

# Laboratory Inspection Checklist for Biosafety

## Training and Documentation

1. All lab personnel have completed the required safety trainings.
2. The BUA is readily accessible and has been read and signed by all lab members.
3. Procedures are in place for responding and reporting in a case of emergency (e.g. loss of containment, splash exposure, puncture injury, biohazard spill, animal bites, etc.). All incidents and spills involving biohazardous materials, infectious agents, and recombinant/synthetic nucleic acid molecules are reported to the PI/Lab Supervisor and EH&S.
4. New employees have completed the lab specific training for working with [recombinant DNA](#) or other [lab specific hazards](#) (i.e. “recombinant/non-recombinant DNA training”) and completion is documented.
5. Lab has written Standard Operating Procedures (SOPs) for handling biohazardous materials and infectious pathogens (e.g. Pathogen Safety Data Sheets). These SOPs are approved by the PI/Lab Supervisor.
6. If applicable, free vaccination is offered to lab personnel, and personnel sign and date a signature page to document the offer. Everyone who has declined vaccination has signed a declination form. All records are kept by the lab.
7. Applicable medical surveillance is available for lab members (e.g. offer/consent/declination of vaccination/prophylaxis, and TB testing participation).

## BSL-1: Good Microbiological Practices

8. Housekeeping is adequate.

9. Lab is designed so that it can be easily cleaned; laboratory surfaces are non-porous so that they can be easily disinfected (i.e. no carpet, cloth furniture, etc.).
10. Actively used work surfaces and equipment are disinfected daily.
11. Aerosol-generating procedures are performed cautiously to minimize aerosols, splashes, and spills.
12. Vacuum traps are properly constructed (including an in-line, hydrophobic filter and overflow flask).
13. Vacuum traps are in secondary containment.
14. Vacuum traps are maintained properly (contents are disinfected, dated, and disposed of weekly).
15. Appropriate gloves are available and worn when working with hazardous materials/agents. Gloves are disposed of upon removal.
16. Appropriate lab coats/gowns are available and worn when working with hazardous materials/agents. They are visibly clean and laundered regularly.
17. Appropriate eye/face protection is available and used when working with any hazardous materials or agents that may generate splashes or aerosols (pouring, blending, sonicating, bleaching, etc.).
18. PPE is removed prior to leaving lab areas.
19. Personnel wash hands with soap and water after working with potentially hazardous materials and/or before leaving the laboratory.
20. A Biological Spill Kit is easily accessible.
21. The contents of the Biological Spill Kit are complete and unexpired.
22. An emergency eyewash/shower is available. The eyewash is tested monthly by lab personnel and the shower tested annually by facility services.
23. First aid supplies are clearly labeled, accessible, and not expired.
24. Large or tall equipment is seismically anchored.
25. Windows are sealed or fitted with screens if openable.

26. There is no evidence or reported issues of pests within the laboratory (i.e. pest control seems sufficient).
27. Animals and plants not associated with the work being performed are not present in the laboratory.
28. Eating, drinking, applying cosmetics, handling contact lenses, and storing food/drink for human consumption are prohibited in areas where biohazardous materials are handled. Designated food/drink and clean areas are clearly marked.
29. Other (other noncompliance with standards for BSL-1 laboratories or other unique findings)

## BSL-1 Waste

30. Solid BSL-1 waste is processed in an autoclave before being put in the trash.
31. Solid BSL-1 waste is labeled (i.e. "autoclave waste", "non-medical waste", or "non-biohazardous sharps").
32. Liquid BSL-1 waste is disinfected with bleach (10% final concentration with a minimum contact time of 20 minutes) OR processed in an autoclave before drain disposal.
33. Household bleach (and other approved disinfectants) are unexpired (within 1 year of their manufacture date) and available for the treatment of liquid biohazardous waste (this applies to both BSL-1 and biohazardous waste).
34. BSL-1 sharps waste does not exceed the container's fill line, nor do any broken glass containers exceed their capacity.
35. BSL-1 sharps waste is distinguishable from other types of hazardous sharps waste (that is, the sharps container is labeled "BSL-1 sharps", "non-biohazardous sharps", etc.).

## Sharps Safety

36. Safe sharps or plastic alternatives have been considered and are used whenever possible.
37. Needles are not recapped, removed from disposable syringes, or otherwise manipulated by hand before disposal. If absolutely necessary to remove a needle from a syringe, a hands-free device or comparable safety procedure must be used.
38. Used sharps are carefully placed in puncture-resistant containers used for sharps disposal immediately after use. The sharps disposal container is located as close to the point of use as possible.
39. Non-disposable sharps are cleaned after use and stored to reduce the risk of sharps injuries.

## BSL-2: Working with Biohazardous Materials

40. Access is controlled when experiments are in progress and when the lab is empty.
41. EH&S-issued biosafety signs are posted outside all doors leading to areas where biohazards are used or stored.
42. All equipment used at BSL-2 is labeled with a biohazard symbol.
43. Biohazardous waste is segregated properly (BSL-2 waste in biohazard bags, BSL-1 waste in autoclave white or clear bags, sharps in sharps containers, etc.).
44. There are no porous materials in work areas where a splash or spray could contact it (e.g. cardboard, Styrofoam, or carpet).
45. Personnel wash or sanitize their hands after removing gloves and before leaving the BSL-2 area.
46. Work surfaces and equipment are decontaminated with an appropriate disinfectant after the completion of work, after spills or splashes, and before being serviced.
47. Bench paper/diapers are changed daily and after any spill or splash of potentially infectious or hazardous material.

48. Disinfectants are refreshed regularly (every week for bleach solutions and according to manufacturer's recommendations for other disinfectants) and labeled appropriately, including expiration date.
49. Aerosol generating procedures involving biohazardous materials are conducted inside a certified biosafety cabinet (BSC) or using appropriate physical containment equipment, such as centrifuge with aerosol-tight safety cups or rotors, sealed enclosure for sonication, closed-system homogenizing equipment, etc.
50. BSCs are certified annually.
51. Any uncertified BSCs are marked with signage to prevent others from using it for experiments with biohazardous materials or infectious agents.
52. BSCs are at the appropriate height for the chair(s) available and operating sash height.
53. BSCs are free of clutter; the BSC is not used for storage of supplies.
54. No Bunsen burners are used inside the BSC.
55. The BSC is located away from sources of air disturbances, such as doors, windows, direct
56. supply vents, and high trafficked areas. Administrative measures are taken to avoid disturbances.
57. Vacuum traps are properly constructed (including an in-line, hydrophobic filter and overflow flask).
58. Vacuum traps are in secondary containment.
59. Vacuum traps are maintained properly (contents are disinfected, dated, and disposed of weekly).
60. Biohazardous or recombinant materials are transported in closed primary containers inside a secondary container. The secondary container is hard-sided, leak-proof, and non-porous so that it can be easily disinfected. The secondary container is labeled with the universal biohazard symbol and the lab's contact information.

61. Other (other noncompliance with standards for BSL-2 laboratories or other unique findings)

## BSL-2 Waste

62. Biohazardous sharps waste does not exceed the container's fill line.
63. Biohazardous sharps waste is distinguishable from other types of sharps waste (that is, the sharps container is labeled with the international biohazard symbol and the word "BIOHAZARD").
64. Biohazardous sharps waste is not retained past 30 days once contents have reached the fill line.
65. Liquid biohazardous waste is deactivated, colorless, and has no secondary growth.
66. Liquid biohazardous waste is disinfected prior to drain disposal (liquid BSL-2 waste is NOT to be autoclaved).
67. Biohazardous waste bags used in the lab are compliant with California Health and Safety Code § 117630 (e.g. bags meet ASTM D1709 and ASTM D1922 testing requirements).
68. Biohazardous waste bags are sized appropriately with respect to the secondary container.
69. Unused, extra biohazard bags are stored external to the biohazardous waste container(s) in use.
70. There is no evidence of liquids in the biohazardous waste bag or secondary containers.
71. Solid biohazardous (red bag) waste is properly transported.
72. Solid biohazardous (red bag) waste is disposed of/removed from the lab within 7 days of placing the first item in the receptacle (and within 30 days for small waste generators).
73. No items are placed on the top or sides of the biohazardous waste containers.
74. Secondary biohazardous waste containers are working as designed, are clean/unsoiled, and are not broken or rusted.

75. Containers collecting animal carcasses or other pathology waste are labeled "PATHOLOGY WASTE" or "PATH WASTE."
76. Chemotherapy waste is disposed of in yellow bags or hard-sided containers labeled with "Chemotherapy Waste" or "CHEMO" on the outside of the container (on all sides, including the lid).

## BSL-2+

77. There is a BSL-2+ door sign posted.
78. The lab has negative pressure in regards to surrounding areas (i.e. inward directional airflow). The door to BSL-2+ lab is self-closing, opens inward, and can be locked.
79. Dedicated lab coats or disposable coat/gown AND double gloves are worn by BSL-2+ lab workers.
80. Surgical masks or other barrier face coverings are available for BSL-2+ lab workers.
81. Appropriate respiratory protections are available for BSL-2+ lab workers.
82. Engineered sharps and non-glass or plastic tools are used (i.e. no glass tools or sharps use).
83. BSL-2+ Training documentation is available.
84. The doffing station is clearly marked.
85. A hand washing sink or sanitizer is available next to the doffing station.
86. Other (other noncompliance with BSL-2+ requirements or other unique findings)

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