ISEF Guidelines for Biosafety Level 2
Laboratory Facilities & Operations

A Self- Assessment Safety Checklist

This form is intended to aid in assessing a laboratory as appropriate to do BSL-2 studies in locations other than a registered research institution (e.g. high school laboratory, medical office, diagnostic lab). The following checklist is based on the Biosafety Level 2 section of "Laboratory Biosafety Manual", 3rd edition, World Health Organization, 2004.

Facility Name _____ **Room #** _____

Address _____

_____

- **Name of Laboratory Supervisor/Teacher**_____

  - This person must be educated, trained and qualified to supervise microbiological projects and maintain the criteria below**.**
  - Qualifications: (List or attach additional sheet if necessary. Qualifications should include significant course work in microbiology and/or significant related experience)

  _____
  _____
  _____
  _____
  _____

  I attest that I have the qualifications listed above (or attached).

  Laboratory Supervisor/Teacher Signature_____

  Date of signature _____

- **Name of Responsible Administrator _____**

  I attest that this laboratory is a BSL2 facility and complies with all procedures listed on this form and that the person named above is educated, trained and qualified to supervise microbiological projects and maintain the criterion below.

  Administrator Signature_____

  Title_____

  Date of signature _____

- **If you check any of the following boxes with "NO", you must make appropriate modifications before you can classify the lab as a BSL2 facility. The safety of students and faculty must be your primary concern.**

Check the appropriate box for each statement.

Yes No

☐ ☐ 1. The laboratory has a **Class II Biological Safety Cabinet** designed with inward air flow at a velocity to protect personnel (75-100 linear feet/minute), HEPA-filtered downward vertical laminar airflow for product protection, and HEPA-filtered exhaust air for environmental protection.

☐ ☐ 2. **Access to the laboratory is strictly limited** when BSL 2 experiments are in progress. When BSL2 experiments are not in progress, **BSL2 materials are locked** and the hood and surrounding area is decontaminated.

☐ ☐ 3. The biological safety cabinets is certified annually, when cabinets are moved, or when HEPA filters are changed.

☐ ☐ 4. Face protection (goggles, mask, face shield or other platter guards) are used for anticipated splashes or sprays of infectious or other hazardous materials to the face.

Yes No

A. Standard Microbiological Practices

☐ ☐ 1. All personnel wash their hands after they handle viable materials and animals, after removing gloves, and before leaving the laboratory.

☐ ☐ 3. Eating, drinking, handling contact lenses, and applying cosmetics is forbidden in the laboratory.

☐ ☐ 4. Mouth pipetting is prohibited and only mechanical pipetting devices are used.

☐ ☐ 5. All procedures are performed to minimize the creation of splashes or aerosols.

☐ ☐ 6. Work surfaces are decontaminated with disinfectant when work is completed at the end of the day and after any spill of viable material.

☐ ☐ 7. All contaminated cultures, stocks, glassware, plastic ware and other biologically contaminated waste are treated as bio hazardous material to be autoclaved.

☐ ☐ 8. Culture fluids and other contaminated liquid wastes are autoclaved or decontaminated with a suitable disinfectant before disposal.

☐ ☐ 9. Sharps are discarded in puncture-resistant sharps disposal containers and treated as medical waste. (Sharps include hypodermic syringes and needles, Pasteur pipettes, razor blades, contaminated broken glass and blood vials.)

☐ ☐ 10. Materials to be decontaminated outside of the laboratory are placed in a durable, leak-proof container and closed for transport from the laboratory.

☐ ☐ 11. Insect and rodent control procedures are in effect.

Yes No

B. Special Practices

☐ ☐ 1. Persons who are at an increased risk of acquiring infection or for whom infection may be unusually hazardous (e.g., immuno compromised, immuno suppressed, pregnant) are not allowed to enter the laboratory when BSL 2 work is in progress.

☐ ☐ 2. The laboratory supervisor has developed an annually reviewed and updated BSL 2 Biosafety manual that is posted in the lab.

☐ ☐ 3. There is documentation that students are trained and made aware of hazards and appropriate precautions before working in the laboratory.

Yes No

☐ ☐ 4. There are established policies and procedures which limit entrance to the lab to individuals who are advised of the potential hazards and are appropriately trained.

☐ ☐ 5. There is a hazard warning sign (e.g., biohazard warning symbol) posted on the access door to the laboratory. The sign should identify the Biosafety level, the name and the telephone number of the laboratory supervisor or other responsible person(s), special requirements and items prohibited, and personal protective equipment required for entry.

☐ ☐ 6. A biohazard symbol is placed on equipment (e.g., incubators, freezers) where biohazardous materials are used or stored.

☐ ☐ 7. Spills and accidents are immediately reported to the laboratory supervisor and an incident report submitted.

C. Safety Equipment (Primary Barriers)

Yes No

☐ ☐ 4. Protective laboratory coats are worn while in the laboratory and then removed and left in the laboratory after use. These coats are never taken home for laundering. They are either disposed of or laundered by the school.

☐ ☐ 5. When required, suitable gloves (e.g., latex, nitrile, vinyl) are worn and appropriately disposed of after use.

D. Laboratory Facilities (Secondary Barriers)

Yes No

☐ ☐ 1. The laboratory has a sink for hand washing.

☐ ☐ 2. The laboratory is designed so that it can be easily cleaned and decontaminated. (Carpets and rugs are not appropriate)

☐ ☐ 3. Bench tops are impervious to water and resistant to moderate heat, acids, alkalis, organic solvents and chemicals used to decontaminate the work surface.

☐ ☐ 4. The laboratory furniture is sturdy and capable of supporting anticipated loads and uses.

☐ ☐ 5. The spaces between benches, cabinets, and equipment are accessible for cleaning.

☐ ☐ 6. Storage space is adequate to hold supplies for immediate use and thus prevent clutter on bench tops and in aisles.

☐ ☐ 7. Long-term storage space is available outside of the laboratory work.

☐ ☐ 8. Vacuum lines, if present, are protected with liquid disinfectant traps, or HEPA or hydrophobic filters.

☐ ☐ 9. If the laboratory has windows that are open, they are fitted with fly screens.

☐ ☐ 10. The laboratory doors are kept closed whenever work with biohazardous materials is conducted.

☐ ☐ 11. The laboratory is locked when not in use.

☐ ☐ 12. An autoclave is available.

☐ ☐ 13. An eyewash facility is readily available within the laboratory.