# Case Department of Occupational and Environmental Safety

*"SAFETY COMES FIRST"*



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



October/ November 2008


**In this issue:**



# *Updated DEA Regulations Regarding Iodine*

The United States Drug Enforcement Agency (DEA) recently updated the Controlled Substances Act (CSA) to regulate Iodine. This action is being taken because of the use of iodine for the illicit production of the DEA scheduled drugs amphetamine and methamphetamine. Amphetamine and methamphetamine are Schedule II drugs, classified as CNS (central nervous system) stimulants. A Schedule II drug is classified as one that has a high potential for abuse, has a currently-accepted medical use and is used under severe restrictions, and has a high possibility of severe psychological and physiological dependence. Iodine is commonly used with phosphorus or hypophosphorous acid and ephedrine or pseudoephedrine to manufacture methamphetamine.

The DEA had previously placed controls on iodine crystals not on iodine tinctures. Drug traffickers are currently circumventing CSA regulatory controls via the diversion of iodine tinctures. Traffickers have learned that the tinctures can serve as a ready source of iodine crystals when the tincture is subjected to the appropriate chemical reaction.

As of August 1, 2008, new Iodine regulations will apply to any chemical mixtures containing greater than 2.2 percent iodine. Therefore iodine crystals and strong iodine tinctures/solutions (e.g., 7 percent iodine) that do not have common household uses will now require a DEA license to order. Household products such as 2 percent iodine tincture/solution and household disinfectants containing iodine complexes will not be adversely impacted by this regulation. Additionally, the final rule exempts transactions of up to one-fluid- ounce (30 ml) of Lugol's Solution. Persons handling regulated iodine materials are required to register with DEA, are subject to the import/export notification requirements of the CSA, and are required to maintain records of all regulated transactions involving iodine regardless of size. Please contact the DOES office (x 2907) if you have any questions.

# e-Waste: What You Need to Know

*"While electronic devices by themselves are not necessarily hazardous, in a landfill, the materials in the circuitry might be released through contact with water, dissolved organic acids, and/or other items found in the leachate of a landfill."*

What is e-Waste? Unwanted spam? Old computer files? The term e-Waste is given to all discarded electronic devices such as computers, fax machines, televisions, lab equipment, or other such devices that contain circuitry. The statistics on electronic waste (e-waste) are alarming. E-waste is now the fastest-growing part of the municipal waste stream, according to the EPA.

In the United States alone, there are over 200 million active mobile phones. Think of how many of those people are on their second and even third cell phones. When you also consider that 80% of the world's population live in an area with cell phone reception, the numbers could escalate considerably.

Additionally, each year, we dispose of roughly 250 million computers. In 2003, the National Safety Council predicted that between 315 million and 680 million computers will become obsolete within the next few years. In California alone, 6,000 computers become obsolete each day. Out of the high volume of discarded and obsolete computers, *only 10% are actually recycled*. The vast majority of electronics are simply thrown away.

These e-Waste devices contain lead and other substances that, if not handled properly, could be released into the environment and cause harm. While electronic devices by themselves are not necessarily hazardous, in a landfill, the materials in the circuitry might be released through contact with water, dissolved organic acids, and/or other items found in the leachate of a landfill. As a result, the EPA requires that e-Waste be handled differently from normal paper and plastic waste.

Case Western Reserve University has responded to the EPA e-Waste requirements by collecting e-Waste from around the campus. These devices are then sent off campus to a number of companies that "de-manufacture" the devices into component streams of plastic, metal, and glass. The streams are then reused in the manufacture of new products. During the process, some hazardous materials are collected that cannot be reused. These materials are further processed as hazardous waste at a treatment storage and disposal facility.

The Case Western Reserve University e-Waste program starts with a written request form from you, the end user of the electronic device, to the Department of Occupational and Environmental Safety. The request form is available on the Plant Services, Customer Services, and DOES websites as a PDF file. The form contains fields for you to list how many pieces you have for disposal and where the pieces are located. Once the form is received by DOES, the request will become a work order for the Case Western Reserve University Custodial staff. The Custodial staff will then come to your location and remove the devices to a designated pick up point. We ask that you write the building and room where the devices came from on the outside of the devices in permanent marker.

DOES in conjunction with Plant Services, Customer Services, and Custodial Services, encourages you to keep the environment safe today for our future generations.

# *Mercury-Containing Light Bulb (Lamp) Recycling*

Most of us are now aware of the fact that incandescent light bulbs are less energy efficient than compact florescent light bulbs (CFLs). Incandescent light bulbs give off unnecessary heat, use approximately two thirds more energy than CFLs, and generally burn out much faster than CFLs. However, in the rush to reduce our carbon footprint and save money, what is often overlooked is how we dispose of CFLs. CFLs contain 4 to 10 milligrams of mercury, a neurotoxin. If a bulb breaks or isn't recycled properly, the mercury can be released into the environment. Exposure to mercury, can affect our brain, spinal cord, kidneys and liver, causing symptoms such as trembling hands, memory loss, and difficulty in movement. Even 1 gm of mercury is enough to contaminate a lake and make its fish unfit for eating!

So what can you do to properly dispose of your CFLs on campus? Simple. DON'T THROW THEM IN THE TRASH. Fill out a work order form online describing the burned our bulb to be recycled and submit the form to http://www.case.edu/news/energy/support/workorder.htm.

The EPA is working with manufacturers and major U.S. retailers to develop, implement or expand recycling options, and household hazardous waste collection facilities usually accept these lamps. You can find more information about these collection and/or recycling programs at Where You Live (http://www.epa.gov/epawaste/hazard/wastetypes/universal/lamps/index.htm) or at Earth911.org (http://earth911.com/).

Outside of the campus environment, households and consumers can contact their state or local environmental regulatory agency for information about proper disposal options such as disposal in your household garbage if no other options are available. If your state or local environmental regulatory agency offers no other disposal options except your household garbage, place the fluorescent light bulb in two plastic bags and seal it before putting it into the outside trash, or other protected outside location, for the next normal trash collection.

Contact DOES at x2907 if you any questions about proper disposal of CFLs.

*"CFLs contain 4 to 10 milligrams of mercury, a neurotoxin. If a bulb breaks or isn't recycled properly, the mercury can be released into the environment."*

# *Mark Your Calendars: November 27 is Thanksgiving.*

# *Minors, Volunteers and Visitors in the Workplace—Know the Guidelines and Procedures*

*"The University adopted these guidelines in order to meet obligations imposed by state, federal, and local regulations."*

Case Western Reserve University has developed guidelines and procedures that have impact on the presence and participation of minors, volunteers, and visitors in laboratories. The University adopted these guidelines in order to meet obligations imposed by state, federal, and local regulations. The University's procedures are intended to assure compliance with the guidelines while optimizing students' laboratory experiences and minimizing disruption in the University's research laboratories, facilities, and clinics.

Please note that these guidelines pertain only to the presence of minors, volunteers, and visitors in all University-based research laboratory settings. While the participation of these individuals in fieldwork falls outside the scope of these guidelines, investigators are responsible for their safety in fieldwork settings and are therefore, encouraged to consult the Department of Occupational and Environmental Safety (DOES) if they have questions regarding the appropriate participation of minors, volunteers, and visitors in these University activities. Minors, Volunteers, & Visitors must complete all forms before working in the laboratory. Please consult the checklists below and call x 2907 if you have any concerns or questions.

Before volunteers attend safety training you must have the following:

* A copy of the high school Certificate of Insurance
* Verification of Hepatitis B vaccination
* A complete waiver form, which must be signed by the parent/guardian
* Laboratory Use Agreement & Waiver of Liability
* A list of Potential Hazard Information

Before starting any work in the laboratory:

* Complete all required training
* Complete and sign the Registration form.

For Laboratory Observations and Tours, the following is needed:

* Certificate of Insurance
* Laboratory Use Agreement & Waiver of Liability
* Documentation listing the names of the individuals/ schools, date of event, duration of event, location, PI name, and Direct Supervisor.

Again, please do not hesitate to call DOES at x 2907 if you have specific questions.

# *Dirty Laundry? Lab Coat Laundry Service*

Case Western Reserve University uses Merchants Linen Service for the monthly laundering of laboratory coats/scrubs. To establish service, contact the Merchants Linen representative for Case, Jack Kenney at 216-961-3310. Once an account is established, drop off lab coats in the dock area of Shipping and Receiving in the Service Building or the dock area of the Wolstein Research Building (WRB). Leave laundry in a plastic bag, in the receptacle provided *inside* the dock area beneath the sign that reads, "Merchants Linen."

Merchants Linen Services recommends labeling lab coats/scrubs with building and room numbers. Additionally, it is suggested that the following information be included *in* the bag:

- Location of the laboratory
- Name of the PI and Department and phone number
- Number of lab coats to be laundered
- Any repairs needed (e.g., a missing button)

Payment for laundry service is collected monthly. P-Card use will be permitted. An invoice will be returned with delivery showing the p-card payment for accounting purposes.

**Drop-off and Pick-up Schedule and Procedures**

Coats/scrubs dropped off by Tuesday, may be picked up the following Tuesday. Clean lab coats are delivered on hangers to the same location where they were dropped off. PLEASE BE SURE TO PICK UP YOUR CLEAN LABORATORY COATS ON TIME TO AVOID ANY POTENTIAL CONFUSION.

Complete the sign-in sheet that is posted near the receptacle where lab coats are dropped off in the Shipping/Receiving dock area of the Service or Wolstein buildings. Write the drop-off date, PI name, department, room number, phone number, and the *total number* of lab coats on the sign-in sheet. When picking up lab coats, write PI name and date on the sign-in sheet.

NOTE: If these procedures are not followed, lab coats will not be picked up. If you have any questions, contact the DOES office at x2907.

**********

*"To establish laundry service, contact Merchants Linen representative for Case, Jack Kenney at 216-961-3310."*

# *Holiday Decorations: Play It Safe*

The holidays are getting closer every day. As we begin to prepare for the holidays, safety may not be the foremost thought on our mind. However, the decorations we use can potentially lead to serious safety hazards if we are not careful. We need to be especially aware of increased fire hazards during the holiday season.

Here are a few safety measures to keep in mind as you decorate:

1. Decorations must be flame-proof 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.

*Important Note:* 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. SEVERAL fires at Case have started this way in the past.

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

4. Decoration materials must not be exposed to lightbulbs, 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.

9. 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. DO NOT CALL 911.
- If the fire is manageable, and ONLY if you have been trained, use your fire extinguisher. Only attempt to put out the fire after the alarm has been sounded and the evacuation of the building has begun. If you are NOT trained to used the fire extinguisher, sound the fire alarm and get out of the building.
- Enjoy the holidays and please, BE SAFE.

Contact DOES at x2907 if you have any questions or concerns.

**********

# Security of Radioactive Materials

Security of all hazardous materials is a primary concern of DOES and should be a primary concern for all individuals using hazardous materials. Radioactive materials are no exception to this rule. All radioactive material (this includes stock vials and stock solutions) shall be secured against unauthorized access or removal unless you or someone from the laboratory authorized to use the material is present (reference OAC 3701:1-38-17; ODH Broad Scope License).

Equipment containing radioactive materials, i.e., cabinets, refrigerators, freezers, etc. that is located in hallways must be locked or contain a secure lock-box inside the storage unit. Moreover, a refrigerator containing a secure lock-box should also have a special label posting on the outside of the refrigerator.

If the radiation-labeled equipment does not contain radioactive material and is not being used for radioactive material, then the equipment should be decommissioned. For equipment that is used occasionally for radioactive material storage, the equipment shall be locked even if no radioactive material is currently present.

An unsecured refrigerator or freezer labeled as radioactive but which contains no radioactive material is considered a security violation as per RSOF guidelines.
Radioactive waste does not need to be secured in the same manner as other radioactive material. However, waste is to be kept in the waste area of the laboratory and its activity sensibly minimized.

For clarity remember, if you or someone from your lab authorized to use radioactive material is not present, all radioactive material must be secured. Call DOES at ext. 2906 with any questions regarding security procedures for radioactive materials.

# Taking Inventory—Uranyl Acetate

Uranyl acetate is a naturally occurring radioactive material that emits alpha (a), beta (b) and gamma (g) radiation. It is used as a stain for electron microscopy viewing enhancement. Although the radiation associated with the material is far less hazardous than its chemical toxicity, it should be treated as a radioactive hazard.

The external dose and skin dose that you would receive if you were working with uranyl acetate is minimal; therefore, the external radiological hazard is very low. Do not inhale or injest it, and always use it in a chemical hood. As always, follow the safety procedures as outlined in the Material Safety Data Sheet (MSDS) for uranyl acetate. More detail regarding skin and external doses can be found in the Radiation Safety Manual located on our website.

We are in the process of compiling an inventory of those individuals that use this class of compounds. If your lab has uranyl acetate, uranyl nitrate, thorium acetate, or thorium nitrate, please indicate the chemical and the amount and send it to Karen Janiga (kej2) the Assistant Radiation Safety Officer at Case. Disposal of any of the above listed compounds must be done through the Radiation Safety Office.

# *Taking Inventory—Uranyl Acetate (Continued)*

You can dispose of any of your old stock by filling out a Radioactive Waste Disposal from and faxing it to the Radiation Safety Office at 216-368-2236. Any questions regarding uranyl acetate can be directed to Karen Janiga at 216-368-8872.

# *Where is DOES?*

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. Keep in mind that much of the information and services (e.g., Safety Services manuals and forms, upcoming training sessions, online training sessions, past newsletters, etc.) that DOES provides can be found conveniently online at http://does.case.edu. at any time.

# *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

**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

# *Upcoming Training Sessions**

**********

**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

**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.

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

(continued on page 10)

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
Bill DePetro (wjd11), Specialist II
Tom Merk (tlm8), Specialist II
Jon Birkes (jon.birkes), Specialist II
Edwin Filppi (edwin.filppi), Specialist I
Mary Ellen Scott, Ph.D. (mas35), 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), Operations Supervisor, Specialist II
Victoria Cook (victoria.cook), Specialist I
Sylvia Kertesy (sylvia.kertesy), Specialist I

**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**