



Envir nmentally Speaking

University of Georgia
Environmental Safety Division

Vol. 5, Issue 3
Fall 2003

Fire Prevention at the University of Georgia by Russell Duker

Fire Prevention Week will be observed October 5 – 11, 2003. Every year, the National Fire Protection Association (NFPA) commemorates the Great Chicago fire of 1871, which began on October 8th, but caused the majority of damage on October 9th. Over two hundred and fifty people perished in addition to the destruction of more than 17,400 structures, leaving more than 100,000 people homeless.

Instead of engaging in memorial services or festivals observing the event, the Fire Marshals Association of North American (now known as the International Fire Marshals Association) decided to use the occasion to educate the public on fire safety. Since 1922, the Sunday through Saturday period in which October 9th falls has been designated as National Fire Prevention Week. It is a week set aside to remind everyone to refresh their knowledge and awareness of fire safety and prevention.

Visit the NFPA website at www.nfpa.org to find out more of the

history of the Great Chicago Fire and National Fire Prevention Week.

As recent events at the University's Main Library demonstrated, fire can be devastating and costly. Fortunately, no one was injured in the second floor fire, but the damage and inconvenience has touched everyone on campus. A fire can occur in any building and affect any aspect of a person's life. That is why it is vital to

temperatures in excess of 1,000 degrees, and you may have as few as two minutes to get out of your home after the smoke detector sounds.

- If you are a student living on campus, all University housing is provided with smoke detection and fire alarm systems. Never assume an alarm is false. Leave the building immediately anytime you hear the fire alarm sound. You may think it is a false alarm when in fact it could be a fire on another floor.
- Approximately eighty percent of all University housing beds are covered by sprinkler systems. The Housing Department has an aggressive plan to have all beds covered with sprinklers within the next five years.
- Have an escape plan. Know how to get out of your home, dormitory or office space. You should take time now to locate the nearest exit, an alternate exit and the location of fire extinguishers in your area. If you need a fire extinguisher for your home, they can be purchased at any hardware store. If you need a fire extinguisher for a University building, contact the University's Fire Safety Program at 369-5706.
- The Fire Safety Program will also provide fire extinguisher training for any University employee or group. Do you know the difference between an A, B or C type fire extinguisher, or that you should aim the extinguisher at the base of the fire and not at the flames? You can find out more about the University's Fire Safety Program by visiting the Environmental Safety Division's web page (www.esd.uga.edu/fire/).

be prepared for the worst in the event a fire occurs in your life.

The theme of this year's Fire Prevention Week is **"When Fire Strikes: Get Out! Stay Out!"**

According to an NFPA survey, only 25% of families have actually developed and practiced a home fire escape plan. Here are a few helpful guidelines to assist you in protecting yourself. Remember, a few minutes can make the difference between life and death.

- Make sure you have smoke detectors in your home and that they are working properly. Change the batteries at least every six months or as designated by the manufacturer. Test your smoke detectors regularly (i.e., weekly). It is as simple as pressing a button. A fire can produce

Did Mrs. O'Leary's cow really start the Great Chicago Fire?

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Fire Prevention at the University of Georgia (cont.)

- Most people that die in fires do not die from burning. Approximately 75 – 80% die from exposure to smoke and poisonous gases. That is why it is important to stay low in a fire. The heat will carry the smoke and gases to the ceiling first. Because of the smoke and gases, a fire area is very dark and vision may be completely obscured. Follow the wall to the nearest door to get out of the building as quickly as possible. If you come to a closed door, feel it with the back of your hand. If the door is hot, don't open it. Find another exit.
- Have a safe meeting place designated outside of the home. Account for everyone while someone calls the fire department. Do not try to call the fire department from inside a burning building. Get out and call from a safe location. If you live in a University dormitory, meet with your RA outside of the building to let them know you are outside and safe. Never assume that the fire has been reported. Even if your building is connected to emergency services by an automatic dialing mechanism, call 911 for help. Mechanical devices occasionally fail. For on-campus telephones you must dial 9-911 or contact the University Police at 542-2200.



Listed above are some additional facts to help you understand more about fires. If you need any assistance with fire related matters, please contact the Fire Safety Program.

The Top Five Causes of Fire:

1. Cooking equipment
2. Heating equipment
3. Arson
4. Other household equipment
5. Electrical systems

The Top Five Fires That Kill:

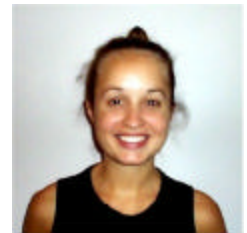
1. Smoking
2. Arson
3. Heating Equipment
4. Children Playing with Fire
5. Electrical Systems



New Federal Work Study Students at ESD



Rebecca Cantu, sophomore
Biology major



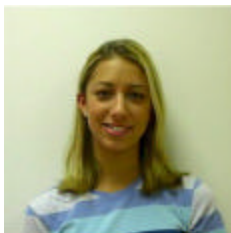
Kimberly Carter, senior
Psychology major



Rikti Patel, sophomore
Biology major



Mike Johnson, senior
Management Information Systems



Kelly Vasquez, senior
Environmental Health Science



Geoffrey Barber, freshman
Undecided major

UGA's Biosafety Program by Daryl Rowe

Minimizing the risks of injury and illness associated with biohazardous research is the goal of the Biosafety Program. Biosafety is a cooperative effort of the University Biosafety Committee, the Biosafety Officer, investigators, and laboratory staff. The Biosafety Officer, in conjunction with the University Biosafety Committee, reviews proposed research involving recombinant DNA techniques and other biohazards (i.e., infectious or venomous agents); consults with researchers on biosafety procedures; trains faculty, staff, and students involved in biohazardous research to obtain compliance with appropriate rules; maintains liaison with biosafety personnel at state and federal agencies, industries, and other universities; and does surveillance of laboratory accidents involving biohazardous agents. The Biosafety Officer also reports to NIH/CDC significant (recalcitrant) violations of or problems with NIH guidelines and select agent regulations as well as significant research-related accidents or illnesses.

The university's biomedical efforts have grown over the past 22 years increasing the need and interest in biosafety as well as oversight by regulatory agencies. New laboratories working with select agents (those potentially useful in bioterrorism/biowarfare) and with human and animal pathogens are being or have been constructed on this campus and at off-campus sites. These laboratories are designed to provide for containment of the biological agents of research interest and are designated at biosafety level 2 or 3. However, even with well-designed and constructed facilities, containment depends on the attitude and training of the researchers involved. Biosafety works during the planning phases in laboratory construction and responds to researchers in determining appropriate containment needs. Biosafety also works closely with the state and federal agencies that regulate these facilities and the research.

The biosafety program is also involved in reviewing research protocols, selected material transfer agreements, shipping of infectious agents, biomedical wastes, biosafety cabinet certification, training, maintaining the biosafety web site and the biosafety manual.

Environmental Safety Division wishes to welcome Jennifer Gose, a new Environmental Safety Specialist. She comes to us from UGA Procurement. Her new responsibilities with ESD will include inspecting laboratories on campus as well as divisional computer support.



She is a graduate of the University of Georgia and holds a degree in psychology and biology. While serving in the Navy, Jennifer gained experience inspecting aircraft hangers and managing tool inventory.



Daryl Rowe received the Georgia Environmental Health Association award for GEHA Member of the Year 2003. The award was presented, as a surprise, on Thursday evening, July 10, 2003, after Daryl delivered the opening convention speech. The inscription reads: "In Recognition of Outstanding Contributions, Achievement and Devotion to the Environmental Health Profession."

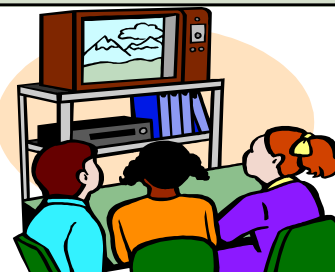
Kudos

- A huge "thank you" goes out to Jane Russell, the director of recreational sports at the University of Georgia, for her department's assistance with emergency planning and drills and for offering the use of their facilities for emergency drills.
- A thank you from ESD also goes to Ron Hamlin, the department manager administrative with the University of Georgia Campus Transit System, for participation in emergency planning for the community and for UGA.
- Maria Kuhn thanks Mark Schell, professor of Microbiology, for his assistance with the Center for Disease Control's compliance issues.
- Kudos to Linda Brown for being selected Custodial Employee of the Quarter. Her diligence at keeping the ESD and Campus Mail Building clean makes the work place enjoyable.

Safety Videos Available

The Environmental Safety Division has a library of safety videos which can be borrowed free of charge by University employees. Call us at (706) 542-0113 or place a checkmark by the videos you wish to borrow and return this completed page to us. Videos can be borrowed for up to two weeks or longer, if necessary; they can also be reserved for upcoming training classes you might be conducting. For a description of each video, including its length, go to our website:

www.esd.uga.edu/info/pub/vlibrary.pdf



Art Safety:

(A1) ___ Health Hazards and the Visual Arts

Chemical and Laboratory Safety:

(CL2) ___ Chemical Storage Hazards

(CL3) ___ Chemical Hazards

(CL4) ___ A Place for Everything: Chemical Storage in the Laboratory

(CL5) ___ Practicing Safe Science

(CL6) ___ The Keys to Laboratory Safety

(CL7) ___ Introduction to Reactive and Explosive Materials

(CL8) ___ Radionuclide Hazards

(CL9) ___ Science—Live to Tell About It

(CL10) ___ Glassware Washing Hazards

(CL11) ___ Centrifugation Hazards

(CL12) ___ Fume Hood Test and Training

(CL13) ___ Safety Showers and Eyewashes

(CL14) ___ All Washed Up

(CL15) ___ Safe Handling of Laboratory Glassware

(CL16) ___ Whose Job Is It Anyway?

(CL17) ___ Laboratory Fume Hood Safety

(CL18) ___ Assessing Risks of Toxic Chemicals

(CL19) ___ Flammables and Explosives

(CL20) ___ Mammalian Cell Culture Hazards

(CL21) ___ X-Ray Diffraction Hazards

(CL22) ___ Controlling Your Risks—HIV in the Research Laboratory

(CL23) ___ Working Safely with HIV in the Laboratory

(CL24) ___ Preventing Contamination

(CL25) ___ Get Your Checklist Ready—A Guide to Lab Safety Inspections

(CL26) ___ Laboratory Safety: Potential Hazards II

(CL27) ___ Ether Removal at Mercer University; Reactives/Explosives, AETC

(CL28) ___ Hazardous Materials

(CL29) ___ Lab Safety

(CL30) ___ Chemical Lecture & Demonstrations

(CL31) ___ It Only Takes a Second

(CL32) ___ Confined Spaces—Silent Killer

(CL33) ___ Virtual EPA Inspection of a College or University

(CL34) ___ Environmental Health: The Invisible Profession

Driver Safety:

(DS1) ___ Just Another Saturday Night

(DS2) ___ Breaking the Accident Chain of Events

(DS3) ___ Night Driving

Emergency Procedures:

(EP1) ___ Tornado—Nature’s Fury 2000

(EP2) ___ Chernobyl—Legacy of a Meltdown

(EP3) ___ Emergency Response

(EP4) ___ Preparing for a Crisis on Campus

(EP5) ___ An Orientation to Community Disaster Exercises

(EP6) ___ Bioterrorism and Mass Casualty Presentation; UGA; 10/31/01

Fire Safety:

(FS1) ___ Fire Safety in the Laboratory

(FS2) ___ Fire Escape—Getting Out Alive

(FS3) ___ How Fast It Burned!

(FS4) ___ Ready to Respond

Gas Cylinders:

(GC1) ___ Gas Cylinders—Welding, Cutting, and Brazing

(GC2) ___ Compressed Gases Can Be Dangerous; An Explosion Case History

(GC3) ___ Handling Compressed Gas Cylinders

(GC4) ___ Gas Cylinders—Overview

Right to Know/Hazard Communication:

(RTK1) ___ Cracking the Code

(RTK2) ___ Material Safety Data Sheets

(RTK3) ___ MSDS—Roadmap to Safety; Read that Label

(RTK4) ___ Your Right to Know

(RTK5) ___ Right to Know: Administrator’s and Trainer’s Guide

(RTK6) ___ Your Right to Know; MSDS? Roadmap to Safety

Name _____
Date Requested _____ Department _____
Room No. _____ Building _____
Mailing address (if off-campus) _____
Phone _____ E-mail _____

New Basic Emergency Operations Plan Available Online by Dena Roth

The basic emergency operations plan for UGA is now available on the ESD website at: www.esd.uga.edu under "What's New." This plan is only available in the electronic format and replaces the January 2001 plan sent out in hardcopy to department heads. The information that can be found in the new plan is:

- Level of emergencies
- Emergency definitions
- Activation of the plan
- Concept of operation
- Assisting persons with disability in an emergency
- Specific emergency operations modules
- Likely disasters
- Important contact information
- Other emergency planning tools

The basic plan is written to provide general information and points of contact in the event of an emergency anywhere on campus. It also contains a series of one-page response summary

sheets that can be used by individual colleges, divisions, or department as a planning tool for the different kinds of emergencies anticipated at UGA. Other planning tools are a hazard analysis worksheet and a recovery strategy matrix. The hazard analysis worksheet gives you an opportunity to think about the impact certain types of disasters would have on your personnel and workspace. The recovery strategy matrix allows you to review your work procedures and estimate the time needed for business resumption.

Take a few minutes to review the new plan. Be sure any old copies of the January 2001 plan are removed from circulation and replaced with this revision. If you have or attend staff meetings, put this on the agenda. It is an excellent way to disseminate information.

This plan is intended to provide general information for emergency planning. Every college, division or

planning specific to their mission and needs. A series of modules has been developed for that purpose. For more information about specific planning for your area contact emergency operation's coordinator, Dena Roth at 369-5625 or by email at droth@esd.uga.edu.



The Ramsey Center has been designated the Red Cross Center for emergency operations in the event of a campus crisis.

HART Responds to Fuel Oil Spill by Wes Kolar

On the morning of August 11th, the University of Georgia's Hazard Assessment Response Team (HART) mobilized in response to a large spill of fuel oil. During the previous night, an estimated 6000 gallons of fuel oil was released from storage tanks in the area. The spill made its way down to a small creek that runs adjacent to Mitchell Bridge Road. Local residents then reported a strong smell of fuel in the air prompting an investigation by the Athens/Clarke County (ACC) Fire Department. ACC officials later determined that the source of the spill was from an oil company located on Jefferson Road. The cause of the spill has been ruled to be vandalism.

Shortly after receiving initial notification of the problem, HART teamed up with members of the ACC Hazmat squad in order to contain the spill. The two teams worked together to construct an underflow dam that stopped the flow of fuel oil to areas downstream. In order to help insure the safety of local

residents, air monitoring was performed throughout surrounding areas during the construction of the dam.

Several other parties were also involved in the spill response, including members of the American Red Cross who arrived on scene with food and cold drinks for the first responders. Representatives from Athens Regional Medical Center provided medical monitoring and surveillance for team members involved with dam construc-

tion. Additionally, an outside contractor was called in to vacuum up the spilled fuel oil captured behind the underflow dam.

A cross-sectional view of an underflow dam is illustrated in Figure 1 below. One or more pipes are placed in the dam at an angle that allows clean water from the bottom of the stream to flow through the pipes and out the other side of the dam. Fuel oil, which floats on the surface of the water, cannot make it to the inlet tube of the pipes and is trapped behind the dam. The net result is that water can now flow past the dam while the fuel oil is trapped behind the dam. The trapped fuel oil can then be removed by one of a variety of methods, including absorption and vacuum suction. When a liquid contaminant is heavier than water, the opposite arrangement is employed where the top layer (water) is allowed to pass by the dam and the bottom layer (contaminant) is collected for removal. This arrangement is known as an overflow dam.

