38; 29 CFR1910.132
9. Gloves are changed when contaminated, damaged, or when otherwise necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A7c p. 34; BSL-2 A7c p.38; CFR1910.132
10. Disposable gloves are not reused. Contaminated gloves are properly disposed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A7d p. 34; BSL-2 A7d p. 38; 29 CFR1910.132
11. Personnel wash their hands after handling potentially biohazardous materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
12. Eating, drinking, smoking, handling contact lenses, applying cosmetics, & storing food for human consumption is prohibited in the lab.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
13. Mouth pipetting is prohibited, and mechanical pipettes are used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
14. Materials for the safe handling of sharps are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A12 p. 34; BSL-2 A12 p. 39
15. Plasticware is substituted for glassware when appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A12a p. 34; BSL-2 A12a p. 39
16. Use of sharps is limited to the laboratory. Needle-based safety devices are used whenever possible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A12b p. 34; BSL-2 A12b p. 39
17. 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).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A12biii p. 34-35; BSL-2 A12biii p. 39
18. Sharps are disposed in an appropriate sharps container that is located near the point of use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A12biv p. 35; BSL-2 A12biv p. 39; 1910.1030(d)(2)(viii)(C)
19. All procedures that may generate aerosols are performed in a biosafety cabinet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
20. Work surfaces and lab equipment are routinely decontaminated with an appropriate disinfectant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
21. Biological spill kits are readily available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 A14 p.35; BSL-2 A14 p.40
22. 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
23. There are no visible signs of pests or rodents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
24. Animals & plants not associated with the work are prohibited from the laboratory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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)
25. Personnel wear lab coats whenever they are in the lab and remove them prior to leaving.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
26. Personnel wear PPE appropriate for the hazards associated to the task.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL 1 C3 p.36; BSL-2 C2 p. 41
27. Non-disposable PPE is decontaminated, and disposable PPE is discarded with biohazardous waste after use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 C3 p.36; BSL-2 C2 p. 41
28. Personnel using respiratory protection have been fit-tested.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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)
29. Laboratory has designated sink for handwashing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
30. Eye wash station is functioning, readily accessible, and free of obstructions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 D3 p.36; BSL-2 D3 p.42
31. Furniture is in good condition and capable of supporting anticipated loads.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
32. Furniture is made of or covered in non-fabric, chemical resistant material that can be easily decontaminated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 D5b p. 36; BSL-2 D5b p. 42
33. Laboratory windows that open to the exterior are fitted with screens.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
34. Laboratory lighting is adequate for all activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 D7 p.36; BSL-2 D7 p. 42
Applicable to BSL-2	Yes	No	N/A	Reference(s)
35. Laboratory doors are self-closing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-1 D1 p. 36; BSL-2 D1 p. 42
36. Vacuum lines in use are protected with liquid disinfectant traps & HEPA filters. Filters are replaced as needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-2 D8 p. 42
37. Biological safety cabinets are located away from heavily traveled areas, doors, exhaust vents, or other potential disruptions to the airflow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMBL CDC: BSL-2 D10a p. 42
38. Biosafety cabinet is certified annually.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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)
39. Equipment (<i>e.g., refrigerator, freezers</i>) used for storage of biohazardous materials is labeled with a biohazard symbol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1910.1030(g)(1)(i)(A)
40. PI's recombinant/synthetic nucleic acid research has been reviewed & approved by the Institutional Biosafety Committee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NIH Section III p.17
41. Needle-locking or disposable syringes are used for the injection or aspiration of fluids involving recombinant or synthetic nucleic acid molecules.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NIH G-II-B-2-j p.84

Additional Requirement Comments:

Summary of Lab Inspection:

Deficiencies to be corrected:

Equipment Inventory for Lab:

Autoclave(s)					
Manufacturer	Model Number	Serial Number	Location	Last Cert. Date	Cert. Due Date

Biological Safety Cabinet(s)					
Manufacturer	Model Number	Serial Number	Location	Last Cert. Date	Cert. Due Date

Centrifuge(s)					
Manufacturer	Model Number	Serial Number	Location	Last Cert. Date	Cert. Due Date

Flow Cytometer(s)					
If yes, please include the following information for each:					
Manufacturer	Model Number	Serial Number	Location	Last Cert. Date	Cert. Due Date

Sonicator(s)					
If yes, please include the following information for each:					
Manufacturer	Model Number	Serial Number	Location	Last Cert. Date	Cert. Due Date

Ultrasonic Cleaner(s)					
Manufacturer	Model Number	Serial Number	Location	Last Cert. Date	Cert. Due Date

Homogenizer(s)					
Manufacturer	Model Number	Serial Number	Location	Last Cert. Date	Cert. Due Date