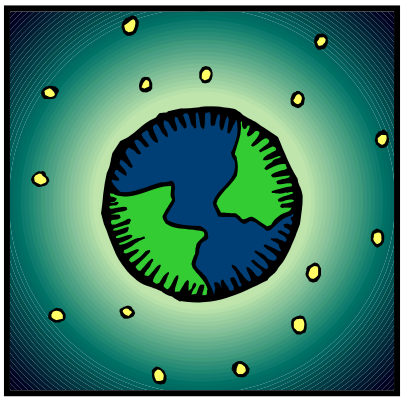
Wright-Patterson Air Force Base, Ohio



Environmental, Safety and Occupational Health (ESOH) Newsletter

April 2001

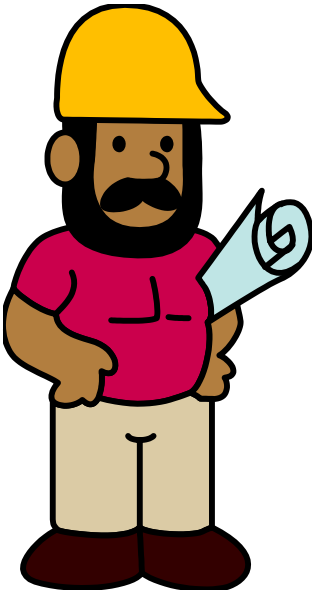
In This Issue

The Date for This Year's ECAMP is 23-27 April

Yikes, that's the last week of this month! Are you ready? Hopefully the answer is a resounding YES! If not, stay tuned for a few tips to help you tie up loose ends.

Environmental Management is still looking for a few volunteers to complete this year's team. Currently there are still several vacancies. These openings are in Cultural and Natural Resources, Solid Waste, Toxic Substances including PCBs, asbestos, radon & lead-based paint, as well the Environmental Impact Analysis Program, Noise, Installation Restoration, Pollution Prevention, & Program Management (A-106). You must have had ECAMP training in order to volunteer.

What type of commitment will be expected of you if you volunteer? As an ECAMP volunteer, you should understand that ECAMP is a weeklong commitment that should be approved by your supervisor. You should be prepared to devote your time and attention solely to the ECAMP for those 5 days and not return to your office to work at your regular job. We have had individuals try to do both their regular job and the ECAMP during previous evaluations; it doesn't work and it detracts from the ECAMP.



The ECAMP kick-off meeting will begin at 0800 on Monday, 23 April. The team meetings/protocol debriefs will be held Tuesday through Thursday beginning at 0730. The base assessments are then performed generally until mid-afternoon, followed by the documentation of any findings. Each of these protocols usually requires one evaluator who is able to work at his/her own pace and usually is finished before Friday, 27 April. Friday's activities (Summarize Findings/Write Executive Summaries) begin at 0800 and should wrap up by noon.

Come prepared to devote your time and energy to the ECAMP evaluation! You will gain valuable work experience and your efforts will continue to keep Wright-Patterson a friend to the environment.

Anyone who has had the weeklong ECAMP training and is interested in being on this year's team, contact the ECAMP Program Manager, Ms Karen Thompson (88 ABW/EM0), at 72010, extension 211.

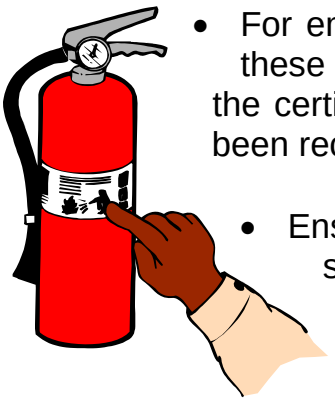
Taking a final look around to prepare for ECAMP?
Keep these items in mind:

- Make sure all hazardous materials are labeled, have a barcode, and are segregated by hazard class.

- Hazardous materials should be clearly distinguishable from hazardous wastes. If you store them together in the same cabinet, make sure the section for wastes (usually your Initial Accumulation Point) is clearly distinguishable, labeled as such, and only hazwastes are stored within that designated area.

- All hazardous waste must be labeled, stored in an initial accumulation point (IAP), and be documented on the container-tracking log for that IAP. If you have five hazardous waste containers in your IAP, your container-tracking log should also list five containers. Make sure all containers are in good condition - no leaks and lids closed.

- Verify that your IAP contains less than 55-gallons (including one quart P-listed) hazardous waste. Contact your IAP manager, Unit Environmental Coordinator, or Environmental Management at x77152 for assistance with hazardous waste turn-in if necessary.



- For employees who require RCRA hazardous waste training, these certificates must be available at the IAP. The date on the certificate should reflect that initial or refresher training has been received within the last twelve months.

- Ensure that all compressed gasses are secured with a strap or chain and are properly labeled. Make sure fire extinguishers have been inspected and have tags available documenting inspections.

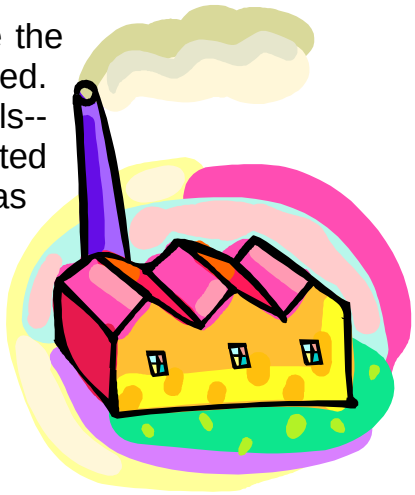
- If you are storing batteries for turn-in, make sure they are segregated by type and are labeled “Universal Waste - ___ Batteries” (list the type of battery on the label.) Battery labels can be ordered from Label Master: Item # UW99, $0.17 each.

- Police your area. Clean up areas where clutter has accumulated. Recycle or dispose of paper, cardboard boxes, or other materials that

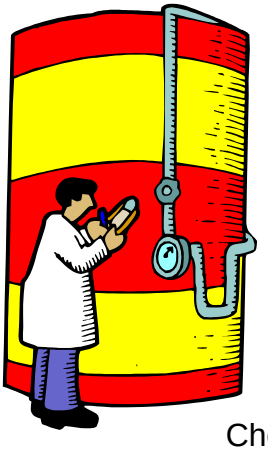
have accumulated. Turn in any excess equipment. Make sure clutter is not blocking exits, eyewash stations, emergency showers, or spill equipment.

- Know where your MSDSs, Site-Specific Spill Plan, and Hazcom or Chemical Hygiene Plan are.

- As for spill plans, make sure they have undergone the required annual review and that it was documented. Spill plans should be signed at the appropriate levels--supervisor, UEC, EM. They should be clearly posted in the potential spill area and workers in the areas should know what to do in the event of the spill. In other words they should be trained on the plan.

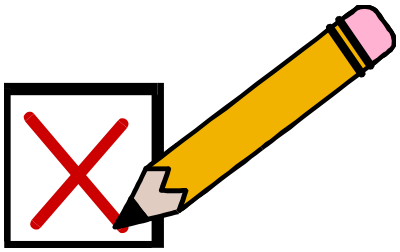


- Make sure all of your air emission sources are properly identified (with yellow Source ID labels) and all required record keeping is in order.



- Do you have storage tanks? If so, you are required to be keeping product inventory and leak check records. Additionally, records of required maintenance of equipment should be kept.

Checklists



- IAP Managers: Use the IAP Daily Checklist and Weekly Inspection Log (WPAFB Form 1437) to make sure your IAPs are in compliance. Both of these forms can be found in the Hazardous Waste Management Plan or in the "Hazardous Waste Identification" handout provided during RCRA training. The IAPs are areas the evaluators will want to inspect.

- UECs: Review the UEC Inspection Checklist (WPAFB Form 1432) to ensure your organization is in compliance.

If you have any questions while preparing for ECAMP, contact your supervisor, Unit Environmental Coordinator, or Environmental Management at x77152. Good luck!

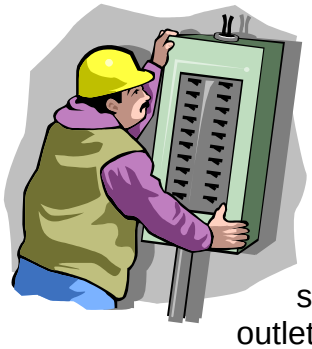
Electrical Safety in the Workplace

SSgt Kevin Smith
AFRL/PROE
Ground Safety Specialist

Electricity is a wonderful thing to have. It is often taken for granted (unless you live in California). It's like magic! You walk into a dark room, flip the light switch, and the light comes on. You go to the refrigerator; everything is nice and cold. You grab yesterday's leftovers and put them in the microwave. After a few minutes you're ready to eat. Electricity makes our lives easier, but it also has a dark side. Electricity is just waiting for the chance to get someone who lets his or her guard down. Whether it's the office worker with ten power cords wrapped around their feet under the desk, or a worker in the labs who is using a portable power tool, letting your guard down can lead to disaster.

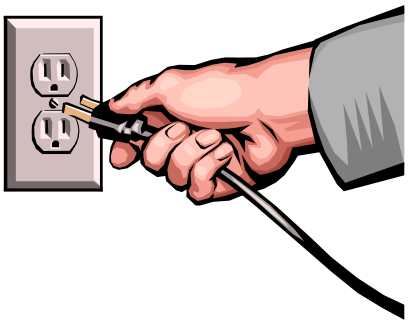
The common hazards of electricity are:

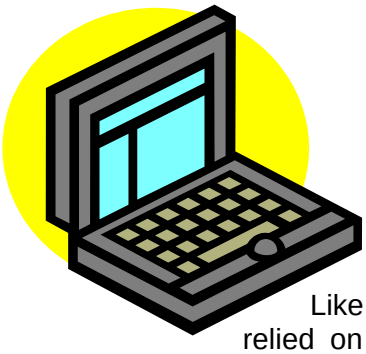
- **Shock**, which occurs when electricity flows through parts of the body.
- **Burns**, which are usually caused by excessively hot electrical conductors or arc blasts.
- **Explosions**, which are caused when electricity provides a source of ignition in an explosive environment, and
- **Fires**, most commonly caused by deterioration of insulation on bad or old wiring.



Never attempt to work on electrical equipment unless you are qualified to do so. Before you plug in a piece of equipment, inspect it to ensure everything works as it was designed. Throw away that old extension cord in the closet with the broken ground prong. Make sure your computer power cords are not frayed or run under the carpet. If you are using electrical equipment around sources of water, be sure it is plugged into a GFCI (Ground Fault Circuit Interrupt) outlet. Do not use an extension cord as a substitute for permanent wiring. If you have more equipment than outlets, call your facility manager and request an additional outlet. Also remember to turn equipment off when not in use. The equipment will last longer and it will help the Base conserve energy.

These are just a few of the common hazards found while doing inspections in workplaces here at WPAFB. Call your organization's Safety Representative for more information. Take a look around your workplace and eliminate these hazards before these hazards eliminate you!





LAPTOP USERS WARNED ABOUT BATTERIES

By Catherine Greenman, *New York Times*
From the *Dayton Daily News, Ohio Tech Section*, Sunday, 18 March 2001

Placing lithium-ion batteries near heat sources is dangerous.

Like many people, Mark Bridger, a math professor in Newton, Mass., has relied on a laptop computer to help him keep up with his work when he travels. So he took his Dell Inspiron 3800 along on a trip to his Maine vacation home last fall.

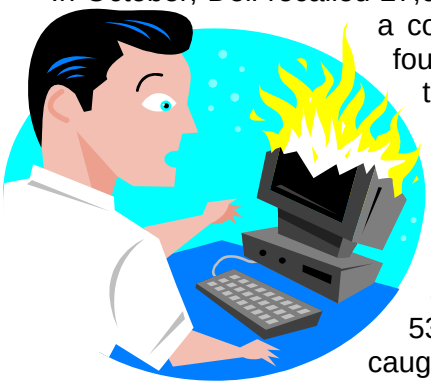
But one morning, while Bridger and his wife were in the garden, they noticed that smoke had started to fill their living room, where he had left his computer, and that a bookcase in the comer had caught fire.

Firefighters arrived in time to save the house. But while the fire seemed a freak accident at first, investigations by representatives from Bridger's insurance company, the Consumer Product Safety Commission and Dell Computer found that it had originated in Bridger's computer. The investigators concluded that the computer had been left too close to a wood-burning stove and that it's lithium-ion battery had overheated and caught fire.

These days, lithium-ion batteries are used in virtually all high-end laptops, most camcorders, and many of the newer wireless phones. They have built-in circuitry to monitor heat buildup, as well as voltage, charge, and other indicators, meant to shut the batteries down if problems are detected.

Manufacturers and safety experts say it is rare for the batteries to overheat, smoke, or cause a fire. But several PC makers have recalled portable computers because of potential hazards associated with such batteries.

In October, Dell recalled 27,000 Latitude and Inspiron laptops after receiving a report of a computer fire. The problem was linked to pieces of metal found in the laptops' lithium-ion batteries (made by Sanyo) that could have caused the batteries to short-circuit and start a fire.



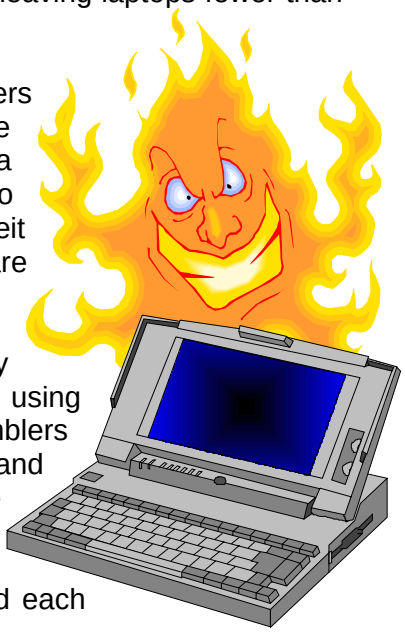
The same month, Compaq recalled 55,000 Armada laptops after a customer complained that the Sony lithium-ion battery in an Armada had short-circuited and emitted smoke. In 1995, Apple recalled its PowerBook 5300 models after the electrolytes in the lithium-ion battery caught fire.

Lithium-ion cells can produce nearly four volts, or three times the voltage of nickel metal hydride batteries, which were used in most laptops until a few years ago. While producing more energy, lithium-ion batteries are also smaller and lighter than nickel metal hydride batteries and therefore produce more heat and are more sensitive to it.

Lithium-ion batteries are also different from other types of rechargeable batteries in that their electrolytes, the medium through which the lithium ions move from one electrode to

the other during the charging process, are not water soluble. This makes them more susceptible to short-circuiting if exposed to moisture than nickel metal hydride batteries.

Since the fire, Bridger said, he has expressed concern to Dell that its user manuals are not explicit enough about the hazards of leaving laptop computers too close to a heat source. “They should have a warning in the manuals against leaving laptops fewer than three feet away from radiators, stoves, or fires,” he said.



Tom Kehoe, a spokesman for Dell Computer, said consumers who follow the guidance in its user manuals should not have overheating problems with lithium-ion batteries. “There is a recommended temperature range that you’re supposed to operate them between, which is minus-14 degrees Fahrenheit to 140 degrees Fahrenheit,” he said. “Those numbers are clearly spelled out in the manuals.”

Norm England, president of the Portable Rechargeable Battery Association, a trade group, warned consumers away from using lithium-ion batteries made by generic battery-pack assemblers rather than name-brand manufacturers like Sony, Panasonic, and Sanyo. Although some name-brand lithium-ion batteries have been involved in product recalls, England said the number of incidents prompting the recalls was relatively small compared with the millions, of lithium- ion batteries produced each year.

The generic batteries, he said, may not have built-in safety features or certification by Underwriters Laboratories. But because most lithium batteries in the United States come from major manufacturers, he said, “I don’t see any cause for concern.”

Still, Jim Jester, a computer consultant and owner of Professional Computer Services, in The Woodlands, Texas, said manufacturers could do more to warn consumers to take precautions. “Modern lithium-ions do get warm and people have bad habits like leaving their laptops on beds and under piles of paper while the batteries are charging,” he said.

He said his Motorola StarTac wireless phone, which uses a lithium-ion battery, tends to over-heat when he leaves it charging in its polyurethane case. “Sometimes it’s enough that I worry it’s going to melt the inside of the case,” he said.

Jester advises against charging wireless phones or laptops in cars when it is warm. “Safety switches can fail, and charging in a warm room, or with heat in a car, is dangerous,” he said. “Manufacturers could mention more about not getting these things too hot.”

Chemical Hygiene Plans and Laboratory Exposure to Chemicals

By Maj William Gooden
74 AMDS/SGPB

Ever wonder what that smelly chemical is or what to do if some of it spilled on you? The Chemical Hygiene Plan provides lab employees with a comprehensive source of information on hazardous chemical usage in the laboratory. A chemical hygiene plan is required under AFOSH Standard 48-22 and 29 CFR 1910.1450*, Occupational Exposure to Hazardous Chemicals in Laboratories*.

29 CFR 1910.1450 supersedes other OSHA chemical regulations for laboratory scale use, except for exposure limits. Laboratory scale chemical usage is characterized by common use of laboratory practices and equipment, multiple chemical procedures or chemicals, and is typically operated by one person. Production (or handling) of commercial quantities of chemicals does not meet the definition of laboratory use. Workplaces that produce (or handle) commercial quantities do not fall under the laboratory regulation.

The chemical hygiene plan must be capable of protecting employees from health hazards associated with hazardous chemicals and must be readily available to employees and employee representatives.

The Chemical Hygiene Plan elements, with relevant Air Force directives in parentheses, are as follows:

- Specific work practices and equipment to reduce hazards for all laboratory procedures

- Criteria used to determine and implement control measures to reduce employee exposure to hazardous chemicals (Ref AFI 91-302, *Air Force Occupational and Environmental Safety, Fire Protection and Health Program*, AFOSH Standard 161-8, *Controlling Exposures to Hazardous Materials*, and AFOSH Standard 161-17, *Standardized Occupational Health Program*)

- Requirements for laboratory-type hoods and other protective equipment and measures to ensure proper and adequate performance of such equipment (Ref AFOSH Standard 161-21, *Respiratory Protection Program*, AFOSH Standard 161-2, *Industrial Ventilation* and AFOSH 127-31, *Personal Protective Equipment*)

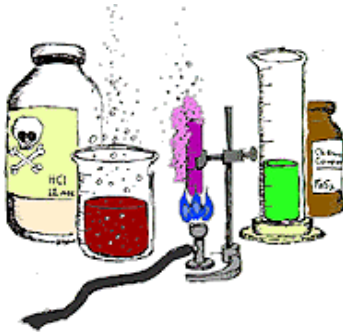
- Provisions for employee information and training on chemicals present in their work area. The training includes applicable Hazard Communication Program training. (Ref AFOSH Standard 161-21, *Hazard Communication Program*)

- Circumstances under which particular laboratory operations, procedures or activities require prior approval from the employer.

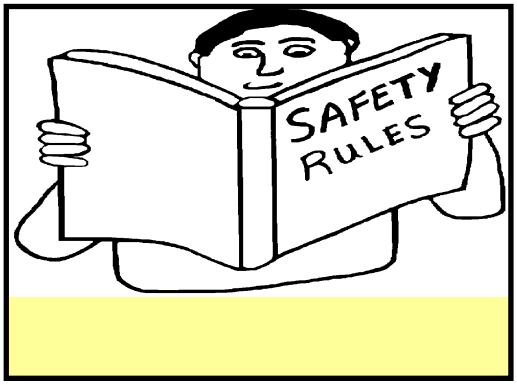
- Provisions for medical consultation and examinations, if required. (Ref AFI 48-101, *Aerospace Medical Operations*)

- Provisions for additional employee protection for work with particularly hazardous substances such as “select carcinogens”, reproductive toxins and substances with a high degree of acute toxicity. (Ref AFOSH 127-68, *Chemical Safety*)

For workplaces where all hazardous chemical usage falls under the lab standard, a written Hazard Communication Program is not required. Information and training that would otherwise be covered by a Hazard Communication Program is included in the Chemical Hygiene Plan. The Chemical Hygiene Plan is the source for information on hazardous chemical usage in laboratories.



For more information or questions, contact your supervisor, Chemical Hygiene Officer or Bioenvironmental Engineering at 255-6815, ext 213.



ESOH Training and Opportunities

RCRA Hazardous Waste Training

Initial Training - 17 May, 19 Jul, 20 Sep, 15 Nov 01
Schedule with **Shelly Baty** x77152 x281

Annual Refresher Training - AFRL Only
10 May, 12 Jul 01, 13 Sep, 8 Nov 01
Schedule with **Mary Shelly** x59000

Organizations other than AFRL - Refresher Training:
19 Apr, 21 Jun, 16 Aug, 18 Oct, 20 Dec 01
Schedule with **Shelly Baty** x77152 x281

CPR Training - required for electrical and confined space workers per 29 CFR 1910.151. The American Heart Association recommends CPR refresher training every two years and the American Red Cross recommends CPR refresher training every year. CPR training (per the American Heart Association) is taught at the Base Hospital every Tuesday provided that there are enough students for a class.

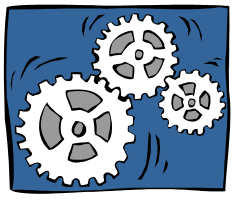
Contact Marcia Wilson at x79347.

ESOH Awareness Training - 11 Apr, 11 Jul, 10 Oct 01

Schedule with Public Health at 52515

This course covers a broad range of topics and requirements that apply to all of us at Wright-Patterson. This course is highly recommended for all employees on Base, including contractors.

Operational Risk Management (ORM) Training



Call Chuck Swankhaus at 43390 to schedule

This Level II course teaches the skills necessary to anticipate and avoid costly and possibly injurious mistakes or delays in your program. By learning and applying tools to identify and eliminate potential land mines BEFORE they occur, your project will run more smoothly. This is NOT just a safety program.

If you have any suggestions or comments for this newsletter or if you would like to be added / removed from the distribution list, please contact Mary Shelly at 255-9000.