

# Animal Biosafety Level 2 Checklist

PI's Name: \_\_\_\_\_ Date: \_\_\_\_\_ Bldg./Rms: \_\_\_\_\_

## Standard Microbiological Practices

	Yes	No
1. The animal facility director establishes and enforces policies, procedures, and protocols for institutional policies and emergencies.	<input type="checkbox"/>	<input type="checkbox"/>
2. Animal protocols are reviewed and approved by the Institutional Animal Care and Use Committee (IACUC) and the Institutional Biosafety Committee (IBC) prior to beginning a study. Worker safety and health concerns are addressed as part of the animal protocol review.	<input type="checkbox"/>	<input type="checkbox"/>
3. A safety manual specific to the animal facility is prepared or adopted in consultation with the animal facility director and appropriate safety professionals.	<input type="checkbox"/>	<input type="checkbox"/>
4. The safety manual is readily available and personnel are advised of potential hazards and are required to read and follow instructions on practices and procedures.	<input type="checkbox"/>	<input type="checkbox"/>
5. Personnel receive appropriate training regarding their duties, animal husbandry procedures, potential hazards, manipulations of infectious agents, necessary precautions to prevent exposures, and hazard exposure evaluation procedures.	<input type="checkbox"/>	<input type="checkbox"/>
6. Personnel receive annual updates or additional training when procedures or policies change. Records for hazard evaluations, training sessions and staff attendance are maintained.	<input type="checkbox"/>	<input type="checkbox"/>
7. An appropriate medical surveillance program is in place.	<input type="checkbox"/>	<input type="checkbox"/>
8. Personnel with medical conditions that may make them more susceptible to infection (i.e. pregnancy, immune-suppressed) discuss their work with Occupational Medicine.	<input type="checkbox"/>	<input type="checkbox"/>
9. Personnel using respirators are enrolled in respiratory protection program.	<input type="checkbox"/>	<input type="checkbox"/>
10. A sign incorporating safety information is posted at the entrance to the areas where infectious materials and/or animals are housed.	<input type="checkbox"/>	<input type="checkbox"/>
11. The warning sign includes the animal biosafety level, general occupational health requirements, the name and telephone number of the responsible person(s), and required procedures for entering and exiting the animal areas.	<input type="checkbox"/>	<input type="checkbox"/>
12. Emergency and disaster recovery plans for man-made or natural disasters are in place.	<input type="checkbox"/>	<input type="checkbox"/>
13. Access to the animal room is limited such that only those persons required for program or support purposes are authorized to enter the facility. Personnel are advised of potential hazards and appropriate safeguards before entering.	<input type="checkbox"/>	<input type="checkbox"/>
14. Eating, drinking, smoking, handling contact lenses, applying cosmetics, and storing food for human consumption is prohibited in laboratory areas. Food is stored outside the laboratory area in cabinets or refrigerators designated and used for this purpose only.	<input type="checkbox"/>	<input type="checkbox"/>
15. All procedures are performed to minimize the creation of splashes and/or aerosols.	<input type="checkbox"/>	<input type="checkbox"/>
16. Mouth pipetting is prohibited; mechanical pipetting devices are used.	<input type="checkbox"/>	<input type="checkbox"/>
17. Policies for the safe handling of sharps, such as needles, scalpels, pipettes, and broken glassware have been developed and implemented.	<input type="checkbox"/>	<input type="checkbox"/>
a. Use of sharps is limited to situations where there is no alternative for such procedures as parenteral injection, blood collection, or aspiration of fluids from laboratory animals and diaphragm bottles.	<input type="checkbox"/>	<input type="checkbox"/>

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| b. Needles are not bent, sheared, broken, recapped, removed from disposable syringes, or otherwise manipulated by hand before disposal.  | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Used disposable needles are placed in conveniently located puncture-resistant containers used for sharps disposal.  | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Non-disposable sharps are placed in a hard-walled container for transport to a processing area for decontamination, preferably by autoclaving.  | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Broken glassware is not handled directly. It is removed using mechanical means such as a brush and dustpan, tongs, or forceps. Plastic ware is substituted for glassware whenever possible.   | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Use of equipment with sharp edges and corners is avoided.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Equipment and work surfaces are decontaminated after completion of work and after any spills, splashes, or other overt contamination.<br>List disinfectant used: _____   | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Animals and plants not associated with the work being performed are prohibited from areas where infectious materials and/or animals are housed or manipulated.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. An effective integrated pest management program is in place.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. All waste from animal rooms (including animal tissues, carcasses, and contaminated bedding) is transported from the animal room in leak-proof covered containers for appropriate disposal in compliance with applicable institutional, local, and state requirements. Potentially infectious material is decontaminated before disposal using an effective method. | <input type="checkbox"/> | <input type="checkbox"/> |

### Special Practices

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| 22. Personnel are provided a medical surveillance program as dictated by the risk assessment and administered appropriate immunizations for agents handled or potentially present, before entry into animal rooms. When appropriate, baseline serum samples are collected and stored.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. Procedures involving a high potential for generating aerosols are conducted within a biosafety cabinet (BSC) or other physical containment device. A combination of personal protective equipment and other containment devices is used when work cannot be performed within a BSC.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. Restraint devices that reduce the risk of exposure during animal manipulations (i.e. physical restraint devices, chemical restraint medications) are used whenever possible.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. All potentially infectious materials and animal waste (i.e. tissues, carcasses, bedding, unused feed, sharps, and other refuse) is decontaminated by an appropriate method (i.e. autoclave, chemical disinfection, or other approved decontamination methods) before movement outside of the areas where infectious materials and/or animals are housed or manipulated. | <input type="checkbox"/> | <input type="checkbox"/> |
| 26. A method for decontaminating routine husbandry equipment, sensitive electronic and medical equipment has been identified and implemented.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 27. Materials to be decontaminated outside of the immediate areas where infectious materials and/or animals are housed or manipulated are placed in a durable, leak-proof, covered container and secured for transport. The outer surface of the container is disinfected prior to moving materials and the container has a universal biohazard symbol.                     | <input type="checkbox"/> | <input type="checkbox"/> |
| 28. A waste disposal program in compliance with applicable institutional, local and state requirements is in place. Autoclaving of content before incineration is recommended.  | <input type="checkbox"/> | <input type="checkbox"/> |

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| 29. Equipment, cages, and racks are handled in a manner that minimizes contamination of other areas.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 30. Equipment is decontaminated before repair, maintenance, or removal from areas where infectious materials and/or animals are housed or manipulated.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 31. Spills involving infectious materials are contained, decontaminated, and cleaned up by personnel properly trained and equipped to work with infectious material.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 32. Incidents that result in exposure to infectious materials and/or organisms containing rDNA are immediately evaluated and treated according to procedures described in the safety manual. All incidents are reported to the animal facility supervisor and the biosafety office. Medical evaluation, surveillance, and treatment is provided as appropriate and records maintained. | <input type="checkbox"/> | <input type="checkbox"/> |

### **Safety Equipment (Primary Barriers and Personal Protective Equipment)**

- |  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| 33. Properly maintained biosafety cabinets (BSCs), preferably Class II, personal protective equipment, and/or other physical containment devices or equipment are used whenever procedures with a potential for creating aerosols, splashes, or other potential exposures to hazardous materials are conducted. These include <i>necropsy of infected animals, harvesting of tissues or fluids from infected animals or eggs, and intranasal inoculation of animals.</i> | <input type="checkbox"/> | <input type="checkbox"/> |
| 34. If indicated by risk assessment, animals are housed in primary biosafety containment equipment appropriate for the animal species, such as solid wall and bottom cages covered with filter bonnets for rodents or other equivalent primary containment systems for larger animal cages.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 35. Scrub suits and uniforms are removed before leaving the animal facility. Reusable clothing is appropriately contained and decontaminated prior to laundering. Laboratory and protective clothing is never taken home.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 36. Laboratory coats, gowns, uniforms, and other PPE are worn while in areas where infectious materials and/or animals are housed or manipulated and removed prior to exiting. Disposable PPE is appropriately contained and decontaminated prior to disposal.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 37. Eye and face protection (i.e. masks, goggles, face shield, or other splatter guard) is used for manipulations/activities that may result in splashes or sprays from infectious or other hazardous materials and when the animal or microorganism must be handled outside the BSC or containment device. Persons who wear contact lenses also wear eye protection.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 38. Persons having contact with non-human primates wear appropriate eye, face, and respiratory protection as determined by the risk assessment.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 39. Gloves are worn to protect hands from exposure to hazardous materials. Alternatives to latex gloves should be available.   | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Gloves are changed when contaminated, integrity has been compromised, or when otherwise necessary.  | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Gloves are not worn outside animal rooms and are removed in a manner that prevents transfer of infectious materials.  | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Disposable gloves are not washed or reused. Used gloves are disposed of with other contaminated laboratory waste.   | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Persons wash their hands after removing gloves, after handling animals, and before leaving areas where infectious materials and/or animals are housed or manipulated.   | <input type="checkbox"/> | <input type="checkbox"/> |

## Animal Biosafety Level 2 Checklist

### Laboratory Facilities (Secondary Barriers)

	Yes	No
40. The animal facility is separated from areas that are open to unrestricted personnel traffic within the building and external facility doors are self-closing and self-locking.	<input type="checkbox"/>	<input type="checkbox"/>
41. The facility is patrolled or monitored at frequent intervals.	<input type="checkbox"/>	<input type="checkbox"/>
42. Doors to animal rooms open inward, are self-closing, and are kept closed when experimental animals are present. Doors to cubicles inside a room may open outward or slide horizontally or vertically.	<input type="checkbox"/>	<input type="checkbox"/>
43. Animal rooms have a sink for hand washing. Additional sinks are located in other appropriate locations within the facility.	<input type="checkbox"/>	<input type="checkbox"/>
44. Sink traps are filled with water, and/or appropriate disinfectant to prevent migration of vermin and gases.	<input type="checkbox"/>	<input type="checkbox"/>
45. The facility is designed, constructed, and maintained to facilitate cleaning and housekeeping. Walls, floors and ceilings are water resistant and floors are slip resistant, impervious to liquids and resistant to chemicals.	<input type="checkbox"/>	<input type="checkbox"/>
46. Penetrations in floors, walls, and ceiling surfaces are sealed, including openings around ducts, doors, and door frames, to facilitate pest control and proper cleaning.	<input type="checkbox"/>	<input type="checkbox"/>
47. Furniture is capable of supporting anticipated loads and uses. Spaces between benches, cabinets, and equipment are accessible for cleaning.	<input type="checkbox"/>	<input type="checkbox"/>
48. Cabinets and bench tops are impervious to water and resistant to heat, organic solvents, acids, alkalis, and other chemicals.	<input type="checkbox"/>	<input type="checkbox"/>
49. Chairs are covered with a non-porous material that can be easily cleaned and decontaminated with appropriate disinfectant. <i>No fabric chairs in animal rooms.</i>	<input type="checkbox"/>	<input type="checkbox"/>
50. External windows are not recommended; if present windows are sealed and resistant to breakage.	<input type="checkbox"/>	<input type="checkbox"/>
51. Ventilation is provided in accordance with the Guide for Care and Use of Laboratory Animals. Animal rooms have directional inward airflow and a ducted exhaust air ventilation system. Exhaust air is discharged without being recirculated to other rooms.	<input type="checkbox"/>	<input type="checkbox"/>
52. Internal facility appurtenances, such as light fixtures, air ducts, and utility pipes, are arranged to minimize horizontal surface areas to facilitate cleaning and minimize the accumulation of debris or fomites.	<input type="checkbox"/>	<input type="checkbox"/>
53. Floor drains are maintained and filled with water, and/or appropriate disinfectant to prevent migration of vermin and gases.	<input type="checkbox"/>	<input type="checkbox"/>
54. Cages are autoclaved or otherwise decontaminated before washing. The mechanical cage washer should have a final rinse temperature of at least 180°F.	<input type="checkbox"/>	<input type="checkbox"/>
55. Illumination is adequate for all activities; reflections and glares that could impede vision are avoided.	<input type="checkbox"/>	<input type="checkbox"/>
56. BSCs are installed so that fluctuations of the room air supply and exhaust do not interfere with proper operations.	<input type="checkbox"/>	<input type="checkbox"/>
57. BSCs are located away from doors, windows that can be opened, heavily traveled laboratory areas, and other possible airflow disruptions.	<input type="checkbox"/>	<input type="checkbox"/>
58. Vacuum lines are protected with liquid disinfectant traps and in-line HEPA filters. Filters are replaced as needed.	<input type="checkbox"/>	<input type="checkbox"/>
59. There is an autoclave in the facility to facilitate decontamination of infectious materials and waste.	<input type="checkbox"/>	<input type="checkbox"/>

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| 60. An emergency eyewash and shower is readily available. | <input type="checkbox"/> | <input type="checkbox"/> |

### **Recombinant DNA Research Involving Animals**

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 61. Genetically engineered neonates are permanently marked within 72 hours after birth. If their size does not permit marking, their containers are marked.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 62. Unless reproductive studies are an approved part of the experiment, a double barrier between males and females or other means to prevent reproductive transmission is in place.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 63. Appropriate steps are taken to prevent horizontal transmission or exposure of laboratory personnel.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 64. Animals are confined within an enclosed structure (animal room or equivalent) to minimize the possibility of theft or unintentional release and to avoid arthropod access.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 65. If arthropods are used in the experiment or the agent under study can be transmitted by an arthropod, interior work areas are appropriately screened (52 mesh).   | <input type="checkbox"/> | <input type="checkbox"/> |
| 66. When an animal containing recombinant DNA or a recombinant DNA-derived organism is euthanized or dies, it is disposed of in a manner that prevents its use as food for humans or animals unless food use has specifically been authorized by an appropriate Federal agency. | <input type="checkbox"/> | <input type="checkbox"/> |
| 67. A permanent record of the experimental use and disposal of each animal or group of animals is maintained.   | <input type="checkbox"/> | <input type="checkbox"/> |