UC Berkeley Environment, Health & Safety

2025 General Laboratory Safety Inspection Questions

Discussion and EH&S Purposes Only

- 1. Are staff members aware of the updated drain disposal restrictions?
- 2. Have lab members been trained on the building emergency action plan (EAP), if one is in place?

Documentation and Training (Administrative)

- 3. Are lab rosters current?
- 4. Are all online trainings up to date for all staff members, including the PI?
- 5. Has the PI certified the Lab Hazard Assessment Tool (LHAT) within the last year? Have all members acknowledged the LHAT and completed PPE training?
- 6. Has a self-inspection been completed and filed online within the last calendar year?
- 7. Is the chemical hygiene plan (CHP) read, signed, and understood by all members and posted in a visible location?
- 8. Are all applicable standard operating procedures (SOPs) read, understood, and signed?
- 9. Does the lab keep training records for machinery, tools, or other shop-type equipment?

Safe Lab Design and Housekeeping

- 10. Are food, drinks, and all other related items (utensils, dishes, water bottles, etc.) stored outside of areas designated for use/storage of hazardous materials?
- 11. If the lab has an existing designated food-and-drink area, does it meet the EH&S approval guidelines?
- 12. Is the lab negatively pressurized? (inward directional airflow)
- 13. Are lab surfaces and furniture non-porous, to reduce the risks of contamination? (e.g. no carpet, no cloth furniture)
- 14. Have disposable porous materials been removed from work areas susceptible to splashes and sprays? (e.g. cardboard, Styrofoam, etc.)
- 15. Are vacuum traps properly set up and maintained? Are they routinely emptied?
- 16. Are lab members able to access a spill kit that is appropriate for the work performed in the lab?
- 17. If the lab has a first aid kit, are the contents annually inspected (at minimum) for damaged or expired items? Does the lab keep a record of first aid kit inspections?

- 18. Are sinks stocked with soap and paper towels? Do lab staff wash their hands with soap and water after working with potentially hazardous materials?
- 19. Does the lab have good housekeeping? Are work surfaces unobstructed? Are shelves and cabinets easily accessible?
- 20. Does the lab have evidence or reported issues of pests within the laboratory?
- 21. Are there other safety concerns observed which are not addressed in this checklist?

PPE, Physical Hazards and Equipment

- 22. Are all lab members currently observing the minimum requirements of the laboratory dress code?
- 23. Are lab members using PPE when using hazardous or BUA-covered materials? Minimum PPE includes gloves, eyewear, and labcoat.
- 24. Is PPE kept clean and intact? This applies to lab coats and other reusable PPE such as cryo/oven gloves, or face shields.
- 25. Is single-use PPE disposed upon removal?
- 26. Is PPE removed prior to entering public spaces?
- 27. Are all emergency eyewashes flush tested monthly?
- 28. Is access to emergency eyewashes and showers unobstructed?
- 29. Are furnishings and equipment (>4' tall or weighing >400 lbs) seismically restrained?
- 30. Are items stored on high shelves sufficiently secured by a shelf lip or other type of rigid restraint?
- 31. Are sharps (needles, scalpels, razors, etc.) stored and handled appropriately?
- 32. Are all compressed gas cylinders over 26 inches tall secured to a rigid structure at 1/3 and 2/3 the height, with non-combustible restraints? (One restraint for cylinders <26" tall)

Waste

- 33. Are all hazardous waste containers kept closed, except when adding waste?
- 34. Are all hazardous waste containers labeled with current Hazardous Waste Program (HWP) labels?
- 35. Is chemically contaminated waste properly collected in waste containers (e.g. not in the trash)?
- 36. Are solids waste streams handled appropriately?
- 37. Are old, unused, and expired chemicals regularly removed from the lab?
- 38. Are sharps disposal containers in use, properly labeled as needed and kept below their fill lines?

Chemical Safety

- 40. Has the chemical inventory been certified within the last calendar year?
- 41. Is the most current chemical inventory door sign posted at the lab entrance(s)?
- 42. Does the lab have a chemical abbreviation guide posted?
- 43. Are all hazardous chemicals stored below eye level and do open shelves have appropriate rigid lip?
- 44. Are chemicals stored appropriately in cabinets or shelving? (not on the floor)
- 45. Is secondary containment used where appropriate? Particularly for waste, flammables and corrosives.
- 46. Do all hazardous chemical containers have inventory QR/RFID barcode tags?
- 47. Are chemical containers in good condition with legible labels?
- 48. Are temporary chemical containers labeled with chemical name or structure and hazard class?
- 49. Are incompatible chemicals stored separately?
- 50. Are flammable materials stored in appropriate cabinets or rated fridges? Only 10 gallons of flammable material is allowed to be stored outside of such storage locations.
- 51. Are peroxide formers and other time-sensitive chemicals within the appropriate timeframe for use?
- 52. Are all empty containers defaced of all identifiers, rinsed and marked "EMPTY"?
- 53. Has each fume hood in the lab received an EH&S flow check within the past 12 months?
- 54. Are fume hood and vented biosafety cabinet baffles kept clear for airflow?

Electrical Safety

- 55. Are electrical lines and cords properly managed and not in walkways or places where they can cause tripping hazards?
- 56. Are power strips and extension cords used appropriately to avoid daisy chaining and overloading circuits? Are large appliances plugged directly into the wall outlets?
- 57. Are outer sheaths of flexible cords undamaged?
- 58. Is there a minimum clearance of 36" maintained in front of electrical panels?

Fire Safety

- 59. Is 18 inches of clearance provided from the top of stored materials to the ceiling in laboratories with fire sprinklers (24 inches if no sprinklers are present)? For all questions and follow-up issues regarding this item, please contact the Fire Prevention Division at <u>fireprevention@berkeley.edu</u>.
- 60. Are aisles and exits clear of obstructions and slip or trip hazards? For all questions and follow-up issues regarding this item, please contact the Fire Prevention Division at <u>fireprevention@berkeley.edu</u>.
- 61. Does the group conduct and document monthly visual inspections for all fire extinguishers located in their lab spaces? For all questions and follow-up issues regarding this item, please contact the Fire Prevention Division at <u>fireprevention@berkeley.edu</u>.
- 62. Is access to portable fire extinguishers free of obstructions? For all questions and follow-up issues regarding this item, please contact the Fire Prevention Division at <u>fireprevention@berkeley.edu</u>.
- 63. Are incompatible gases adequately separated (e.g., oxygen and flammables)? For all questions and follow-up issues regarding this item, please contact the Fire Prevention Division at <u>fireprevention@berkeley.edu</u>.
- 64. Are all fire doors kept closed and unobstructed? For all questions and follow-up issues regarding this item, please contact the Fire Prevention Division at fireprevention@berkeley.edu.

Biosafety Level 1 (BSL-1): Good Microbiological Practices

- 65. Is all biosafety specific training and documentation up to date (e.g. BUA sign off, NIH training, HBV vaccine offer/declination)?
- 66. Is the lab aware of biological spill or exposure response and reporting expectations in the event of an emergency? (e.g. loss of containment, splash exposure, puncture injury, biohazard spill, animal bites, etc.)
- 67. Are actively used work surfaces and equipment disinfected daily or immediately if they are grossly contaminated?
- 68. Are aerosol-generating procedures performed in a manner that reduces the risk of aerosols, splashes, and spills?
- 69. Are windows kept sealed or fitted with screens? (if operable)
- 70. Is the lab free of pets and plants not associated with work being performed in the lab space?

BSL-1: Waste

- 71. Is solid BSL-1 waste processed in an autoclave before being put in the trash?
- 72. Is solid BSL-1 trash labeled accurately?
- 73. Is liquid BSL-1 waste disinfected with bleach OR processed in an autoclave before drain disposal? (10% final concentration with a minimum contact time of 20 minutes)
- 74. Does the lab have agent-appropriate, unexpired disinfectant?

BSL-2: Biohazardous Materials

- 75. Is laboratory access controlled while experiments are in-progress in order to maintain containment?
- 76. Are EH&S-issued biosafety signs posted outside all doors leading to areas where biohazards are used or stored?
- 77. Is all BSL-2 equipment labeled with a biohazard symbol?
- 78. Do lab members wash or sanitize their hands after removing gloves and before leaving BSL-2 areas?
- 79. Are work surfaces and equipment decontaminated with an appropriate disinfectant after work, spills, splashes, or service?
- 80. Are disinfectants refreshed regularly and labeled appropriately to include their expiration dates?
- 81. Are aerosol generating procedures involving biohazardous materials conducted inside a certified biosafety cabinet or other form of appropriate physical containment?
- 82. Do all biosafety cabinets (BSC) have a current annual certification?
- 83. Are biosafety cabinets at the appropriate height for the available chairs and operating sash level? Are biosafety cabinets located away from sources of air disturbances? (e.g. doors, vents, high traffic areas)
- 84. Are biosafety cabinets free of clutter and not used for supply storage?
- 85. Are bunsen burners kept and used outside of biosafety cabinets?
- 86. Are biohazardous or recombinant materials transported in closed primary containers inside of a secondary container? Is the secondary container labeled with the biohazard symbol and the lab's contact information?

BSL-2: Waste

- 87. Is liquid biohazardous waste deactivated, colorless, and free of secondary growth prior to drain disposal?
- 88. Are biohazardous waste bags compliant with CA Health and Safety Code § 117630? (bags meet ASTM D1709 and ASTM D1922 testing requirements)
- 89. Are biohazardous waste bags sized appropriately for their secondary containers?
- 90. Are secondary containers operational, labeled on all visible sides, clean, and free of storage of other materials?
- 91. Is solid biohazardous (red bag) waste disposed of/removed from the lab within 7 days of the first item being placed in the receptacle? (30 days for small waste generators)
- 92. Are solid biohazardous (red bag) wastes properly transported?
- 93. Are containers collecting animal carcasses or other pathology waste labeled "PATHOLOGY WASTE" or "PATH WASTE?"
- 94. Is chemotherapy waste disposed into yellow bags or hard-sided containers labeled with "Chemotherapy Waste" or "CHEMO?" (on all sides, including the lid)

BSL-2+: High Containment

- 95. Is documentation of BSL-2+ training available?
- 96. Is there a BSL-2+ door sign posted?
- 97. Is the door self-closing, inward opening, and lockable?
- 98. Are appropriate respiratory protections available for all BSL-2+ lab staff?
- 99. Are dedicated lab coats/disposable gowns AND double gloves in use by all BSL-2+ lab staff?
- 100. Are surgical masks or other barrier face coverings available for all BSL-2+ lab staff?
- 101. Is the doffing station clearly marked?
- 102. Is a handwashing sink or hand sanitizer available next to the doffing station?
- 103. Are engineered sharps/non-glass/plastic tools in use?