

Annual Biosafety Inspection Checklist

GW's research and teaching laboratories that work with biohazards are required to have annual inspections by Office of Laboratory Safety : Biosafety and Biosecurity professionals. This checklist will be used during the annual inspections. Laboratory personnel should use this checklist to identify safety and regulatory deficiencies and address them before their annual inspection occurs.

This inspection checklist is designed to help reduce potential exposures to biohazards. Biohazards may include: Agents that can infect and/or cause disease in humans, animals, or plants; Biohazardous waste; Experimentally-infected animals and animals naturally harboring zoonotic infectious agents; Genetically-modified organisms; Human blood, tissue, organs, cell lines, or other materials of human origin; Recombinant and synthetic nucleic acid molecules; Select agents and toxins; and Transgenic plants and animals.

Please use this checklist to perform a self-inspection of your own laboratory. If you have any questions, please contact labsafety@gwu.edu.

Office of Laboratory Safety Use ONLY

Date

GW Campus Location

Lab Safety Inspector

Building Location

Biosafety Level of the lab? select all those apply

Biosafety (BSL) 1

Biosafety (BSL) 2

Biosafety (BSL) 2+

Animal Biosafety (ABSL) 1

Animal Biosafety (ABSL) 2

Animal Biosafety (ABSL) 2+

Other

I. SUPERVISOR/PI CONTACT INFORMATION

First Name

Middle name

Last Name

GWU E-mail

Supervisor/ PI position

Academics: Colleges &
Schools

Columbian College of Arts and Sciences

School of Medicine and Health Sciences

School of Engineering and Applied Science

Graduate School of Education and Human Development

Elliott School of International Affairs

Milken Institute School of Public Health

School of Nursing

Medical Faculty Associates

Other

Departments

List room numbers of
all lab rooms

PI phone number

Laboratory phone number

Other laboratory personnel
present during the
inspection.

STANDARD PRACTICES

	Yes	No	N/A
<p>1. Does the supervisor limit access to the room in accordance with institutional policies?</p> <p>Ref: B001; BMBL: BSL-1, A1, p. 30; BSL-2, A1, p. 33; NIH G-II-A-1-a; NIH G-II-B-1-a</p>			
<p>2. Do personnel wash their hands after handling potentially biohazardous materials, after removing gloves, and before leaving the laboratory?</p> <p>Ref: B002; BMBL: BSL-1, A2, p. 30; BSL-2, A2, p. 33; NIH G-II-A-1-f; NIH G-II-B-1-f</p>			
<p>3. Is eating, drinking, smoking, handling contact lenses, applying cosmetics, and storing food for human consumption prohibited in the lab?</p> <p>Ref: B003; BMBL: BSL-1, A3, p. 30; BSL-2, A3, p. 33; NIH G-II-A-1-e; NIH G-II-B-1-e</p>			
<p>4. Is mouth pipetting prohibited and are mechanical pipetting devices used?</p> <p>Ref: B004; BMBL: BSL-1, A4, p. 30; BSL-2, A4, p. 34; NIH G-II-A-1-d; NIH G-II-B-1-d</p>			
<p>5. Are written policies for the safe handling of sharps (such as needles, scalpels, pipettes, and broken glassware) followed and included in the laboratory-specific biosafety manual?</p> <p>Ref: B005; BMBL: BSL-1, A5, p. 30; BSL-2, A5, p. 34</p>			
<p>6. Do personnel understand that used disposable needles must not be bent, sheared, broken, recapped, removed from disposable syringes, or otherwise manipulated?</p> <p>Ref: B007; BMBL: BSL-1, A5a, p. 30; BSL-2, A5a, p. 34</p>			
<p>7. Are all syringes/needles/sharps disposed of in rigid, puncture-resistant, leak-proof containers?</p> <p>Ref: B008; BMBL: BSL-1, A5b, p. 31; BSL-2, A5b, p. 34; 1910.1030(d)(2)(viii)(C)</p>			
<p>8. Do lab personnel use mechanical means, such as a brush and dustpan, tongs, or forceps to clean up broken glassware?</p> <p>Ref: B010; BMBL: BSL-1, A5d, p. 31; BSL-2, A5d, p. 34</p>			
<p>9. Are all procedures performed carefully in a manner to minimize the creation of splashes or aerosols?</p> <p>Ref: B011; BMBL: BSL-1, A6, p. 31; BSL-2, A6, p. 34; NIH G-II-A-1-g; NIH G-II-B-1-g</p>			
<p>10. Are work surfaces decontaminated with an effective disinfectant on completion of work or at the end of the day, and especially after overt spills or splashes of biohazardous materials?</p> <p>Ref: B012; BMBL: BSL-1, A7, p. 31; BSL-2, A7, p. 34; NIH G-II-A-1-b; NIH G-II-B-1-b</p>			
<p>11. Are all wastes that are contaminated with biohazardous materials autoclaved or decontaminated with an effective disinfectant before they are scheduled for pick-up?</p> <p>Ref: B013; BMBL: BSL-1, A8, p. 31; BSL-2, A8, p. 34; NIH G-II-A-1-c; NIH G-II-B-1-c; NIH G-II-B-2-i; 29 CFR 1910.1030(d)(2)(xiv)</p>			
<p>12. Do all laboratory personnel receive training regarding their duties, safety policies, precautions and do they receive annual updates and additional training when changes in procedures or policies occur?</p> <p>Ref: B014; BMBL: BSL-1, p. 32; A11, BSL-2, A11, p. 35; 1910.1030(g)(2)</p>			
<p>13. Have all personnel, and particularly women of childbearing age, been provided information regarding immune competence and conditions that may predispose them to infection?</p> <p>Ref: B015; BMBL: BSL-1, A11, 32; BSL-2, A11, p. 35</p>			
<p>14. Has everyone working in the laboratory completed a Lab-Specific Biosafety Training Checklist?</p> <p>Ref: B016: Office of Laboratory Safety</p>			

SPECIAL PRACTICES

	Yes	No	N/A
<p>15. Does the PI/supervisor inform personnel who work in the laboratory about the potential hazards and specific entry requirements (e.g., immunization)?</p> <p>Ref: B017; BMBL: BSL-1, A11, 32; BSL-2, B1, p. 35; NIH G-II-B-2-c</p>			
<p>16. Is a medical surveillance program in place for the laboratory?</p> <p>Ref: B018; BMBL: BSL-2, B2, p. 35</p>			
<p>17. Has the PI/supervisor developed lab-specific biosafety procedures and incorporated them into either a Biosafety Manual or Standard Operating Procedures?</p> <p>Ref: B020; BMBL: BSL-2, B4, p. 35</p>			
<p>18. Have all laboratory personnel demonstrated proficiency in standard and special microbiological practices before working in the laboratory?</p> <p>Ref: B021; BMBL: BSL-2, B5, p. 35</p>			
<p>19. Are cultures, tissues and other biohazardous materials placed in a container with a cover that prevents leakage during collection, handling, processing, storage, or transport?</p> <p>Ref: B022; BMBL: BSL-1, A8a, p.31; BSL-2, B6, p. 35; NIH G-II-A-2-a; G-II-B-2-a</p>			
<p>20. Is laboratory equipment routinely decontaminated, as well as after spills, splashes, and before repair, maintenance or removal from laboratory?</p> <p>Ref: B023; BMBL: BSL-1, A8, p.31; BSL-2, B7, p. 35</p>			
<p>21. Are spills involving infectious materials contained, decontaminated, and cleaned up by staff properly trained and equipped to work with infectious material?</p> <p>Ref: B024; BMBL: BSL-1, A8, p.31; BSL-2, B7a, p. 36</p>			
<p>22. Are incidents that may result in exposure to infectious materials immediately evaluated and treated according to procedures described in the laboratory-Exposure control plan?</p> <p>Ref: B025; BSL-2, B8, p. 36</p>			
<p>23. Is the PI/supervisor immediately notified if there are spills and accidents that result in exposures to biohazardous materials?</p> <p>Ref: B026; BSL-2, B8, p. 36</p>			
<p>24. Are there written procedures for responding to exposure incidents?</p> <p>Ref: B027; BSL-2, B8, p. 36</p>			
<p>25. Is medical follow-up procedures after spills, accidents, and potential exposures?</p> <p>Ref: B028; BSL-2, B8, p. 36</p>			
<p>26. Are animals and plants not associated with the work prohibited from the laboratory?</p> <p>Ref: B029; BSL-2, B9, p. 36</p>			

BIO-CONTAINMENT SAFETY DEVICES / OTHER ENGINEERING CONTROLS

	Yes	No	N/A
<p>27. If there is a biological safety cabinet in the lab, has it been certified within the past year?</p> <p>Ref: B030; BSL-2, C1, p. 36; NSF 49</p>			
<p>28. Is the biological safety cabinet free of equipment or supplies that can block the air grills and disrupt proper airflow?</p> <p>Ref: B031; p. 308; NSF 49</p>			
<p>29. Is a biological safety cabinet used for all procedures with a potential for creating biohazardous aerosols or splashes? These may include: grinding, blending, vigorous shaking or mixing, sonic disruption, opening containers of biohazardous materials (especially whose internal pressures may differ from ambient pressures), inoculating animals intra-nasally, and harvesting infected tissues from animals or embryonated eggs.</p> <p>Ref: B032; BSL-2, C2a, p. 36</p>			
<p>30. Is a biological safety cabinet used when high concentrations or large volumes of biohazardous materials are handled?</p> <p>Ref: B033; BSL-2, C1b, p. 36</p>			
<p>31. Is equipment (e.g., refrigerator, freezers) for use or storage of biohazardous materials labeled with a biohazard symbol?</p> <p>Ref: B034; 29 CFR 1910.1030(g)(1)(i)(A)</p>			
<p>32. If centrifuges are used, are sealed rotor heads or safety cups used and only opened in an approved biological safety cabinet or other ventilated containment device?</p> <p>Ref: B035; GW Biosafety Manual</p>			
<p>33. If an autoclave is used, are procedures posted?</p> <p>Ref: B036; GW Biosafety Manual; 29 CFR 1910.132</p>			

PERSONAL PROTECTIVE EQUIPMENT

	Yes	No	N/A
<p>34. Do personnel wear lab coats whenever they are in the lab and remove them before leaving the lab?</p> <p>Ref: B037; BMBL: BSL-1, C2, p. 32; BSL-2, C2, p. 36; 29 CFR 1910.132; NIH G-II-A-1-h; NIH G-II-B-2-f</p>			
<p>35. Are personnel prohibited from taking their lab coats home for laundering?</p> <p>Ref: B038; BMBL: BSL-2, C2, p. 36; NIH G-II-B-2-f;</p>			
<p>36. Do personnel remove gloves before touching “clean” surfaces (keyboards, telephones, elevators, etc.) and before leaving the lab?</p> <p>Ref: B039; BMBL: BSL-2, C2, p. 36</p>			
<p>37. Do personnel wear protective eyewear when performing procedures that have the potential to create splashes or microorganisms or other hazardous materials?</p> <p>Ref: B040; BMBL: BSL-1, C3, p. 32; BSL-2, C3, p. 36</p>			
<p>38. When splashes or sprays of infectious or other hazardous materials must be manipulated outside a biological safety cabinet, do personnel use eye and face protection (goggles, mask, face shield or other splatter guard)?</p> <p>Ref: B041; BMBL: BSL-2, C3, p. 36</p>			
<p>39. Do personnel wear gloves to prevent contact with biohazardous materials?</p> <p>Ref: B042; BMBL: BSL-1, C4, p. 32; BSL-2, C4, p. 37; NIH G- 2-B-2-h; 29 CFR 1910.132</p>			
<p>40. Are hands washed after removing gloves?</p> <p>Ref: B045; BMBL: BSL-1, C4b, p. 32; BSL-2, C4b, p. 37; 29 CFR 1910.132</p>			
<p>41. Are eye, face, and respiratory protection worn in rooms containing infected animals?</p> <p>Ref: B048; BMBL: BSL-2, C5, p. 37; 29 CFR 1910.132</p>			

LABORATORY FACILITIES

	Yes	No	N/A
<p>42. Is a BIOHAZARD sign posted on the lab entrance door, which includes the biosafety level, any required immunizations, emergency contact numbers, and any personal protective equipment that must be worn in the lab?</p> <p>Ref: B049; BMML: BSL-1, A9 p. 31; BSL-2, A9, p. 34; NIH G- II-B-2-d; GW Biosafety Manual</p>			
<p>43. Do laboratories have doors for access control?</p> <p>Ref: B051; BMML: BSL-1, D1, p. 33; BSL-2, D1, p. 37</p>			
<p>44. Does the lab have a sink for hand washing?</p> <p>Ref: B053; BMML: BSL-1, D2, p. 33; BSL-2, D2, p. 37; NIH G-II-A-4-d; NIH G-II-B-4-d</p>			
<p>45. Are carpets and rugs prohibited in the laboratory?</p> <p>Ref: B054; BMML: BSL-1, D3, p. 33; 4-d-2, D3, p. 37</p>			
<p>46. Are bench tops impervious to water and resistant to moderate heat and the chemicals used to decontaminate the work surfaces and equipment?</p> <p>Ref: B057; BMML: BSL-1, D4a, p. 33; BSL-2, D4a, p. 37; NIH G-II-A-4-b; NIH G-II-B-4-b</p>			
<p>47. Are biological safety cabinets located away from doors, windows that can be opened, heavily traveled lab areas, and other potentially disruptive equipment?</p> <p>Ref: B060; BMML: BSL-2, D6, p. 38</p>			
<p>48. If vacuum lines are used, are they protected with High Efficiency Particulate Air (HEPA) filters or liquid disinfection traps?</p> <p>Ref: B061; BMML: BSL-2, D7, p. 38;</p>			
<p>49. Is there an eyewash station readily available in the lab?</p> <p>Ref: B062; BMML: BSL-2, D8, p. 38</p>			
<p>50. Is a method for decontaminating all waste available in the facility (e.g., autoclave, chemical disinfection, incineration, or other validated decontamination method)?</p> <p>Ref: B064; BMML: BSL-2, D11, p. 38; NIH G-II-B-4-f</p>			

ADDITIONAL REQUIREMENTS FOR RECOMBINANT AND SYNTHETIC NUCLEIC ACID MOLECULES

Does your Lab uses recombinant and synthetic nucleic acids ? includes the following

1. molecules that a) are constructed by joining nucleic acid molecules and b) that can replicate in a living cell, i.e., recombinant nucleic acids;
2. nucleic acid molecules that are chemically or by other means synthesized or amplified, including those that are chemically or otherwise modified but can base pair with naturally occurring nucleic acid molecules, i.e., synthetic nucleic acids
3. fluorescent fusion protein constructs like eGFP etc
4. Viral vectors
5. Carbon-nanotubes with DNA

More information [NIH-OBA](#)

If YES to previous question
Expiry Date for IBC SOP

Yes No Don't know N/A

All IBC SOP #

ADDITIONAL REQUIREMENTS FOR RECOMBINANT AND SYNTHETIC NUCLEIC ACID MOLECULES-

continued

	Yes	No	N/A
51. Has the PI's recombinant/synthetic nucleic acid research been reviewed and approved by the Institutional Biosafety Committee? Ref: B068; NIH Section III			
52. Does the laboratory have 10 or more liters of culture present? Ref: B069; NIH III-D-6			
53. Does the laboratory have an emergency response plan for dealing with accidents, spills, or other incidents involving recombinant/synthetic nucleic acid molecules? Ref: B071; NIH IV-B-2-b-(6)			
54. Do lab personnel have access to the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules? Ref: B073; NIH G-I			
55. Do personnel have access to copies of procedures (e.g., SOPs) for recombinant/synthetic nucleic acid molecules? Ref: B074; NIH G-I			
56. Are spills and accidents, which result in overt exposures to organisms containing recombinant or synthetic nucleic acid molecules immediately, reported to the Biological Safety Officer and Institutional Biosafety Committee? Ref: B079; NIH G-II-B-2-k			
57. Are personnel required to read and follow the laboratory-specific biosafety SOP and GW Biosafety manual? Ref: B082; NIH G-II-B-2-m, GW Biosafety Manual			

Toxins & Select Agents

	Yes	No	N/A
58. Does the research involving working with or generating any toxins of biological origin? Ref: B083			
59. Does the laboratory have any toxins listed on the Select Agent and Toxin list? Ref: B084; 42 CFR 73			
60. Is all work with toxins conducted within a certified chemical fume hood or Biological Safety Cabinet? Ref: B086; BMBL, Appendix I			

Disposal and Decontamination

	Yes	No	N/A
61. Does the lab has Red Biohazard Waste box and bag stored ?			
62. Do the lab have a Sharp container for broken glass ?			
63. If using Glass Pasteur pipettes, are they properly decontaminated and stored ?			

Engineering Controls used in the lab

Which of the following engineering controls available in your lab? Select all those apply [Indicate how many numbers available]

	1	2	3	4	5	6	7	8	9	10	Using a Common shared facility	NA
Biological safety cabinets or biosafety cabinets (BSCs)												
Chemical Fume Hoods												
Refrigerator [4 C] [Any size]												
Freezers [-20C]												
Freezers [-80C]												
Liquid Nitrogen supply tank [any size Dewars/ containers]												
Compressed Gas Cylinders												

Certification of Biosafety cabinets and Chemical fume hood status

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Notes and Comments from Safety Inspectors