SUMMER Issue

August 2008

YALE UNIVERSITY OFFICE OF ENVIRONMENTAL HEALTH & SAFETY

Safety Bulletin

Pedestrian and Traffic Safety

The recent tragic death of a medical student at the busy intersection of York Street and South Frontage Road greatly highlighted the hazards faced daily by pedestrians, bicyclists, and motorists across New Haven and the region. Many are working hard to turn this terrible loss into a positive opportunity for raising awareness of pedestrian and vehicular safety, and find ways to implement improvements.

Chief among the initiatives is the Yale Medical Campus Traffic Safety Group, led by Rachel Wattier, also a medical student. The group consists of a broad cross-section of students, post-docs, faculty, and staff from the University and community who are interested in garnering positive change. In addition to meeting regularly, the group held its first public event on May 22, entitled Traffic Safety in the Community. The event included presentations by Dr. Kim Davis, Chief of Trauma Service in the Department of Surgery and also Mike Piscitelli, Director of the New Haven Department of Transportation, Traffic, and Parking, followed by an open discussion, and concluded with an escorted walk to the South Frontage and York Street intersection for a civil demonstration with signs and posters demanding safer driving. Discussions are underway with other university, city, and hospital representatives to explore additional opportunities for improvement.

Although outside our traditional realm of services, the Office of Environmental Health & Safety has been an active supporter and participant in this process. We recognize that all of the workplace safety training we provide is for naught if an individual fails to arrive safely at their campus destination. With our urban setting, nearly everyone experiences walking and crossing streets on a daily basis, along with increasing numbers of bicyclists and riders of public transit.

Many pedestrians feel that motorists alone are to blame, and have made calls for the prompt installation of speed bumps, increased police enforcement, and other traffic calming mechanisms. Unfortunately, the causes of poor driving behaviors are not easily or quickly remedied, and require significant infrastructure as well as behavioral modifications that will take time to change. The University is working on several specific initiatives and hopes that more members of the Yale and surrounding New Haven communities will join these as well. In the meantime, practice safe walking, driving, and bicycling by observing the following concepts.

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135 College Street Building Renovations

Due to building renovations, the OEHS 135 College Street lower level training room will not be available for training classes for the upcoming months. Training classes will continue to be held, but the location(s) vary. Please check with OEHS prior to your classroom session for the current training location. Call OEHS at 785-3550 or email safetytraining@yale.edu for more information.

Pedestrian and Traffic Safety *(Continued from page one)*

As a pedestrian:

- Be attentive, look both ways before crossing, and establish eye contact with drivers in nearby stopped vehicles to ensure they are aware of your presence.
- Don't jaywalk. Since nearly 80% of all pedestrian-motor vehicle incidents occur outside of intersections, always use a recognized cross walk area and wait for a walk signal where such controls exist.
- Be especially vigilant after dark – more than two-thirds of all pedestrian incidents occur after dark. If drivers do not see you, or you don't see them, the situation is much more dangerous.
- If you are tired or have had too much to drink, your likelihood of an incident increases. Walking with a clear-headed friend or colleague is a good proactive safety measure.
- Familiarize yourself with and use the walking escort program (dial "2-WALK" or "2-9255" from any Yale phone) and the night shuttle service: http://www.yale.edu/parkingandtransit/.

As a bicyclist:

- Be vigilant, alert to surroundings, and ride in a predictable manner.
- Always wear a helmet, and be sure it fits properly.
- The safest place for an adult cyclist to ride is in the road, with the flow of traffic and obeying all rules of the road.
- Be visible - wear bright clothing and equip your bike with front and rear lights for night-time riding.

As a driver:

- Recognize that New Haven has lots of pedestrians - in fact, we rank 4th nationally in terms of the percentage of people who walk to work among similarly-sized cities. New Haven also has lots of students - college, high school, and grade school – who are often preoccupied when walking. Be especially aware of drivers using cell phones – and don't use one yourself while driving unless it is hands-free.
- You are a responsible part of the community – and when driving as an employee, you are also a reflection of Yale. Follow the Golden Rule - drive as you would wish others to drive if you were a pedestrian or bicyclist. Small actions like slowing down for yellow lights and obeying posted speed limits substantially increase everyone's safety. Remember that speed really does kill - a person struck by a car at 20 mph has an 85% change of survival, but the odds of survival fall to only 15% when the vehicular speed is doubled to 40 mph.
- Lead by example – commit to safer driving by signing up for the New Haven Pace Car program: (http://www.cityofnewhaven.com/TrafficParking/pdfs/Pledge.pdf).
- Consider alternative means of transportation where possible – driving in New Haven is stressful enough. More information on mass and public transportation is available from http://www.yale.edu/parkingandtransit/ and click on "Commuting Alternatives."

Statistical Source: National Highway Traffic Safety Administration (http://ww.nhtsa.gov)

INCIDENT BLOTTER

April 2008: Description: Unknown chemical spill

Researcher placed box of chemicals on unsupported counter, which collapsed causing several containers to break. He was not contaminated and did not notice any odor or irritation, and called 111 for assistance.

Resolution: NHFD responded. Researcher did not know identity of contents, so incident elevated by NHFD to full HAZMAT response. After entry, chemicals were determined to be of low hazard and response scaled down for cleanup by OEHS.

Lessons Learned: Contents of chemicals must be clearly labeled and researchers must know what is in each container before handling. Large city-wide response could have been avoided if there was knowledge of the identity of the spilled chemicals.

May 2008: Description: Chemical fire

Highly flammable and toxic chemical, carbon disulfide, was poured into a heated beaker on the bench. The vapors in the beaker subsequently ignited. Researcher quickly extinguished fires with fire extinguisher, but suffered minor burn on his hand.

Resolution: NHFD responded, verified no fire condition existed in lab, served as backup to OEHS and YFM for cleanup. Research in laboratory suspended until poor housekeeping conditions noted in laboratory were abated.

Lessons Learned: Anyone handling chemicals must know the hazards associated with the chemical and the proper handling procedures. All toxic chemicals, especially highly volatile chemicals, must be handled inside a chemical fume hood and carbon disulfide should never be poured into heated glassware. Poor housekeeping conditions in this lab resulted in several containers of flammable liquids on the bench and floor near the fire, which luckily did not ignite. Re-training was required and housekeeping issues in laboratories will be emphasized during lab inspections.

June 2008: Description: UV Light Exposure

A researcher was using a UV transilluminator to dissect bands out of a gel. The procedure involved a lengthy exposure in close proximity to the light source. A good quality face shield was worn but the researcher still suffered corneal burns.

Resolution: Prompt medical care was received to minimize the discomfort, and luckily there are no long term consequences for the individual involved. A pair of goggles will be worn under the face shield for work of this nature.

Lessons learned: For extended or close work with UV light, goggles should be worn under the face shield. Always work in such a way as to maximize the distance from and minimize exposure time to the UV light. Any exposed skin must be covered as well.

Beta-Mercaptoethanol (BME)

BME is an offensively foul smelling but common chemical widely used in modern biomedical science. Although BME is toxic and poses skin contact hazards, in the very small volumes used in research laboratories its primary hazard tends to be its characteristic strong sulfury rotten egg-like stench. A similar chemical, mercaptan, is used as an additive in natural gas to give it good warning properties. Humans can smell mercaptan as low as 0.02 parts per billion in air, making it a chemical with one of the lowest odor thresholds known. As a result, almost any open air work with BME will offend people nearby and create the suspicion of a natural gas leak.

If you work with BME, always handle it inside a chemical fume hood, no matter how small a quantity you are working with. Keep pipette tips and other supplies that come in contact with BME inside the fume hood to evaporate any residue, and double bag and seal all contaminated waste materials. Do not flush or rinse BME or its residue down a sink drain, and never discard materials in the regular trash.

Should you have a small incidental spill of BME, absorb the liquid into paper toweling while wearing double gloves and safety glasses, double bag and seal the waste, and store it inside a fume hood for collection as hazardous waste by OEHS. Clean the spill area with detergent and water and collect these waste materials with the initial spill material. Notify Security (785-5555), the Yale Police Department Dispatch Center (432-4400), or the applicable Facilities Control Center (Medical School 785-4620, Central/ Science 432-6888) of the spill – and the smell – to avoid an unnecessary gas leak report. For larger spills, contact OEHS immediately for assistance.

Minors in Laboratories

There are numerous safety and legal concerns with the presence of minors in biology, chemistry, physics, and medical research laboratories. Please communicate plans to have minors in the lab to the Office of Environmental Health and Safety (OEHS) as soon as possible so that safety reviews can be completed and the necessary training arranged before the arrival of the minor student.

Please be aware that no persons under the age of 16 may enter a Yale biology, chemistry, physics, or medical research laboratory unless they are participating in an organized education program sponsored by their school or municipality and approved by the dean of the Yale school where the program will take place, OEHS, and the Office of New Haven Affairs.

No persons between the ages of 16 and 18 may enter a Yale biology, chemistry, physics, or medical research lab except as part of an educational program approved by the dean, as above, OR as part of a relationship in which a Yale faculty member or researcher is acting as mentor to a young person. In the case of mentoring a person 16-18 years of age, the person must not be present in the lab for more than 5 hours per week, and the activities must have received prior approval of OEHS.

All persons under 18 years of age must complete all required safety training and adhere to all restrictions imposed by OEHS. Faculty members should call OEHS well in advance of the arrival of the minor to insure timely review and approval. Please contact Deborah Farat (737-2120) for more information.

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, and report unsafe conditions to your supervisor or our office.

On Campus Emergency Phone Number Change

Please note that the emergency phone number from campus phones is now 911, changed from 111. Emergency contact information is listed below, and is available at http://www.yale.edu/emergencyinfo/index.html. People are encouraged to bookmark this page.

Police & Fire

On campus: 911
Yale-New Haven Hospital: 119
Off campus: 911

Security

Security 24-hour services: 785-5555
Escort service: 432-9255 (2-walk)

Office of Environmental Health & Safety

Monday–Friday, 8:30 am to 5 pm: 785-3555
All other times: 911

Health Services

Yale Health Plan, on campus: 432-0123
Yale Health Plan, off campus: 432-0123
Employee Assistance Program
confidential counseling): 800-232-6092
Sexual Harassment and Assault Resources &
Education (SHARE): 432-6653

Maintenance

Central area: 432-6888
Science area: 432-6888
Heat control, central & science: 432-6888
Medical area: 785-4620

International Travel Emergencies

During business hours (8:30-5:00 Eastern Time):
1-203-432-2321
Nights and weekends (24-hour): 1-203-785-5555
Yale Health Plan: 1-203-432-0123
member.services@yale.edu
MEDEX: 1-410-453-6330

EHS Web Links

- www.yale.edu/oehs
- info.med.yale.edu/bbp
- info.med.yale/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

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.

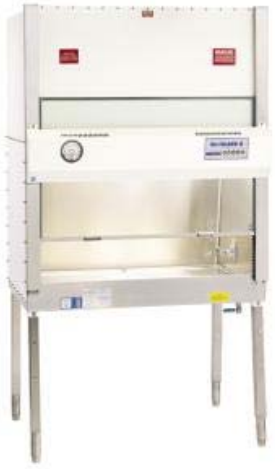
Clean Air Device Program

The Clean Air Device program was established over 15 years ago to ensure the health and safety of Yale employees. The program initially conformed to guidelines established by the National Institutes of Health (NIH). The same functions have been incorporated into the Centers for Disease Control and Prevention (CDC) guidelines and the Occupational Safety and Health Administration's (OSHA) Bloodborne Pathogens regulation. This program also protects research materials and prevents environmental release of infectious materials.

Over the years there have been many questions that have been asked on how this program runs. We will address in this article the more frequent questions that have come up, such as who handles scheduling of certifications and repairs, and how do I move my biological safety cabinet?

Many researchers have asked "What is the cost of maintaining a biological safety cabinet at the university?". A biological safety cabinet at the university is required to be under a maintenance agreement with the outside vendor that the university has contracted. This maintenance agreement includes an annual certification, labor performed during repairs not caused by misuse, and some replacement parts. The price of the maintenance agreement is negotiated through Yale's purchasing department. In order to put a biological safety cabinet on contract or to remove biological safety cabinet from contract you need to fill out the "Request to Add or Remove Biological Safety Cabinet From Contract" form. This form can be accessed at:http://www.yale.edu/oehs/bioforms.htm

Does a biological safety cabinet have to be certified once a year and how is that scheduled? Yes. A biological safety cabinet is required to have a yearly certification. The scheduling of the yearly certification is coordinated through OEHS. OEHS realizes the importance of the unit being available to the users at all times and OEHS makes every effort in contacting the laboratories to coordinate the best time for the technician to do the certification process of the unit(s) without disrupting work. A question that has been asked by laboratories is "why is it that all my units are not certified at once?" Good question, it would make life easier for the laboratory and OEHS, but due to repairs which may require decontamination, the recertification date of the unit may change.



My biological safety cabinet is making a funny noise, who do I call? The repair of a biological safety cabinet is coordinated through OEHS by calling 737-2121. The vendor is scheduled through OEHS to diagnose the problem. If a repair is needed the repair cost may be included in the contract which means no cost to the lab. If the repair exceeds the cost that is covered in the contract the outside vendor will email a quote to a contact person in the laboratory. This quote will list the repair work and the cost for labor and parts. The laboratory's contact person will then need to go onto SciQuest to process the payment. Once the SciQuest request is done by the laboratory OEHS approves the request on SciQuest and OEHS will schedule the repair. If a part needs to be ordered there may be a delay due to the shipping of a part(s).

Can I just move my unit? No. In order to move a biological safety cabinet it needs to be formaldehyde decontaminated, which is coordinated through OEHS. A fee is involved for formaldehyde decontamination of a unit, which needs to be processed on SciQuest. Once the unit has been formaldehyde decontaminated the lab personnel need to contact facilities to have the unit disconnected from vacuum/gas and moved to the new location. When the unit is in its new location and gas and vacuum has been hooked up if needed, the lab needs to contact OEHS to recertify the unit. If a unit is be moving into storage the unit will only need to be formaldehyde decontaminated.

OEHS hopes that we have addressed several of your questions on the CAD program and as always please, do not hesitate to call OEHS to answer any other questions you may have on the CAD program.

Yale University ENVIRONMENTAL HEALTH & SAFETY

Safety Training

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.

September 11, 2008	10:00 AM - 12:30 PM
September 24, 2008	1:00 PM - 3:30 PM
October 15, 2008	10:00 AM -12:30 PM
November 19, 2008	1:00 PM -3:30 PM
December 10, 2008	10:00AM -12:30 PM

Biosafety Level 3 Training

Mandatory for employees prior to initiating experiments with agents classified at BL2+, BL3, or BL3+. Please call 785-3211 to schedule.

Bloodborne Pathogens Training for Lab and Clinic Personnel

Required annually for laboratory and clinic personnel working with human materials, including blood, body fluids, unfixed tissues, human cell lines, or bloodborne pathogens. This course is offered as 1) initial training for new occupationally exposed employees; and 2) annual retraining.

Initial Training

September 18, 2008	1:30 PM - 3:30 PM
October 8, 2008	1:30 PM - 3:30 PM
October 30, 2008	9:00 AM - 11:00 AM
November 12, 2008	1:30 PM - 3:30 PM
November 19, 2008	9:00 AM - 11:00 AM
December 4, 2008	1:30 PM – 3:30 PM
December 17, 2008	9:00 AM - 11:00 AM

Annual Retraining

September 17, 2008	9:30 AM – 10:30 AM
November 6, 2008	9:30 AM – 10:30 AM

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.

September 11, 2008	1:30 PM - 2:30 PM
October 9, 2008	9:30 AM - 10:30 AM
November 5, 2003	1:30 PM - 2:30 PM
December 11, 2008	9:30 AM - 10:30 AM

Laboratory Chemical Safety

Required training for laboratory personnel working with chemicals.

September 16, 2008	9:15 AM - 10:45 AM
October 15, 2008	1:00 PM - 2:30 PM
November 11, 2008	9:15 AM - 10:45 AM
December 10, 2008	1:00 PM - 2:30 PM

Safety Orientation for Non-Lab Personnel

This course combines three required training classes for non-laboratory personnel: Bloodborne Pathogens, Chemical Safety, and Radiation Safety. This training fulfills the annual requirement for bloodborne pathogen training.

September 3, 2008	8:30 AM - 9:40 AM
October 1, 2008	8:30 AM - 9:40 AM
November 5, 2008	8:30 AM - 9:40 AM
December 3, 2008	8:30 AM - 9:30 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.

September 17, 2008	10:00 AM - 12:00 PM
October 14, 2008	1:00 PM – 3:30 PM
November 20, 2008	10:00 AM - 12:00 PM
December 16, 2008	1:00 PM – 3:30 PM

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. Please call 785-3211 for to schedule a training session.

Office Ergonomics

Are you satisfied with your office workstation? Call your Safety Advisor to schedule a personal assessment.

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.

September 9, 2008	2:00 PM - 3:00 PM
October 17, 2008	10:00 AM - 11:00 PM
November 12, 2008	9:00 AM – 10:00 AM
December 9, 2003	2:00 PM - 3:00 PM

Radiation Safety Orientation

This is a mandatory course for personnel working with radioactive material or frequenting an area where radioactive materials are stored or used.

September 11, 2008	9:30 AM - 12:15 PM
September 23, 2008	1:00 PM - 3:45 PM
October 9, 2008	9:30 AM – 12:15 PM
October 21, 2008	1:00 PM – 3:45 PM
November 6, 2008	9:30 AM – 12:15 PM
November 18, 2008	1:00 PM – 3:45 PM
December 4, 2008	9:30 AM-12:15 PM
December 16, 2008	9:30 AM-12:15 PM

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.

September 11, 2008	9:00 AM - 10:00 AM
October 14, 2008	11:00 AM - 12:00 PM
November 13, 2008	9:00 AM - 11:00 AM
December 9, 2008	11:00 AM - 12:00 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
yale.edu/oehs/onlinetraining/hazwaste/chemicalwasate.htm

Laser Safety Training
www.yale.edu/oehs/onlinetraining/laser/lasersafety.htm

Tuberculosis Awareness Web Training
www.yale.edu/oehs/TB/index.htm

Safety Orientation
http://learn.center.yale.edu/rcr

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