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# BioSide Lines

FOSTERING SAFE WORK & LABORATORY PRACTICES THROUGH TRAINING & EDUCATION

## Bloodborne Pathogen Policy Update

The campus Bloodborne Pathogen Program, administered by the Occupational Health Program (OHP) has recently been updated and automated.

Policy, procedure and resource information was updated over the past several months to improve program compliance, quality and access. All Program materials have been updated with "ease of use" in mind and will now be available electronically as an "e-manual". Gone are the days of old when a large three-ring binder was sent to labs working with potentially infectious human material. Instead, in keeping with the march of progress in technology, the "binder" is now available online.

The process for registering your lab as a user of human source materials has also changed. In the past a lab could register and receive a policy manual or "binder" and "binder num-

ber" through a simple request to the OHP. The new process is similar and retains this simple request process, but improves the accuracy of information with the addition of an electronic registration form. Once a lab contacts OHP to notify them of their work with human materials, an OHP staff member will email a registration form in response with appropriate instruction for completion. Once the form is completed by the lab and submitted, a plan or "policy" number will be assigned and returned along with access information for the online manual. The online Bloodborne Pathogens Program manual along with your completed registration form will serve as your lab's Exposure Control Plan.

In addition, a new Learn@UW training course entitled *Biosafety 102: Bloodborne Pathogens in the Laboratory*, has been developed specifically for laboratories working with

human source materials. This training, relates the OSHA Bloodborne Pathogen Standard to biological research settings for those working with human blood, cells, tissue, and other potentially infectious human material. The training includes a short quiz which is used as a record of verification or training completion. Utilizing Learn@UW for delivery of this training will improve access, availability and recordkeeping requirements. For more information about the updated program and the new training, contact OHP at [occupationalhealth@fpm.wisc.edu](mailto:occupationalhealth@fpm.wisc.edu) or 265-5000.



## BIO-NEWS

### BIOLOGICAL SAFETY STAFF UPDATE

The OBS bids goodbye to Biosafety Trainer Jeff Nytes. Jeff became a member of the Biosafety team in 2009 after several years as a trainer for the Occupational Health program here at EH&S. His expertise in adult education and training techniques have been integral to our office's ability to adequately serve the UW research community with a top quality biosafety program. Jeff will be greatly missed. We wish him the best of luck and offer our thanks for his hard work.

# Biosafety Practices:

## *Safe and Effective Use of Disinfectants*

Most of us know that disinfection methods and materials vary depending on the characteristics of the target microorganisms. We take into account these characters and consider what disinfectant properties are needed to render that organism inactive. It is equally important to take into account other aspects of your laboratory and area to be disinfected.

The label on a commercial disinfectant product will note its type of '-cidal' action (*sterilant* or *tuberculocidal*). Manufacturers must submit data to the EPA to support disinfectant claims. However, keep in mind the manufacturer may perform testing in best-case situations rather than real-life cleansing situations (e.g., on a smooth surface, at optimal pH, in a buffer solution instead of a solution containing organic material which partially inactivates some disinfectants).

It is sensible practice for investigators to devise their own method of efficacy testing to confirm a disinfectant product's effectiveness in their actual laboratory. Alternately, relevant efficacy data may be available online.

Select the disinfectant most effective against the agent you are working with but which also has the lowest toxicity possible. Be aware of the varying resistance of mi-

croorganisms to commonly used disinfectants and adjust your laboratory procedures as needed.

We also must consider the nature of surface to be cleaned - rough surfaces require a longer contact time with the disinfectant than smooth surfaces. To sustain adequate contact time, the disinfectant should remain on the surface and not evaporate or dissipate.

The disinfectant should be compatible with the surface material. Corrosion or damage to your laboratory surfaces should not be the price you pay to kill infectious agents.

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Take measures to reduce corrosion, such as a water rinse after bleach solution application to a metal surface. Gentler cleansers may be adequate for disinfection of certain lab instruments which may not withstand harsh disinfectants; exterior wipe-down may be acceptable, but sensitive components may become

damaged by the disinfection contact, action or even fumes.

The removal of visible 'soil' is a critical factor in assuring effective decontamination. Organic matter inactivates some disinfectants during use; a second application may be necessary once visible contamination (and hence, most organic debris) has been removed.

Household bleach, usually at a 1/10 dilution, will lose potency over time and should be prepared fresh daily. Having a procedure in place to replace the solution will help avoid anyone trying to disinfect with a depleted bleach mixture.

And finally, when using any disinfectant, follow the label instructions for dilution and contact time needed for desired level of disinfection. Disinfectants that require pre-use dilution should be treated as hazardous chemicals during storage and solution preparation. As with any hazardous chemical, be sure to protect yourself using appropriate personal protective equipment (PPE); wear a lab coat, the correct type of chemical-resistant glove, and goggles or other facial splash barrier and use a fume hood if needed.

You can find lists of EPA registered disinfectants online at <http://www.epa.gov/oppad001/chemregindex.htm>

# LABORATORY SAFETY:

## *Reporting a Biological Exposure or Release Event*

The UW-Madison Institutional Biosafety Committee (IBC) requires that Principal Investigators report all potential exposures to or releases of **organisms** or **biological toxins** within 24 hours of the event (IBC-Policy-005). Any potential exposure to, or release of recombinant DNA materials and/or biohazardous materials shall be reported using the UW-Madison, OBS - First Report of Exposure or Release form within 24 hours of the incident (available on the OBS website, [www.biosafety.wisc.edu](http://www.biosafety.wisc.edu)).

Potential exposures and releases include but are not limited to: needle sticks, animal bites, aerosol exposures, exposures to pathogenic and recombinant non-pathogenic organisms, other incidents potentially resulting in disease, as well as spills outside primary containment and potential releases to the environment. Unauthorized releases of transgenic animals or plants should also be reported on this form.

Anyone can submit the form, although it is preferred that a PI, lab manager or other senior lab member report the incident. When submitted, this report form provides the Office of Biological Safety and the Occupational Health Program with information to ensure proper actions have been

taken, including appropriate medical care, as applicable.

The Biological Safety Officer or designee will determine whether the incident should be reported to any agencies outside the UW-Madison and in what timeframe. Any incidents that are reported to the NIH Office of Biotechnology Activities (NIH/OBA) will also be reported to the IBC at the next convened meeting.

It is not the intent to make the lab &/or PI look bad and reporting of an incident will not be held against a PI. It is, however, intended to make sure that individuals involved are properly trained and receive the required medical treatment, if necessary, at the time of the potential exposures or release.

UW-Madison, State, and Federal authorities recognize that we do a lot of research and that accidents will happen. We simply want to keep our most valuable commodity (our personnel) safe and in good health!



## OBS UPDATE: *New EH&S Director*

EH&S welcomes new director Paul Umbeck!

Paul's extensive leadership and technical experience will serve us well as we continue to strengthen services to support the academic, research and outreach missions of UW-Madison.

As the interim co-director of the Environmental Health and Safety Office, University of Illinois-Chicago, Paul was responsible for oversight of radiation safety, biological safety, food safety and the Select Agent program. Prior to working at UIC, he served as site director and senior scientist for the Agracetus Campus for the Monsanto



Corporation in Middleton, Wisconsin.

Paul has also served as an independent consultant working on compliance issues related to biosafety and biosecurity. Paul obtained his B.S. and M.S. from Northern Illinois University, and his Ph.D. from the University of Minnesota. Paul joined us on August 1, 2011.



# Policy Update

## *Biohazard Bags at UW-Madison*

### **Which Color Bag is OK?**

Due to a recent change in the interpretation of landfill regulations, Waste Management, Inc., the

UW's contractor that picks up University trash, is no longer able to pick up **RED** biohazard bags to take to the landfill.

Waste Management, Inc. now considers all **RED** waste containers, including red medical sharps containers, to be Medical Waste that may still be a bio-hazard (even if the container has already been autoclaved).

As a result, laboratories in most UW-buildings that generate biohazardous or potentially biohazardous waste in biohazard bags must use **ORANGE** or **CLEAR** biohazard bags, but not red biohazard bags. These bags should be autoclaved then labeled with an "OK to Trash" sticker prior to disposal in the trash.

There are a few exceptions to this policy. Certain facilities, such as the Clinical Sciences Center, send all potentially biohazardous waste, including biohazard bags, to Madison Environmental Resourcing, Inc. (MERI) for processing as medical waste. Thus, it is acceptable for (non-sharp) biohazardous materials in these facilities to be placed into red biohazard bags because they will not ultimately end up in a landfill.

If you are unsure whether biohazardous waste in your building is picked up by MERI (for disposal as medical waste) or is picked up by Waste Management after autoclaving (for disposal in the landfill as trash), please check with your building manager.

We greatly appreciate your patience and cooperation with this change. Contact the UW-Madison Office of Biological Safety (OBS) at [biosafety@fpm.wisc.edu](mailto:biosafety@fpm.wisc.edu) or 3-2037 with any questions.

### ***Follow us on Facebook and Twitter!***

Beginning September 12, 2011 the Office of Biological Safety will launch into the world of social media. Get the latest biosafety tidbits, news, updates and fun facts by following us at:



**Biosafety UW Madison**



**UWBioBob**



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