



# Department of Occupational and Environmental Safety NEWSLETTER

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CASE WESTERN RESERVE UNIVERSITY

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## New Radiation Policies

There are some new policy clarifications regarding radiation lab surveys and "storage mode" classifications that radiation workers need to be aware of.

Usually, documented radiation surveys of the entire laboratory are required **monthly**. However, **when more than 200 µCi is used, greater care is required**. If more than 200 µCi is used regularly, then documented full-laboratory surveys are required weekly **or before and after each experiment**.

A number of laboratories remain in a quasi-dormant state during which the usual contamination survey requirements are unnecessary. To relieve the Authorized User (A.U.) and laboratory personnel from such needless work the A.U. may request that the laboratory or laboratories under his/her supervision be formally in "Storage Mode," meaning isotopes will be retained in-storage but not used until the laboratory is reinstated to "active-use" mode.

For periods of isotope non-use exceeding six months, the required A.U. survey frequency shall be reduced to once each six calendar months, starting on the date of declared non-use. A letter of agreement from the A.U. must be submitted to the Radiation Safety Office to instate this reduced survey frequency. Resumption of isotope use **shall not occur** until and unless regular survey fre-

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## Summer Cleaning

With the school year over, now is a good time to put your laboratory in order, especially with most students having left and others on their way. Taking care of a few simple "housekeeping" tasks when the semester ends is a good way to get your lab into 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 at least once a year 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 ( and expensive to dispose) "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

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## **What a WASTE!**

### **Azide Disposal**

Inorganic azide compounds, such as sodium azide, can react with metals and their salts to produce explosive metal azide crystals. **Therefore, they should NEVER be disposed of down the drain, no matter what the concentration.** When azide solutions are poured down drains even a dilute solution can react with lead solder and copper pipes to produce explosive lead or copper azide salts. Sodium azide is also found in Enterococcus agars that may need to be disposed as hazardous waste after sterilization.

Dispose of azide as hazardous waste. If sodium azide solutions have been previously discharged to drains having metallic pipes or solder, your pipes may be contaminated with metal azide salts. Call us for assistance in determining the proper disposal procedures if you are aware of such a problem.

### **Protect your Drain**

In general, **no chemicals should be disposed of down the drain.** Here are some easy ways to avoid sending the wrong things down the drain:

- Don't hold or store chemicals in sinks. Use tubs, containers or storage lockers instead.
- Provide spill and leak protection around all sinks, especially cup sinks on countertops and under hoods where hazardous materials are used or stored.
- Block floor drains in areas where chemicals are used or stored.
- Keep enough material on hand to prevent and clean up spills. These supplies include absorbents, drain plugs, acid and base neutralization kits, goggles, gloves, respirators, sausage boom and duct tape.

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quency is reinstated by a letter to the Radiation Safety Office.

During this period of isotope non-use, the Radiation Safety Office surveys/audits and compliance reviews shall be maintained as for a full-use laboratory.

If you have any questions on these clarifications in policy, please call Radiation Safety at x2906.



### **Upcoming Training Sessions**

#### **Radiation (x2906)**

- **New Training:** June 13, 30 (call for times)
- **Retraining:** June 20 (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 3-5 (Service Building Conference Room)
- **Retraining:** June 7, 20 (call for times; Service Building Conference Room)

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

Call us for upcoming training dates.

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are uncertain.

Chemical inventories should be adjusted after the disposal of hazardous chemicals. If some of the chemicals are transferred to a co-worker's lab, that person should 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 with your lab staff so that they **all** understand 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.

Keeping a clean, easily-identified workplace is one of the easiest ways to both increase and encourage safe laboratory practices.

## ALCOHOLIC BEVERAGES? NOT IN LABS!



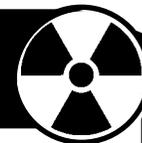
Your star doctoral student who has spent the better part of eight-plus years on his final experiment has **FINALLY** finished! Hooray! So is it time to celebrate with a toast over said experiment?

**NO WAY!**

Recently, our staff has noticed several instances of stockpiled alcoholic beverages -- which we **WILL** confiscate. And we know all the hiding places -- so take your celebrations **outside** the lab, to a setting where laboratory safety standards are **not** violated.



## HOT TIPS



### Keeping Records

Remember to keep your rad records up-to-date in case of inspection by University or State Regulatory Authorities. Your records should always include:

- receipt and disposition of radioactive material in your possession.
- records of waste disposal
- records for storage and transfers, incl. rad survey results for both.
- surveys of rooms and equipment
- records of all packages received
- all incident reports.

Procedural records such as:

- Inventory -- must detail date, radionuclide, chemical/physical form, supplier, method, and date of disposal.
- Contamination surveys -- Maintain all radiation survey results in accordance with the Laboratory/Contamination Survey Section of the Rad Safety Manual.
- Incident Reports - All reports or surveys from spills or accidents.

### Lab Coats

OSHA prohibits you from taking your lab coat home to be washed -- esp. if it is radioactive. Instead, take them to the University Hospital Laundering Service for cleaning. Put the coat(s) in a clear plastic bag after decontamination. If you can't fully decontaminate a coat, bring it to D.O.E.S. At the time of drop-off you need:

- A valid account number
- PI name
- Lab phone number
- Lab location.

3 days later -- you've got a clean coat and a heightened sense of style. Laundering Services is located on the 6th floor of the Service Building and is open M-F 6am to 2:30 pm. Call them at 844-1893

## Fire Evacuation

The recent and tragic fire-related deaths of two Ohio college students (at John Carroll and Ohio University) have reminded us of the need for not only WORKING smoke alarms, but a smart evacuation plan. When exiting a burning building, the following basic guidelines should be adhered to.

### 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.
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 (x3333) 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; 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 D.O.E.S. at x2907 and Protective Services at x1952 for additional information.

## Best of Luck

Two outstanding members of our Safety Department have moved on to new experiences.



Ed Traverso is now a manager in the Animal Resources Center. As most of you know, Ed has been a valued specialist in our Radiation Safety program for several years and responded skillfully to help solve problems caused by a variety of incidents in our laboratories. We will greatly miss Ed, but we are happy that he has moved on to keep a watchful eye on safety and procedural issues in the ARC. Our best wishes to Ed in his new position.



Paige Wietelmann has also moved on to a new endeavor. She expects to deliver her first child in the next two weeks and will also be relocating her home to a distance that makes commuting impractical. Paige brought us our ergonomics program, responded to environmental complaints all over campus, and generated a large community of staff members and faculty who relied on her good advice. A happy birth day to you, Paige and best hopes for a happy future.

-W. David Sedwick, Director  
D.O.E.S.

## Congress Says No to Ergonomics Plan

"The safety and health of our Nation's workforce is a priority for my administration. Together we will pursue a comprehensive approach to ergonomics that addresses the concerns surrounding the ergonomics rule repealed today. We will work with the Congress, the business community, and our Nation's workers to address this important issue."



President George W. Bush  
March 20, 2001

With these words, President Bush signed a Congressional resolution repealing the new OSHA Ergonomics Rule (see last issue). As a result, the standard is no longer in effect, and employers and workers are not bound by its requirements. At the same time, Bush, promised to find a better way of addressing ergonomics issues. Now far be it from our humble Newsletter to question the actions of our nation's President and primary legislative body, **BUT** it should be noted that ergonomic injuries and illnesses **can still be cited** under OSHA's General Duty Clause.

We all know that ergonomics represents an important part safety concern of the working world, especially for those of you who use microscopes, pipettes, and other such repetitive-motion devices on a daily basis. So even though this new rule is now void, **we strongly urge our readers to continue in following the ergonomics guidelines** that we have covered in previous and future issues. A version of the Rule will return but MSDs won't wait for it. Protect yourself.

If you develop pain, tingling, or numbness in your hand or someplace else, **consult Health Services or your personal physician immediately** -- there are many new courses of simple treatment involving exercise and physical therapy **that if begun early** can limit or even **negate or reverse** the dreadful long-term damage, chronic pain, and loss of ability caused by serious MSDs.

## Urban Legends of the Lab



There are MANY common laboratory practices that you may follow just because someone once cryptically told you *that's how it's ALWAYS been done*. But that doesn't mean it's **SAFE**. Here are some common 'urban legends' of the laboratory:

- Sodium bicarbonate is effective at destroying streptozotocin;
- Bleach is an effective agent to degrade ethidium bromide;
- Alkaline salt solutions can reduce nitrosoamide (MNU, MNNG, etc.) compounds;
- Unstable flammable chemicals must be refrigerated;
- Victims of fainting or lightheadedness are best revived with ammonia inhalants.

**ALL of the practices listed above are wrong and potentially dangerous.**

There is no evidence to support that ethidium bromide, streptozotocin, or nitrosoamide compounds are effectively degraded by any of the treatment methods listed above. In fact, evidence suggests that more mutagenic compounds may be generated. These materials generally require more vigorous approaches. Contact D.O.E.S. for suitable disposal and/or treatment.

Unstable or reactive flammable chemicals such as dimethyldichlorosilane should be stored in an approved flammable storage cabinet.

Ammonia inhalants can be harmful because they can burn the nasal passages of those to whom they have been administered. Instead, have the person sit down and breathe fresh air for 15 minutes, then seek medical attention.

Dispel these laboratory myths! The truth is out there!



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