

Office of Environmental Health and Safety Chemical and Biological Safety Section

Laboratory and Research Support Programs Information Paper

The Office of Environmental Health and Safety (OEHS), located in Sanger Basement Level 2, is the university's sponsor for many programs which directly support the research effort at Virginia Commonwealth University. The OEHS web site (<http://www.vcu.edu/oehs/>) contains current information regarding our programs, forms, and institutional requirements. Functionally, OEHS consists of three sections: Chemical and Biological Safety Section (CBSS), Radiation Safety Section, and Fire and Occupational Safety. The CBSS also contains the university Biological Safety Office. While each section manages an extensive and comprehensive array of programs, this information paper addresses specifically the CBSS and Biological Safety Office role in supporting university research programs (<http://www.vcu.edu/oehs/chemical/>) and is intended to familiarize you with our programs.

The CBSS/Biological Safety consists of twelve professionals including industrial hygienists, biosafety professionals, laboratory safety professionals, hazardous waste management professionals, and lead and asbestos management professionals. As our name and professional composition implies, we manage those aspects of university research which are essential for continued compliance with requirements from governmental regulators, grantors, and credentialing agencies. We make every effort to work seamlessly with the research community to get our jobs done while distracting from your job to the least extent possible.

Perhaps our biggest challenge in pursuing our mission is keeping track of researchers and building/laboratory assignments. This is a highly dynamic situation subject to weekly change. For this reason, we request that all incoming researchers complete and forward to CBSS a Notice of Laboratory Occupancy (<http://www.vcu.edu/oehs/oehsforms.html>) so that we can add you to our database and ensure we provide you the services you need. Additionally, we have two other forms which you may need to use from time to time: Laboratory Relocation and Laboratory Closeout. As the names imply, these forms should be used to inform CBSS when you change locations within the university or close out your lab and cease operations. In the event of a laboratory closure, we request three months advance notice of the actual closure so we can assist you in disposing of hazardous materials, etc.

Specific programs are detailed briefly below:

A. Annual Biosafety Questionnaire. Annually in January, we request each researcher complete and forward to CBSS/Biological Safety Office an Annual Biosafety Questionnaire on which you declare the biosafety level for your laboratory. This lets us know what degree of safety is required in your laboratory and how we should approach your requirements.

B. Select Agent Declaration. Select agents are those biological agents and/or toxins that pose a potential threat to public health and safety and for this reason are regulated by federal law and university policy. If you contemplate using select agents, you must register with the Biosafety Officer prior to receiving or bringing select agents into the university. Failure to do so can lead to federal prosecution. Additional information on select agents can be found on the CBSS website: <http://www.vcu.edu/oehs/chemical/biosafe/sainfo110408.pdf>

C. VCU Personal Protective Equipment Assessment Form. The federal Occupational Health and Safety Act requires that employers assess jobs their employees are expected to complete and require personal protective equipment where unabated hazards exist. The university has developed a form for your use in completing this requirement (<http://www.vcu.edu/oehs/oehsforms.html>). You should complete a form for each person whom you supervise and maintain it in your laboratory. The "VCU Personal Protective Equipment Assessment" forms should be reviewed annually or as required and re-signed.

D. Workers' Right to Know. Workers' Right to Know (WRTK) forms should be completed for each person you supervise. The university has developed a form for your use in completing this requirement (<http://www.vcu.edu/oehs/oehsforms.html>). Please note, there is a separate form for the university and medical

center. The original WRTK form should be maintained in your laboratory with a copy sent to OEHS, PO Box 980112 for inclusion into the university's data base.

E. Environmental Permitting. Installation of certain equipment, notably ethylene oxide sterilizers, requires state air pollution permits. If you are contemplating installing such equipment or perhaps other devices which might be regulated, beginning the permit request process early can avoid delays in your research. Please contact the CBSS office for assistance with this process.

F. Hazardous Waste Disposal. Management of hazardous wastes is regulated by federal law which contains specific requirements for documentation, transportation, storage, disposal, and documentation. It is a violation of federal law to manage hazardous wastes in a manner inconsistent with the VCU hazardous waste disposal program. CBSS accepts chemical waste by appointment on Tuesday and Thursday mornings. A chemical waste appointment can be scheduled by calling 828-1392. The VCU hazardous waste disposal program is described in detail at the CBSS web site (<http://www.vcu.edu/oehs/chemical/chemwastemanagement.pdf>). We recommend researchers review this site to become familiar with university waste disposal policies. In particular, there are disposal costs which must be borne by the researcher and foreknowledge of these may reduce your operating costs. The university, as well as your laboratory, is subject to regulatory inspection by the Virginia Department of Environmental Quality. For this reason, we conduct annual assessments of your laboratory hazardous waste management practices. During these inspections we will inspect the laboratory's Satellite Accumulation Area (SAA) to ensure it is properly established and maintained. A SAA checklist can be found on the CBSS web site at: <http://www.vcu.edu/oehs/chemical/saachecklist.pdf>.

G. Laboratory Safety Program. University policy requires each researcher to develop a laboratory safety program specific to their laboratory. This includes establishing and maintaining a laboratory Chemical Hygiene Plan (CHP), chemical inventory, Material Safety Data Sheets (MSDS) for hazardous chemicals, and proper labeling and/or hazard warnings. In addition, if biohazards are present in the laboratory, a Biosafety Manual and/or Exposure Control Plan will need to be established and maintained. The contents and components of this program, including a generic CHP, can be found on our web site (<http://www.vcu.edu/oehs/chemical/labsafe.html>). Please keep in mind that the CHP available through OEHS is merely a template and needs to be filled out and customized to reflect the laboratory's characteristics and procedures. The laboratory safety program should be reviewed and updated at least annually.

H. Annual Laboratory Safety Evaluation. University policy requires that each laboratory be evaluated annually. During the inspection, the laboratory safety program (including the CHP, chemical inventory, MSDS, employee training records, and Biosafety Manual/Exposure Control Plan, if applicable) will be reviewed and evaluated. Other items that will be evaluated include the proper use of personal protective equipment, proper chemical segregation and storage, and physical hazards, among others. A complete laboratory inspection checklist can be found on the CBSS web site (<http://www.vcu.edu/oehs/chemical/labsafe.html>). Following an inspection, you or your laboratory manager will be briefed on the findings of the evaluation. Subsequently, you will receive a memorandum from CBSS requesting that you formally reply with your actions to address findings and shortcomings. We will work closely with you to fully resolve findings. In addition to laboratory safety evaluations, we also conduct fume hood and hazardous waste collection (SAA) assessments, which are managed as above.

I. Laboratory Signage. In accordance with university policy, all laboratories must have signs indicating hazards within the laboratory. This can be accomplished by creating a sign (<http://www.vcu.edu/oehs/chemical/labsafe/labsafetysign.pdf>) which can be downloaded from the CBSS web site. The sign is in MS Word format so it can be edited directly when downloaded allowing you to post signage or modify signage quickly and easily. In addition, all biosafety level 1 and above designated laboratories must also display a biohazard sign at their laboratory entrance when biohazards are present in the laboratory (<http://www.vcu.edu/oehs/chemical/biosafe/Biosafetysigns.pdf>).

J. Emergency Notification. To facilitate after-hours contact and emergency response should a crisis develop in your laboratory, in addition to the contact information contained on the laboratory sign mentioned above, researchers and laboratory managers are required to include emergency contact information in the "Personal Information" section of the Human Resources Division Employee Self Service web site. Please ensure that this information remains up to date.

K. Laboratory Safety Training Modules. The university has adopted the policy that all laboratory workers must be trained. To assist researchers in meeting this requirement, CBSS has developed laboratory safety training modules which can be found on our web site (<http://www.vcu.edu/oehs/chemical/training/trainingmodules.pdf>). In addition to the task specific training provided by the PI, laboratory supervisor, and/or laboratory manager, each person working in a university research laboratory is required to complete the core training module and then additional modules as the supervisor directs. The supervisor is to grade the examination found at the conclusion of the module, discuss with the employee any missed or wrong answers, and maintain the completed and graded examination as evidence that the employee has completed the appropriate modules. Completed examinations are subject to inspection during our annual laboratory visit.

L. Biological Safety Cabinets (BSC). We do not certify BSC for the university; this is a researcher's responsibility. Since the university accepts National Institutes of Health rDNA grant funds, the university as a whole has accepted the requirement that BSCs utilized in rDNA research be certified annually. Please contact CBSS regarding contact information for certified biological safety cabinet inspectors in the commuting area.

M. Shipment of Dangerous Goods. If you or your staff ship dangerous goods as defined by the U.S. Department of Transportation, you must have received training within the last two years and hold a certificate of proficiency issued not more than two years ago. There are federal penalties for failure to comply with the dangerous goods shipping regulations. To help you stay legal, we offer training quarterly on the medical campus, as well as have the capability to train individuals through an interactive training module. Registration for the quarterly training is not required. The dangerous shipping program, along with training dates/times, is explained in detail on the CBSS web site (<http://www.vcu.edu/oehs/chemical/>).

N. Needle Recapping. Recapping of needles and other sharps is forbidden by university policy. Given that some procedures require the recapping of needles, we have developed a waiver form which will permit recapping when in the opinion of the Biosafety Officer such recapping is warranted. The waiver request can be found on our web site (<http://www.vcu.edu/oehs/chemical/>).

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