

THE BIO-ZONE

OFFICE OF RADIATION, CHEMICAL, AND BIOLOGICAL SAFETY

New Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition Requirements



The BMBL is commonly seen as the standard for biosafety. MSU is using the BMBL as the basis for its biosafety manual. The ORCBS has the latest version of the Biosafety Manual on our website. This edition of the BMBL has new requirements for Biosafety Level 1 and 2 labs, which must be carried out in the lab to stay compliant. The biosafety staff wanted to highlight a few of the changes in this edition of the *Biozone*.

Biosafety Level 1 (BSL-1)

- You must decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant.
- Gloves must be worn to protect hands from exposure to hazardous materials (Previously it was a recommendation to wear gloves, now it is a requirement at BSL 1).
- Chairs used in laboratory work must be covered with a non-porous material that can be easily cleaned and decontaminated with appropriate disinfectant.

Biosafety Level 2 (BSL-2)

- Materials to be decontaminated outside of the

immediate laboratory must be placed in a durable leakproof container and secured for transport. This means you can not carry your autoclave bag down to the autoclave room without it being in a leakproof container (such as a tray). This also means you can not leave the waste to be autoclaved in an unsecured room.

- The laboratory supervisor must ensure that laboratory personnel demonstrate proficiency in standard and special microbiological practices before working with BSL-2 agents.

- Animals and plants not associated with the work being performed must not be permitted in the laboratory. Previously you could have plants.

Upcoming Trainings:

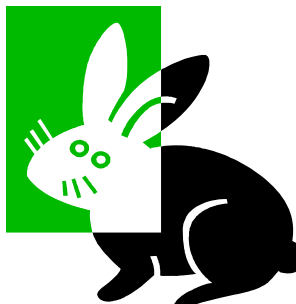
- 2/21/08 Bloodborne Initial
- 3/12/08 Bloodborne Initial
- 3/13/08 Biological Safety
- 4/16/08 Biological Safety
- 4/17/08 Bloodborne Initial
- 5/13/08 Bloodborne Initial
- 5/14/08 Biological Safety

Calling All Animal Users

There is an updated training available online that covers general biosafety training requirements for working in animal-related environments at Biosafety Level 1 or higher. The training entitled Biosafety Principles for Animal Users, is required for anyone who handles

animals or animal derived materials (e.g., tissues, cell-lines, blood, etc.). The course previously required, entitled Biosafety Basics for Animal Users, has been eliminated. At this time, if you have already taken the Biosafety Principles Training you do not have to take this

updated version online.



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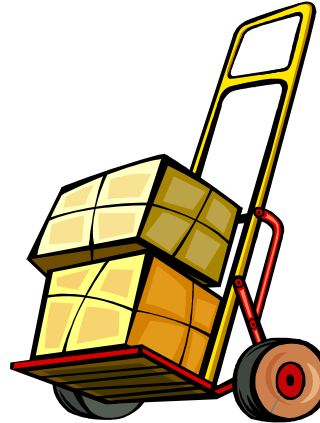
Blank MTA's are available at www.oip.msu.edu

If you ship materials often, we offer a training cd you can complete in your lab or at home.



MTA's and Shipping Samples

Before sending biological materials off campus you should contact the Office of Intellectual Property to determine if a material transfer agreement (MTA) is required. In many cases a completed MTA must be in place before materials are shipped. Please allow ample time for your MTA to be processed before your materials need to be sent. For additional information, visit



www.oip.msu.edu. The Biosafety team is also available to help you with shipping. If you ship materials often, we offer a training cd you can complete in your lab or at home. Or if you rarely ship samples off campus, we would be happy to assist you in properly packaging and labeling your shipment. These steps are key in avoiding delivery delays.

New Staff in the Biosafety Office



Jason Krause joined the Biosafety Team in September 2007 as a Biological Safety Aide. He is currently a Junior in The School of Hospitality, and is looking to return for his MS in Ac-

counting after graduation. His focus at ORCBS consists of autoclave testing, employee safety education, proper shipping of biological materials, and assisting his Biosafety coworkers.

Sharps and Your Lab

Are you using sharps or human materials in your lab? Sharps include needles, scalpels, capillary tubes and vacutainers. Human materials include blood or other potentially infectious body fluids, cell lines, unfixed tissue/organs other than intact skin, skin, cell or tissue cultures, organ cultures, culture medium or other solutions that may contain bloodborne

blood from experimental animals infected with bloodborne pathogens. If you do, then you must evaluate and use safer sharps devices if they are available. Additionally, you need to review safer sharps every year and complete a Safer Sharps Annual Review Form annually. To be compliant with the MIOSHA Bloodborne Infectious Diseases Stan-

spring for our annual Safer Sharps Demonstration Day along with several vendors who will be bringing their safer sharps products.

More details are coming soon! Please address any questions regarding this event to Patti Pawski at 432-8044.

Bench Paper: To Be Or Not To Be

The MSU Biosafety Manual, which is based on recommendations by the National Institute of Health and Center for Disease Control, states that after completing procedures involving viable materials, the work area must be disinfected.

This means at the end of the work shift or at the conclusion of a procedure, you must disinfect your bench top. If bench paper was in use where biologically-active materials were manipulated, it must be removed and the bench un-

paper must be removed by the end of the work shift, and because there is always a possibility of a spill of infectious material, you should not use the bench paper to record data.

Are You Using An Autoclave?

When using an autoclave on MSU's campus, there are a few things you must remember.

- **Do not chemically disinfect AND autoclave.** Autoclaving chemicals are hazardous and should not be done.

- Each department is responsible for training autoclave users on general equipment use. If you do not know how to properly use the autoclave, ask your supervisor for instructions.

- Always be cautious when operating the autoclave. The high temperature, high pressure and hot steam can be hazardous. Always wear the appropriate Personal Protective Equipment (PPE), such as heat-resistant autoclave gloves, when handling this equip-



Be sure to use appropriate gloves for removing objects from the autoclave.

ment.

- After the biohazardous bag is decontaminated, place the cooled bag into a non-transparent black bag. Assure the bag is sealed before placing it into the dumpster.

This black bag should

never go into the recycle bin!

- Only autoclaves that have been tested by the ORCBS within the last year may be used for decontaminating biohazardous waste. If your autoclave needs recertification, please contact the Biosafety team at 432-5019.

Each department is responsible for training autoclave users on general equipment use.

Personnel Protective Equipment in Public Areas



The ORCBS would like to remind all lab personnel that gloves, lab coats and other personal protective equipment should not be worn in public areas of the building (i.e., hallways, elevators, stairwells, etc.). If you are transporting potentially infectious materials please use the one glove technique and remember to touch all common surfaces (e.g., door knobs, elevator buttons, etc.) with a clean ungloved hand. Other people walking through the building do

not know if your gloves and lab coats are clean. Therefore, entering public areas and touching common surfaces while wearing these items not only can create a hazard if they are contaminated, but also creates a public perception issue. If your lab or department would like signage to assist in this issue please contact the Biosafety Team and we can provide this for you.



Wherever there is trouble, we'll be there.

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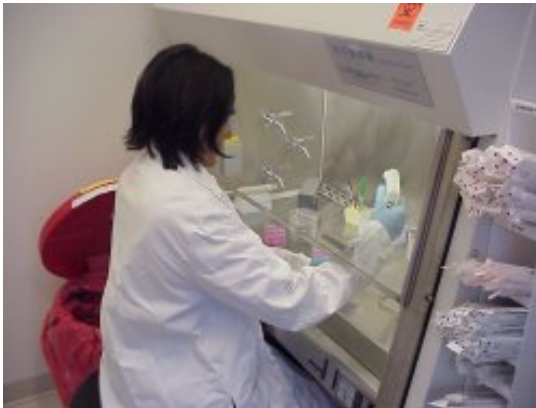
WWW. ORCBS. MSU. EDU

Services offered by the ORCBS Biosafety Team:

- Biological and bloodborne pathogen laboratory inspections
- New faculty laboratory consultation
- Autoclave inspections
- Coordination of biosafety cabinet certifications
- Various training classes offered online and in person. See [website](#) for details
- Evaluate mold and water infiltration safety issues
- Assistance with shipping specimens and samples
- Consultative services for biosafety issues, including human, animal and plant related issues



Maintaining Your Biological Safety Cabinet: Could Your Work Be Contaminated?



The certification of biological safety cabinets (BSC) and laminar flow hoods (or clean bench) plays a critical role in their performance. Certification should be performed at least annually

and whenever a cabinet is moved or serviced. Certification includes a variety of leak and air-flow-related tests, and is the best means to identify potential problems that could cause contamination of your work. Early detection of mechanical problems can increase the life of the cabinet and save money in repairs in the long term.

Proper maintenance, including annual certification, is **required** if the BSC is used for work with:

- Agents infectious to humans;
- Human derived materials (blood, cell lines, etc.);
- Recombinant DNA.

The ORCBS manages a contract with Salus, Inc. for the certification of biosafety cabinets and laminar flow hoods on campus. If you need to get your cabinet certified please contact Patti Pawski at 432-8044.

