



# 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>

**June/July  
2006**

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## **e-Waste: What You Need to Know**

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.** These 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 "demanufacture" 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 phone call from you, the end user of the electronic device, to Customer Service at 368-2580. Customer Service will ask you how many pieces you have to dispose of and where the pieces are located. Our custodial staff will then come to your location and remove the devices to a designated pick up point. Before a custodial staff member arrives to pick the equipment up, please write the name of the building and room number of the original location on the outside of the devices in permanent marker.

The Case Western Reserve University e-Waste program will be changing soon from  
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## **e-Waste: What You Need to Know (Continued from Page 1)**

the above process to a more formal process. This process will involve the submission of a disposal form to the Department of Occupational and Environmental Safety. This form will serve as a work order and tracking form. Until this form is completed and in place, please follow the procedure aforementioned.

Case Western Reserve University's Department of Occupational and Environmental Safety in conjunction with Plant Services, Customer Services, and Custodial Services, encourages you to keep the environment safe today for our future generations.

## **Hazardous Materials Shipping – A Growing Concern for Universities**

We all know that research at the university often requires the use of hazardous materials and equipment. However, we may not always think about how these materials get to us or where they go when they have fulfilled their usefulness. It is important to be trained by DOES to make these distinctions. Before you ship anything that might be considered hazardous, ask yourself, "Is what I'm shipping regulated by the US Department of Transportation as a hazardous substance?" If the answer is yes, and you are employed by Case, then you need to be trained. If you are not sure, ask a safety specialist from DOES.

**Regulations for the transport of hazardous substances pertains to anyone who in the course of employment participates in any of the following activities:**

Prepares hazardous materials, including the following activities:

- Modifying or inventing
- Filling containers and packages

Prepares packages of hazardous materials for shipping, including the following activities:

- Marking
- Labeling
- Sealing
- Filling out shipping papers and Shipper's Declaration
- Securing

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# Hazardous Materials Shipping – A Growing Concern for Universities (continued)

Transports packages containing hazardous materials, including the following activities:

- Operating a motor vehicle
- The use of properly placarded university vehicles on public roads

You must also be trained if you perform any of the following activities:

- Load, unload or otherwise handle hazardous materials
- Qualify packaging, including testing, reconditioning, repairing, modifying, and marking (these usually include manufacture’s of shipping containers, but may include hazmat employees who repair and reuse boxes and other shipping containers)

Civil penalties can be as high as \$32,500 per violation and up to \$500,000 per criminal violation, with up to 5 years imprisonment. **REMEMBER:** It is ultimately the *SHIPPER'S* responsibility, NOT the receiver.

Governing regulations for the transportation of hazardous materials are found in Parts 100 – 185 of 49 CFR.

In order to be certified to ship hazardous materials, “Hazmat Employees” must be trained in accordance with the US Department of Transportation’s Pipeline and Hazardous Material Safety Administration. This training covers the following:

- General hazmat shipping awareness
- Safety and security awareness including emergency guidelines
- A competency test
- Site specific training (site specific training is designed for the hazmat employees’ specific shipping needs and includes IATA (International Air Transport Association) guidelines for air shipment.)

Finally, retraining must be completed once every two years.

All training requirements for shipping hazardous materials are handled by DOES. **General awareness training classes are held every other Friday at 2:00PM in the DOES conference room** (reservations must be made in advance by calling 368-2907). Arrangements are made for site specific training following general awareness training.

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# Controlling Laboratory Ergonomic Risk

*“By learning how to control laboratory ergonomic risk factors, you can improve employee comfort and productivity while lowering*

Ergonomics is a means of adapting the work environment to human capacities and needs—in common terms, it is a way of fitting the task to the person. In our daily lives in the workplace, we use principles of ergonomics to find positions and tools that minimize stress on the body while working.

All manual and repetitive work done for long periods of time places stress on certain areas of the body. This includes many laboratory tasks that require painstaking and lengthy procedures—pipetting, labeling small jars or test tubes, sitting at the microscope, and using the computer. These tasks can contribute to poor posture, repetitive stress injury, and other ailments. Over the coming months, the newsletter will provide suggestions for reducing ergonomic risk factors common to the laboratory: awkward posture, high repetition, excessive force, contact stresses, and vibration. By learning how to control laboratory ergonomic risk factors, you can improve employee comfort and productivity while lowering chances for occupational injuries.

## **Pipetting**

Pipetting is one of the most common activities in the laboratory to which repetitive strain injuries (RSIs) can be traced. These tips can help reduce those factors of force, position, and repetitiveness which contribute to the stress this activity places on the body.

### **To Control Awkward Postures:**

- Work with wrists in straight, neutral positions to minimize strain. For example, incline the sample holder or solution flask, for example, to help keep wrists straight.
- Reduce reaching—use short pipettes, use conveniently-sized solution containers, and properly position waste containers for used tips.
- Keep items in use as close to you as possible by positioning them to minimize twisting of the neck and torso.
- Work with elbows as close to your sides as possible.
- Make sure that your chair provides proper lower back and thigh support and that feet are supported.

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# Controlling Laboratory Ergonomic Risk Factors

**To Control High Repetition:**

- Automate pipetting tasks.
- Use multi-pipetters whenever practical.
- Share workload between right and left sides.
- Vary pipetter types having different activation motions; for example, switch from using a thumb-controlled to a finger-controlled pipetter.
- Take adequate breaks away from pipetting activity—even short, several-second “micro-breaks” help.
- Rotate pipetting among several employees.
- Evaluate work processes to identify high-risk tasks (such as repetitive pipetting). These tasks can then be spread throughout the day and provide the worker with some rest from the strain of repetition.
- Add personnel for peak periods.

**To Control Excessive Force:**

- Choose pipetters requiring less finger or thumb motion to activate.
- Choose pipetters requiring less force to activate.
- Use only the force necessary to activate.

**To Control Contact Stresses:**

- Choose pipetters that best fit your hand.
- Do not rest forearms on sharp work surface edges; pad edge or forearm if necessary.

Safety Services can also help by doing an ergonomic evaluation of your workstation and possibly making some recommendations to improve the situation. For further information, call Safety Services (ext. 2907). Future editions of the newsletter will discuss ergonomic solutions for handling test tubes and using microscopes.

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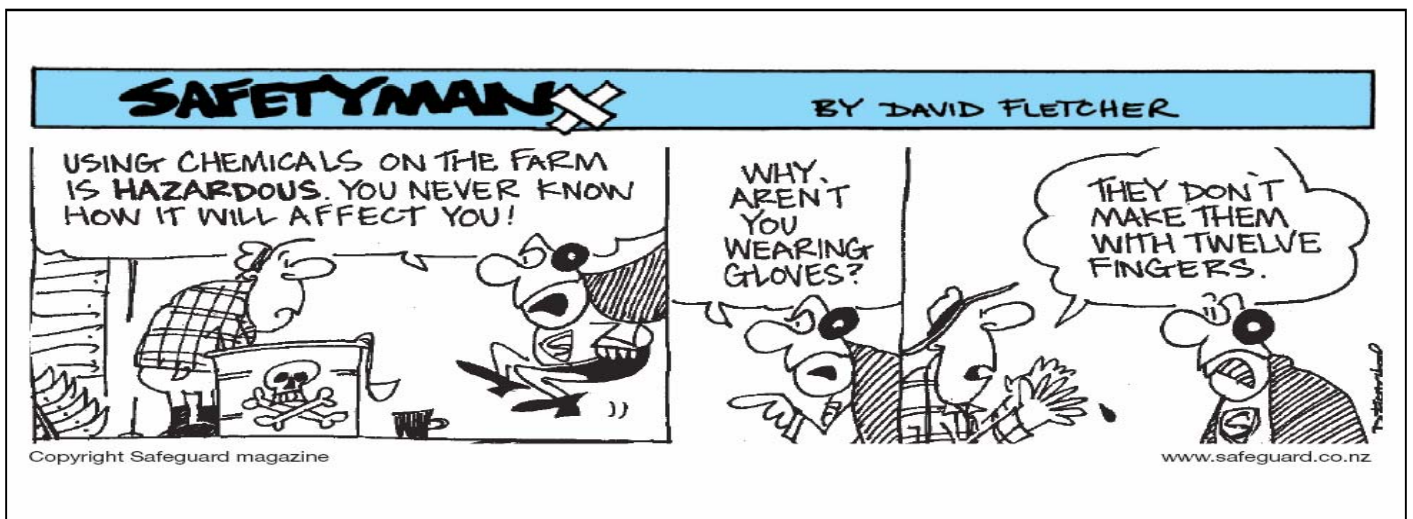
*“Safety Services can also help by doing an ergonomic evaluation of your workstation and possibly making some recommendations to improve the situation. For further information, call Safety*



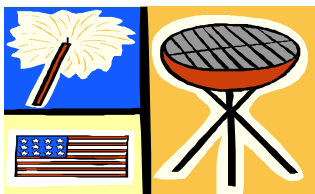
# Laser Safety Officer Looking for Volunteers

The Laser Safety Officer is currently looking for volunteers to serve on the Laser Safety Committee. There are currently several vacant positions including Chairman and Recorder. The Laser Safety Officer encourages all interested PIs or lab supervisors with open beam Class 4 lasers to volunteer. The Laser Safety Committee will meet twice a year. Please call Wayne Justice, Case Laser Safety Officer, at ext. 4600 or email (hwj@case.edu) if you are interested in serving.

## Humor Corner



## Happy Independence Day—Tuesday, July 4th



## Upcoming Training Sessions\*

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

### **New Radiation Safety Training**

Retraining is required annually.

DOES conference room - Service Building 1st Floor

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

### **X-Ray Safety Training**

DOES conference room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED* ! - Please call 368-4601

or email [jxb153@case.edu](mailto:jxb153@case.edu)

### **Laser Safety Training**

DOES conference room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED* ! - Please call 368-4600

or email [hwj@case.edu](mailto:hwj@case.edu)

The Laser Safety training schedule is now available online at the DOES website <[does.case.edu](http://does.case.edu)> under Laser Training. Listed below are the training dates through August 2006:

- Friday, June 2, 10:00 AM
- Monday, July 10, 10:00 AM
- Tuesday, August 15, 1:00 PM

### **Bloodborne Pathogen Training**

DOES conference room - Service Building 1st Floor

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

**Initial training must be completed in person.** *For renewal training, there is an online version of this class. You do not have to attend the class if you are renewing your training.*

Held every Tuesday afternoon from 3:00 to 4:30 p.m.

Additional training classes have been scheduled for the second Friday of the month as follows:

Friday, June 9, 11:00 AM

Friday, July 14, 11:00 AM

Friday, August 11, 11:00 AM

Friday, September 8, 11:00 AM

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**Formaldehyde, Benzene, Methylene Chloride, and Vinyl Chloride Retraining**

Please call 368-2907 to preregister for this class.

There are online versions of Formaldehyde and Benzene retraining. If you take the online versions of Benzene or Formaldehyde you do not have to take the class.

Class Objective: Chemical specific training

**OSHA Laboratory Safety and Regulated Chemical Training**

DOES conference room—Service Building 1st Floor

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

Held every Tuesday afternoon from 1:00 to 3:00 pm

**Hazard Communication Training (Right-to-Know)**

Crawford, Room 209

Held every Tuesday afternoon from 1:00 to 2:30 pm

Note: Additional classes will be held in the DOES conference room located in the Safety Service Building—see website <does.case.edu> for schedule

**Radiation Safety Retraining**

Please retrain on the Internet @: <http://does.case.edu>

**Annual Respirator Training**

DOES conference room—Service Building 1st Floor.

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

Note: *There is an online version of this class.* If you take the online version you do not have to take the class. But you still need to come in for a fit test.

**DOES STAFF**

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