



Department of Occupational and Environmental Safety NEWSLETTER

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EPA to Academia: Clean Up!

Recently, the Environmental Protection Agency (EPA) has begun cracking down on colleges and universities that are found to be non-compliant with all federal environmental requirements.

Holding higher education to the same standard as industry has resulted in some costly violations.

- The University of Hawaii recently paid \$1.8 million in civil penalties for violating federal law by poorly managing laboratory waste.
- The University of New Hampshire will pay a fine of \$49,000 and spend at least \$147,000 on a Supplemental Environmental Project.
- Boston University has paid approximately \$253,000 in fines and \$500,000 in community projects.
- Yale University settled an enforcement action with a fine of \$69,500 for RCRA violations. The university has also committed to invest \$279,000 in environmental projects on campus.

Most collegiate institutions are more like cities than schools; composed of diverse analogous activities such as operating research laboratories, power plants, hazardous waste and trash disposal, maintaining grounds; and incinerating wastes. Add in the various challenges created by the many unique medical and research labs operating on CWRU's campus and we have an environment which must be vigorously policed instead of complacently accepted.

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Holiday Safety

With the holidays fast upon us, be especially aware of increased fire hazards. Here are some safety measures to keep in mind:

1. Decorations must be flame-proofed or made of non-flammable material.
2. If decorating a live tree, be sure to:
 - use a fresh evergreen that has been treated with a flame retardant.
 - equip it with a tree stand that can hold water at the base of the tree; keep it full.
 - remove the tree prior to closing for break.

No electrical equipment or devices are permitted on or under trees; only indirect lighting may be used. Nor are candles or open flames allowed on under, or within 10 feet of the tree.

***NEVER leave a flame of any size unattended SEVERAL fires at CWRU have started this way in the past. Be vigilant over ALL flame- and heat-producing elements!**

3. If using a metallic tree or decoration, do not place electrical lights or objects on it.

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What a WASTE!

Microscope Slides

Use a microscope regularly? Even if the material on your slides is not considered infectious or hazardous, **all slides and cover slips should be regarded as injurious materials because they present a physical hazard to custodians if placed in the regular trash.** Dispose of them with your other glassware materials.

Wrapping Recycling

With the holidays here, the tradition of wrapping gifts represents a major opportunity for waste reduction. Here are a few ideas to get you started:

- Design your own giftwrap by using a paper bag and adding decorations such as drawings, stamped patterns, or pictures cut from magazines. Let the kids do the designing.
- Purchase sturdier gift bags (or save the ones that you receive) that can be used again for another present.
- For large, hard-to-wrap gifts, just add a large fancy bow.
- Or hide the large, unwieldy gift somewhere in the house or yard, and give the person a card with a clue, or a series of clue cards, to lead them to the present.
- Start a tradition of Christmas stockings for each person. Little gifts can be put in the stocking without being wrapped. The stockings can be used year after year.
- Some gifts come in decorated gift boxes. Just add a bow and a gift tag, and the present is ready to be displayed.
- Wrap gifts in old posters or comic books.
- If you do use storebought wrapping paper, buy the kind with recycled content (the more postconsumer, the better).

If giving gifts in or near the lab, **keep paper to a minimum, keep away from open flame, and clean up materials immediately.**

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In the EPA's words: "Higher academic institutions can create a culture for engendering safer environments by

- Communicating the importance of compliance with environmental laws and other environmentally beneficial activities to all members of the university/college community.
- Ensuring adequate resources for staff, equipment and training to carry out environmental activities and compliance;
- Conducting regular compliance self-audits; and
- Paying special attention to self-inspection and record-keeping requirements that help identify compliance problems early to avoid costly cleanup problems and penalties.

EPA urges colleges and universities to be more attentive to their environmental obligations before enforcement action becomes necessary. Call D.O.E.S. or consult your appropriate manual if you have any compliance questions. Let's keep CWRU off the list of high-paying violators!

Upcoming Training Sessions

Radiation (x2906)

- **New Training:** (call for times)
- **Retraining:** (call for times)
- **X-ray Training:** call office to set up training

Chemical (x2907)

- **OSHA Lab Standard:** Mondays 1-3 (Service Building Conference Room)

Bloodborne Pathogen (x2907)

- **New Training:** Mondays 3-4 (Service Building Conference Room)
- **Retraining:** (call for times; Service Building Conference Room)

Don't forget: rad re-training is now also **ONLINE** on our website: <http://does.cwru.edu>.

As always, call us for upcoming dates and times.

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4. Decoration materials must not be exposed to light bulbs, heaters, or other heat or flames.
5. Gift wrappings should be removed right away.
6. Door decorations must not overlap the top, bottom, or sides of doors.
7. Do not leave lights unattended.
8. Do not place any decorations where they would hinder access to safety equipment (fire alarms, extinguishers) or exits.

Remember that if a fire does occur:

- Warn/remove people in danger.
- Activate a pull alarm (usually near exits).
- call Protective Services at **x3333** and give a complete description of the fire and location.
*******DO NOT CALL 911*******
- If the fire is manageable, use your fire extinguisher (that you have trained with) on it.
So be safe and enjoy the holidays!

Space Heaters

It may be cold outside, but D.O.E.S. does not recommend using a space heater for warmth.

First of all, these heaters are not efficient. Their operation is controlled by an internal thermostat, meaning they could be on during nights and weekends. But more importantly, **they can be a serious safety hazard. Space heaters generate enough heat to ignite any ordinary combustible materials they come in contact with.**

If you feel heating in your area is inadequate, check your outlets to see if they are being blocked by some object. Also, contact Plant Services (x2580) and ask them to check your heating system. If it is absolutely necessary to use a space heater, follow these guidelines:

- Use only units that have a tipover safety switch and are UL-approved.
- Do not use any unit that has a frayed or worn cord, exposed elements, or is unstable.
- Plug the heater directly into an electrical outlet. Do not use an extension cord.



HOT TIPS



Offsite Contamination

The Nuclear Regulatory Commission recently published a report detailing three recent incidents resulting in offsite contamination. In two of the incidents, a graduate student was working with P-32 on the weekend. In the first P-32 incident, the student unknowingly contaminated the floor of the lab and spread the contamination throughout the building and everywhere he went that day. In the second incident involving P-32, the student unknowingly contaminated himself. Contamination was spread in his car, at his church and at several residences. If the students in both incidents had conducted a survey of the area and checked themselves before leaving the lab, the contamination would have been found and contained. In the third incident, C-14 was spread by a researcher who was himself contaminated. He was looking for materials in a freezer and unknowingly handled the C-14 because it was not properly labeled. This could have been avoided if the freezer and the radioactive material were properly labeled.

Following any spill of radioactive materials, no matter how small the quantity, lab personnel should confirm, by survey, that the contamination was confined and not spread to areas outside the lab. Even minor spills can result in wide spread contamination if they are not handled properly. Please feel free to call Radiation Safety (x2906) at any time for assistance in cleaning up spills.

- Place the heater away from combustibles.
- Keep the unit and its power cord out of walking areas.
- Unplug the heater when the area is not occupied.

Please call D.O.E.S. (x2907) and/or Plant Services (x2580) if you have any questions.

FACTS: WINTER DRIVING

The leading cause of death during winter storms is transportation accidents. Preparing your vehicle for the winter season represents a major key to safe winter driving.

BEFORE DRIVING:

You or your mechanic should check the following items on your car.

- Battery
- Antifreeze
- Wipers and windshield washer fluid
- Ignition system
- Thermostat
- Lights
- Flashing hazard lights
- Exhaust system
- Heater
- Brakes
- Defroster

Replace existing oil with a winter grade or the 10W/30 variety. Also make sure you have good winter tires with adequate tread. All-weather radials are usually adequate.

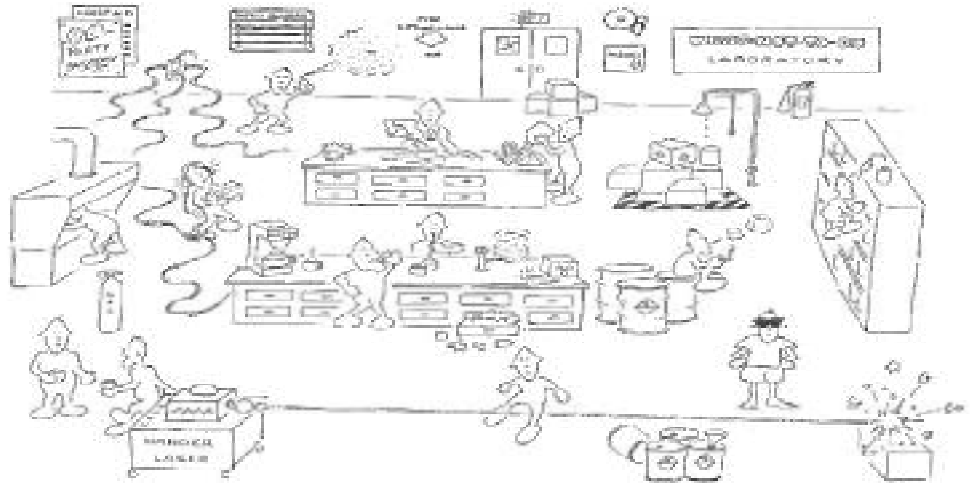
IN YOUR CAR:

- Keep a windshield scraper and small broom for ice and snow removal.
- Maintain at least a half tank of gas during the winter season.
- Listen to the radio or call the state highway patrol for the latest road conditions. Always travel during daylight and, if possible, take at least one other person.
- Keep a winter car kit with: flashlight, first aid kit, necessary medications, blankets, matches, extra hat and gloves, a small sack of sand for generating traction under wheels, jumper cables, and a small hand shovel. Especially if travelling long distances, these items are a must and should also include (dep. on the distance travelled): food and water.
- If you have a cell phone, make sure it is charged before each trip.

And above all: drive slowly and cautiously. If snow becomes too much of an impediment to driving, pull off and wait for it to let up. And if you drive an SUV, don't think you are immune to weather conditions -- statistics show that such vehicles are even more prone to serious winter accidents.

CONTEST!

The picture below has over 40 safety violations. Can you identify them? Write them in an email and send to bjr8@po.cwru.edu. The winners will be spotlighted in our next issue!



Microwave Safety

Very few "high technology" devices have been as universally accepted as the microwave oven, first at home and now in the workplace or lab. But as these devices become more useful, it was inevitable that safety issues would develop. **All new microwave ovens sold in the US meet the FDA CDRH requirements. This states that new ovens may not leak microwave radiation in excess of 1 mW cm⁻¹ at 5cm from the oven's surface.**

Most concerns about microwave oven safety are generated by employees who have accidentally damaged an oven, read an article about electric and magnetic fields (EMF) or are suffering from some unknown illness which they associate with exposure. Ovens can be damaged by the use of metal objects, abusing the door, or just by being dropped. But in reality, ovens are notably resistant to leaking. Only severe misuse (a hole in the shield/window, a drop from a height greater than six feet) may result in leakage.

Due to their inherent safety, it may not be justifiable to expend resources to measure any leakage in your ovens. Instead,

- Maintain a basic inventory of your ovens.
- Post a safety document next to each oven.
- Visually inspect those ovens suspected of leaking. Look for loose doors, broken switches, or penetrations of the metal enclosure. Either repair or discard (cutting off the power cord).

As with any safety program, microwave problems should be properly documented. Although microwave oven safety is a small part of any non-ionizing radiation safety program, it is a part that is highly visible because it potentially impacts so many people. A small amount of effort yields large awards in mitigating occupational safety concerns. It should also be noted that the microwave pacemaker scare of the mid-eighties is no longer a concern -- all new microwaves are adequately shielded and will not affect pacemaker operation at all.

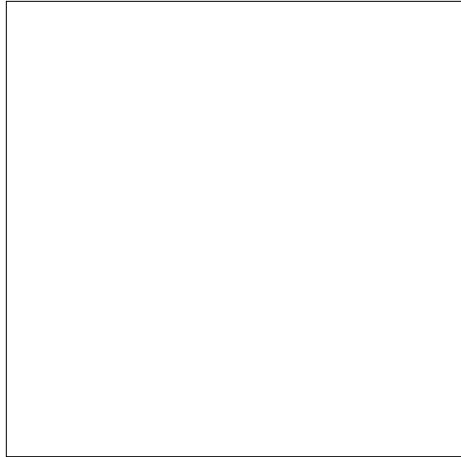
Holiday Stress?

The holidays are traditionally a time for stress both at work and home. The Mayo Clinic advise to a) plan ahead, b) adopt a budget, c) don't abandon healthful habits, d) sleep more, and e) set differences aside (who cares if your mother in-law sends you fruitcake again?) Enjoy the holidays this year without raising your blood pressure.

Did You Know?

About 90 percent of U.S. households have smoke alarms installed. However, a recent survey found that the smoke alarms in 20 percent of those households -- about 16 million -- **were not working, mostly because the battery was dead or missing.** Check yours periodically. Long-life smoke alarms with 10-year batteries have been available to consumers since 1995. These long-life alarms also should also be tested monthly.

General smoke alarm recommendations include placing a smoke alarm that meets the requirements of Underwriters Laboratories' (UL) standard on each level of multi-story homes outside sleeping areas, and inside bedrooms.

**Department of Occupational
and Environmental Safety****Staff**

Dr. W. David Sedwick (wds), Director and RSO
Richard Dell (rxd7), Asst. Dir., Safety Services
Dr. Bill Stephany (wps3), Asst. Dir., Radiation Safety
Richard Harley (rxh2), Loss Prevention Specialist
Todd Crawley (tac9), Facilities Manager
Felice Thornton-Porter, Q.A. Specialist (fst2)
Shirley Mele (smm5), Dept. Administrator
Gwendolyn Cox-Johnson (gxc13), Dept. Assistant 2
Erick Adam Sanders (eas16), Dept. Assistant 1
Brad Ricca (bjr8), Technical Writer

Chemical Safety

Robert Latsch, Specialist (rnl2)
Marc Rubin, Eng. II (mdr6)
Paige Wietelmann, Specialist (pew2)
Clinton Giannetti, Technician (cmg4)
Mahdi Fahim, Technician (mhf6)

Radiation Safety

Karen Janiga, Specialist (kej2)
Tammy Taylor, Specialist (trt2)
Yelena Tigay, Technician (yxt13)
Edward Traverso, Specialist (ejt)
Greg Wojtkiewicz, Technician (grw4)

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

Safety News For the Campus Community