



## Lab Biosafety Self-Audit Form

(Applies to **all** microbial work.)

Principal Investigator:	Office Phone#:
Lab Location:	Lab Phone #:
Person Completing Audit:	Date:

### Type Of Biological Material Used

	YES	NO
Human samples used (cells, blood, body fluid, unfixed tissue)?	<input type="checkbox"/>	<input type="checkbox"/>
If yes, are Universal Precautions used?	<input type="checkbox"/>	<input type="checkbox"/>
Do workers complete annual bloodborne pathogen training?	<input type="checkbox"/>	<input type="checkbox"/>
Recombinant DNA at any biosafety level?	<input type="checkbox"/>	<input type="checkbox"/>
Biosafety Level 1 Microorganism(s)?	<input type="checkbox"/>	<input type="checkbox"/>
Biosafety Level 2 Microorganism(s)?	<input type="checkbox"/>	<input type="checkbox"/>
Biologically-derived Toxin(s)?	<input type="checkbox"/>	<input type="checkbox"/>

**NOTE: Attenuated lab and vaccine strains of pathogenic microorganisms must be handled at the same Biosafety Level as the parent organism and require IBC review and approval for use**

List in the table below any Biosafety Level 1 or greater organisms (including attenuated lab and vaccine strains), microorganisms used for rDNA work, and biologically-derived toxins that are used or stored by your laboratory. IBC approval is required for any of these materials that are part of active protocols. All rDNA work requires IBC approval regardless of the Biosafety Level, see the IBC web page at <http://www.research.umn.edu/ibc/> for further information.

Material	Biosafety Level	Actively Used or Stored	IBC Approval Number	IBC Approval Date

### Standard Microbiological Practices: All Biosafety Levels

The following standard microbiological practices are to be followed for work with all microorganisms including Biosafety Level 1 microorganisms – well characterized biological agents not known to consistently cause disease in healthy adult humans.

**For details regarding implementation of the following lab practices see the *BioBasics Fact sheets* and *Biosafety Manual* sections of the DEHS (Department of Environmental Health and Safety) web page at <http://www.dehs.umn.edu/>.**

- |   | YES                      | NO                       |
|---|--------------------------|--------------------------|
| 1) Does the laboratory have a sink for hand washing?  | <input type="checkbox"/> | <input type="checkbox"/> |
| Do workers wash their hands after they handle viable materials, after removing gloves, and <u>before</u> leaving the laboratory?  | <input type="checkbox"/> | <input type="checkbox"/> |
| Are workers trained in proper hand washing procedures?  | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) Are lab coats, gowns, or uniforms provided?  | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) Is protective clothing removed before leaving the laboratory?<br>(Protective clothing should <u>never</u> be worn in non-lab areas.)   | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) Is laundry service available for protective clothing?<br>(All protective clothing must be either disposed of in the laboratory or laundered by the work unit, it should never be taken home by personnel.)   | <input type="checkbox"/> | <input type="checkbox"/> |
| 5) Are gloves provided and workers trained in their proper usage?<br>(Gloves should be worn whenever contact with microorganisms could be reasonably anticipated, whenever skin on hands is not intact, including if a rash is present. Alternatives to latex should be available.) | <input type="checkbox"/> | <input type="checkbox"/> |
| 6) Is protective eyewear worn for procedures in which possible splashes of microorganisms or other hazardous material is anticipated?   | <input type="checkbox"/> | <input type="checkbox"/> |
| 7) Is food stored and consumed in designated areas outside the lab?<br>(Eating, drinking, smoking, handling contact lenses, and applying cosmetics are not permitted in labs.)  | <input type="checkbox"/> | <input type="checkbox"/> |
| 8) Are mechanical pipetting devices provided? (Mouth pipetting is prohibited.)  | <input type="checkbox"/> | <input type="checkbox"/> |
| 9) Are sharps containers provided within easy reach of work areas and are workers trained in their proper use?<br>(Used needles must not be bent, sheared, broken, recapped, removed from disposable syringes, or otherwise manipulated by hand before disposal.)                   | <input type="checkbox"/> | <input type="checkbox"/> |
| 10) Do experimental protocols include methods to reduce or control the creation of splashes and aerosols?   | <input type="checkbox"/> | <input type="checkbox"/> |

- |   | YES                      | NO                       |
|---|--------------------------|--------------------------|
| 11) Are work surfaces decontaminated on completion of work and/or at the end of the day and after any spill or splash of viable material?<br>(Disinfectant used should be known to be effective against the agents of concern.) | <input type="checkbox"/> | <input type="checkbox"/> |
| 12) Can coverings on all lab chairs and stools be decontaminated?<br>(Cloth covered chairs are not allowed in labs.)  | <input type="checkbox"/> | <input type="checkbox"/> |
| 13) Are all microorganism cultures, stocks, and other regulated wastes decontaminated before disposal?  | <input type="checkbox"/> | <input type="checkbox"/> |
| Is any of the above waste disposed of in red biohazard bags?  | <input type="checkbox"/> | <input type="checkbox"/> |
| Is any of the above waste autoclaved?<br>(Materials to be decontaminated outside of the immediate laboratory must be placed in a durable, leak proof container and closed for transport.)                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| If yes, for how long? _____<br>(60 minutes is recommended unless an effectiveness indicator proves another time is sufficient)  |                          |                          |
| How is the effectiveness tested (e.g. spore strip or chemical indicator)? _____   |                          |                          |
| <b>Autoclave tape is not an indicator of effectiveness.</b>   |                          |                          |
| 14) Are vacuum lines protected from aerosols with traps and filters?  | <input type="checkbox"/> | <input type="checkbox"/> |

### **Biosafety Level 2 Practices**

The following Biosafety Level 2 practices, in addition to the above standard microbiological practices, are to be followed for work with all microorganisms that are known to be able to cause disease in humans but do not qualify as Biosafety Level 3 microorganisms. For work with Biosafety Level 3 microorganisms, contact the Biosafety Officer at 626-6002.

- |   | YES                      | NO                       |
|---|--------------------------|--------------------------|
| 1) Are biohazard signs used to label containers and areas where infectious agents, biological toxins, and/or rDNA materials are stored?   | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) Is there a <u>red</u> biohazard sign posted on the door(s) of lab when an infectious agent or biological toxin is present?<br>(Include name of the person in charge of the lab and their home telephone number.) | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) Is access to the laboratory limited or restricted by the laboratory director when work with infectious agents is in progress?  | <input type="checkbox"/> | <input type="checkbox"/> |

If yes, how? \_\_\_\_\_

(In general, persons who are at increased risk of acquiring infection, or for whom infection may have serious consequences, are not allowed in the laboratory or animal rooms. For example, persons who are immunocompromised or immunosuppressed may be at increased risk of acquiring infections. The laboratory director has the final responsibility for assessing each circumstance and determining who may enter or work in the laboratory or animal room.)

YES NO

- 4) Are infectious agents, biological toxins and/or rDNA materials kept in locked storage units or locked lab when unattended?
- 5) Is there a Biological Safety Cabinet in the lab?    
 If yes, what is the last date of certification? \_\_\_\_\_  
 (Cabinets in BL2 labs must be certified annually)
- 6) Are procedures with a potential for creating infectious aerosols or splashes, (including centrifuging, grinding, blending, vigorous shaking or mixing, sonic disruption, opening containers of infectious materials whose internal pressures may be different from ambient pressures, inoculating animals intranasally, and harvesting infected tissues from animals) carried out in a biological safety cabinet?
- If no, what precautions are taken to contain aerosols or splashes?  
 \_\_\_\_\_
- Is face protection (goggles, mask, face shield or other splatter guard) used for anticipated splashes or sprays of infectious or other hazardous materials to the face when the microorganisms must be manipulated outside the biological safety cabinet?
- Are leak proof secondary containers used during centrifugation of infectious materials?    
 (High concentrations or large volumes of infectious agents may be centrifuged in the open laboratory if sealed rotor heads or centrifuge safety cups are used, and if these rotors or safety cups are opened only in a biological safety cabinet.)
- 7) Are gloves worn when hands may contact potentially infectious materials or contaminated surfaces? (Wearing two pairs of gloves may be appropriate.)
- 8) Are gloves disposed of when overtly contaminated, and removed when work with infectious materials is completed or when the integrity of the glove is compromised?    
 (Disposable gloves are not to be washed, reused, or used for touching "clean" surfaces such as keyboards, telephones, etc.)
- 9) Is an eyewash station readily available and flushed weekly?
- 10) Is the use of needles and syringes or other sharp instruments restricted to procedures for which there is no alternative?    
 (Use syringes which re-sheath the needle, needleless systems, or other safety devices whenever possible.)
- 11) Are only needle-locking syringes or disposable syringe-needle units (i.e., needle is integral to the syringe) used for injection or aspiration of infectious materials?

YES NO

- 12) Does the lab have written standard operating procedures (SOPs)?    
(Biosafety procedures must be incorporated into the written standard operating procedures or in a “biosafety manual” adopted or prepared specifically for the laboratory by the laboratory director. Personnel must be advised of potential hazards in their work place and are required to read and follow all instructions on practices and procedures.)
- 13) Is everyone in the lab familiar with the department’s *Laboratory Safety Plan* and how to access it?    
(Contact your department’s Research Safety Officer (RSO) for a copy.)
- 14) Do you ship or receive biological materials?    
If yes, see the Infectious Substance Classification Flow chart in the *Biosafety Manual* section of the IBC web page to determine how material needs to be shipped. If material is classified as a Category A or B substance the shipper must receive training.
- 15) Does the laboratory director ensure that laboratory and support personnel receive appropriate training on the potential hazards associated with the work involved, the necessary precautions to prevent exposures, and exposure evaluation procedures?
- Personnel receive annual updates or additional training as necessary for procedural or policy changes?
- Are written training records on file in the facility or department?