



Department of Occupational and Environmental Safety NEWSLETTER

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CASE WESTERN RESERVE UNIVERSITY

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Handling Replacement Orders

Replacement orders for radioactive materials are sometimes necessary because of mistakes in shipping or incorrect catalog numbers. It is important to follow the procedure below to most efficiently correct these problems.

- Orders need to be placed through **PURCHASING ONLY**.
- If you need to **CANCEL** an order, notify **PURCHASING**.
- If an order is filled by Purchasing that you claim to have cancelled, you are responsible for that order.
- Be sure and document any and all purchases/reorders as per the guidelines in your Chemical and Radiation Safety Manuals.
- If you have **ANY** questions, please call us at x2906.

If you need to **CANCEL** an order, please do the following:

- Notify **PURCHASING** immediately.
- Keep a record of your cancellation request.

Purchasing will notify us; please **DO NOT NOTIFY US OF A CANCELLATION SINCE WE DO NOT ORDER PRODUCTS and cannot process order cancellations.**

(continued on pg. 2)

Needlestick Safety Revisions

In accordance with the Needlestick Prevention and Safety Act, OSHA has revised the Bloodborne Pathogens (BBP) standard.

According to OSHA, the revisions "do not reflect any new requirements being placed on employers with regard to protecting workers from sharps injuries, but are meant only to clarify the original AccFY US Oh thed

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What a WASTE!

Radiation (x2906)

- New Training:** Sept. 7, 18; Oct. 3 (call for times)
- Retraining:** (call for times)*
- X-ray Training:** Aug. 29; Sept. 12, 26 (call office to set up training)

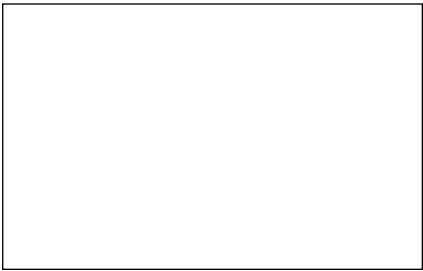
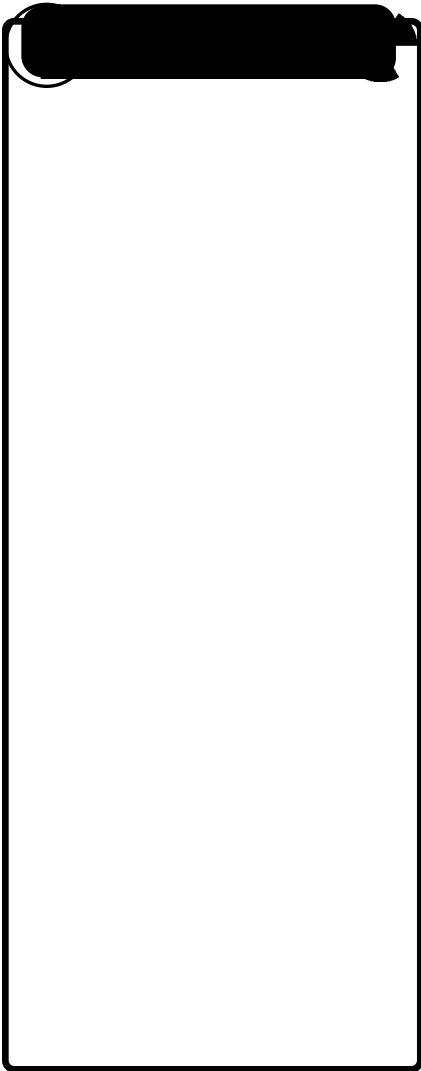
Chemical (x2907)

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

Bloodborne Pathogen (x2907)

- New Training:** Tuesdays 3-5 (Service Building Conference Room)
- Retraining:** Sept. 12, 27 (call for times; Service Building Conference Room)

*Don't forget: rad re-training is now also **ONLINE** on our website: <http://does.cwru.edu> -- please check this out as it is an (d)T- pleaf.148 433.225 1 t eractive wa



The recent and tragic steam explosion at the Medina County Fair reminds us that **any** substance, when contained in a highly pressurized environment, has the possibility to become very dangerous. In the laboratory, there are several such dangers to be aware of.

Compressed Gases

Gases used in laboratories are supplied in cylinders at high pressure. In addition to any potential chemical hazards, compressed gases are a high-energy source and therefore hazardous. The following rules must be followed:

- cylinders of all sizes must be restrained from falling by restraining devices
- during storage or transport, the cylinder cap must be in place
- cylinders must only be transported when strapped to a wheeled cart
- no lubricant shall be used when connecting the regulator to the cylinder
- new connections should always be checked for gas leakage
- the cylinder delivery pressure shall be set to zero after the main cylinder valve is closed to prevent a rapid release of compressed gas the next time the cylinder is opened
- in the event of a fire, the supply of a combustible gas shall be shut off before any attempt is made to extinguish the flame
- a trap shall be used to prevent the back siphoning of solution when a soluble gas is being employed
- do not expose cylinders to temperatures higher than 50°C
- use toxic, flammable or reactive gases in a fume hood
- be aware that special handling procedures are required for certain gases, e.g. acetylene

Distillations and Reflux Operations

Distillations and reflux operations are common laboratory procedures which present several potential dangers: pressure buildup leading to explosions if closed systems are used, and fire hazards associated with heating flammable substances are two of the most common. A variety of apparatus designs are available to accomplish reflux/distillation operations at atmospheric pressure, under inert atmospheres, under reduced pressure and by the addition of steam. The following general points should be noted when carrying out these procedures:

- check the integrity of the system; leaks of flammable materials can lead to fires
- ensure smooth boiling through stirring or the addition of boiling stones (do not add boiling stones to hot liquid)
- choose an appropriate heat source - electric heating mantle, ceramic cavity heater, steam bath or silicone oil bath
- do not heat the heat source above their autoignition temperature of the liquid being distilled/refluxed
- do not distill organic liquids to complete dryness

In addition, be aware of the sealing of any pressurized material in **any** closed-space container whether it be a vial or a refrigerator and take the appropriate steps when moving and/or using it. As always, label such containers and be sure that everyone in your lab is aware of the un

Keep Fume Hoods Clean!

Chemical fume hoods are some of the most important engineering controls against hazardous fumes. However, any clutter, overloading, or storage of unnecessary equipment in a fume hood can drastically affect its performance and could endanger your health.

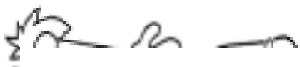
Once a month, clean and dust your hood baffles with a broom and dustpan so that they are free of unwanted residue. Keep your fume hood organized and clean -- it's for your safety.

Safety Shorts

Some safety snippets to get you through the end of summer. . .

- Going on a late summer vacation? Maybe even overseas? Check the U.S. Travel Advisory webpage at http://travel.state.gov/travel_warnings.html first.

- Just last month, a dead bird in eastern Ohio was confirmed to have the West Nile virus. As a precaution, wear mosquito repellent at all times when camping or outdoors. And if you have to remove a dead bird from your yard, wear gloves or call the city to remove it for you.



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