As we wind our way through the Spring Semester of 2010, we wanted to take an opportunity, through this Newsletter, to provide an update on current EHS initiatives and share information on some “lessons learned” as a result of recent incidents that have occurred around campus. In EHS, we are all about the business of identifying and assessing health, safety and compliance risks to our faculty, staff students, visitors, facilities and environment - and developing appropriate responses, programs and procedures to minimize those risks. Taking time for safety-related training, installing engineering controls or conducting hazard analyses before beginning new projects or research programs can sometimes take a back seat, particularly during difficult budget times such as these - when resources are so scarce and every department is struggling to do more with less. EHS pledges to do our part by focusing on the highest risk areas and providing the best information and tools possible to make it easier for the Institute community to conduct all our activities in a safe and compliant manner.

See you around campus.

Mark Demyanek
AVP, Environmental Health and Safety

The Georgia Tech Laser Safety Program is currently being formalized and will be managed by the EHS Office of Radiological Safety (ORS). A recently completed laser inventory recorded over 450 Class 3b and Class 4 lasers in 17 different buildings on the Georgia Tech campus.

ORS visited a number of laboratories to verify and augment the information contained in the basic inventory compiled this past summer. This information is used, in part, to prepare the laser registration forms required by the Georgia Department of Human Resources.

Since the number of regulated lasers present is large, an Institute Laser Safety Committee (LSC) has been formed and held its inaugural meeting in January. The LSC is faculty led and is comprised of members from the various departments on campus that use lasers.

The first priority of the LSC will be to formalize a Laser Safety Policy. This policy will guide the Institute in the implementation of the safety and documentation requirements set forth in the ANSI Z136.1-2007, American National Standard for Safe Use of Lasers.

EHS looks forward to working with our research colleagues to successfully implementing the Laser Safety Program. Questions about this program may be directed to Gary Spichiger, Associate Radiation Safety Officer/Laser Safety Officer at 404-894-3605.

A class 3b laser similar to many on campus.
“Like any other database, the accuracy (and therefore the usefulness) of the information in Chematix is dependent on a constant supply of accurate and timely information: Garbage In, Garbage Out.”

All industrial, commercial, and academic users of chemicals in the United States are required to “manage” their chemicals. This means keeping track of what comes in and not only what goes out, but where it goes. This is often referred to as “Cradle to Grave” chemical management, but anyone in the environmental compliance business will tell you that it really means “Cradle to Forever”.

In 2005, Georgia Tech implemented a chemical management information system called Chematix™. Chematix keeps track of chemicals while they are on GT property, provides ready access to MSDS information and, and provides waste labeling and tracking capabilities. Chematix also provides important features like keeping track of chemicals that become dangerous with age such as peroxides and peroxide-formers, and sends the owner quarterly reminders to check the containers for dangerous precipitates. It also enables EHS to run reports identifying not only the chemical inventory of the lab, but the presence of specific hazards like toxic gases, flammables, and water reactive chemicals (this was very useful during recent laboratory floods).

Like any other database, the accuracy (and therefore the usefulness) of the information in Chematix is dependent on a constant supply of accurate and timely information: “Garbage in, Garbage out”. Bad data or a failure to keep the application up to date definitely compromises safety by making it impossible to determine what hazards are in a lab that has been evacuated due to a chemical spill, a fire, or a flood.

The State Right to Know Law (Georgia Public Employees Hazardous Chemical Protection and Right to Know Law) requires that GT inventory all the chemicals in all the labs and shops on the GT campus twice each year. Fortunately, Chematix makes this a much less daunting task than it was in the past because it allows us to scan our inventory with a bar code scanner, and then download this information to the database which then reconciles the inventory that was scanned with the inventory of record. As long as a lab has been adding chemicals into the database as they are received and removing them as “used up by experiment” or as “wasted out”, the process is a remarkably painless one.

Automated External Defibrillators

The EHS Office at Georgia Tech recognizes the need to support safety, health and well-being throughout the campus community. Sudden Cardiac Arrest is unpredictable, but is potentially a fatal event. A person’s chance of survival can be increased by establishing a “chain of survival” system that includes early recognition, early access by trained emergency medical services (EMS), early cardiopulmonary resuscitation (CPR) and early defibrillation. The Automated External Defibrillator (AED) program was developed to enhance the safety of employees, students and visitors at Georgia Tech by providing equipment and training to save the lives of persons experiencing heart attacks, cardiac arrest, stroke or any other medical emergency that relates to the heart. The program has been developed to ensure the availability, maintenance and proper use of the Automated External Defibrillators (AED’s).

This program applies to individuals trained on the proper use of AED’s; departments with AED units currently in place; and departments that are considering or in the process of purchasing units. Currently, we have seventy-five (75) AED units on the Georgia Tech main campus and satellite locations.

For more information contact Aleece Foxx, General Safety Manager at Aleece.foxx@ehs.gatech.edu
Receiving and Shipping Training and New Procedures

The transportation of dangerous goods is regulated by a number of national and international agencies. These rules are designed to protect the public and transporters. Failure to strictly adhere to these rules may result in packages being returned, fines to both the individuals and the Institute, and, in some instances, criminal charges. To insure compliance, all outgoing chemical and biological materials will be processed through EHS. All shipments of radiological materials will be handled by the EHS Radiation Safety Office.

Shipping chemical and biological material is not as simple as putting postage on a package and dropping it in the mailbox. Material leaving campus may be subject to several administrative and regulatory requirements. While the process may be involved and lengthy, especially the first time, it is only by following all the rules that you can ensure your material arrives where you want it, on time, and without being subjected to delay, fines or other penalties. EHS, the Office of Technology Licensing (OTL), the Office of Sponsored Programs (OSP), the Office of Research Compliance (ORC) and the Office of Legal Affairs (OLA) have established a chemical/biological materials shipping program to assist researchers, faculty and staff in this area.

Any person with the potential of receiving, or otherwise processing incoming chemical or biological materials must receive training on hazard recognition, safety precautions, security and incident response.

All receivers and shippers must have current training. Outgoing shipments will not be processed unless the required training is accomplished and verified. These trainings cover the fundamentals of dangerous goods in shipment and receiving situations and are mandatory according to Federal Aviation Administration (FAA) and US Department of Transportation (DOT) regulations. These trainings in no way cover all of the information needed to ship dangerous goods and do not allow for individuals to do so from a Georgia Tech laboratory. These trainings are available online at the Office of Organizational Development website and can be completed in less than an hour each. (http://www.trainsweb.gatech.edu/)

EHS has also implemented a number of new processes to increase efficiency and to allow for more accurate shipping and timely billing. These changes are mandatory as of March 1, 2010.

- All shipments must have a Document ID number as well as the PeopleSoft number on the Shipping Request Form.
- All shipments must be scheduled with the appropriate “EHS Shipper” via email or phone at least 24 hours in advance so that a designated “EHS Shipper” can ensure that all the necessary paperwork is in place.
- All shipments must be handed in person to a qualified “EHS Shipper” for paperwork inspection. If a shipper is not available, your shipment will be processed the next normal working day so that all paperwork can be verified unless the shipment was prescheduled and unforeseen circumstances has taken all the shippers out of the office.
- All shipments must be in the EHS Office, with completed paperwork, by 2 pm. All shipments later than 2 pm will be processed the next day.
- Shipments received or verified after 2 pm on Friday afternoons will be shipped out the following Monday.
- EHS will not ship materials if the EHS Shipping Request is incomplete at the time of delivery. It can be left with EHS, and the shipment will be completed once the shipping paperwork can be verified.

Further information can be found on the EHS website. www.ehs.gatech.edu
Description: Fork Lift Accident

A forklift was being driven on campus and the driver rolled over another staff member’s foot.

Resolution:
The injured staff member was attended to by medical personnel.

Lessons Learned:
Always be aware of your surroundings especially in construction, manufacturing, and maintenance areas on campus where heavy machinery is being used. Remove yourself from the path of the forklift or heavy equipment as the machinery can cause serious injuries and even death. Also, all forklift drivers on campus are required to complete the EHS Forklift Safety Training. Trainings are scheduled on an as needed basis and can be scheduled by calling the General Safety Manager at 404-385-0263.

Description: Mouth Exposure to E. coli

A researcher was working in a laboratory and accidentally touched his E. coli contaminated gloved hand to his mouth.

Resolution:
The researcher immediately rinsed his mouth out with mouthwash and then water to prevent illness from the E. coli. The researcher did not become sick since the strain of E. coli was a generally harmless Biosafety Level One organism that is not known for causing disease.

Lessons Learned:
All researchers and students working in laboratories on campus should always be aware of contamination on gloves and should never under any circumstance touch a gloved hand to the face area.

Description: Chemical Reaction

Occupants of the a laboratory in the Molecular Science and Engineering Building discovered a water leak that had covered most of the lab floor. The lab members called Facilities and Custodial Services for help cleaning up the water spill. The water was believed not to be contaminated but a thin pair of medical examination style, nitrile gloves were provided to protect the housekeeper’s hands from potential contamination as a precautionary measure. After a few minutes one of the housekeeping staff noticed that one of her fingers was burning on the tip. Upon removal of the glove, the housekeeper noticed that her hand was swelling.

Resolution:
The housekeeper rinsed her hand immediately and was transported to Piedmont Hospital for evaluation. At Piedmont she was diagnosed with a chemical burn. Her hand was determined to have a small prick on the initial burning finger.

Lessons Learned:
Water that has flooded a laboratory on campus should never be considered non-contaminated so that all staff and researchers understand that the appropriate personal protective equipment (PPE) should be used during clean-up. This includes long gloves constructed of the appropriate chemical-resistant material, safety glasses, and rubber cleanable boots. Researchers should also make sure that all chemical spills in the lab are handled appropriately and no residue is left on the floor.
Radioactive Materials Training

The Georgia Institute of Technology's Broad Scope License, issued by the GA State DNR, allows for a wide range of radioactive material to be used for research purposes. Full time faculty and staff must apply to become Authorized Users (AU's) to use or possess radioactive material in any form.

Completion of Radioactive Material Safety Training by the AU is a prerequisite for Radioactive material usage approval. This approval is limited to the specific isotope, possession limit, specific lab location and the authorized procedure stated in the application form.

This three hour course will cover basic radioactive material safety and storage. The training includes a 1 hour hands on portion that is scheduled on a subsequent day. An annual Refresher training can be completed on the Office of Organizational Development’s website.

Instructions and forms for registering for future dates can be found on the Office of Radiation Safety website.

Future dates
- 3/17-18/ 2010
- 4/ 13 and 4/15 2010

Defensive Driver’s Training

Note: Any employee who drives a Georgia Tech vehicle should complete this course.

The National Safety Council first introduced defensive driving concepts in 1964. The Defensive Driver's Course (DDC) has come a long way since then, but the importance of sharing defensive driving principles with all drivers still has not changed. Our course will provide you with the tools and knowledge to become a better driver.

This course focuses on accident prevention through hazard recognition and application of accident-avoidance techniques. In addition, the course addresses common driving violations that result in accidents and how to change driving habits to eliminate moving violations.

Throughout the 6-hour course, participants learn how to recognize both potential and immediate hazards, how to avoid accidents in a variety of driving conditions and how to choose safe and legal driving behaviors. In order to attend this course you must have a valid state driver license. As added incentive, you are entitled to a discount on your personal auto insurance in Georgia after you have completed this course.

You may register for this course on the Office of Organizational Development Website under the Master training Calendar.

Future dates:
- 3/26/2010
- 4/8/2010
- 4/21/2010
- 5/4/2010
- 5/28/2010

Complete Listing of EHS Training Courses

Classroom:
- General Biosafety
- Bloodborne Pathogens
- Recombinant DNA
- X-ray Training
- Radioactive Materials Safety
- Radiation Awareness
- First Aid/CPR
- Fire Safety Training
- Defensive Driving
- Right to Know
- Using Chematix
- Understanding Material Safety Data Sheets (MSDS)
- Advanced Lab Safety
- for PIs and Lab Managers
- Basic Lab Safety

Online:
- Chematix
- Bloodborne Pathogens
- Fire Safety
- Fluorescent Bulb and Ballist Management
- Laser Safety Training
- Introduction Video
- Radioactive Materials Safety Annual Refresher
- Receipt of Hazardous Materials
- Right to Know
- Shipment of Dangerous Goods
- XRay Refresher
Our Mission:
To guide and assist the Georgia Tech community in meeting its safety, public health, environmental protection, and compliance responsibilities.

Our Guiding Principles:
EHS will provide occupational health, safety, and environmental protection services to comply with applicable regulations and to prevent occupationally-induced disease, injury, property loss, and degradation to the environment as follows:

1. To be directly involved in environmental evaluations and interventions where there are personnel exposures and/or concerns; to pursue appropriate solutions.
2. To develop and implement policies, procedures, and programs that proactively deliver safety, occupational health, and environmental protection services.
3. To participate in and provide administrative support to safety committees.
4. To provide training and services in safety, laboratory safety, fire and life safety, hazardous chemical, biological, and radiological waste management, and environmental protection.
5. To maintain and continuously improve staff expertise and capabilities in environmental health and safety issues.
6. To provide environmental assessment and technical review of plans and specifications for capital construction and renovation projects, ensuring that safety and environmental protection features are "built-in."
7. To provide customer service distinguishable from the norm.