

## OSU Biosafety Laboratory -- Self-Audit Checklist

Building & Room \_\_\_\_\_ Principal Investigator \_\_\_\_\_ Date \_\_\_\_\_

Audit Performed by _____	Y	N	NA	COMMENTS
<b>A. Contamination Control</b>				
1. Proper decontamination procedures used				
<b>B. Exposure Control</b>				
1. Sharps handled with caution; used only as necessary				
2. Sharps disposed of properly				
3. Biosafety cabinet used appropriately				
4. Personal protective clothing, equipment provided/used				
5. Hepatitis B vaccination offered, as applicable				
6. Live Virus Worker Program followed				
7. Eating, drinking, applying cosmetics, handling contact lenses, mouth pipetting prohibited; no storage of food, cosmetics, medications in lab				
<b>C. Inventory Control</b>				
1. Work with approved agents and protocols; <b>CDC/USDA Select Agents</b> register, handled according to regulations				
2. Waste is disposed of, packaged, and labeled correctly				
<b>D. Use Area Identification</b>				
1. Lab properly posted and labeled				

## Key to Laboratory Biosafety Checklist

### A Contamination Control

1. Biohazardous work surfaces and equipment are disinfected with the appropriate disinfectant after daily work and spills. A one to ten dilution of chlorine bleach or its equivalent is effective for most purposes. Ensure fresh solutions are maintained.

Spills should be covered with paper toweling and bleach solution applied from the outer edge of the spill to the center.

### B. Exposure Control

1. Be particularly cautious when handling any sharps, i.e., needles, syringes, glass implements. Substitute plastic for glass where possible. Use only needle locking or disposable syringes.
2. Contaminated sharps like needles, syringes, and blades are discarded in puncture-proof plastic sharps containers. Needles are not bent, sheared, broken, recapped, or removed from disposable syringes before disposed.
3. All procedures are conducted in a way to minimize creation of splashes or aerosols. For laboratories designated Biosafety Level 2, procedures that may produce infectious agent/Recombinant DNA aerosols or work with large volumes or large concentration of agents are performed in an approved, certified, and operating biosafety cabinet.
4. When there is exposure to infectious materials, the lab worker wears appropriate personal protective equipment (PPE) such as, but not limited to gloves, gowns, laboratory coats, face shields or masks and eye protection. PPE is considered appropriate only if it does not permit blood and other potentially infectious materials to pass through to reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth or other mucus membranes under normal conditions of use and for the duration of time which the PPE will be used.
5. For those exposed to bloodborne pathogens, hepatitis B vaccination is made available after the employee has received the training required and within 10 days of initial assignment.

For those declining the HBV vaccination, a declination form is completed by the worker.

6. Those working with live viruses complete the Live Virus Worker Web-based training and Medical Review.
7. Self explanatory

### C. Inventory Control

1. All work with infectious agents/recombinant DNA has been submitted, reviewed, and approved by the Biosafety Committee.  
Any CDC/USDA Select Agents being used have been properly registered and appropriate procedures in place for restricted access, user screening, security, and notice of disposal or destruction.
2. Biologically contaminated waste is placed in the provided red biohazard bags which are then autoclaved by staff from the generating laboratory. Proper sterilization is achieved when the load is autoclaved at 250°F or 121°C for a minimum of 30 minutes. Non-recyclable, uncontaminated waste glass is placed in tall, plastic-lined glass waste boxes. Empty chemical containers are placed in green Rubbermaid container with half lid. Animal bedding waste is bagged and placed in gray carts for pick-up. Animal carcasses are bagged and freezer-stored until removed for transport to contractor's incineration facility.

### D. Use Area Identification

1. For BSL2 labs, a biohazard warning sign with the universal biohazard symbol is posted at the laboratory entrance when infectious agents are in use. The hazard sign identifies the infectious agent, the biosafety level, the Principal Investigator's name and telephone number or other contact person, and indicates any PPE or immunizations required for those in the lab.

	Y	N	NA	COMMENTS
<b>E. Training</b>				
1. Training for work with agents used				
2. Training for bloodborne pathogens (BBP) exposure				
3. Retraining in BBP completed				
<b>F. Engineering Controls</b>				
1. Hand washing facilities provided and used				
2. Eye wash station available				
3. Autoclave available, used and checked for effectiveness				
4. Biosafety cabinet certification current				
5. Flooring and ceiling good repair				
6. Illumination adequate for all activities				
<b>G. Administrative Controls and Documentation</b>				
1. Laboratory facility meets criteria for biosafety level				
2. Records current and accurate				
3. Access to the on-line Biosafety Manual provided and encouraged				
4. Access to the laboratory is limited or restricted as appropriate				
5. Insect and rodent control program; screened windows				

## Key to Laboratory Biosafety Checklist

### E. Training

1. Principal Investigator ensures all exposed personnel receive information and training on hazards associated with those agents used and the necessary precautions to minimize exposure.
2. As defined in the OSHA Bloodborne Pathogen Standard, those working with human blood, tissues, body fluids or other defined potentially infectious materials receive initial training on bloodborne pathogens and comply with all other aspects of the Standard.
3. Personnel who work with human blood, tissues, body fluids or other defined potentially infectious materials receive annual retraining on bloodborne pathogens

### F. Engineering Controls

1. Hand washing facilities are available in the laboratory and used particularly after handling infectious material or animals, after removing gloves, before leaving the lab.
2. Ensure that everyone in the lab knows the location of a readily accessible eyewash station.
3. In laboratories generating infectious waste, the waste is treated by appropriate chemical disinfection (i.e., 1 to 10 bleach solution or equivalent) or steam sterilization. Heat sensitive test strips or other indicator of proper heat treatment is used with each autoclaved container. A biological indicator (i.e., *Bacillus stearothermophilus* spores) is used periodically to ensure proper functioning of the steam autoclave.

4. Biosafety cabinets are certified after being newly installed and with relocation of any existing cabinets. Annual recertification is completed when user protection is necessary.
5. Flooring, ceiling and fixtures are in good repair and readily cleanable.
6. Illumination sufficient in all work areas to support working safely.

### G. Administrative Controls and Documentation

1. Verify the laboratory facilities meet the criteria for the Biosafety level required. See "Guidelines for Good Laboratory Practices at BSL1 and BSL2" in the Biosafety Manual.
2. Documentation of medical surveillance, records of training, and access to Exposure Control Plan provided for those exposed to bloodborne pathogens. Medical surveillance is provided for live virus workers and for those working with other agents as indicated.
3. The Biosafety Manual is located at the EH&S website. New lab personnel are advised of its location and encouraged to use it.
4. Access to the laboratory is limited or restricted at the discretion of the Laboratory Manager or Principal Investigator. For BSL2 work, lab access is provided only to those who are advised of any special hazards or have appropriate immunizations, serum sampling, etc.
5. Any insect and rodent problems are appropriately addressed. Facilities Services can be called for response to any pest management problem.