



New Faces in EHS

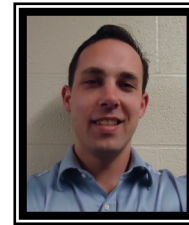
Paula Sweitzer

If you haven't noticed already, EHS has two new faces and we are back to our full staff of four.

Bob Haushalter joined our department on August 8th as a Safety Technician. Bob has numerous years in consulting and is a Certified Indoor Environmental Consultant. Bob's main oversight will be the weekly inspections of the labs and eyewashes. Other inspections will include the AEDs and fire extinguishers. Bob can be reached at x6382 or haushalterr@duq.edu.



Ryan Reilly joined our department on October 17th as a Safety Technician. Ryan's background includes a B.S. in Safety Science from IUP and a number of years of experience in sales/service and hospital rehabilitation. Ryan's main oversight will be our imagewave program, maintaining our blackboard site, SPCC and fire extinguisher inspections. Ryan can be reached at x1506 or reilyr1@duq.edu.



Pedestrian Safety



George Bender

Anyone who has attempted to navigate their way from the campus proper to Liebermann Hall on Fifth Avenue has discovered the difficulty of crossing Forbes Avenue, particularly during peak traffic hours. Drivers appear to be more concerned with other cars and often forget about pedestrians crossing the street. Pedestrians, in turn, tend to have a false sense of security at marked crosswalks and fail to look for cars first before crossing.

Flashing pedestrian crossing signs have been installed at the Boyd Street-Forbes intersection and can be activated by push button on each side of Forbes Avenue to assist in crossing. The pedestrian warning signs placed in the middle of Forbes Avenue remain as well. All are encouraged to use this point to cross Forbes on their way to Liebermann Hall. Although Pennsylvania law states that drivers must stop for a pedestrian in a crosswalk, know that the pedestrian has obligations as well.

Pedestrians should never walk out into a crosswalk or intersection without looking for cars first. The general rule of thumb is: look left, right and left before you enter a crosswalk and look over your shoulder for turning vehicles while crossing. If you see a car coming, make eye contact with the driver in an effort to determine what the driver will do. Do not assume that the driver will stop, even if you are in the crosswalk!!

Hazard Walkthroughs

Ryan Reilly

Duquesne University has three safety committees: The Labor Management Safety Committee, EHS/Radiation Safety Committee (lab safety) and the University Safety Committee.

Within the Labor Management Safety Committee there is a Hazard Detection Sub-Committee. Once a month this committee does one or two announced walkthroughs of University buildings.

The committee is looking for any safety hazards that may include the following: fire hazards (blocked emergency exits or fire extinguishers), chemical hazards (improper storage or old chemicals), cluttered storage rooms (blockage of electric panels), improper disposal of waste and light bulbs, slips, trips and fall hazards, etc.

On Tuesday, October 18, 2011 a walk through was done at the Grounds Garage and Public Safety Facility. There were five medium priority hazards such as replacing expired eyewash bottles, emergency exit blocked, and parking repairs. Great job facilities and grounds department amending the hazards in an expedited manner

A walk through was done in Rangos School of Health on November 15, 2011. **Congratulations Facilities and Housekeeping for no hazards identified.**

The Labor Management Safety Committee will recognize all of the housekeeping and maintenance crew of Rangos, for their hard work and this great accomplishment by having a breakfast for them at which time they will also receive a Certificate.

Winter Safety

Bob Haushalter

With the impending colder weather coming into the Pittsburgh Area, heating season kicks in along with the associated hazards. We would like to discuss Fire Safety and Carbon Monoxide Poisoning.

Fire Safety

Heating equipment is the second leading cause of home fires in the United States and the second leading cause of home fire deaths in this country.

The leading causes of home heating fires:

- Placing things that can burn too close to space and portable heaters.
- Failure to clean chimneys and connectors.
- Improper design and installation
- Fueling errors involving liquid or gas fueled heaters
- Leaving auxiliary heating equipment unattended

Carbon Monoxide

Carbon Monoxide (CO) is a tasteless, colorless, odorless gas that causes headaches, disorientation, nausea, and death, even in very low concentrations. Often misdiagnosed as symptoms that mimic the flu, it is the leading cause of accidental poisoning deaths in the United States and throughout the World.

Carbon Monoxide poisons by inhibiting the blood's ability to carry oxygen to body tissues including vital organs such as the heart and brain. When a person breathes, oxygen in the lungs combines with hemoglobin in the blood and travels to the body's cells. When CO is inhaled, it tightly binds with the oxygen carrying hemoglobin of the blood, forming carboxyhemoglobin. Once combined with the hemoglobin, oxygen is replaced and the oxygen-carrying capacity of the blood is reduced.

According to the NFPA, in 2009, U.S. fire departments responded to 58,900 home structure fires that involved heating equipment. These fires caused:

480 civilian fire deaths

12,520 civilian fire injuries

\$1.1 billion in direct property damage

Safety Tips

- All heaters need space. Keep things that can burn, such as paper, bedding or furniture, at least 3 feet away from heating equipment.
- Use heating equipment that has the label of a recognized testing laboratory.
- Make sure all fuel burning equipment is vented to the outside to avoid carbon monoxide poisoning.
- According to FEMA, it is estimated that a third of the smoke alarms in place are not working, often due to failure to replace a worn out battery.
- "Change your clocks, change your batteries" when the change is made back from daylight savings time each fall.

Globally Harmonized System

Paula Sweitzer

Has anybody noticed a different label on chemicals being delivered to campus? There are major changes coming to the way chemicals are going to be labeled. The Globally Harmonized System (GHS) is a system for standardizing and harmonizing the classification and labeling of chemicals; there were many different regulations on hazard classification in use in different countries.

This new system will help to:

- ◆ Define health, physical and environmental hazards of chemicals;
- ◆ Create classification processes that use available data on chemicals for comparison with the defined hazard class; and
- ◆ Communicate hazard information on labels and Safety Data Sheets (SDS).

OSHA will adopt the GHS for the classification and labeling of hazardous chemicals. There will now be 28 GHS hazard classes and 88 categories.

What does this mean for everybody: every product label, material safety data sheet (soon to be called “safety data sheets”), and our written hazard communication plan must be revised to meet the new standard.

The new labels will include a hazard statement, pictogram(s), precautionary statement(s), product identifiers, signal word, and supplier information.

Physical Hazards

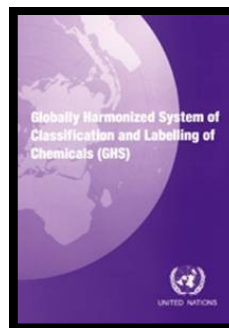
Explosives, flammable gases, flammable aerosols, oxidizing gases, gases under pressure, flammable liquids, flammable solids, self-reactive substances, pyrophoric liquids, pyrophoric solids, self-heating substances, substances which on contact with water emit flammable gases, oxidizing liquids, oxidizing solids, organic peroxides, and substances corrosive to metal.

Health Hazards

Acute toxicity, skin corrosion, skin irritation, serious eye damage, eye irritation, respiratory sensitizer, skin sensitizer, germ cell mutagenicity, carcinogenicity, reproductive toxicity, target organ systemic toxicity (TOST), and aspiration hazard.

Environmental Hazards

Acute aquatic toxicity and chronic aquatic toxicity



Some new pictograms:



Flammable



Explosive



Oxidizer



Gas Under Pressure



Skin Corrosion



Irritant



Acute Toxicity
(harmful)



Acute Toxicity
(severe)



Chronic Health
Hazard/ Environmental
Toxicity

For more information, please visit:

- ◆ **The United Nations GHS:** www.unece.org/trans/danger/publi/ghs/ghs_rev01/01files_e.html
- ◆ **OSHA:** www.osha.gov/dsg/hazcom/ghs.html

Floor Marshals

Floor Marshals are volunteers that provide leadership and guidance to their building occupants during an emergency situation. They are responsible for assuring that individuals evacuate the building safely and proceed to their designated gathering point. Ensuring all occupants have evacuated the building. Closing doors on the way out and shutting down equipment, experiments, and processes.

Thank you Floor Marshalls for your leadership, dedication, advisement, and communication during emergencies and drills at Duquesne University!

Evacuation Drills

Evacuation drills are conducted by EHS twice a year of all campus buildings—fall and spring.

The Fall 2011 evacuation drills only consisted of 35 buildings. Out of those drills only one building failed—Towers! Towers was 3 minutes and 18 seconds over their allocated time of evacuation; this was due to 26 individuals that did not leave evacuate. Other living learning center buildings had the same issue of non compliance, where occupants chose not to leave.

Persons whom do not evacuate are subject to personal fines from the City of Pittsburgh up to \$1,000



Fire Safety Week 2011

A fire department responds to a fire every 23 seconds. A home fire breaks out every 87 seconds. Someone is injured in a fire every 31 minutes. Someone dies in a fire every 3 hours.

If every home has working smoke alarms, U.S. fire deaths would decrease by an estimated 36%.

Is the fire at a point where it might still be controlled by a fire extinguisher?

Use a fire extinguisher only if:

You have alerted other occupants and someone has called the fire department; The fire is small and contained to a single object, such as a wastebasket;

You are safe from the toxic smoke produced by the fire; You have a means of escape identified and the fire is not between you and the escape route; and Your instincts tell you that it is safe to use an extinguisher.

If *all* of these conditions are not present, you should NOT try to use a fire extinguisher.

Hands-on Fire Extinguisher Training

Every year during Fire Safety Week, EHS will hold a hands-on fire extinguisher training session. This session is open to all of campus and is conducted by Pittsburgh Fire Extinguisher Company (PFE). During the training, PFE conducted a short demonstration on the safe usage of fire extinguishers. Each individual then had the chance to extinguish a live fire.

There are four elements that must be present for a fire to exist. There must be Oxygen to sustain combustion, Heat to raise the material to its ignition temperature, Fuel to support the combustion and a Chemical Reaction between the other three elements.

Rules for fighting any fire: activate the building alarm system (this automatically notifies our Campus Police and local Fire Department); assist any persons in immediate danger to exit the building; and only then attempt to extinguish the fire.

Using a Fire Extinguisher: remember the acronym PASS: Pull, Aim, Squeeze, Sweep.

All fire extinguishers are inspected by EHS on a monthly basis and annually by PFE Company.



Behavioral Safety

Ryan Reilly

What exactly is Behavioral Safety? Behavioral Safety is the systematic approach to a more comforting working environment. It involves the influences humans have on their work environments and surroundings.

Take for example a cold wintry morning when you make a decision not to scrape your windshield and remove all snow and ice from the vehicle. You are taking a Calculated Risk. You perceive a relatively unobstructed view while the defroster slowly works its magic, yet the half foggy windshield will undoubtedly hinder visibility. This is one example of human error. Practicing Behavioral Safety requires you to recognize this hazard and scrape away the snow and ice to avoid visibility restrictions and certain repercussions which may prevail.

The majority of all accidents are attributed to human error. Examples of human error may include: taking calculated risks, misunderstanding of instructions, ignorance of dangers, inability to adapt to change, and lack of proper skills and knowledge.

Ask yourself, "How can I strive to make Duquesne into a safer, efficient, and self-fulfilling working environment, reflecting a commitment to students?" If someone is not performing tasks in a safe way, make it your responsibility to help them in a positive, well-mannered nature.

Let's take the time to make everyone's life easier by making safe, intelligent choices professionally and personally.

Laboratory Inspections: 2011 Annual Report

Bob Haushalter

JANUARY - DECEMBER 2011 SATELLITE ACCUMULATION AREA/LAB INSPECTION MONTHLY SUMMARY

BIOLOGY

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Haz. Waste	2	3	6	6	7	1	1	2	5	1	0	2	36
Food/Drink	0	2	1	0	0	1	0	0	0	0	0	0	4
Misc.	0	1	0	0	0	0	1	0	0	0	0	4	6
Total	2	6	7	6	7	2	2	2	5	1	0	6	46
Average/Lab	0.04	0.13	0.16	0.13	0.16	0.04	0.04	0.04	0.11	0.02	0.00	0.13	1.02
Average/Week	0.50	1.50	1.40	1.50	1.75	0.40	0.50	0.50	1.25	0.25	0.00	2.00	0.94

Average/Month 3.83

CHEMISTRY

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Haz. Waste	23	11	7	12	21	19	1	2	5	11	5	9	126
Food/Drink	3	1	3	1	1	0	0	0	0	1	0	1	11
Misc.	3	0	0	0	0	0	1	0	0	0	1	4	9
Total	29	12	10	15	22	19	2	2	5	12	6	14	146
Average/Lab	0.85	0.35	0.29	0.38	0.65	0.56	0.06	0.06	0.15	0.35	0.18	0.41	4.29
Average/Week	7.25	3.00	2.00	3.25	5.50	3.80	0.50	0.50	1.25	3.00	1.20	4.67	2.98

Average/Month 12.17

PHARMACY

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Haz. Waste	9	7	6	2	5	1	3	5	3	4	21	3	69
Food/Drink	0	1	0	1	1	0	0	0	0	0	0	0	3
Misc.	2	0	0	1	0	1	0	0	0	0	0	1	5
Total	11	8	6	4	6	2	3	5	3	4	21	4	77
Average/Lab	0.38	0.28	0.21	0.14	0.21	0.07	0.10	0.17	0.10	0.14	0.72	0.14	2.66
Average/Week	2.75	2.00	1.20	1.00	1.50	0.40	0.75	1.25	0.75	1.00	4.20	1.33	1.57

Average/Month 6.42

The Biology & Chemistry Departments in Mellon Hall had significant decreases in safety violations this year.

When comparing the 2011 & 2010 data, the Biology Department had a 48.4% decrease and the Chemistry Department a 31.8% decrease in overall safety violations. The Pharmacy Department had about the same number of violations as last year.

Hazardous Waste Violations (overfilled containers, incomplete labels, etc.) were the most predominant safety violation for 2011.

Accident Prevention: Slips, Trips and Falls

Paula Sweitzer

We have all heard of slips, trips, and falls but does everybody understand the severity of these accidents? Slips, Trips and Falls (STF) are the most frequent accidents leading to personal injury. STF can result in head injuries, back injuries, broken bones, cuts and lacerations or sprained muscles. Lets take a closer look.

Definitions: a “slip” occurs when there is too little traction or friction between the shoe and walking surface. A “trip” occurs when a person’s foot contacts an object in their way or drops to a lower level unexpectedly, causing them to be thrown off-balance. A trip most often results in a person falling forward, while a slip most often results in a person falling backward. A “fall” occurs when you are too far off-balance.

Causes: the causes of STF can be many, but the main situations involve wet surfaces and uneven pavement/changes in elevation. Other causes can include inadequate lighting, cluttered walkways, carrying a heavy load, and not paying attention.

Prevention: most STFs can be prevented by eliminating workplace hazards and by behavior modification (people taking the proper action to work safely). What can you do to prevent STFs:

- * Wear footwear that is appropriate for the conditions outside.
- * Clean footwear of mud, snow, etc. when entering a building.
- * Be aware of changes in elevation and changes in walking surfaces.
- * Walk, don’t run through work areas.
- * When carrying a load, make sure you can see over and around it.
- * Cleanup, correct, remove or report unsafe conditions.
- * Do not allow equipment, tools, materials or other obstacles to accumulate in aisles or walkways.
- * Keep desk and file cabinet drawers closed when not in use.
- * Always use a ladder or step stool.
- * Always use handrails when available.
- * Maintain floors clean, free of water, oil or grease.

OSHA indicates some good floor safety recommendations, some of which include:

- ◆ Keep floor surfaces clean and dry.
- ◆ Ensure wet-floor warning signs are posted in and around wet floor locations.
- ◆ Maintain clear aisles and passageways and prevent obstructions.
- ◆ Ensure walkway surfaces are in good repair.
- ◆ Provide floor plugs for power equipment to ensure power cords are not run across walkway paths.
- ◆ Report and clean up spills immediately.
- ◆ Provide non-slip coatings or surfaces in slippery locations.
- ◆ Minimize carpet and matting trip hazards.
- ◆ Use prudent housekeeping procedures.
- ◆ Provide adequate lighting in poorly lit areas such as halls and stairwells.
- ◆ Maintain and eliminate uneven floor surfaces.

PAY
ATTENTION
TO
WHAT
YOU
ARE
DOING

Report STF hazards immediately to Facilities Management at x6011.

All accidents/incidents must be reported within 24 hours of occurrence. The Duquesne University Incident/Accident Investigation Report can be found at www.duq.edu/ehs.



Interesting statistics:

The average cost of injury incurred from a STF injury is \$28,000.

Approximately 70% of STFs occur on level ground.

**Environmental
Health & Safety**

Web: www.duq.edu/ehs

Email: safety@duq.edu

Main Phone: 412-396-5329

Fax: 412-396-5275

Blackboard Path:
www.duq.edu/blackboard

Safety Tidbits...

- Eyelid tremors/twitches (myokymia), can be caused by stress, tiredness, or too much caffeine.
- On average, 1 in 1,000 people die after getting a case of food poisoning.
- The most catastrophic building fire in history occurred during a Chilean evening church service in 1863, killing 2,500.
- Drivers in the 55-to 64-year-old category have the lowest fatal accident rate.
- According to Glaxco Inc., in an average lifetime, an American suffers 223 attacks of heartburn.
- If you stub your toe, your brain will register pain in a speedy 1/50 of a second.

Upcoming Events

January 2012

17th: Canevin Hazard Walkthrough

February 2012

21st: Old FM Hazard Walkthrough

March 2012

8th: Lab Safety Committee Meeting

Annual Asbestos Awareness Training

20th: Trinity Hazard Walkthrough

26th: Beginning of Spring Fire Drills

