



# SAFETY BUZZ

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## FROM THE DIRECTOR

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Environmental Health & Safety Staff:  
 Edward Guida— Director 404-894-4635  
 Anna Hawkins— Administrative Assistant 404-894-4635  
 Lee Zacarias— Environmental Health Coordinator 404-894-6119  
 Alton Chin-Shue— Safety Coordinator 404-385-0263  
 Edward Pozniak— Hazardous Materials Officer 404-894-6224  
 Debbie Wolfe-Lopez— Chemical Safety Coordinator 404-385-2964  
 Vic Rachael— Fire Safety Coordinator 404-894-2990  
 Michelle Short— Environmental Health Specialist 404-894-9381  
 Amanda Stefanakos— Chemical Safety Specialist 404-894-6120  
 Vanessa Keel— Chemical Safety Specialist 404-385-2963  
 Duane Slack— Safety Specialist 404-894-6128  
 Brian Clemons— Hazardous Materials Specialist 404-894-0499  
 David Richmond— Fire Safety Specialist 404-894-5045

It's happened again! A student perished in a dormitory fire at Southern Adventist University, located near Chattanooga, Tennessee, early Tuesday morning, April 26th, 2005. This tragedy shows that risk associated with fire still exists in college and university dormitories and other residence areas despite fire- and life-safety features. The fire department's investigation of the fire at Southern Adventist University ruled that the fire was accidental, that all smoke detectors and fire alarms worked as intended, and that the loss of life was unavoidable. The assistant State Fire Marshal, who spoke to university administration after the fire scene was investigated, stated that they can't explain why this one student went toward the fire while other students evacuated the building. This dormitory was not equipped with sprinklers but fire officials felt that sprinklers would not have prevented this fatality because very high temperatures are required to activate sprinkler systems.

Fires involving college students with terrible consequences have occurred all too frequently over the past few years. This academic year started with news that three students died in a fraternity house fire at the University of Mississippi, and, since then, our Fire Safety Coordinator worked with the Atlanta Fire Department to inspect fraternity and sorority houses at Georgia Tech. Since the fire at the University of Mississippi, there have been other fatal fires at colleges and universities in this country with the latest occurring at Southern Adventist University. Our Fire Safety Coordinator has provided some fire safety guidance in this newsletter, and we will continue to work diligently to make Georgia Tech's buildings as safe as possible for our students, faculty, staff, parents, and other visitors.

The other topic that I wish to emphasize in this edition of the Safety Buzz is driving safety— particularly in bad weather. We're fortunate in

the Atlanta area that bad weather is typically rain and wind, but we have snow and ice once in a while. You may recall that we had a rather severe ice storm this past winter, and one EH&S employee was the victim of a serious accident when he was returning home late in the evening. Despite driving a modern car with many active safety features, he was hit twice, once by a driver of a 4-wheel drive SUV, and the second time by a sedan driving at excessive speeds. Because supplemental restraints only work once, he was not protected by these devices when hit the second time. His injuries, while painful and slightly disabling (temporarily), were not serious enough to require hospitalization.

Driving a motor vehicle is a RESPONSIBLE ACT! Drivers need to understand the capabilities of their vehicles and the road conditions including other travelers, and they need to adjust their speed accordingly. A nice thing about 4-wheel and all-wheel drive vehicles is that they "go" in poor conditions compared to 2-wheel drive vehicles, but drivers of these vehicles need to understand that they do NOT steer and stop any better than 2-wheel drive vehicles. Handling and braking come from all four tires, and 4-wheel and all-wheel drive vehicles don't have an advantage. ALL drivers need to exercise caution in all driving conditions, and bad weather increases the need to be more cautious of the driving environment and other travelers. Our defensive driving course emphasizes this. Our Safety Coordinator has provided some additional driving safety information for your use.

Be safe out there,

# Distracted Driving

By Alton Chin-Shue, Safety Coordinator

Driving safely in Atlanta can be challenging enough even when full attention is given to the road and all other hazards. Driving while operating a cell phone, adjusting the radio, or eating and drinking can be distracting and potentially dangerous.

It only takes a second for a crash to happen. Distractions occur when drivers concentrate on something other than operating their vehicles.

- The National Highway Traffic Safety Administration (NHTSA) estimates that 25% of all crashes involve some form of driver distraction.
- Drivers who use cell phones in their vehicle have a higher risk of collision than drivers who either do not use cell phones or have lower usage while driving.
- A recent NHTSA survey found that nearly 75% of drivers reported using their phone while driving, and an estimated 60% of cell phone use takes place behind the wheel.

## What are the most common types of driver distraction?

- **Outside distractions, such as:**
  - Accidents
  - Vehicles stopped by police
  - Billboard advertising
  - Friends in other vehicles
  - Construction (shops, restaurants, etc)
  - Aggressive drivers
- **Adjusting the radio, cassette, or CD player**
- **Other occupants in the car, such as:**
  - Children
  - Pets
  - Adult passengers
- **Objects moving in the vehicle**
- **Eating and drinking**
- **Adjusting the car's temperature controls**
- **Using/dialing a cell phone**
- **Smoking**
- **Personal grooming**
- **Reading a map or newspaper**

According to a survey conducted by the Response Insurance Agency in 2000, eating while driving ranks as the No. 2 driving distraction. Fifty-seven percent of drivers surveyed say they eat and drive. The No. 1 distraction, noted by 62% of surveyed drivers, is tuning the radio, and No. 3, noted by 56% of drivers, is turning around to talk with passengers.

Interestingly, only 29% of drivers surveyed listed talking on a cell phone as a distracting activity in which they engage.

While cell phone use is not #1 in most studies, the use of cell phones while driving has increased dramatically in the last few years. When the phone rings, we always see the need for an immediate response without regard to other tasks at hand.

## Cell Phone Users Drive Like Old Folks

If you have been struck in traffic behind a motorist yakking on a cellular phone, a new University of Utah study released in February 2005 will sound familiar: When motorists talk on cell phones, they drive like elderly people, moving and reacting more slowly and increasing their risk of accidents.

If you put a 20-year-old driver behind the wheel with a cell phone, their reaction times are the same as a 70-year-old driver who is not using a cell phone. It's like instantly aging a large number of drivers," says David Stayer, a University of Utah psychology professor and principal author of the study.

The study found that when 18- to 25-year-olds were placed in a driving simulator and talked on a cellular phone, they reacted to brake lights from a car in front of them as slowly as 65- to 74- year olds who were not using a cell phone.

The study found that drivers who talked on cell phones- regardless of whether they were young or old- were 18% slower in hitting their brakes than drivers who didn't use cell phones. The drivers chatting on cell phones also had a 12% greater following distance-an effort to compensate for paying less attention to road conditions- and took 17 % longer to regain the speed they lost when they braked.

In addition, "there was also a twofold increase in the number of [simulated] rear-end collisions when drivers were conversing on cell phones," the study says.

## Cell Phone Users Drive "Blind" Study Explains Why Hands-Free Phones are Just as Bad as Hand-held

Motorists are more accident-prone and slower to react when they talk on cellular telephones- even hands-free models- because "inattention blindness" makes the drivers less able to process visual information, Univer-

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## Off-Campus Residential Fire Safety

By Vic Rachael, Fire Safety Coordinator

Sunday April 10th, 2005, a fire killed three students that attended the University of Miami, Ohio. The house the students were living in was a rental property. The final report said the fire was accidental in nature and was probably started because of careless smoking. On average, most fire incidents can usually be attributed to a few basic types of activities. They include: violations of fire and building codes, overloading of electrical outlets, careless smoking, burning candles, and other human mistakes.

The residential buildings at Georgia Tech are designed and built with various fire protection and life safety features. The codes that are used are the National Fire Protection Association and International Building Code. These systems are used to detect a fire, warn the occupant, and extinguish or control a fire. The primary purpose of ALL of these systems is to allow the occupants to safely exit the building. Some of the components of these systems are: sprinklers, standpipes, fire hydrants, fire extinguishers, smoke detectors, smoke control and evacuation systems, smoke containment and barriers, fire alarms, fire and door panic devices, exit and emergency lighting, interior finish requirements for low fire spread, fire rated barriers, and fire-resistive construction.

Most of the fire-related injuries and deaths in Georgia occur in residential single-family homes. Every home or apartment should have smoke and carbon monoxide detectors, fire extinguishers, and an emergency escape plan. Always use the proper storage container and exercise extreme care when handling gasoline. When cooking with grease, never leave it unattended and have a method of extinguishing a fire if it catches on fire. NEVER attempt to pick up a burning pan of oil. Use something—such as the lid to the pan—to smother the fire or use a fire extinguisher. Electrical appliances and space heaters should never be used with an extension cord or near combustible liquids or materials.

A basic rule when in any building or residence is to locate the exits and how to get to them.

There should be at least two exits. An exception to this would be apartments which tend to have a single exit. A simple reason to look for a second exit is if the first exit should become blocked by fire and smoke, the second one can be used to exit the building. Hot, toxic, dark, obscuring smoke can quickly fill a room, a corridor, and building. The number one cause of death in a fire is smoke inhalation. People often lose their judgment, orientation, and become confused when inhaling carbon monoxide gases.

The first several minutes of a fire are critical. Deadly flashover can occur in less than four minutes under the right circumstances. Everyone must do their part to prevent fires by practicing good fire safety at work, home, and during recreation activities. And, have an evacuation plan ready should a fire break out.

When a fire in a building is discovered:

1. Alert others. If there is a fire alarm pull station, pull it.
2. If it is a small fire and you feel comfortable using an extinguisher, do so but make sure your back is to the exit.
3. If you decide to evacuate, do so calmly and orderly. Follow the exits, and NEVER re-enter a burning building.
4. Close doors as you leave, but do not lock them. This is to prevent the spread of smoke and fire.
5. Stay low and crawl to exit if smoke and toxic gases are present.
6. ALWAYS use stairwells to go down and out of a building. Use elevators ONLY if instructed to do so by Fire Department personnel.
7. Follow the stairwell to the outside and get away from the building. Go to the designated assembly area. Make sure you are at least the height of the building PLUS ten feet AWAY from the building.
8. Notify the fire department as soon as possible. Off campus dial 911. On campus call the GTPD at (404)894-2500.

Report any fire hazards or incidents on campus to the Georgia Tech Environmental Health and Safety Department at (404)894-4635.



**Stay alert—  
don't get  
hurt!**



*Ever tried to switch a CD or find a radio station while driving? Ever spilled coffee in the car? Ever been so caught up in a conversation that you missed your turn - or worse, went through a red light? Ever seen other drivers reading the paper, or grooming themselves in the rear view mirror? Almost all of us have either observed or been guilty of multi-tasking behind the wheel*

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sity of Utah researchers found in a study released in January 2003.

The study concludes that inattention blindness explains the researchers' widely publicized 2001 findings that users of hands-free and hand-held cell phones are equally impaired, missing more traffic signals and reacting to signals more slowly than motorists who do not use cell phones.

The earlier study also found there was no impairment of drivers who either conversed with a passenger or who listened to the radio or to books on tape.

The researchers said the overall study supports the inattention blindness hypothesis that "the disruptive effects of cell phone conversations on driving are due in large part to the diversion of attention from driving to the phone conversation."

#### **Dashboard Dining —A Crash Diet**

Get your hands out of the bucket 'o wings, and back on the wheel. Eating while driving is dangerous — and it drives up the cost of insurance for everyone.

Drivers who are drinking and stuffing their faces while on the road are a serious problem. Eating while you drive is one of the most distracting things you can do, according to several recent surveys by insurance companies and data from the National Highway Traffic Safety Administration (NHTSA).

Though NHTSA doesn't track specific information on food-relative distraction, it does track general distractions and, as of 2000, distractions in cars were considered the cause in 25 percent of police-reported motor vehicle crashes. According to NHTSA, "distraction was most likely to be involved in rear-end collisions in which the lead vehicle was stopped and in single-vehicle crashes." What makes distraction such a problem is the confluence of the distraction, such as eating, and the unexpected occurrence of events on the road, such as a sharp curve or a driver stopped ahead of you.

"It really seems it's more the spill than the eating," says Hagerty. "Anything that drips is probably not a good idea." Hagerty and

his staff decided to do a study of their own to see which foods are the worst offenders, and although Hagerty says he ruined a few shirts in the process, they found some interesting information.

Coffee is the top offender because of its tendency to spill. Even in cups with travel lids, somehow the liquid finds its way out of the opening each time you hit a bump, says Hagerty.

#### **Safety tips you can use:**

- Make adjustments to vehicle controls—such as radios, air conditioning, or mirrors— before beginning to drive or after the car is no longer in motion.
- Don't reach down or behind the driver's seat, pick up items from the floor, open the glove compartment, clean the inside windows, or perform personal grooming while driving.
- If you must use a cell phone:

Use an earpiece with a microphone.

Keep both hands on the steering wheel and eyes on the road; remember that safe driving is the priority.

Assess the current traffic situation before making or receiving any calls. Do not answer or dial the phone when driving in hazardous conditions.

Pull over to the side of the road before beginning a cell phone conversation, or wait until you reach your destination. The safest time to use a cell phone while driving is when stopped.

Become familiar with how to use the phone. Read the manual and know how to use the available features.

The EH&S Department provides the National Safety Council (NSC) Defensive Driving Course to all Georgia Tech personnel who drive a State Vehicle. The NSC has upgraded the course to its 8th edition, which now has one section devoted to "Distractive Driving."

**The EH&S Safety teaches that Georgia Tech employees SHALL NOT use cell phones while driving state owned vehicles.**

## Fire Safety Checklist for Off-Campus rental housing.

1. Are smoke alarms installed? Functional? Checked bi-annually?
2. Is there a fire alarm system?
3. Are there at least two exits from your living space and from the building?
4. Is a sprinkler system installed?
5. For 2 story and higher buildings, that do not have a sprinkler system, do the bedrooms have a fire escape or a ladder?
6. If the main apartment door is on a common hallway is it fire rated? Are the walls between apartment fire rated?
7. Are fire extinguishers installed in the common hallways and in the kitchen area of the apartment?
8. Were the fire extinguishers inspected within the last 12 months?
9. Is the electrical wiring adequate for your needs? (enough receptacles throughout to prevent the use of extension cords and multi-tap plugs)
10. Are the kitchen appliances in good working order and do you know how to operate them correctly? (if the stove is gas, do you know how to relight the pilot light?)
11. If the stove is gas, is the furnace also gas? Do you know where it is? Do you know what propane/natural gas smells like? Who to call in an emergency?
12. Has there been a fire in this building before? Was it a problem with the building itself? A tenant? Was the problem corrected?
13. What is the owner's/management company's policy for correcting safety problems in the building?
14. Is there a fire hydrant located nearby on the street?
15. Are common corridors/exits maintained and clear of obstructions?
16. Is the owner/management company a member in good standing of a landlord/tenant association?
17. Has the city received any safety complaints regarding this building?
18. Is the facility inspected regularly by city or state inspectors for fire and life safety issues?

The primary question to ask when looking at rental properties is: Do I feel safe? If the hairs on the back of your neck are standing up and you do not feel safe, then the best thing to do is try and find something else. These questions are general things to think about, and look into, when considering renting.

## FASET and EH&S

The summer semester is fast approaching. And with that, most students go home and Georgia Tech's population thins out. But, during several weekends this semester, an influx of new freshman and transfer students swarm to Georgia Tech's campus. FASET Orientation brings hundreds of new students who eagerly become familiar with their new college campus and college life. The Environmental Health and Safety office will continue its tradition of setting up a booth during each FASET. At our booth, we provide information regarding the various activities and programs our office performs. We provide information on fire and life safety, defensive driving, chemical safety, biological safety, and general safety. We also have several promotional items that have been useful to students while at Tech. Come by and see us during these FASETs. We'd love to talk with each student, new or old, regarding what we do to keep everyone on campus safe.



**Georgia Tech-  
Environmental Health  
& Safety**

**490 10th Street, 3rd Floor  
Atlanta, GA 30318  
Mail Code: 0465**

**Phone: 404-894-4636  
Fax: 404-894-5042**

**In Case of  
Fire:  
Call GT  
Campus Police  
at 894-2500  
or if Off-  
campus, call  
911**

## **Whitaker Incident– Lessons Learned**

By Debbie Wolfe-Lopez, Chemical Safety Coordinator

On the morning of Tuesday, April 12, 2005, Georgia Tech was treated to an unusual flurry of excitement and activity as the Whitaker Building was evacuated. Environmental Health and Safety was summoned to the scene by Georgia Tech Police. When we arrived the building was being evacuated and the Atlanta Fire Department was on site having already taken control of the situation. There were people everywhere and no less than 3 news helicopters in the air. The evacuation was prompted by the release of a malodorous and potentially toxic gas from a bottle of highly toxic material that was opened outside of a fume hood, releasing the potentially toxic cloud. Lab occupants reacted appropriately—they called GT Police, explained the situation, and then pulled the fire alarm and evacuated the building. The student who opened the bottle was examined first by paramedics and then by Georgia Tech Student Health Services who both declared him unhurt.

Fortunately, new lab buildings at Georgia Tech have ventilation systems that are constructed to handle situations such as this by providing 100% outside make up air. This was proven when the Atlanta Fire Department entered the lab, tested the air, and found it safe to reoccupy less than an hour after the alarm was pulled.

While the cause of the evacuation was an unusual chemical, the cause of the incident was very simple—a failure of the people using that chemical to make themselves familiar with what they were working with before they attempted to use it.

On that note, I would like to offer a few basic tips for working with chemicals:

#1 Read the MSDS before you buy it and again before you start working with it. This chemical may need to be restricted to use in a fume hood only,

or you may need an explosion proof refrigerator to store it. Make sure you are equipped to handle it before you bring it into the lab.

#2 Use for less toxic materials whenever possible.

#3 PIs are responsible to make sure that people who are working in their labs with hazardous materials have the training and experience appropriate to the level of hazard that the research presents. If they don't have the training, **TRAIN THEM**. Online training is very general and does not prepare a person to work with highly toxic or potentially explosive materials. The training they receive must be specific to the chemical, biological or physical hazards present in your lab. Only the PI or a qualified designee can provide this level of training.

#4 Highly or extremely toxic materials, even dry powders, need to be restricted to fume hoods or Class II biological safety cabinets. Do not work with these materials in any kind of a cabinet that recirculated air back into the room (these devices are not allowed by the Board of Regents) or any kind of a laminar flow hood designed for product protection only—they will blow the contaminant back at you.

#5 Hygroscopic means that this material absorbs water from moist air. Sealing a bottle under room (moist) air and then putting it in a desiccator only seals in the moisture that the desiccator cannot remove. Try purging it with a dry, inert gas, such as nitrogen or argon before leaving it in the desiccator.

#5 Heed label warnings- "May develop pressure" should provide a clue that you do not want to open this where you might end up breathing whatever might come out of it- move it to a fume hood.

