Carnegie Mellon

Lifeline Your Safety Resource

A publication of the Environmental Health & Safety Department

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Ladder Safety

Jim Gindlesperger

Nearly everyone has used a ladder at some time, and some of us use them on a regular basis. Unfortunately, ladders are also often misused, resulting in 65,000 disabling injuries and 300 deaths each year.

We have had several ladder related injuries at CMU this year, some of them resulting in very serious injuries. In nearly every case, the ladder had been used incorrectly.

EH&S offers ladder safety training on a regular basis and can schedule additional classes as needed If you use a ladder at all, it will be helpful for you to attend one of these classes. Some generic tips that will help you use a ladder more safely include:

- Always use the proper ladder for the job you intend to do.
- Always set the ladder up properly, even for jobs of short duration.
- Place ladders on stable surfaces.
- Tie larger ladders to something substantial so they will not tip or slide.
- Never overreach. Keep your belt buckle between the side rails.
- Always keep three points of contact when on a ladder: two hands and one foot, or two feet and one hand.
- Never exceed the listed duty rating for a ladder. (If you don't know what this means, you need to get ladder training!)
- Do not stand above the 2nd step from the top of a stepladder or the 3rd step of a straight or extension ladder.
- Be aware of environmental hazards when on a ladder (overhead wires, uneven surface, etc.)
- Never paint a wooden ladder; the paint will hide cracks or other flaws.
- Inspect ladders before using, and remove unsafe ladders from service immediately.
- Never use a stool, chair, desk, or similar piece of furniture as a ladder. (This is one of the most commonly violated rules).

For more information on ladders, or to sign up for a ladder safety class, contact EH&S at 8-8182.

Mold Awareness

Mark Banister

Issues concerning mold in homes and offices continue to be a hot topic, especially after our unusually wet summer. Being aware of some facts about mold issues will be helpful in properly responding to mold problems as well as in preventing them.

In most cases, a susceptible person's response to mold is that of an allergy: irritation of the eyes, nose or throat, and headaches or other general symptoms. The term "toxic mold" that has been bandied around the media is, at best, misleading. Mold itself is not toxic, though in very rare cases, certain molds can emit small quantities of gases that may cause more serious reactions.

It is important to understand that mold spores or "seeds" are everywhere, both inside buildings and out. The food they need to grow is present in wood, plaster, ceiling tiles, etc. The controlling factor, then, is water. Ideally, indoor humidity should be kept below 60% to discourage mold growth. Any water spills or leaks should be addressed as soon as possible, since mold can grow in these areas as soon as 48-72 hours. After 72 hours, materials such as carpets or ceiling tiles may need to be replaced. Finding the source of a water problem may be obvious, like a leaking pipe or stopped up drain, but sometimes identifying the problem may not be so straightforward and investigation behind walls or under floors may be needed. The moldy smell one often notices is not necessarily a good indicator of where the problem is as the smell may have traveled through the air supply system, with the source somewhere else in the building. EH&S has test equipment we can use to investigate mold issues.

The best prevention for mold is proper inspection of air handling units and regular maintenance and cleaning of circulation systems and filters. At work, monitor the servicing of your air handling system. At home, change filters are according to the recommended schedule and inspect and service your furnace and ducts routinely.

Food Irradiation Followup

Celia Rajkovich

In our October 2002 issue we discussed the Radura symbol (shown above), which is becoming more and more familiar. It's presence on a product indicates that the product has been irradiated

A company named CFC Logistics will soon be irradiating such items as food, cosmetic and pharmaceutical products in Pennsylvania. The company was recently issued a license by the Food and Drug Administration to operate a commercial underwater irradiator in Bucks County, PA.

As we noted a year ago, irradiated foods do not become radioactive. Scientific studies have shown that irradiation does not significantly reduce nutritional quality or change the taste, texture or appearance. Irradiation can produce changes in food, similar to changes caused by cooking, but in smaller amounts.

The FDA has determined that the process is safe and effective in decreasing or eliminating harmful bacteria, translating to a reduction in food borne illnesses. Irradiation also reduces spoilage bacteria, insects and parasites, inhibits sprouting and delays ripening.

Once again we must remind you, however, that food irradiation is not a substitute for proper food handling procedures.

To Reach Us
Telephone: 268-8182
Fax: 268-6976
Web: http://www.cmu.edu/ehs

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.

Confined Space Entry (Instructor: Jim Gindlesperger)
December 18: 8:30 – 10:00 am

Driving University Vehicles (Instructor: Outside Agency, coordinated by Jim Gindlesperger)

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October 31, November 20, December 4: 8:30 – 11:30 am

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

Hazardous Waste and Lab Standard (Instructor: Mark Banister)
October 30: 9:30 am - noon
November 4: 1:30 - 4:00 pm

Ladder Safety (Instructor: Jim Gindlesperger)
November 21: 8:30 am – 10:00 am

Lockout/Tagout (Instructor: Jim Gindlesperger)
October 23: 8:30 – 9:30 am

Radiation Safety (Instructor: Megan Marks)
Refer to web site

National Radon Week

National Radon Action Week is October 19-25th. Take this opportunity to learn all you can about this serious public health issue and protect yourself from the health effects of radon!

Collections Hazards

Jeffrey Harris

Would you be surprised to know that collection sources may potentially have hazardous materials? Hazardous chemicals aren't just associated with laboratories, they can also be found in collection sources from libraries, decorative arts, fine arts, geosciences, and photography. The following is based on information from Stanford University and the Smithsonian Institute:

Archives/Library

Ferro cyanide compounds in blueprints, cellulose nitrate in imitation leather bookbinding's, dyes used in bookbinding's made with arsenic salts, and mercury in some printer inks have all been found.

Decorative Arts

Lead in stained glass, chromium salts in artificial patinas, cadmium & uranium found in glazes, mercury used in sculpting metals, and even poisonous seeds (as eyes in figurines, jewelry, & craft items) are also common.

Fine Arts

Lead in solder of sculptures, mercury impregnated into artists' canvas (as fungicide), as well as pigments containing cadmium, chromium, and cobalt.

Photography

Hydrochloric acid & phenol in toning materials, formaldehyde & acetic acid in fixers, silver nitrate & mercuric chloride (or even mercuric iodide) in reducers/intensifiers, nitrocellulose film, and platinum salts found in image materials were and are common.

Not meant to scare you, this information is for safety & health awareness. These are but a few hazards associated with just a few collection sources. The first objective is to realize & understand potential hazards you may be working with and to protect yourself. The EH&S Department is here to help you control the risks associated with these hazards. Feel free to contact us with any questions.

Cold Weather Safety

Jim Gindlesperger

Winter in Pittsburgh can be harsh, and it is important to be properly prepared and to know the warning signs of overexposure. In freezing weather the body conserves heat by sending blood to the most essential organs, reducing the amount that gets to the extremities. This is why you may feel tingling in your fingers, toes, nose, cheeks, or ears. Take this tingling as a warning sign of potential frostbite or hypothermia and get inside to get warm.

Follow these cold-weather safety tips:

- Wear layered clothing. Layers can be removed to prevent perspiring and subsequent chill.
- Wear a cap to prevent rapid heat loss. Cover exposed skin. Outer garments should be tightly woven, waterproof and hooded. Mittens, snug at the wrists, offer better protection than fingered gloves.
- Change wet clothes immediately.
- Eat high energy foods along with warm beverages and soup. Avoid alcoholic beverages.
- Avoid fatigue and exhaustion. Overexertion, such as shoveling snow or pushing a car, can strain your heart.

Remember, prolonged exposure can cause frostbite, hypothermia, or in extreme cases death. Frostbite occurs when the skin becomes cold enough to actually freeze. A loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes, or the nose are symptoms of frostbite. Frostbite victims need immediate treatment. Immerse the affected area in lukewarm (104°F to 108°F) water. The water temperature is important, because tissue damage can occur if the water is too hot. Elevate the affected area and obtain medical attention.

Hypothermia (Low Body Temperature) occurs when the body temperature drops below 95°F. Victims become disoriented, confused, and shiver uncontrollably, eventually leading to drowsiness and apparent exhaustion. In severe cases, death is possible.

Cold weather safety is mostly common sense. Frostbite and hypothermia do not have to happen. Follow these tips, know the warning signs, and you should never have a cold weather injury.