“Keep the

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As you may be aware, the vast majority of flammable chemicals used by laboratories are flammable liquids and organic solvents whose vapors can form ignitable mixtures with air. Flammable liquids are classified by their flash points. A flash point is defined as the lowest temperature at which a fuel-air mixture present above the surface of a liquid will ignite if an ignition source is introduced. The dangers of ignition of these solvents can be particularly insidious because they generate vapors with densities greater than air. The vapors tend to be immiscible with air and they flow along surfaces and still remain within their flammable limits in air. Ignition of vapors at a remote source can trigger a flashback along the vapor trail to the liquid source. It is important to remember that the ignition source DOES NOT have to be in the form of a spark or flame,; room temperature alone can supply the energy. Flammable liquids are chemicals that have a flash point below 100^{o}F (38.7^{o} C) and a vapor pressure that does not exceed 40 psi at 100^{o}F.

Eye protection- Eye protection in the form of safety glasses must be worn at all times when handling flammable liquids. Ordinary (street) prescription glasses do not provide adequate protection. (Contrary to popular opinion these glasses cannot pass the rigorous test for industrial safety glasses.) Adequate safety glasses must meet the requirements of the Practice for Occupational and Educational Eye and Face Protection (ANSI Z.87. 1 1989) and must be equipped with side shields. Safety glasses with side shields do not provide adequate protection from splashes; therefore, when the potential for a splash hazard exists; other eye protection and/or face protection must be worn.

Gloves- Gloves should be worn when handling flammable liquids. Disposable latex or nitrile gloves provide adequate protection against accidental hand contact with small quantities of most laboratory chemicals. Lab workers should contact OEHS for advice on chemical resistant glove selection when direct or prolonged contact with hazardous chemicals is anticipated.

Protective apparel- Lab coats, closed toed shoes, and long sleeved clothing should be worn when handling flammable liquids. Additional protective clothing should be worn if the possibility of skin contact is likely.

Safety shielding- Safety shielding is required any time there is a risk of explosion, splash hazard, or a highly exothermic reaction. All manipulations of flammable liquids which pose this risk should occur

Carbon Monoxide (CO) Staying Safe at Work and Your Home (continued from page 5)

—gasoline-powered tools indoors where CO from the engine can accumulate can be fatal. An exception to this rule might be an emergency rescue situation in which other options are not available--and then only when equipment operators, assisting personnel, and the victim are provided with supplied-air respirators.

Learn to recognize the symptoms and signs of CO overexposure: headache, nausea, weakness, dizziness, visual disturbances, changes in personality, and loss of consciousness. Any of these symptoms and signs can occur within minutes of usage.

Always place the pump and power unit of high-pressure washers outdoors and away from air intakes so that engine exhaust is not drawn indoors where the work is being done. Run only the high-pressure wash line inside.

Consider the use of tools powered by electricity or compressed air if they are available and can be used safely. For example, electric-powered tools present an electrocution hazard and require specific precautions for safety.

If compressed air is used, place the gasoline-powered compressor outdoors and away from air intakes so that engine exhaust is not drawn indoors where the work is being done.

Use personal CO monitors where potential sources of CO exist. These monitors should be equipped with audible alarms to warn workers when CO con-

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consciousness.”

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

Laser Safety Training

DOES conference room - Service Building 1st Floor
PREREGISTRATION IS *REQUIRED* ! - Please call 368-4600 or email hwj@case.edu

The Laser Safety training schedule is now available online at the DOES website <does.case.edu> under Laser Training.

New Bloodborne Pathogen Training

Please call 368-2907 to preregister for this class.

ALL NEW WORKERS MUST TAKE THIS IN-CLASS SESSION.

Class Objective: To go over the Bloodborne Pathogen Standard
Class Frequency and Time: The class is offered every Tuesday from 3:00 to 4:30 pm. Location: The class is held in the DOES conference room in the Service Building First Floor unless otherwise specified in the calendar.

Bloodborne Pathogen Re-Training

Please call 368-2907 to preregister for this class.

There is an online version of this class.

Class Objective: Retrain workers annually for the Bloodborne Pathogen Standard
Class Frequency and Time: The class is typically offered twice a month. It is approximately 1 hour in duration.
Location: The class is held in the DOES conference room in the Service Building First Floor unless otherwise specified in the calendar.

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.

DOES STAFF

W. David Sedwick, Ph.D., (wds),