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Department of Occupational and Environmental Safety NEWSLETTER

August 1996 CASE WESTERN RESERVE UNIVERSITY VOL. 5 NO.6

In

What WASTE!

Laboratory Waste: What Goes Where?

Institutions like CWRU, which produce diverse types of waste and lots of it, know that waste disposal involves more than what meets the eye. Waste generated at CWRU—from "sharps" to notebook paper—must be carefully segregated in order to ensure disposal in an environmentally sound way.

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Recycling Anyone?

The Department of Occupational and Environmental Safety maintains a 50 liter spinning band still capable of recycling solvents to a near-pure form. To get the best results, the components of the mixture should have boiling points at least 15 degrees Farenheit apart or greater. Mixtures being run on a continuous basis include acetone and water and methyl isobutyl ketone, acetic acid, and water.

If you have quantities of a solvent mixture that you believe could be recycled, please contact DOES at x2907. Ideally, we are looking for solvent mixtures of 20 liters or greater, comprised of no more than two solvents that meet the boiling point separation limit of 15 degrees Farenheit.

Recycling these materials is free of charge and is essential in reducing the amount of hazardous substances introduced into the environment. Please consider it for your lab.

Upcoming Training Sessions

IMPORTANT! Due to capacity constraints, some Radiation Retraining classes may be held in locations other than the DOES conference room. It is very important that you call our office to sign up for the class and at that time verify the location of that particular training session.

Radiation (x2906)

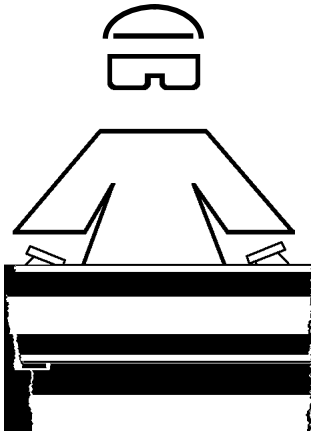
- **New Training:** Aug.6 (9-12), 15(1-4), 28(9-12)
- **Retraining:** Aug.7 (2-3), 16(10-11), 28(2-3)
- **X-ray Training:** call office to set up training session

Chemical (x2907)

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

Bloodborne Pathogen (x2907)

- **New Training:** Mondays 3-4:30 (DOES Conference Room)
- **Retraining:** Aug.6 (3-4), 21 (10-11)



Lab Wear Outside the Lab

Personal protective equipment (PPE) includes anything that protects your body from potential hazards in the lab. The most commonly worn PPE consists of gloves, lab coats, protective footwear, and protective eyewear. Because these items are protective equipment, they should not be worn outside the lab area. We have found many people wearing PPE, gloves and footwear especially, when they are not in their lab. This action is considered a "perceived hazard" and is therefore against OSHA regulations.

If your gloves have done their job, then they might be carrying around some sort of potentially hazardous material. After all, that's why you put them on in the first place—just in case. So please remove them—and with it the potentially harmful material—before you leave your lab. Remove them even if they are clean or you did not work with any hazardous materials. The reasoning behind this premise is simple: you may know that the materials with which you have been working are not hazardous, but others around you do not, and this sort of uncertainty can easily erupt into unnecessary concern.

Removing gloves and other PPE when leaving the lab greatly reduces the chances of contamination, as well as

HOT TIPS

Pregnant Radiation Workers

Any pregnant radiation worker who plans to continue working with radioisotope during the pregnancy should inform the Radiation Safety Office and her supervisor in writing of her pregnancy with the estimated date of conception. The declaration lowers the permissible dose limits from 500 mRem per year to 500 mRem for the entire gestation period.

Upon declaration, the worker will receive a fetal badge to be worn at the waist in addition to her quarterly badge. The embryo/fetus dose limit after declaring pregnancy is approximately 50 mRem per month. Fetal badges

Safe Chemical Storage

Storing chemicals in the lab can be a tricky business—amounts of toxic, flammable, or highly reactive chemicals all in one place is a potential time bomb. While there are no arbitrary rules that apply to every lab, here are some general guidelines aimed at reducing the amounts of unsafely stored and unnecessary quantites of dangerous chemicals in the lab.

• Every chemical should have a defined storage space and should be returned there after every use. This cuts down on any confusion between lab users. Make sure these spaces are well-known or labelled.

• Do not store chemicals on bench tops, where they can be easily knocked over. Also, this leaves them very unprotected in case of fire.

• Do not store chemicals in fume hoods—this interferes with the air flow in the hood, clutters up working space, and increases the amount of materials that could become involved in a hood fire *(see related article on p. 1)*.

• Use storage trays or secondary containers when distributing the chemicals; this cuts down the amount of chemical wasted if a container leaks or spills. Perchloric acid should be kept on glass or ceramic trays of sufficient capacity to hold all of the acid in case of breakage.

• Laboratory refrigerators should be used to store chemicals ONLY; food should never be stored here.

• All chemical containers should be properly labelled(new bottles as well as temporary containers). Include the following information: name, PI, date, contents, purity, location, hazards (if known).

• Store chemicals according to compatibilty—this reduces the amount of damage that can occur if one of the containers fails. Within hazard classes, chemicals may be stored alphabetically.

We recommend that you regularly go through your chemicals to make sure all is in order: any loose labels are fixed, chemicals are in the right places, chemical containers have maintained their integrity.

Chemical Storage? Not in Fume Hoods!

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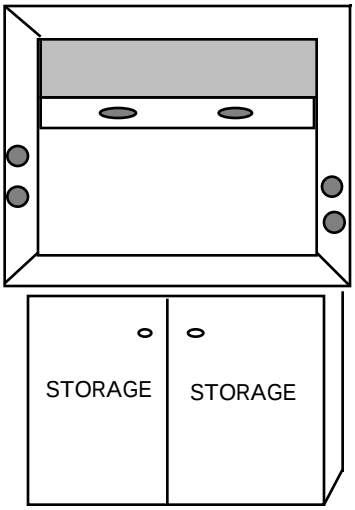
slightly. Any volatile radioactive material should be stored in the hood; the most common material in this category is I125. Any potential contamination can therefore be siphoned out of the lab. I125 radioactive waste should also be kept in the hood.

Please do not continue the unsafe work practice of storing chemicals in the fume hood. Call Safety Services (x2907) if you have



hypodermic needles, sy-	all other laboratory waste that has not been contaminated b
Security at x6299 before 4:00 for an evening pick-up. Radioactive sharps: call Radiation Safety (x2906).	

cause a puncture wound or cut—may be disposed of in a puncture-proof cardboard box. This box must clearly be labeled "SHARPS" so that everyone is aware of the contents.

For pick-up of non-radioactive sharps call Security at x6299 before 4:00 p.m. for an evening pick-up. For pick-up of radioactive sharps, call the Radiation Safety Office (x2906).

UNCONTAMINATED LABORATORY WASTE: all other laboratory waste that has not been contaminated by radioactive, chemical or infectious agents such as petri plates, paper cloths, gloves, tubing, non-sharp lab wastes, empty chemical containers, as well as "ordinary trash" like packaging materials (such as empty Fisher

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pipette containers) and cardboard.

This waste should be disposed of in black bags and can go out as general trash to be picked up by the custodial staff.

Recyclable goods such as paper, glass, cans, and plastics should be disposed of in specially marked green or blue bins.

Previously, ordinary trash had to be placed in separate clear bags. Now this is no longer necessary—ALL general uncontaminated laboratory waste can be disposed of together in black bags.

Questions concerning proper disposal should be addressed immediately— call the Department of Occupational and Environmental Safety (x2907) with any specific needs or problems. It is vital that waste at its source—in the lab—be properly prepared for disposal.

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