



Case Department of Occupational and Environmental Safety

March/April
2008

“SAFETY COMES FIRST”

Service Building, 1st Floor
 Phone: (216) 368-2906/2907
 FAX: (216) 368-2236
 Website: <http://does.case.edu>

In this issue:

PLEASE READ ME! A Reminder on Radioactive Material Ordering (con. from front page)	2
Research Laboratory Decommissioning Procedure Checklist	2
Laboratory Safety—Electrical Equipment Safety Reminders	3
Reviewing Your Basic Evacuation Plan	4
Footwear in the Labs—True Stories	5
Research Laboratory Decommissioning Procedure Checklist (con. from page 2)	7-8
Upcoming Training Sessions	8-10

PLEASE READ ME! A Reminder on Radioactive Material Ordering

In last month’s DOES newsletter, we noted that the RSOF has established the following procedures when ordering radioactive material. As a reminder, we are running the article again in this month’s issue

For liability reasons, the RSOF requires that the old CASE requisition with the signature of the AU or the AU’s approved designee be faxed to the RSOF (fax 368-2236) and must have the PeopleSoft requisition number referenced in the body of the requisition. Only the AU’s or formally approved designee’s signature will be accepted. Also, you must print the name below the signature. This information can be written on the main body of the requisition. The RSOF maintains a list of individuals authorized to sign isotope orders. If you want to add or delete anyone’s name, fax an updated personnel form to the RSOF.

As of July 1, 2004, in addition to the paper requisition, the orders (including all replacement orders and no-charge samples) must now be submitted through the PeopleSoft system. The following items must appear on the PeopleSoft requisition:

- The vendor’s name and address under “Suggested Vendor.” (Be sure to choose the “radioactive category” and not glassware or chemicals)
- The number of stock vials to order should be placed under “Quantity.”
- The activity to order should be placed under the “Unit.” Activity should be expressed in units of millicuries (mCi) or microcuries (µCi), not Becquerels (Bq).
- The catalog number should be under the “Catalog Number.”
- The isotope and chemical form should be written under “Description.”

Once all of the above steps are following correctly, the requisition will
 (continued on page 2)

PLEASE READ ME! A Reminder on Radioactive Material Ordering

(continued from front page)

automatically appear in the RSOF approval **Worklist** via the computer for final approval. There is a 2:00 p.m. cut-off time in the RSOF for processing radioactive material requisitions due the following business day. Requisitions received after 2:00 p.m. are not guaranteed for next day delivery.

IMPORTANT: *Radioactive materials cannot be purchased with a University P-Card.*

NOTE: Purchase requisitions for radioactive material to be ordered or delivered to MetroHealth Medical Center or the VA Medical Center do not require the approval of the CASE RSOF. Contact the RSOF at those locations for instruction.

(This article originally ran in the January/February 2008 Newsletter)

Research Laboratory Decommissioning Procedure Checklist

PLEASE NOTE: All intended laboratory decommissioning operations must be approved by the Department of Occupational and Environmental Safety *prior* to any other action intended to support decommissioning procedures. Please review all requirements and supporting documents prior to relocation or decommissioning of lab facilities.

Waste

All *chemical* waste needs to be removed from the laboratory prior to movers entering the laboratory.

- The Disposal Listing for Hazardous Waste and Unwanted Chemicals form must be submitted to Safety Services no later than Wednesday at 1:00 PM to have waste picked up before the end of the week.
- All waste containers must be labeled with constituent components using DOES approved labels.

All *biological* waste needs to be removed from the laboratory prior to movers entering the laboratory.

- Dispose of all pathological (carcasses, organ, body parts, tissues) waste and microbial (infectious) waste before departing the University; all infectious waste must be autoclaved.

All *radiological* waste needs to be disposed of prior to movers entering the laboratory. Arrange for pickup AFTER all wipes and surveys have been conducted AND verified by the RSO. Please review the explanation of "Free of biological, chemical and radiological hazards," listed below:

- Isotopes must be listed on the Waste Disposal Form which is available from Radiation Safety.

Relocation of Chemicals, Biological, and Radiological Inventory

All chemicals and biological inventory must be moved by DOES approved professional chemical/biological movers, unless otherwise noted.

(continued on page 7)

Laboratory Safety--Electrical Equipment Safety Reminders

In our daily routines, we sometimes take our electrical equipment and the danger that electricity presents for granted. However, out of sight is not out of mind when it comes to the danger that seemingly “innocuous” electrical equipment can present if we take a lax approach to safety in the laboratory. In order to minimize the possibility of an incident with electrical equipment, please note the following precautions:

- a. All electrical connections should be grounded.
- b. Service cords for electrical equipment should be in good condition. Qualified personnel should repair frayed cords or exposed wires.
- c. Avoid overloading circuits. Do not use multiple outlet plugs for additional connections.
- d. Do not handle any electrical connections with wet hands or when standing in or near water.
- e. Do not use electric equipment, such as mixers or hot plates, around flammable chemicals.
- f. Do not try to repair equipment yourself unless you are qualified and fully understand the repairs required. Qualified personnel should do all repairs.
- g. NEVER try to bypass any safety device on a piece of electric equipment.
- h. In case of a fire on or near any electrical equipment, turn the equipment off if it can be done safely.

Accident prevention must be included in the performance of every task. It cannot be considered a separate entity but is an integral part of everyone’s work. Safety is made possible by careful planning of all work based on an understanding of the hazards involved and a knowledge of the work area and safe working procedures. Accident prevention pays in the injuries it prevents, the research time it saves, and the healthy attitude it creates. Please keep these considerations in mind as they pertain to electrical equipment in the laboratory. If you have any questions regarding the safe use of electrical equipment in the lab, consult the DOES Laboratory Safety Manual online at <http://case.edu/finadmin/does/web/Forms/PDFdocs/ChemMan.PDF> or call DOES directly at ext. 2907 for clarification.

DOES Welcomes A New Face in 2008

Please join us in welcoming Sylvia Kertesy to DOES. A research assistant at CWRU since 1985, Sylvia has a BS from John Carroll University and joins DOES as a Radiation Safety Specialist I. Sylvia is also a professional photographer who specializes in technical photography, weddings, and portraits. She attended Winona International School of Professional Photography. She has also served as president of the Young Directors of the Center for Families and Children for 2 years and has volunteered with the American Hungarian Friends of Scouting. She presently lives in Lakewood with husband Bob Payne of Victory Capital Management and their daughter Emilia. Please give her a warm welcome when you see her!

Reviewing Your Basic Evacuation Plan

It is always a good time to review your evacuation plan and route. Having the ability to review the plan in a practice situation increases the likelihood of a planned and organized response in the event of an actual emergency. A basic evacuation plan is always available in the DOES Physical Safety Manual which can be reviewed online at <<http://case.edu/finadmin/does/web/Forms/PDFdocs/PhysSafety.pdf>>. Here are a few important reminders to consider in the event of a fire or other emergency:

Before a Fire or Other Emergency:

1. Know where the fire alarm pull stations are in your area and how to use them.
2. Know how to get help. Call Protective Services at x3333. Give them the location of and a full description of the incident.
3. Know where the exits from your area are and where the stairway entrances are located.
4. Know the locations of fire extinguishers in your area.
5. If you will need any special assistance during an evacuation, notify and discuss it with your Evacuation Coordinator and supervisor. Also, contact Protective Services and advise them of the situation.
6. Teaching faculty should advise their students how to respond to alarms and route for evacuation from the classroom. They should also participate in planning required to provide assistance to any student who may have difficulty during an evacuation. This should be done within the first two weeks of class.

When a Fire is Discovered:

1. Warn/remove any person in immediate danger.
2. Activate the fire alarm system. Pull stations are usually located near the exits.
3. Summon assistance by contacting Protective Services. Give a complete description of the fire and the location. This response serves as a back-up to the alarm system.
4. Close all doors and windows in the vicinity of a fire.
5. If you are trained and qualified and if the fire is small, use a proper type of fire extinguisher to control the fire. Do this only after the alarm has been activated, evacuation has started and Protective Services has been notified.
6. Go to the nearest exit and leave the building. Use the stairways; **DO NOT USE THE ELEVATORS.**

When the Fire Alarm Activates with No Evidence of Fire or Other Emergency Condition in Your Area:

1. Close windows and doors as necessary.
2. Proceed to the nearest exit stairway and leave the building. Use stairways, **DO NOT USE ELEVATORS.**
3. Do **NOT** re-enter the building until the Emergency Response Person (Fire Department/Protective Services Official) in charge clears the emergency.

Evacuation Exiting General Procedures:

1. Use stairways; **DO NOT USE ELEVATORS.**
2. Leave the building using the nearest exit. Do not re-enter the building until the emergency is cleared.

(con. on page 6)

Footwear in the Labs—True Stories

I worked in an academic research lab. Aside from my lab work, I was also responsible for ordering supplies. On one of my ordering days, I was wearing long pants with sandals. I figured it'd be ok since I wasn't performing any lab work that day. I opened one of our 20 fridges to check supplies and a plastic conical tube fell from the door shelving, onto the floor and shattered - splashing my bare foot with some of the contents. At first I was thinking, "I know better than to wear sandals in the lab! I need to clean this up." Then my next thought was... "what's in this solution?" because I was in the early stages of pregnancy. Fortunately, it wasn't anything bad and my child was unaffected as a result of my lax attitude.

Moral of the story: It doesn't matter if you're doing the research or not...you can still be involved in a lab accident/exposure.

In another recent incident, a student dropped a 2 liter aspirator flask of tissue culture media on her sandaled foot, requiring a trip to the ER and many stitches.

A biology graduate student decided that he would make up several solutions of nitric acid/alcohol in plastic bottles to use as a cleaning solution, particularly for glassware. He was wearing shorts and sandals, but had put on a lab coat that went down to about mid-calf level. The build-up of pressure in one of the bottles caused a rupture getting the solution over his back when he was turned around. Unfortunately, his lower legs, feet, and neck, were severely burned as he was working alone after normal working hours.

In my previous life as a lab rat in a lab, a girl in a lab booted a piece of glassware accidentally wearing sandals and had about a 6 inch laceration requiring stitches on her foot.

We got a call from our HazMat team of a small (four liter) Conc. H_2SO_4 spill in one of our labs. When I got there and entered the lab, one of the first things I see is a pair of shoes submerged in a bucket of water. Turns out a grad student had not so much spilled as dropped a four liter bottle of Conc. H_2SO_4 right at his feet. Fortunately, the bottle really only contained one liter of acid; unfortunately it soaked his brand new and expensive Nikes, which were what I saw soaking in the bucket. Had he been wearing sandals, it would have been his feet drenched in concentrated sulphuric acid (and, presumably, soaking in the bucket). And had it been full and landed on his toes, he'd have probably been on his way to the hospital to have his broken toe(s) set.

This is a picture of a worker who was reportedly wearing flip flops in a lab when an acid spill occurred.



Moral of the story: ALWAYS wear appropriate footwear in the labs.

Spring Cleaning for Safety's Sake

The end of the school year is a good time to put your laboratory in order, especially since the students have left and the lab is less chaotic. If this hasn't already been done, take care of these few "housekeeping" tasks that will put your lab into good shape for summer.

- 1) Clean out chemical stocks. Go through your laboratory shelves and properly dispose of any chemicals that are no longer used or needed. We strongly recommend that this kind of sorting be done often for many reasons: it keeps disposal costs down since there are smaller amounts to dispose of; it reduces the possibility of these chemicals becoming potentially-dangerous "unknowns," which can happen if labels fall off or get defaced; it reduces hazards in the lab -- the fewer chemicals around the better, especially if the identities of some of the compounds are uncertain. A new chemical inventory should be submitted to DOES after disposal of any chemicals. If some of the chemicals are transferred to a co-worker's lab, that person must also submit an updated inventory list reflecting the changes.
- 2) Dispose of trash promptly — especially hazardous and radioactive waste. Call DOES (x2906) to arrange disposal (with the appropriate accompanying paperwork completed) as early as possible in the day so we can process the request.
- 3) Go over training materials so that they reflect any changes to the laboratory's safety procedures and protocols. New students beginning work in the summer (and especially next fall) will then have the most up-to-date set of materials and guidelines to follow.

Happy cleaning!

Reviewing Your Basic Evacuation Plan (continued from page 4)

3. If smoke, heat or fire blocks an exit, go to another exit. If all exits are blocked, return to your room/area and call Protective Services at once to report your location.
4. Before opening a door, feel the knob/hardware. If hot, do not open it. If it is not hot, open it slightly. If heavy smoke or heat is present, close the door and seek an alternative route.
5. Keep low to the floor if smoke and/or heat is encountered.
6. If for any reason you cannot evacuate, move as far as possible from the fire area. Seek a room with a door. Close the door and seal any cracks along the door with towels or other materials. Notify Emergency Response Personnel of your location; contact Protective Services at X3333; signal from a window.

If you have any concerns and/or questions regarding Emergency Evacuations, discuss them with your Evacuation Coordinator, Supervisor or Department Management. You may also contact the Department of Occupational & Environmental Safety at x2907 and Protective Services at x1952 for additional information.

Research Laboratory Decommissioning Procedure Checklist (con. from page 2)

- When relocation occurs within buildings or between adjacent buildings, this restriction may be lifted. DOES reserves the right to decide this circumstance on a case by case basis. Please contact Paul Holter at paul.holter@case.edu or 216-368-5864.
- A complete list of all chemical and biological inventories must be provided to DOES prior to relocation.

In order to relocate *radiological* inventory:

- Submit a Laboratory Decommission notification via e-mail or letter copy, to the Assistant Radiation Safety Officer (RSO).
- Review and annotate the RAD 6 Report, the radioisotope inventory form. This should include updates on the disposition of all personnel, radiation meters and inventory.
- If applicable, complete and submit a Radioisotope Transfer Form to the RSO.
- Submit a list of all radiological users in the affected laboratory; indicate if they are leaving the University or remaining. If they are remaining and will retain RAM use, indicate which PI will be responsible for

All chemical, biological, and radiological inventories must be removed from the laboratory at least 24 hours prior to a scheduled move. This means that all hazardous materials must be removed prior to moving company personnel entering a laboratory area.

Equipment Relocation/Disposal

A *Safety Clearance Protocol and Request* (SCPR) form must be filled out for each room being relocated. This form must be submitted to DOES three weeks prior to the scheduled move. This form may be downloaded from the DOES web page at <http://does.cwru.edu> or by contacting Paul Holter at paul.holter@case.edu or 216-368-5864.

A *Safety Clearance Protocol and Request* (SCPR) form must be completed for each piece of equipment that will be relocated, transferred to department ownership or disposed.

- All experiment related equipment (incubators, freezers, centrifuges, refrigerators, biological safety cabinets, chemical hoods, etc.) must be listed with an assigned number on the SCPR form in the comment/special considerations section.
- Each piece of equipment requiring clearance must be labeled with a number that corresponds to the assigned number on the SCPR form.

The completed SCPR form must be submitted to DOES, and officers will attach to the equipment a label confirming decontamination and cleanliness. **Only then can it be moved.**

All equipment being relocated must be free of radiological, biological, and chemical hazards. "Free of radiological, chemical and biological hazards," indicates that the following actions have been taken:

- Conduct all radiological wipes and surveys to ensure there is no contaminated equipment or rooms. Attach a detailed room map with RAM labeled equipment in the survey.
- Keep labels affixed to all equipment until reviewed by the RSO representative who will ensure contamination is less than 220 dpm/100 cm².

Notify the RSO that this survey has been completed so that the RSO can verify all wipe and survey

(con. on page 8)

Research Laboratory Decommissioning

results.

- Contaminated equipment may be transferred within Case if overseen by the RSO to minimize any spread of radioactive contamination. You are required to follow all directions of the RSO, with regards to safe handling and relocation of “hot” equipment.
- Please notify the RSO if you intend to use any outside contractors for moving of equipment. DOES has a list of approved movers, but if you select another vendor, they must have the required “Right to Know” training from DOES.
- The disposal or relocation of hot equipment is prohibited without approval or evaluation by the RSO.

All *chemically* contaminated equipment should be wiped down with 1-propanol (iso-propanol). All *biologically* contaminated equipment must be wiped down with an approved disinfectant OR a 10% bleach solution. A 10% bleach solution is a mixture of 10 parts bleach (commercially available products) with 90 parts of water.

All Bio-Safety Cabinets (BSC) units must be decontaminated by the University’s approved, external vendor, Laboratory Certification Services. Please contact DOES for the details of this procedure.

- Permission must be obtained from Safety Services before moving freezers. Please contact DOES for moving requirements.
- In general, all refrigerators must be defrosted and cleaned out prior to being moved. Please contact DOES for moving requirements.

Room Clearance

Before a room can be cleared by DOES the room must be completely emptied of all chemicals, sharps, bio-hazards, radioactive waste, etc. This is the exclusive responsibility of the Primary Investigator, per requirements of the Faculty Handbook of CWRU. Empty glass bottles may be disposed of in a cardboard box once the cap has been removed, the bottle has been rinsed three times, the label has been defaced, and the bottle is labeled as empty.

Important Contact Information

Chemical Safety Services:	368-2907 (http://does.cwruc.edu), fax: 368-2236
Radiation Safety:	368-2906 (http://does.cwruc.edu), fax: 368-2236
Chemical/Biological Movers:	Contact Safety Services for information
Customer Service:	368-2580

*Upcoming Training Sessions**

IMPORTANT NOTE: While all laboratories must attend training at DOES, labs must hold specific training in the CHP and ECP as it pertains to the actual work they do. Labs will also need an outline of the CHP and ECP training and a sign in sheet to accompany. Store the sign-in sheet and outline with the CHP and ECP. IT will be asked for during lab inspections.

New Hazard Communication (Right-to-Know) Training

Retraining is required annually.

DOES Small Meeting Room - Service Building 1st Floor

PREREGISTRATION IS REQUIRED! - Please call 368-2907

*Upcoming Training Sessions**

New Radiation Safety Training

Retraining is required annually.

DOES conference room - Service Building 1st Floor

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

New Laser Safety Training

Retraining is required annually.

DOES conference room - Service Building 1st Floor

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

FOR THE FOLLOWING CLASSES:

Laboratory Safety Retraining
Regulated Chemical Retraining
Hazard Communication (Right-to-Know) Retraining
Bloodborne Pathogen Retraining
Radiation Safety Retraining
Laser Safety Retraining
Respirator Safety Retraining

Please retrain on the Internet at <<http://does.case.edu>> and click on Training.

Print test and fax or mail it to the DOES office.

If your training is more that one year overdue, then you must attend the training class in person and can not retrain online.

FOR THE FOLLOWING CLASSES:

New Laboratory Safety Training
New Regulated Chemical Training (Formaldehyde, Benzene, Methylene Chloride, Vinyl Chloride, etc.)
New Bloodborne Pathogen Training
New Respirator Safety Training
New BSL-3 Safety Training

Retraining is required annually.

DOES Conference Room - Service Building 1st Floor

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

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

(continued on page 10)

Chemical Safety (OSHA Lab Standard Training)

Please call 368-2907 to preregister for this class.

Class Objective: To train all University personnel using hazardous chemicals in a laboratory setting in basic chemical safety principles and the requirements of the OSHA Laboratory Standard 1910.1450.

Class Frequency and Time: The class is offered every Tuesday from 1:00 to 3:00 pm. Also additional classes are available.

Location: The class is held in the DOES conference room in the Service Building First Floor unless otherwise specified in the calendar.

X-Ray Safety Training

DOES Conference Room-Service Building 1st Floor
PREREGISTRATION IS REQUIRED! - Please call 368-2907

See website for training dates.

**

**Again, for a complete listing, please
consult the DOES website at...**

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

DOES STAFF

W. David Sedwick, Ph.D., (wds), Director and RSO
Felice Thornton-Porter (fst2), Q.A. Specialist II
Shirley Mele (smm5), Manager/Ergonomic Coordinator
Gwendolyn Cox-Johnson (gxc13), Dept. Assistant II
Jason May (vfl), Dept. Assistant II
Ronald Tulley (rxt33), Technical Writer

Chemical Safety

Marc Rubin (mdr6), Assistant Director, EH&S
Robert Latsch (rnl2), Specialist I
Arif Peshimam (azp1), Specialist II
Bill DePetro (wjd11), Specialist II
Tom Merk (tlm8), Specialist II
Paul Holter (pah9), Specialist II
Mary Ellen Scott, Ph.D. (mas35), Specialist I
Jon Birkes (jon.birkes), Specialist II
Edwin Filppi (edwin.filppi), Specialist I

Radiation Safety

Karen Janiga (kej2), Assistant Director, Assistant RSO
Yelena Neyman (yxt13), Specialist I
Charles Greathouse (cxg118), Analyst Programmer I
Joe Nikstenas (jen), Specialist II
Victoria Cook (victoria.cook), Specialist I
Sylvia Kertesy, Specialist I (sylvia.kertesy)

**Department of Occupational and Environmental Safety
Case Western Reserve University
(216) 368-2906/2907 FAX: (216) 368-2236
(E-mail) does@po.case.edu (www) <http://does.case.edu>**