



Increasing Security for Chemicals



Since we first introduced this issue in this publication last summer, the U.S. Department of Homeland Security (DHS) issued their final security rules to help prevent the intentional misuse of certain harmful chemicals. Although Yale University and many other institutions provided comment during rulemaking suggesting that colleges and universities are already covered by adequate regulations for these materials, the DHS rejected these pleas indicating that this new regulation applies to all companies, institutions, and entities.

While academic and research laboratories are not “chemical facilities” in the same sense as a factory or plant, DHS’s regulation applies to any organization that manufactures, stores, uses, or otherwise handles chemicals. The new rule requires every such organization, at the least, to register with DHS and complete an initial inventory screening. This process, known as “Top Screen,” is meant to determine if the facility has or recently had quantities of certain high hazard/dual-use chemicals in quantities larger than specific threshold amounts. Based upon answers to the Top Screen survey, facilities may be required to perform more detailed inventories and then develop or enhance existing security plans.

OEHS is serving as the University’s primary liaison with DHS on this new requirement. However, the process requires direct assistance from laboratory, facilities, physical plant, and other campus staff. We have developed a web-based data entry tool for end users to use, and also directly communicated with all recognized PIs, Business Managers, and top administrators from all non-laboratory departments about this new requirement. OEHS is committed to doing as much as we possible to assist, but anticipate that the effort to complete the screening process will be burdensome on all parties who work with chemicals. Your positive assistance as this requirement is implemented is necessary to ensure that work on campus continues uninterrupted.

For further information on this new rule, please see our website at www.yale.edu/oehs or contact us at 785-3550.

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How you work can have a major influence on others so always consider your actions in terms of potential impact and what steps are necessary to prevent harm or injury. Become familiar with and observe established safety requirements and procedures in your work area, use any required protective equipment, take required trainings, and report unsafe conditions to your supervisor

OEHS is looking for employees who contribute positively to Yale’s safety culture to feature in our newsletter. If you know someone you would like to see spotlighted, please submit their name, along with a short description of their safety-related contribution to the Yale community, to: tamara.hall@yale.edu.

Director's Corner



Setting Safety Priorities

When I walk on campus, I focus on things you may not notice: busy crosswalks, heavy backpacks, smooth steps, signs with warnings, vehicle turn signals, hand rails, coughs, hard hats, waste containers, electrical cords, hand carts, computer workstations, laboratory bench tops—are just a few examples.

We're here to make Yale a safe place. Every day, Office of Environmental Health and Safety staff must decide on priorities. Here's what we consider:

Your needs. When you ask for help, we respond. We respond to spills. We can evaluate the ergonomics of your workstation. We pick up your chemical waste. When you tell us of a hazard on campus—we get working to fix it.

Accidents and injuries. We closely track all accidents and injuries at Yale—including their frequency and seriousness. Using that information, we set priorities to prevent common and serious injuries and accidents.

What's required. We need to comply with the safety standards established by OSHA, EPA, building codes, the State of Connecticut and numerous other laws and requirements.

Other information. We continually monitor new risks here on campus, as well as safety problems encountered at firms, institutions and other universities. Sometimes these issues are new, and sometimes we learn of a hazard that had not previously been recognized. When new risks are identified, we implement new safety measures.

What if? As I describe above, the safety professionals at OEHS see the campus from a different perspective. We don't wait for accidents to happen. Our job is to anticipate and prevent them. We ask ourselves, "What if someone forgets the procedure?" "What would happen in an emergency?" When we hear about a "near miss," we use it as a serious lesson to make improvements.

What am I missing? We need your help in setting safety priorities. Yale has 11,358 students and 11,750 employees who can spot a hazard or the near-miss of an accident more quickly than we can, and before an accident or injury occurs. Call us. We can help. We are skilled in assessing risks and fixing safety problems.

Strategic Safety Planning. This year OEHS is taking time to assess our own strengths and weaknesses, as well as the opportunities and risks facing our University, including those I mention above. Risk is the product of probability and consequence. There is much to do, so we try to identify Yale's high-probability and high-consequence risks, and use this analysis to set our priorities.

We're asking hard questions. Are we meeting your needs? Are we in compliance? Are we doing all that's reasonably possible to prevent accidents and injuries? Are we using our safety resources prudently and efficiently to best address Yale's priority risks?

In the future, you'll see and read about the changes we decide to make as a result of this strategic planning. Meanwhile, we'd love to hear your thoughts and suggestions.

INCIDENT BLOTTER

A small sampling of incidents OEHS provided responses to during the past few months...

Description: Petroleum ether ignition and sulfuric acid spill

A graduate student in a laboratory spilled petroleum ether onto the floor, which was then ignited by a heat gun in use. A colleague suppressed the fire with an extinguisher, however a bottle of sulfuric acid was knocked over during the response.

Resolution: 111 was called, with response by NHFD, Yale Fire Marshal, Yale Police, OEHS, and CT DEP. Graduate student was transported to hospital with 2nd degree burns and released later the same day. New Haven Fire Department neutralized sulfuric acid with technical assistance of OEHS. OEHS completed clean-up and removed material.

Lessons Learned: Ignition and heat sources are to be avoided when using flammable materials. Avoid laboratory clutter and store hazardous material in secure locations to prevent containers from being knocked over. The incident illustrates the importance of good housekeeping in laboratories and of not working with hazardous materials alone.

Description: Gas odor prompts building evacuation

Description: The gas in a biosafety cabinet was inadvertently left on for several minutes, allowing the gas to accumulate in a tissue culture room. A researcher noticed the smell in the stairwell below, traced the source, and shut off the gas. He opened the doors to the lab to allow the odor to dissipate, but others noted the gas smell in the elevator shaft and on the floor below and contacted BS&O. They investigated, measured the presence of natural gas in the elevator shaft and on the 3rd floor hallway, and assumed an active gas leak. The building alarm was pulled, causing the NHFD to respond and the building to be evacuated.

Resolution: The gas odor was mostly dissipated by the time the NHFD arrived. Once no active gas leak was confirmed, staff were allowed back into the building approximately 30 minutes after the alarm was pulled.

Lessons Learned: Others in the area and in the building were not aware of the source of the odor, resulting in the belief that there was an active gas leak and the subsequent pulling of the fire alarm. Be sure to contact the building Control Center or Security Office to inform them about the source of gas or unusual odors that may cause concern, and to notify affected personnel in surrounding laboratories and rooms.

OEHS encourages laboratories to conduct safety surveys of their areas on a regular basis. In order to guide researchers in this self-assessment, a checklist of general laboratory safety items that are relevant to most research laboratories at Yale University is now available on our website at <http://www.yale.edu/oehs/Documents/lab/labselfassesschecklist.pdf>. We encourage PIs or Lab Managers to do this safety survey at least twice a year. This self-assessment does not replace the annual safety inspections that are conducted by OEHS.

OEHS Awards, Recognition & New Employees



OEHS Excellence Award, November 2007 James Watkins

James is a dedicated, hard working employee who began working for OEHS as an ESS technician where he was cross trained in all the waste programs. He quickly showed an interest in radioactive waste management and worked his way to health physicist for the group. He has succeeded in disposing of a backlog of historical radioactive material. James has also taken the initiative to assist in improving and critiquing the ESS databases while streamlining and formalizing many components of the radioactive waste program. He agreed to serve as the interim Supervisor for the ESS technicians and has been learning new facets of ESS in the process. James is open to new ideas and welcomes challenges with a positive and fair attitude.



OEHS Excellence Award, November 2007 Benjamin Fontes, Tom Ouimet and Randina Palmisano

This award recognizes three individuals for their contributions to a special training project of international import. Benjamin Fontes (OEHS), Tom Ouimet (OEHS), and Randina Palmisano (YARC) worked diligently for more than a year on the production of a training video that was funded by the American Biological Safety Association and the Elizabeth R. Griffin Research Foundation. The video, entitled "Working Safely with Laboratory Animals," is designed to address issues at the Animal BSL 1, 2, and 3 levels. This video bridges an important and vulnerable gap between lab animal husbandry, research, and safety. It will be distributed widely by ABSA, and furthers Yale's international reputation. Presenting the award above is OEHS Director, Peter Reinhardt.

Working Safely with Laboratory Animals: Animal Biosafety Levels 1 - 3

The training videos can be accessed at anytime at: <http://www.yale.edu/oehs/biomoreinfo.htm>.



New Employee Salvador Aurelia III

We are also pleased to introduce Salvador Aurelia III as our new Health and Safety Technician within the Environmental Services program. Sal comes to Yale with years of experience in both Universal/Hazardous Waste Management and Waste Water Treatment Plant operations. Sal can be found working all over campus assisting you with your radioactive, biomedical and hazardous waste removals. In Sal's spare time he enjoys camping with his family and being involved with his church.



Welcome Back Iain Iain Kinsella

We welcome back Iain Kinsella. Iain rejoins our team as a Safety Advisor Technician. Iain has a background in reactive and energetic materials chemistry and earned a B.S. in Environmental Science from Unity College. Iain had worked in OEHS as a Health & Safety Technician in 2005 and took two years to pursue other career opportunities.

Additional New Employees!

June Tamkin-Price joined OEHS on January 2nd, part time, as our new medical health physicist. June had been working for us as a consultant on radiation safety at our PET facility. She will continue to do PET work, mostly, but will help us with other radiation safety program responsibilities, as well.

Jim Romanski will be joining us on January 28th as our new Power Plant EHS Officer. His duties will start with air and other environmental compliance issues at our Power Plants (we now have three of them), and will gradually work into H&S issues there.



New Employee Brian Mullins

Brian Mullins joins OEHS as a Safety Advisor Technician. He will be supporting the Safety Advisor program through fume hood and safety equipment testing, radioactive isotope deliveries, indoor air quality investigations and work requests safety clearances. Brian holds a masters degree in chemistry and has extensive years of research work in infectious diseases in both CT and CA. In his free time, Brian enjoys playing his electric and acoustic guitar, going to concerts and listening to all types of music.

EHS Web Links

- www.yale.edu/oehs
- info.med.yale.edu/bbp
- info.med.yale.edu/bbpclinical
- info.med.yale.edu/chemhaz
- info.med.yale.edu/chemsafe
- www.yale.edu/oehs/TB/index.htm

Office of Environmental Health & Safety
135 College Street, New Haven, CT 06510
Telephone: 203-785-3550
Fax: 203-785-7588
<http://www.yale.edu/oehs>

Director: Peter Reinhardt

EPA has named January

"National Radon Action Month"

Been meaning to test your home?

To purchase a radon test kit for \$12 from the American Lung Association of CT simply call 1-800-LUNG-USA (1-800-586-4872) and order yours today.

For more information on radon from the CT Department of Public Health, please visit:

<http://www.ct.gov/dph/cwp/view.asp?Q=401928&A=3294>

Safe Winter Driving Tips

Before Leaving Home: Prepare Yourself and Your Vehicle

- Find out about the driving conditions and weather forecasts. Safe drivers know the weather, and they know their limits.
- Always lower your driving speed in poor conditions and remember that 4-wheel drive doesn't help you to stop. Leave plenty of extra time to get to your destination so you won't feel rushed.

Make sure your car has:

- Adequate antifreeze and windshield wiper fluid
- A full or close to full tank of gas
- Tires that have good traction and are inflated to the appropriate pressure
- Working heaters and defrosters
- Well maintained brakes
- A battery in good condition with a full charge
- A good ice scraper

Make sure you have:

- Warm, weather protective coat
- Good gloves and a warm hat
- Waterproof boots with sturdy soles that have some traction
- A charged cell phone

Keep these supplies handy to help with unexpected situations:

- Compass, Shovel, Sand, Rope, and Jumper Cables

Consider carrying a winter survival kit in your vehicle which may contain:

- Blankets
- Flashlight with spare batteries
- A change of clothes to keep dry
- Water and snack foods
- A way to attract attention if you become stranded (flares, bright cloth, etc)

New OEHS Team (Procedures) for Biological, Chemical, and Radioactive Materials Shipments



The shipment of hazardous materials is regulated by the U.S. Department of Transportation (DOT) as well as the Federal Aviation Administration and the International Air Transport Association (IATA); many biological, chemical and radioactive

materials are covered by these regulations. To assist the Yale community with these shipments, OEHS has organized a shipping team to help people classify the material being shipped and, if necessary, in packaging the shipment and completing the appropriate paperwork. The team can also assist with helping to ensure compliance with federal import and export regulations.

When shipping any biological, chemical, or radioactive materials please complete a "HAZMAT Shipment Request" and fax back to OEHS. The form is available on the OEHS web site at <http://www.yale.edu/oehs/Documents/lab/LABhazmatchecklist.pdf>. Once OEHS receives the checklist the shipment will be assigned to a member of the OEHS Shipping Team for evaluation.

In most cases, shipments of biological materials may be shipped by lab personnel provided they have successfully completed the "Shipping and Transport of Hazardous Biological Agents" training. However, we do ask that a "HAZMAT Shipment Request" be completed and faxed to OEHS for evaluation, including verification of training being completed with in the last two years, prior to any material being shipped. Additional information may be found on the OEHS web site at <http://www.yale.edu/oehs/hazmatship.htm> or by calling OEHS at 785-3550.

Safety Training



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Biosafety Training

This is a mandatory course for employees working with pathogens classified at Biosafety Level 2. The course focuses on good microbiological practices, safety equipment, and containment. We also review emergency response procedures and Yale Biosafety Policies. This course is ideal for new employees and can also provide helpful tips and valuable information for experienced personnel.

Wed., Jan 09, 2008 1:00 PM - 3:15 PM
Tues., Feb 12, 2008 10:00 AM - 12:15 PM
Wed, Mar 12, 2008 1:00 PM - 3:15 PM

Biosafety Level 3 Training

Mandatory for employees prior to initiating experiments with agents classified at BL2+, BL3, or BL3+. Please call 785-3550 to schedule.

Bloodborne Pathogens Training

These mandatory training sessions consist of an initial training seminar that new "occupationally exposed" employees must attend and a retraining seminar that must be attended each year by personnel occupationally exposed to human materials or bloodborne pathogens. Please note the appropriate training session to attend.

Initial Training

Tues, Jan. 08, 2008 9:00AM - 11:00 AM
Thurs, Jan. 24, 2008 1:30 PM - 3:30 PM
Wed, Feb. 06, 2008 1:30 PM - 3:30 PM
Tues, Feb. 19, 2008 9:00AM - 11:00 AM
Thurs, Mar. 13, 2008 9:00AM - 11:00 AM
Wed, Mar. 26, 2008 1:30 PM - 3:30 PM

Annual Retraining

Tues, Jan. 22, 2008 9:00AM - 10:00 AM
Wed, Feb. 20, 2008 2:30 PM - 3:30 PM
Tues, Mar. 25, 2008 1:30 PM - 2:30 PM

Safe Use of Biological Safety Cabinets

This training briefly explains how biological safety cabinets work, limitations of biological safety cabinets, proper technique when working in a biological safety cabinet, and certification and repair procedures. It is recommended for anyone that uses a biological safety cabinet.

Thurs, Jan. 17, 2008 9:30 AM - 10:30 AM
Tues, Feb. 12, 2008 2:00 PM - 3:00 PM
Wed, Mar. 19, 2008 9:30 AM - 10:30 AM

Laboratory Chemical Safety

Required training for laboratory personnel working with chemicals.

Tues, Jan. 15, 2008 9:15 AM - 10:45 AM
Wed, Feb. 13, 2008 1:00 PM - 2:30 PM
Tues, Mar. 11, 2008 9:15 AM - 10:45 AM

Safety Orientation for Non-Lab Personnel

This course combines three required training classes for non-lab staff in one condensed session. New or existing non-lab employees who require training may attend.

Wed, Jan. 02, 2008 8:30 AM - 9:40 AM
Wed, Feb. 06, 2008 8:30 AM - 9:40 AM
Wed, Mar. 05, 2008 8:30 AM - 9:40 AM

Tuberculosis Awareness Training

This mandatory training class is for employees who work in patient care or outreach settings that may involve exposure to Mycobacterium tuberculosis.

Wed, Jan. 16, 2008 9:00AM - 10:00 AM
Wed, Feb. 13, 2008 11:00 AM - 12:00 PM
Tues, Mar. 18, 2008 9:00AM - 10:00 AM

Shipping and Transport of Hazardous Biological Agents

This course reviews the shipping regulations from the Centers for Disease Control, the Department of Transportation (DOT), and the International Air Transport Association (IATA). Packaging, permits, shipping declaration forms, labels, and emergency response are among items that will be addressed. This is a mandatory course for employees sending, transporting, or receiving infectious substances.

Wed, Jan. 23, 2008 1:30 PM - 3:30 PM
Wed, Feb. 20, 2008 10:00 AM - 12:00 PM
Wed, Mar. 19, 2008 1:00 PM - 3:00 PM

Interactive Web Training

- Bloodborne Pathogens**
<http://info.med.yale.edu/bbp>
- Bloodborne Pathogens Clinical**
<http://info.med.yale.edu/bbpclinical>
- Chemical Safety**
<http://info.med.yale.edu/chemsafe>
- Chemical Hazardous Waste**
<http://info.med.yale.edu/chemhaz>
- Safety Orientation**
<http://learn.caim.yale.edu/rcr>
- Tuberculosis Awareness Web Training**
<http://www.yale.edu/oehs/TB/index.htm>

Respiratory Protection Training

Respiratory protection training and fit testing is required initially and annually for all respirator wearers.

If you already have and/or wear a respirator, please bring it with you to this class so that you can be fit-tested.

Mon, Jan 14, 2008 11:00 AM - 12:00 PM
Thurs, Feb 7, 2008 1:00 PM - 2:00 PM
Tues, Mar 18, 2008 2:00 AM - 3:00 AM

Confined Space Training

This session is designed to provide information regarding the identification, evaluation and control of confined space hazards and to insure that employees who must enter such locations are trained and apprised of Yale University's Confined Space Entry Program. Please call 785-3550 to register to attend this training.

Tues, Feb. 05, 2008 9:00AM - 11:00 AM
Tues, Mar. 04, 2008 9:00AM - 11:00 AM

Powered Industrial Vehicles

This course is one part of a two part qualification to operate a PIV at Yale. Upon completion, you will need to schedule a "hands-on" session to demonstrate competency to operate the vehicle. Following successful completion, you will be certified to operate the PIV.

Tues, Jan. 15, 2008 11:00 AM - 1:00 PM
Tues, April 8, 2008 9:00 AM - 11:00 AM

Office Ergonomics

By understanding basic ergonomics and its interaction with your job, you can help prevent injuries to yourself and work more efficiently and comfortably. Call your Safety Advisor to schedule a personal assessment.

Radiation Safety Orientation

Mandatory course for personnel working with radioactive material or frequenting an area where radioactive materials are stored or used.

Tues, Jan. 08, 2008 1:00 PM - 3:45 PM
Thurs, Jan. 24, 2008 9:30 AM - 12:15 PM
Tues, Feb. 05, 2008 1:00 PM - 3:45 PM
Thurs, Feb. 28, 2008 9:30 AM - 12:15 PM
Tues, Mar. 11, 2008 1:00 PM - 3:45 PM
Thurs, Mar. 27, 2008 9:30 AM - 12:15 PM

The Office of Environmental Health & Safety's training room is located at 135 College Street, in the lower level

Remember to log onto Yale's Training and Certification website at:
<http://www.yale.edu/training> to complete your Training Requirement Assessment