

EHS & Safety Matters

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Environmental Health & Safety
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EH&S Awards, Accomplishments and Activities

UCOP Presidents Award for Excellence in EH&S - \$2.1M savings

EH&S and Human Resources' Workers' Compensation unit received the UC Presidents Award for Excellence for enhancing our injury prevention and workers' compensation return-to-work programs. These enhancements contributed to reducing UCI's workers' compensation rate to the lowest among all UC campuses. These injury prevention and return-to-work efforts represent a **\$2,100,000** savings over the past year!



NEW - EH&S Medical Waste Pick Up Services

Better and Faster!

- ▶ Enhanced regulatory compliance.
- ▶ Online pickup requests.
- ▶ Supplies including drums, red medical waste bags, and sharps containers are provided as part of the service.
- ▶ Streamlined process.
- ▶ Door to door service.

It's Easy!

- ▶ Medical Waste pickup requests submitted online will be collected within 1-3 days.
- ▶ No more waiting for a vendor to deliver supplies.

It's Cheaper!

- ▶ The high volume of Medical Waste allows UC Irvine to negotiate cheaper disposal costs with vendors.

Request Medical Waste Pickup Service via the Internet:

- ▶ Visit <http://www.ehs.uci.edu/programs/enviro/>
- ▶ Fill out the "Biomedical Waste Collection" form, and we'll pickup your waste.

For more information, contact Kirk Matin at x 44578.

Lesson Learned:



DO NOT HEAT LIQUIDS IN A MICROWAVE FOR MORE THAN TWO MINUTES!

"A 26-year old person decided to have a cup of coffee. He took a cup of water and put it in the microwave to heat it up (something that he had done numerous times before). I am not sure how long he set the timer for, but he told me he wanted to bring the water to a boil. When the timer shut the oven off, he removed the cup from the oven. As he looked into the cup, he noted that the water was not boiling, but instantly the water in the cup "blew up" into his face. The cup remained intact until he threw it out of his hand but all the water had flown out into his face due to the build up of energy. His whole face is blistered and he has 1st and 2nd degree burns to his face, which may leave scarring. He also may have lost partial sight in his left eye. While at the hospital, the doctor who was attending to him stated that this is fairly common occurrence and water (alone) should never be heated in a microwave oven. If water is heated in this manner, something should be placed in the cup to diffuse the energy such as a wooden stir stick, tea bag, etc. It is however a much safer choice to boil the water in a kettle."

Response from General Electric:

"Thanks for contacting us. I will be happy to assist you. The e-mail that you received is correct. Microwaved water and other liquids do not always bubble when they reach the boiling point. They can actually get superheated and not bubble at all. The superheated liquid will bubble up out of the cup when it is moved or when something like a spoon or tea bag is put into it. To prevent this from happening and causing injury, do not heat any liquid for more than two minutes per cup. After heating, let the cup stand in the microwave for thirty seconds before moving it or adding anything into it."

Response from a science teacher:

"Thanks for the microwave warning. I have seen this happen before. It is caused by a phenomenon known as super heating. It can occur anytime water is heated and will particularly occur if the vessel that the water is heated in is new, or when heating a small amount of water (less than half a cup). What happens is that the water heats faster than the vapor bubbles can form. If the cup is very new then it is unlikely to have small surface scratches inside it that provide a place for the bubbles to form. As the bubbles cannot form and release some of the heat that has built up, the liquid does not boil, and the liquid continues to heat up well past its boiling point. What then usually happens is that the liquid is bumped or jarred, which is just enough of a shock to cause the bubbles to rapidly form and expel the hot liquid."

Caution: Faulty Cell Phone Batteries



During the past two years, the U.S. Federal Communications Commission has received about 85 reports of cell phones spontaneously exploding or catching fire, resulting in burns to the face, neck, leg and hip of cell phone users. Most of these incidents involved incompatible, faulty or counterfeit batteries and/or chargers. Although legitimate, cell phone manufacturer-recommended batteries can fail in this manner, there is a higher likelihood that poorly-made, counterfeit batteries will lack the safety devices to detect overheating or overcharging.

Since there are about 170 million cell phone users in this country, the frequency of these events is extremely low. In spite of that, the Consumer Product Safety Commission has recently increased its oversight of the wireless telecommunications industry. To date, there have been three battery recalls (one from Verizon Wireless and two from Kyocera Wireless). Some consumer advocates say that in addition to bad batteries and chargers making their way to the market, the pressure on cell phone and battery manufacturers to fit more features into very small phones is also contributing to this problem.



Injury sustained from exploded cell phone.

The wireless industry has now begun to collaborate with the Institute of Electrical and Electronics Engineers (IEEE), a standard setting organization, to create voluntary design and performance standards for all batteries, including cell phone batteries.

In order to help prevent problems like this with your cell phone, follow these guidelines:

- ❖ Buy cell phones, batteries and chargers directly from phone companies and not from secondhand dealers (at swap meets, for example) or off the internet.
- ❖ Do not cover heat vents in cell phones with tape, stickers, etc.
- ❖ Protect your cell phone battery from damage by dropping or crushing.
- ❖ Don't let the metal contacts on your battery connect and short out (for example, by carrying it in your pocket with keys).
- ❖ Do not use a cell phone if it is overly warm to the touch or if it smells smoky.

If you are notified that the battery in your cell phone has been recalled, promptly stop using the phone and return it following the instructions in the recall memo. For information on battery recalls or to report an unsafe product, visit this web site:

<http://www.nbc5i.com/consumer/3891741/detail.html>

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Core Safety, a required training for all employees who do not work in a laboratory, continues to be offered in a classroom setting AND is now available online! Online, people are given the opportunity to demonstrate their knowledge and test out of the learning modules. Laboratory Core Safety, required for all employees who work in a laboratory, is currently offered in a classroom setting and will be available online in early 2006. Visit the Training & Employee Development site (TED) to register for the classroom version of Core Safety or Laboratory Core Safety, or to take the online version of Core Safety. Note the system requirements prior to launching Core Safety online. For more information, go to <http://www.ted.uci.edu>

Needles in the Regular Trash

Recently, there have been incidents where sharps, such as needles, have been found in regular laboratory trash cans by janitorial staff. This is a very serious matter and EH&S has worked with the labs involved and Facility Management to strengthen safe work practices in this area. It is mostly an awareness issue in such buildings as Rowland Hall, where hundreds of



undergraduate students use teaching labs and experimental protocols require the use of needles and syringes. In research labs where sharps are not contaminated with biohazardous materials, sharp waste can be collected in puncture proof plastic containers with proper labels and disposed of through EH&S when full.

We encourage you to visit http://www.ehs.uci.edu/programs/sop_library/ to review Standard Operating Procedures (SOP) for hazardous materials and operations. SOP development tools and samples are provided, along with templates to customize these for your specific laboratory needs.

MISSION STATEMENT
Environmental Health and Safety supports the UCI campus community by proactively protecting people, property and the environment in a responsive and cost effective manner.