Carnegie Mellon

Lifeline Your Safety Resource

A publication of the Environmental Health & Safety Department

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Homeland Security Advisory System

Jim Gindlesperger

Do you understand the Department of Homeland Security's five-color alert system? It is important for you to know what each color in the system means and how it can affect your daily activities, particularly now that we are at the orange, or second most serious level.

The first color is green, representing the lowest risk of terrorist attack. Under a green alert, the average citizen has little to do beyond maintaining a reasonable level of vigilance for suspicious activities.

The next color, blue, will announce that we are in a guarded condition, with a general risk of attack. At this level, remain alert for suspicious activities and report them to the local authorities. Also, listen closely for any announcements and respond appropriately.

The third alert level is represented by the color yellow. This is an elevated level that is declared if there is a significant risk for attack. Although increased surveillance is recommended, and more specific announcements may be made, there is little additional for the average person to do.

A high alert level (orange) is declared when there is a high risk of terrorist activity. At this level, university officials will maintain contact with outside agencies and will be on standby to initiate the university's Emergency Operations Plan. Listen for announcements, maintain security if you work in a secure area, and question strangers not normally seen in your area.

The final and most severe alert level is red, indicating a severe risk of terrorist attack. At this level the university's Emergency Operations Center may be activated, and those personnel with responsibilities in the Emergency Operations Plan will go on alert. University activities will likely be affected to some degree under this level, and appropriate announcements will be made.

It is important for you to be familiar with this advisory system. If you have any questions, contact EH&S at 8-8182.

Put Your Computer to Sleep

Mark Banister

Computers and monitors, especially Cathode Ray Tube monitors, are significant consumers of electricity. On our campus, there are as many as 20,000 computers, most of which have monitors. Anytime this equipment is left on when not in use, it wastes electricity. If left on all the time (8760 hours per year) a monitor would use 876 kWh. At our cost of 5 cents per kilowatt-hour for electricity, the monitor's energy consumption would cost approximately $44 for one year.

One easy and obvious way to reduce the amount of electricity wasted is to switch off the monitor when you leave for lunch or go home for the day. However, most operating systems have a simple setting that makes your computer turn off the monitor for you, after it has not been used for a set period of time. We have found that many monitors do not have the energy saver enabled, and those that do have it set for 30 minutes, while we recommend using a setting of 10 minutes. By decreasing the time you keep your monitor turned on, you increase the energy saved. On average, allowing your monitor to go to sleep reduces energy use of your desktop computer by 72%!

Changing your power management settings by even just a few minutes has an impact on how much energy you save. While the amount may be small for your computer, perhaps only $5 per year, when you consider the 20,000 monitors on campus that would be $100,000 saved overall. Carnegie Mellon can then use that money toward great things on campus, such as speakers, events, or other green initiatives. Also remember that using less energy means you are saving resources and helping to reduce air pollution.

For instructions on activating the sleep mode, go to:

http://www.cmu.edu/greenpractices/sleepisgood/instructions.htm

TENORM

Celia Rajkovich

TENORM is an acronym for technologically enhanced, naturally occurring radioactive materials. It refers to certain radionuclides that are naturally present in rocks, soils, minerals and many materials that are products or by-products of manufacturing, such as water treatment or mining operations. TENORM can be found in all 50 states. Over the past 20 years an array of materials that present a radiation hazard to people and the environment have been identified.

Coal contains trace quantities of the naturally occurring radionuclides of uranium, thorium, and potassium as well as their progeny. When coal is burned, minerals, including most of the radionuclides, do not burn and as a result are concentrated in the ash.

Contrary to what most people think, the nuclear power plants are not the major source of radioactive material released to the environment. It is suggested that coal combustion is more hazardous to health than nuclear power and adds to the background radiation burden more. If the radiation emissions from coal plants were regulated, their capitol and operating costs would increase, making coal-fired power less economically competitive.

While some wastes are disposed of, others are put to commercial uses and result in contamination events and unnecessary public exposures. Disposal in piles or stacks, improper use, and recycling (such as soil conditioning, concrete additives and backfill) can lead to buildup of radon gas in buildings or direct exposure to individuals. Groundwater or oil contamination may also occur, as well as that of the crops growing in the soil. For more information visit: http://www.sorabji.com/2002/road_trip/west_virginia/chester/

New EH&S Employee

Mark Banister

EH&S has a new administrative assistant, Candace Cotton, who joined us in November. Candace will be working a great deal with our databases, setting up our training classes, and revising our web site, along with fielding calls from our campus community. If you stop by our offices in the FMS Building, please welcome Candace to Carnegie Mellon.

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Did You Know . . .?

There were 33,200 fatalities and 8,000,000 disabling injuries from accidents in the home in 2001, the most recent year for which statistics are complete. The four leading causes are poisonings, falls, fires, and suffocation from ingested objects. Look around your home for potential safety problems!

Source: National Safety Council

Community Emergency Response Team (CERT)

Celia Rajkovich

Please consider joining a CERT team in 2004. CERT members work with emergency management officials to provide assistance in a disaster by helping victims, organizing volunteers and supporting emergency responders.

Following a major disaster, first responders who provide fire and medical services will not be able to meet the demand for services. People will have to rely on each other for help in order to meet their immediate life saving and life sustaining needs. CERT training will give you the decision-making and physical skills required to aide family members, neighbors, and associates effectively and efficiently without placing yourself in unnecessary danger.

The CERT course benefits any one who takes it; you will be better prepared to respond to and cope with the aftermath of a disaster. Contact your county's Emergency Management Agency for details.

To Reach Us
Telephone: 268-8182
Fax 268-6976
Web: http://www.cmu.edu/ehs
Offices: 3rd floor, FMS Building

Training, October – December 2003

Jim Gindlesperger

Call Extension 8-8182 to register for any of the following training classes, or to request that a particular class be conducted. Classes will be held in the 3rd floor conference room of the FMS Building unless otherwise indicated. Course descriptions can be found on the EH&S website.

Analytical X-Ray Users Training (Instructor: Celia Rajkovich)
Third Thursday of each month: 10:00 am and 2:00 pm – Call for location

Biosafety Training (Instructor: Megan Marks)
Call for dates and times.

Driving University Vehicles (Instructor: Outside Agency, coordinated by Jim Gindlesperger)
January 7: 1:00 pm (Athletic Dept. only)
Feb. 6: 8:30 am (for those who have not had the training previously)
March 10: 10:30 am (refresher training for those who have had the training previously)

Call for additional dates and times.

Emergency Response (Instructor: Jim Gindlesperger, class for Emergency Coordinators and Floor Marshals only):
January 6: 10:00 am (Pgh. Tech. Ctr.)
January 14: 9:15 am and 10:45 am (MI Social Room)
January 19: 1:15 pm and 2:45 pm (Hamburg Hall 1004)
January 20: 9:15 am and 10:45 am (UC _ McKenna)
January 28: 8:30 am (Rangos 1)
February 3: 2:30 pm (Hamburg Hall 1004)

Hazard Communication (Instructor: Mark Banister)
Call for training dates and times

Hazardous Waste and Lab Standard (Instructor: Mark Banister)
January 29, March 25: 9:30 am
February 23: 1:30 pm

Ladder Safety (Instructor: Jim Gindlesperger, class for ITS only)
January 7: 8:30 am
January 21: 8:30 am

Radiation Safety (Instructor: Megan Marks)
Refer to web site for complete details. Practical training session offered 3rd Tuesday of month at 10:00 am and 2:00 pm. Designate preferred training time on the on-line examination form submittal.

Handling and Storing Empty Gas Cylinders

Jeff Harris

The amount of material remaining in a non-liquefied or dissolved gas cylinder is directly proportional to the cylinder pressure gauge reading. As gas is used, the reading on the cylinder pressure gauge drops. When the cylinder pressure gauge reads zero, the cylinder is not really empty. The cylinder still contains gas at atmospheric pressure. Keep a slight positive pressure in the cylinder. Consider it "empty" when the cylinder pressure gauge reads about 172 kPa (25 psig) or when the cylinder will not deliver gas to the outlet pressure gauge.

Keeping a positive pressure in an "empty" compressed gas cylinder helps to prevent back flow. Back flow is the drawing-back into the cylinder of contaminants or moist air from a higher pressure system or the atmosphere.

Keeping the valves on all "empty" cylinders closed will maintain positive pressure within the cylinder. "Empty" cylinders with open valves can "breathe". Temperature increases or drops in atmospheric pressure may force gas out of the open valve of an empty cylinder. This release could result in hazardous conditions depending on the gas and how much is forced out. Temperature drops or increases in atmospheric pressure can cause air to be drawn in through the open valve. Air could cause a serious contamination and corrosion problem inside the cylinder. When a compressed gas cylinder is "empty," handle it as though it is full since it does contain gas.

Always:

- Close the cylinder valve before removing the gas discharge equipment.
- Clearly mark or label the cylinder "empty" or "MT."
- Place the cylinder in a storage area separate from that used for full cylinders.
- Keep incompatible materials away from the cylinder.
- Keep items off of cylinders (lab coats, aprons, goggles, etc.)