

LABORATORY & RADIATION SAFETY

Cornell University Department of Environmental Health & Safety

125 Humphreys Service Building, Ithaca, NY (Phone: 255-8200)

201 Palm Road, Ithaca, NY (Phone: 255-8200)

Web site <http://www.ehs.cornell.edu>

NEWS

Winter 2004

THE CONSULTANTS' COLUMN*

Lab or Haz Com?

You may have wondered why there are different training requirements for staff working in labs versus other spaces and what exactly defines a lab. The OSHA Hazard Communication Standard requires labeling, maintaining Material Safety Data Sheets, training, and maintaining a written hazard communication program for any workplace that uses hazardous chemicals. The OSHA "Laboratory Standard" has different requirements for areas that qualify as laboratories because laboratory and production environments differ considerably. So labs are treated under a special standard and all other workspaces are considered as "Haz-Com" areas.

First we must decide if an area is a laboratory or not. A laboratory is defined mainly by the type and scale of work that goes on in it. OSHA defines it as follows:

"Laboratory" means a facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

"Laboratory scale" means work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.

So even though we may call a place a lab because we do research there, it may be a "haz-com" space by OSHA definition and as a result we have to meet the requirements for a chemical inventory, proper labeling, Material Safety Data Sheets, and "HazCom" training.

Training – Training is required for employees in both laboratory and Hazard Communication spaces. The EH&S laboratory safety training meets both of these requirements and it is free of charge to the Cornell community. Training can be set up by calling EH&S at 255-8200. A schedule of training programs is available on our EH&S website at <http://www.ehs.cornell.edu>.

Haz Com Requirements for Labeling and MSDSs

Labeling – All containers must be marked with right-to-know information. The original label is acceptable but if the chemical is transferred to another, non-original container, it must have:

- Full name of chemical
- Hazard information, including health hazards, flammability, and reactivity

- Special hazards, such as if it is carcinogenic or water reactive
- Target organs affected by exposure
- Manufacturer information

Material Safety Data Sheets – MSDSs must be available to all employees and must be able to be produced quickly in the event of an emergency. MSDS storage may be electronic or hardcopy. An inventory of all hazardous chemicals should be kept as well.

Laboratory Requirements for Labeling and MSDSs

Labeling – Original containers are acceptable. Non-original containers such as wash bottles, beakers, and flasks must be marked to identify their contents. Some guidelines to follow:

- EH&S recommends labeling non-original containers with the full chemical name and associated hazards written out.
- Use of abbreviations such as structures, formulas, or acronyms is acceptable; however, if you use any abbreviations, EH&S recommends that a "key" to the abbreviations, including the name of the chemical and the hazards present, be hung up in a visible location, preferably near the chemicals, and the key must be readily available upon request by visitors, emergency responders, or regulatory agencies. Additionally, everyone in the laboratory must be trained on the labeling system.
- EH&S also strongly encourages laboratories to use the EH&S Right-to-Know labels found on our website for hazardous chemicals in non-original containers whenever possible. This is especially true for containers that are used for the same purpose repeatedly or are used slowly over time.

Material Safety Data Sheets – Employees must have access to MSDSs, either by electronic means or hard copy. Below are some good guidelines:

- Have the EH&S MSDS website bookmarked on a computer for quick access.
- Obtain hard copies of MSDSs for the most hazardous chemicals and chemicals you use frequently.
- Lab personnel should be able to obtain an MSDS quickly (within five minutes is our rule of thumb).

Electronic Access to Labels and MSDSs

Right-to-Know labels and MSDSs are available on our EH&S website, at <http://www.ehs.cornell.edu>. For labels, from our home page select "Chemical and Laboratory Safety", then "Right to Know Chemical

*** Please share with your graduate students ***

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Labels". For MSDSs, from our home page select "MSDS" from the column on the left.

*This is the second column in a new series written by the EH&S Laboratory Safety Consultants, Andy Schreckengost and Nathan Clark, and our new Associate Chemical Hygiene Officer Allan Dye.

***** Please share with your graduate students *****



RADIATION SAFETY TRAINING

Individuals must receive radiation safety training **prior** to starting work with radioactive materials. This training is required by law. The course is given in two separate presentations; both sessions must be attended. There is a short exam, which can be taken either at the end of the second day, or later at our office during normal business hours. *Prior registration for this course is necessary, as seating is assigned on a first come first served basis.* The next Radiation Safety training programs are scheduled for:

February 24 & 26 from 9:00 a.m. to 12 noon

March 22 & 24 from 1:00 to 4:00 p.m.

April 21 & 23 from 1:00 to 4:00 p.m.

To register please use the online form available on our EH&S Web site, or call the EH&S main desk, at 5-8200. For the online form go to <http://www.ehs.cornell.edu>, select "Training", then select the course under "Class Times & Registration". Please fill in all fields before you submit your registration.

ADVANCED RECORD KEEPER TRAINING

This special radiation safety training is held monthly, on the last Friday of every month. It is geared just for those who perform and record the monthly lab meter/wipe test surveys and for those who do monthly reports to reconcile the individual stock vial inventory sheets. The survey class, taught by Chris Bell, is from 1:00 to 2:00 p.m., and the inventory class, taught by Marlene Larson, is from 2:15 to 3:15 p.m. The next classes are scheduled for Friday, February 27 (register by February 20). **Use our website to register or call Agnes Morris at 5-5600.**

CHEMICAL SAFETY TRAINING

The next ***new employee*** laboratory worker OSHA Laboratory Standard training program, "Chemical Safety for Laboratory Workers", will be held in 118 Humphreys Service Building on **Wednesday, March 3, 9 – 11 a.m., followed by the EPA-Chemical Waste Disposal Program from 11:15 a.m. to 12:15 p.m.**

The March schedule for laboratory safety programs for **undergraduate students** who are working in laboratories will be announced shortly.

Using your Cornell NetID, you can register on-line at <http://www.ehs.cornell.edu>. Select Training, then **Register Now in SafetyBase**. You may also register by going to the EH&S home page, select Forms & Documents; then click on On-Line Class Registration. For help please contact Czora Pagsoligan by e-mail at cpp5@cornell.edu or by phone at 254-4693.

NEW ASSOCIATE CHEMICAL HYGIENE OFFICER

Environmental Health & Safety would like to announce that Allan Dye has accepted the position of Associate Chemical Hygiene Officer within the Laboratory Safety Group! EH&S would like to thank members of the EH&S Search Committee and stakeholder groups from the Colleges of Agricultural and Life Sciences, Arts & Sciences, Engineering, Human Ecology, and Veterinary Medicine for participating in the search process.

Allan received a BS in biology from Harding University and an MS in Occupational and Environmental Health from the University of Arkansas for Medical Sciences. Allan was previously employed with Corning Inc. as the safety technician for two trade shops before being hired at Cornell in April 2002 as a member of the newly formed laboratory consultation team under Mike Lonon. This position allowed him to increase his knowledge of laboratory safety and chemical waste management, with formal training as well as experience.

Allan's wife is a PhD student at Cornell University in Romance Studies.

Allan will be focusing on laboratory safety and compliance and is approaching his new job with enthusiasm! Allan can be reached by phone at 5-4288 and by email at bad25@cornell.edu.



Radiation Safety Eagle Awards



We are pleased to recognize the following laboratories for receiving radiation safety awards:

October

W.R. Butler, Animal Science, Morrison Hall

P. Johnson, Animal Science, Morrison Hall

M. Van Amburgh, Animal Science, Morrison Hall

R. Turgeon, Plant Biology, Plant Science Building

* **J. Russell**, Microbiology, Wing Hall

J. Shapleigh, Microbiology, Wing Hall

November

A. Bretscher, Molec. Biology & Genetics, Biotech. Bldg

* **W. Brown**, Molec. Biology & Genetics, Biotech. Bldg.

R. Chen, Molecular Biology & Genetics, Biotech Bldg.

L. Kraus, Molecular Biology & Genetics, Biotech Bldg.

J. Roberts, Molec. Biology & Genetics, Biotech. Bldg

J. Casey, Vet. Microbiology & Immunology, VMC

D. Russell, Vet. Microbiology & Immunology, VMC

December

G. Lust, Baker Institute for Animal Health

V. Meyers-Wallen, Baker Institute for Animal Health

J. Rose, Plant Biology, Emerson Hall

* **D. Bauman**, Animal Science, Morrison Hall

J. Nasrallah, Plant Biology, Plant Science Building

* Winner of Meal Deal from Pizza Hut

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