



Case Department of Occupational and Environmental Safety

*August/
September
2005*

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“Safety Comes First”

*Service Building, 1st Floor
Phone: (216) 368-2906/2907
FAX: (216) 368-2236*

Website: <http://does.case.edu>

Radiation-Generating Equipment: Label It!

Do you have any radiation-generating equipment (RGE) that is no longer in use? All RGE must be labeled properly; this includes all machines which are disabled or are in storage. In addition to being locked out (either at the main switch or at the plug), these machines must now be tagged with a notice indicating that the machine is no longer in use. You can make a notice yourself—there is no set wording requirement. However, the notice must make clear to all that the machine cannot be moved or used without clearance from Radiation Safety. Please call us for assistance with the lockout/tagout procedure so that we can bring you the proper materials.

Other warnings that must be posted in the area surrounding the RGE include the following:

- 1) ODH Notice to Employees
- 2) An updated copy of the RGE Manual
- 3) Warning signs and labels (available from DOES)
- 4) Machine-specific operating procedures
- 5) If the machine is not in use, a “Notice” indicating it as an “RGE not in use”

Specific compliance requirements for different types of RGE, in addition to these general requirements, are also required. Requirements for the five types of RGE—dental, dental CT, veterinary, fluoroscopic, and radiographic equipment (including electron microscopes)—are addressed in the RGE Manual. All RGE are inspected annually. Call us at the Radiation Safety Office (x2906) for initial training or if you have any other questions concerning RGE.

Fall Preparations—Is Your Lab Ready for the Fall Semester?

“To get ready for the new school year, the first thing to do is to make sure that your entire staff of personnel is properly trained. All new employees must be trained by D.O.E.S. If you are a new employee or find yourself in a new workplace environment, don't wait for someone to tell you to get trained—take responsibility and make sure you are properly trained to handle the possible safety hazards you might face.”

The summer is almost over and classes are ready to begin -- but how prepared are you? If you run a lab, then chances are you will have new students, new teaching assistants, and maybe even new full-time employees. Or maybe you are one of these new people! If so -- welcome to Case!

To get ready for the new school year, the first thing to do is to make sure that your entire staff of personnel is properly trained. All new employees must be trained by DOES. If you are a new employee or find yourself in a new workplace environment, don't wait for someone to tell you to get trained -- take responsibility and make sure you are properly trained to handle the possible safety hazards you might face. The Safety Office offers training sessions in Radiation, Chemical, Laser, and Bloodborne Pathogens (BP) Safety. Radiation and BP Training sessions are subdivided into "New" and "Retraining" sections, so sign-up for the appropriate session based on your training status (which can now be checked by entering your social security # as a code on the DOES homepage at <http://does.case.edu>).

DOES also provides X-ray Training for specialty radiation workers. Remember, if you are not trained in these areas and you are performing duties which involve these materials, you are out-of-compliance with both Federal and State requirements for safe work practices. Call us immediately to sign up for a training session to avoid this problem. Times are frequent and sessions are designed to provide you with practical means of applying safety techniques to better deal with hazardous materials and procedures. Check our training schedule on page 6 or visit our website for a complete schedule of session dates and times bottom of page two or call our Departmental Assistants.

Another way to prepare your lab for both workers and students is to stranger proof it. You probably spend most of your days there, so **you** know where and what everything is -- but don't assume that other people will also. Go through your lab and make sure everything is (properly) labeled and correctly shelved, sealed, and signed. When there are hazardous materials and items which might be misused, unidentified, or misshelved, this extra step of preparedness is a must. Also, familiarize your lab with our newsletter. If you keep the old copies in a file or binder (which is a good idea) leave some time for your staff to leaf through them, or, direct them to our website at <http://does.case.edu> where an archive exists of our past issues. Of particular interest might be our 1998 issue devoted to student lab workers or our February/March 2005 issue that addressed proper waste disposal in laboratory environments (continued on next page).

Fall Lab Preparation (Continued)

Along these lines, take some time in these beginning weeks to go over simple procedures for dealing with topics such as small spills, waste reduction, and fire safety. Consult the appropriate D.O.E.S. Safety Manual(s) for details. Finally, make sure your new employees (and you) know who we are -- when you spot a D.O.E.S. staff member making his or her way around your lab or building, meticulously working to help insure your personal safety, don't be afraid to stop them and introduce yourself. We are happy to meet you and answer any questions you might have. Have a safe Fall semester by training, practicing, and leading by example. Together, we can make Case a safe learning environment for all.

Lab Safety during Pregnancy

If you are pregnant, special precautions need to be taken while working in a laboratory. For example, certain chemicals used in the laboratory are known to have a harmful effect on the outcome of a pregnancy. These chemicals are often classified as “reproductive toxins”—quite simply, chemicals that can affect the reproductive system, including mutagens (which may cause chromosomal damage) and embryotoxins (which may harm the fertilized egg or fetus).

The following chemicals have been demonstrated to be embryotoxic in humans:

acrylic acid	diphenylamine	nitrobenzene
aniline	estradiol	nitrous oxide
benzene	formaldehyde	phenol
cadmium	formamide	thalidomide
carbon disulfide	hexachlorobenzene	toluene
N,N-dimethylacetamide	iodoacetic acid	vinyl chloride
dimethylformamide	lead compounds	xylene
dimethylsulfoxide	mercury compounds	polychlorinated and polybrominated
	methylene chloride	biphenyls

There are other chemicals which may be harmful as well. Laboratory workers who are contemplating pregnancy or are pregnant should review the toxicity of the chemicals in their laboratory and should consult DOES to determine whether any of the chemicals used in the laboratory pose additional risk during pregnancy.

Where is D.O.E.S.?

If you're new to Case (or simply haven't been to visit us yet), we are located in the Service Building on the 1st floor just off Circle Drive between the Health Sciences Library to the east and the Powerhouse Building to the west. For clarity, call x2906/2907 or check our website (<http://does.case.edu>.) for an interactive map before your visit.

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Chemical Spill Response

A sudden movement. A slip of the hand. A beaker crashes to the floor, breaking and spilling its contents everywhere. You stare blankly. What do you do? How do you respond? Below are some general spill response procedures as well as guidelines for cleaning up a few specific chemicals.

General Chemical Spill Response

If an accidental release involving a hazardous chemical occurs, **the area must be evacuated**. Do not re-enter the area until the hazard is assessed, and DOES has confirmed it is safe to do so. **The importance of getting everyone out of the lab cannot be overemphasized**. The only justification for re-entering would be to save a life or to prevent a fire or explosion. **DOES must be informed immediately of all spills—call x2907 if a spill occurs. After 5 pm, call Security at x3333.**

Spill Kits

Every laboratory should have their own spill kit, suitable for cleaning up typical laboratory spills, and its location should be known to everyone in the lab. You can either buy one or create your own. A spill kit should contain the following items:

- spill pillows
- a silicon-based absorbent such as Oil-Dry, kitty litter, or vermiculite
- dust-pan
- broom or brush
- plastic bags
- waste labels
- rubber gloves
- rubber boots or foot protectors
- chemical splash goggles

***REMEMBER: Used spill kits and materials should be treated/disposed of as hazardous waste.**

Specific Chemical Spill Response

Acids. Use an absorbent material to neutralize the acid. Commercially marketed acid neutralizers or sodium bicarbonate powders both work well. Sand can be used, but it is not as effective. After the acid has been neutralized, scoop everything into a plastic bag and prepare it for disposal.

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Chemical Spill Response (Continued from Page 4)

Specific Chemical Spill Response (continued)

Flammable Solvents. First, turn off all spark-producing equipment. Then, using an absorbent from the spill kit listed on page 4, begin pouring around the perimeter of the spill area and proceed toward the center. Again, sand is fairly ineffective. Scoop up the absorbent and place it in a plastic bag for disposal.

Bromine. Use a sodium thiosulfate solution (5-10%) to react with the bromine. DO NOT use ammonium hydroxide, as an explosion can result from mixing any halogen with ammonia. A respirator must be worn during clean-up.

Acid chloride. Use calcined absorbent products such as Oil-Dry, Zorb-All, or dry sand.

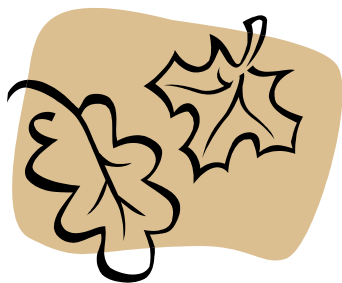
Alkali Metal. Smother the spilled metal using Met-L-X Yellow Extinguisher and remove it to a safe location where it can be disposed of by reaction with a dry secondary alcohol. Quickly remove any metal particles splattered on the skin and then flush with water.

Hydrazines. Flush the contaminated area with water. Do not use anything contaminated with organic materials as an absorbent. After flushing with water, call DOES to assist with the clean-up.

These are only basic guidelines. If you have any doubt about how to handle a spill, call DOES (x2907) before doing anything and have as much information as possible concerning the nature and potential hazard of the spill. For more information, see the Laboratory Safety Manual.

***REMEMBER: ALL spills must be reported to DOES immediately. After normal working hours, Security (x3333) must be notified and a representative from DOES will follow up with you.**

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**Fall Semester
Begins
August 29**



*Upcoming Training Sessions**

***As always, consult our website (<http://does.case.edu>) for a full schedule of training sessions**

New Radiation Safety Training

DOES conference room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED* ! - Please call 368-2906

Thurs. August 25, 2005, 9:00 a.m.

Thurs. September 15, 2005, 2:00 p.m.

Wed. September 21, 2005, 2:00 p.m.

Thurs. September 29, 2005, 9:00 a.m.

Wed. October 12, 2005, 2:00 p.m.

Thurs. October 27, 2005, 9:00 a.m.

Wed. November 9, 2005, 9:00 a.m.

Wed. December 7, 2005, 9:00 a.m.

X-Ray Safety Training

DOES conference room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED* ! - Please call 368-4601

or email jxb153@case.edu

Laser Safety Training

DOES conference room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED* ! - Please call 368-4600

or email hwj@case.edu

Classes will be held on the first Thursday of each month at 1:00 PM in the DOES Conference Room, Services Building.

Sept. 1, 2005, Thursday, 1:00 p.m.

Oct. 6, 2005, Thursday, 1:00 p.m.

Nov. 3, 2005, Thursday, 1:00 p.m.

Dec. 1, 2005, Thursday, 1:00 p.m.

New Bloodborne Pathogen Training

DOES conference room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED* ! - Please call 368-2907

Held every Tuesday afternoon from 3:00 to 4:30 p.m.

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Radiation Shielding Available Free of Charge

With recent decommissionings of Radiation PIs at Case, the Radiation Safety Office at DOES has an abundant inventory of available shielding, free of charge, to any radiation laboratory needing it. The inventory includes plexiglass dry waste containers in a variety of sizes, lead waste containers, liquid waste containers, stand-up plexiglass shielding, as well as a variety of other plexiglass pieces. If your radiation laboratory is in need of shielding, please contact Joanna Bielawski at 368-4601 or jxb153@case.edu to schedule a time to view the inventory.

DOES Staff News

Please join us in congratulating DOES staff members Bob Latsch (Safety Services Specialist I) in achieving his certification as a Certified Hazardous Materials Manager (CHMM) and Joanna Bielawski (Radiation Safety Specialist I) for obtaining a Lead Risk Assessor License from the Ohio Department of Health.

Also, please join us in welcoming Tom Merk as our new “afternoon” Safety Specialist I and wishing Stephanie Kutsko (Safety Services Specialist I) well as she leaves DOES for a new position with the Cleveland Metroparks.



New Bloodborne Pathogen Training (continued)

Additional training classes schedule:

November 10, 2005, Thursday, 9:00 a.m.

OSHA Laboratory Safety and Regulated Chemical Training

DOES conference room—Service Building 1st Floor
PREREGISTRATION IS *REQUIRED* ! - Please call
368-2907

Held every Tuesday afternoon from 1:00 to 3:00 pm

Additional training class schedule:

October 13, 2005, Thursday, 9:00 a.m.

Hazard Communication Training (Right-to-Know)

Crawford, Room 209

Held every Tuesday afternoon from 1:00 to 2:30 p.m.

Additional training classes schedule (Note: additional
classes will be held in the DOES conference room lo-
cated in the Safety Service Building):

September 8, 2005, Thursday, 9:00 a.m.

December 8, 2005, Thursday, 9:00 a.m.

Radiation Safety Retraining

PREREGISTRATION IS *REQUIRED* ! - Please call
368-2906

DOES conference room—Service Building 1st Floor

You can also retrain on the Internet @:

<[http://www.cwru.edu/finadmin/does/web/Training/Tra
inonline.htm](http://www.cwru.edu/finadmin/does/web/Training/Tra
inonline.htm)>

DOES STAFF

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