



# Environmentally Speaking

University of Georgia  
Environmental Safety Division

Vol. 6, Issue 3  
Summer 2005

## Summertime at ESD

### Wayne Dill Appointed the Interim Associate Vice President at ESD



Henry Huckaby, Sr. Vice President for Finance and Administration, appointed Wayne Dill as the new Interim Associate Vice President to the Environmental Safety Division on April 1, 2005.

Wayne came to ESD from Physical Plant where he served as Director of the Services Department for seventeen years.

Before coming to work at the University, Wayne had a rewarding career with the U.S. Army, where he retired as a colonel after serving 26+ years.

Wayne brings excellent leadership skills to ESD which will allow us to continue our mission of service with trust and integrity to the University.

The staff sincerely welcomes Wayne Dill to the Environmental Safety Division.

**Fire Safety would like to welcome their newest employee, Joe Holmes. Mr. Holmes is the new fire extinguisher inspector. He will inspect all of UGA's fire extinguishers to ensure they are properly installed and in working condition.**

**Nina Evans will begin to work at ESD on July 14 as an Administrative Associate. The staff welcomes her.**

### Dr. Daryl Rowe Returns to ESD as Part-time Consultant to the Biosafety Program

Dr. Rowe retired in December 2004 as the Biosafety Manager at ESD; but after the position was not filled right away, he agreed to return part-time to serve as a consultant to the biosafety program.

This is an important program in that researchers on campus need to have their projects approved by the Biosafety Committee in order to receive grant money to perform their research.

The biosafety manager assures this process is performed by the use of the Biosafety Committee. Committee members are assigned to review a researchers project, which they will approve or not approve according to the researchers safety protocols.

The biosafety program is much more complex than explored here; but, Dr. Rowe's return is most appreciated to the continued success and growth of the program.



**ESD welcomes Dana Kesler as the new administrative associate at the Environmental Safety Annex (HMTF). She replaces Judy Harper who retired. Dana comes to ESD from Physical Plant.**

### Defensible Space Works Contributed by Mike Hodgson, Fire Safety Inspector

During the 1993 raging Malibu fires, a number of homes were saved as a result of the owners' careful pruning and landscaping techniques that protected their homes. In a fire situation, the dead trees and shrubs surrounding your home act as fuel for fire. Removing flammable vegetation reduces the threat of fire. Follow these basic rules to create defensible space that works.

- Remove all dead plants, trees and shrubs from the site.
- Reduce excess leaves, plant parts and low-hanging branches.
- Replace dense flammable plants with fire-resistant plants.

The choice of plants, spacing and maintenance are crucial elements in any defensible space landscaping plan.

#### Tips for a Fire-Safe Landscape

- Create a defensible space perimeter by thinning trees and brush within 30 feet around your home.
- Beyond 30 feet, remove dead wood, debris and low tree branches.

*(cont. next page)*

- Eliminate small trees and plants growing under trees. They allow ground fires to jump into tree crowns.
- Space trees 30 feet apart and prune to a height of 8 to 10 feet.
- Place shrubs at least 20 feet from any structures and prune regularly.
- Plant the most drought-tolerant vegetation within three feet of your home and adjacent to structures to prevent ignition.
- Provide at least a 10 to 15 foot separation between islands of shrubs and plant groups to effectively break-up continuity of vegetation.
- Landscape your property with fire resistant plants and vegetation to prevent fire from spreading quickly.

**Choose Fire Resistant Materials**

- Check your local nursery or county extension service for advice on fire resistant plants that are suited for your environment.

- Create fire-safe zones with stone walls, patios, swimming pools, decks and roadways.
- Use rock, mulch, flower beds and gardens as ground cover for bare spaces and as effective firebreaks.
- There are no “fire-proof” plants. Select high moisture plants that grow close to the ground and have a low sap or resin content.
- Choose plant species that resist ignition such as rock-rose, ice plant and aloe.
- Fire-resistant shrubs include hedging roses, bush honeysuckles, currant, cotoneaster, sumac and shrub apples.
- Plant hardwood, maple, poplar and cherry trees that are less flammable than pine, fir and other conifers.

**For More Information Contact: the USFA website: [www.usfa.fema.gov](http://www.usfa.fema.gov)**

**Hazardous Materials: Here to Serve You**  
**By Brian Adams,**  
**Hazmat Facilities Coordinator**

The Hazardous Materials Department would like to thank everyone who uses our services, and we encourage those of you new to the University to contact us with your questions regarding the proper disposal of hazardous wastes. Our main goal is to provide the campus with the best possible customer service. While many changes have been made to improve the level of service we provide, we are constantly seeking new ways to better serve you. Please feel free contact our office with any questions at (706) 369-5706 or visit our *(cont. above, right)*

website at [www.esd.uga.edu](http://www.esd.uga.edu) and click on hazmat. If you have questions regarding recently submitted hazardous materials pickup inventory forms or if you would like to schedule your pickup, please call and speak with Jeff Shirey, Ben Hale or Brian Adams.

**Facts About Mercury**  
**By Brian Adams**

Mercury devices such as thermometers and manometers are common in laboratories on campus. Because of this, mercury is one of the most common spills that requires ESD assistance. Here is a guide to help labs better manage mercury:

**DO:** Replace as many mercury devices as possible with non-mercury alternatives in the lab. Example: Use digital thermometers and manometers, replace old mercury thermometers with new non-mercury type.

**DON'T:** Use mercury thermometers in ovens or heated incubators. If broken, the mercury will vaporize and contaminate the unit, requiring expensive disposal.

Keep a container of Hg Absorb™ in the lab if mercury devices are used. This product is highly effective and simple to use. (Available through Lab Safety Supply [www.labsafety.com](http://www.labsafety.com).)

**DON'T:** Use sulfur or nitric acid to clean up a mercury spill. Both make the spill cleanup harder to dispose of and nitric acid may cause an unwanted reaction.

**DO:** Contact the Environmental Safety Division if you have a mercury spill that is too large to manage at 542-5801. If you need assistance with mercury disposal please call the Hazardous Materials Program at 369-5706.



**Inside This Issue**

<b>Interim Asso. VP, Wayne Dill ...</b>	<b>1</b>
<b>Dr. Daryl Rowe's Return ...</b>	<b>1</b>
<b>Defensible Space Works ...</b>	<b>1-2</b>
<b>Hazardous Materials ...</b>	<b>2</b>
<b>Facts About Mercury ...</b>	<b>2</b>
<b>Rad Dawg News ...</b>	<b>3</b>
<b>Fume Hood Safety ...</b>	<b>3</b>
<b>Eye Wash and Safety ...</b>	<b>3</b>
<b>UGA Griffin Campus ...</b>	<b>4</b>
<b>First Response and Me ...</b>	<b>4-5</b>
<b>Safety Videos Available ...</b>	<b>6</b>

## Rad Dawg News

By Jody Jacobs  
Radiation Safety Manager

### Inspection Report

The state of Georgia has an agreement with the U.S. Nuclear Regulatory Commission to govern the safe use of radioactive materials. Subsequently, UGA is licensed to use and possess radioactive materials by the Georgia Department of Natural Resources, Radioactive Materials Program. On January 10th, an Environmental Radiation Specialist from the DNR performed a routine inspection of the activities authorized by the university's license as they relate to radiation safety, regulatory compliance, and compliance with the terms and conditions of our license. The inspection consisted of selective examinations of procedures and records, interviews of personnel, and independent measurements and observations. No items of non-compliance were found. I am grateful for the support of the researchers and staff members who contributed to this successful inspection.

### Radiation Safety Committee Update

Earlier this year, Dr. Jeffrey Dean was appointed by President Adams as chairman of the UGA Radiation Safety Committee. Dr. Dean is Associate Professor of Forest Biotechnology and Director of the Plant Center. He has been a long standing and very active member of the committee, and his appointment was universally supported.

I would like to express my gratitude to Dr. Joe Crim, the previous chairman of the committee. Dr. Crim is Professor of Cellular  
(cont. above, right)

Biology and Associate Vice President for Instruction. His leadership and professionalism were of great benefit to the committee and his service to the university is appreciated.

## Fume Hood Safety

By Mike Stover, Manager

There are over 900 fume hoods on the university campus that vary in size and purpose (general purpose, radioactive and perchloric acid). The Environmental Safety Division and Physical Plant work together to inspect each one at least one time per year and the results of this joint effort are very good with over 95% in proper operating condition. There are some things you can do to improve the safety of your hood operation.

- Work approximately 6 inches inside the sash.
- Work with the sash approximately 10-12 inches high.
- Don't store chemicals in your fume hood. They are not designed for long term storage.
- Don't store waste in your fume hood. Waste should be placed in proper waste storage areas.
- Keep large objects off the bottom of the hood. This blocks air flow. Position the objects so that there is room for air to circulate under the object.
- It is a good idea to keep doors and windows closed while working in your hood. These can create cross currents that decrease your hood's effectiveness.
- There are phone numbers on the fume hood postings that you can call if you have a problem.

Your fume hood can be very important to your health. Take care of it and it will take care of you.

## Eye Wash and Safety Shower Testing

By Maria Kuhn, Manager

As we get closer to our annual testing of eyewash and safety showers, we thought it appropriate to review guidelines and practices for eyewash station use.

- Eyewash stations should have the ability to irrigate and flush both eyes simultaneously while allowing the user to hold both eyes open.
- Each station should turn on quickly and with ease to then enable hands free operation.

Laboratory workers should be trained to reach the eyewash station(s) in their area(s) with their eyes closed. This is something that the laboratory staff as a group can practice during annual *Right to Know* training.

To ensure safety for visitors and personnel not as familiar with a facility, post a visible eyewash sign just in case. Sample signs are available on the lab safety web site ([www.esd.uga.edu/chem](http://www.esd.uga.edu/chem)).

In the event of a chemical splash to the eyes, call out for help and ask someone to call 9-911 while moving to the station (or 2-2200 takes you to UGA police dispatch). Turn the station on, hold eyelids open, move into the eyewash and allow continuous flushing for about 15 minutes. This may seem like a tremendous amount of time, but remember that permanent damage to the eye is possible with minutes following a chemical exposure if not sooner. Always seek medical assistance.

With time of the essence, do not hesitate to use an eyewash station and get to it quickly.

Keep safe and have a great summer.

**UGA Griffin Campus Continues Proactive Safety Commitment**  
**By Bill Favaloro,**  
**Environmental Safety Coord.**

The College of Agriculture and Environmental Sciences at the Griffin Campus recently committed to another proactive step in safety by adopting the use of the new Laboratory Self-Inspection (LSI) program. Since the inception of the Support and Outreach for the Outlying Facilities program almost four years ago, the Griffin Campus has been very supportive and proactive of any progress that will provide a safer working environment in conjunction with a commitment to regulatory/environmental compliance. (Note the article in the Winter 2004, *Environmentally Speaking*, "UGA Griffin Campus Makes Life Saving Decision.")

The LSI was developed through the Support and Outreach for the Outlying Facilities program to provide frequent input and monitoring concerning the status of laboratory safety and regulatory/environmental compliance. In turn, the Support and Outreach for the Outlying Facilities program can better identify and respond to the needs of supporting the outlying sites. The web-based LSI provides a support tool that works in conjunction with the physical laboratory inspections performed yearly. On a quarterly basis the LSI is generated and sent via e-mail to identified laboratory locations. In the case of the Griffin Campus, there are currently 135 laboratories. Laboratory personnel complete the on-line form, retaining a hard copy for their records, and submit the inspection form on-line. The coordinator of

Outlying Facilities program reviews all inspection forms and comments. If there are any questions concerning the inspection responses or comments, there is a follow-up contact. The LSI results are compared during physical yearly inspections for consistency. The time involvement of each laboratory to perform the LSI is small considering the great benefits. The LSI also serves as a reminder to laboratory personnel of important safety and regulatory issues that must be maintained on a daily basis.

It is the goal of the Support and Outreach for the Outlying Facilities program coordinator to expand the LSI program to other sites throughout the outlying facilities. At the present time, a commitment has already been made to adopt the LSI program for three Marine Extension sites along the Georgia coast. The program for the Skidaway, Sapelo and Brunswick sites will be fully operational by the end of 2005.

Special thanks to Dr. Gerald Arkin, Assistant Dean to the Griffin Campus, who has always been extremely supportive of safety and regulatory/environmental enhancements; Dale Hess, Superintendent Plant Operations and Engineering/Griffin Campus, for his critical support and administration of outreach programs; and Charles Meaders, Management Information Specialist, for implementation and support of the web-based LSI system and the outreach web page.

**ESD welcomes Manley Kiser as the newest environmental safety specialist. Manley comes from Research Services at the University. He duties will encompass inspecting UGA laboratories for safety concerns.**

**First Response and Me**  
**by Wes Kolar, UGA Hazardous Materials Response Coordinator**

The term first responder has been used frequently during our recent past, and everyone has an idea of who a first responder is and what they do. We all know that firemen are first responders by their actions. They are quick to respond to the scene of burning structures in search of those in need of rescue. We all know that policemen are first responders by the way that they are the first to respond to trouble situations when summoned, and by how they continually put themselves in harms way for the good of the general public. We also all know that emergency medical technicians (EMTs) and paramedics are first responders by the way that they respond quickly to the scene of automobile accidents and other situations involving injured personnel. What many of us don't know is that according to Federal <sup>(1)</sup> regulations, and with a minimal amount of training, we can all be first responders.

The Code of Federal Regulations (CFR) lists five levels of competency for first responders to events involving hazardous materials, namely, awareness, operations, technician, incident commander, and specialist. Proficiency in the levels from technician through specialist involves a great deal of training and expertise as these are the individuals who are called upon to limit the release of a hazardous material during an emergency situation. Proficiency however in the first two levels of first response, awareness and operations, can be obtained by anyone with little or no background in

(cont. next page)

hazardous materials response, and with a minimal amount of outside training. Additionally, first response at the awareness and operations levels is defensive in nature. These individuals are called upon to help mitigate an event without being placed directly in harms way.

According to 29CFR1910.120 (Federal regulations governing response to hazardous materials releases), a first responder at the awareness level is someone, “who is likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release.” The Federal requirement simply states that awareness level individuals know what hazardous substances are, understand some of the associated dangers, understand the need for additional resources when required, and know how to initiate an emergency response. Anyone who is able to recognize that an unwanted event involving hazardous materials is taking place and knows how to dial 911 on a telephone may qualify as a first responder at the awareness level. The next level up from awareness, namely operations, also involves a minimal amount of acquired abilities.

According to the Federal regulations, first responders at the operations level are, “individuals who respond to releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment. They are trained to respond in a defensive fashion without actually trying to stop the release.” First response at the operations level involves the qualifications listed above for the awareness level above plus the

following, rudimentary knowledge of how to select and wear personal protective equipment (PPE), an understanding of basic hazardous materials terminology, knowledge of how to implement hazardous materials control and containment procedures, and knowledge of how to implement basic decontamination procedures. First response at the operations level involves a minimum of eight hours of training. Individuals at this level may be asked to assist with crowd control and/or decontamination procedures, but will not be asked to perform potentially hazardous duties such as spill control and containment.

The role of the first responder at the awareness and operations levels is once again a defensive one. With minimal training and practice, we can all be prepared to be a first responder to unwanted hazardous materials releases <sup>(2)</sup>.

References:

- 1) United States Code of Federal Regulations (CFR), Vol. 29, Section 1910, Subsection 120, paragraph



**(Above) First response personnel containing a hazardous material spill. (Below) Classroom training for personal equipment used in responding to hazardous material accidents.**



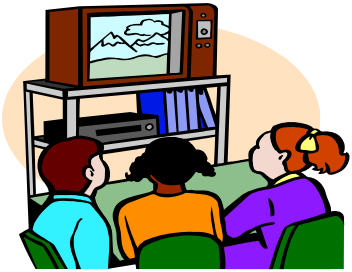
q (29CFR1910.120 paragraph q). Reference is available at the following website; <http://www.gpoaccess.gov/cfr/index.html>

- 2) For additional information on awareness and operations level first response training, please contact the author at: [wkolar@esd.uga.edu](mailto:wkolar@esd.uga.edu).

**ESD Wishes You  
A Safe  
and Unforgettable  
Summer.**

# 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](http://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

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