

### Training Etiquette

*Jim Gindlesperger*

Most of you are aware that EH&S offers numerous safety training classes. We are pleased that so many have taken advantage of the opportunity to attend these classes. However, a disturbing trend is developing that we would like to reverse: Too many people are signing up for the classes but not attending.

While this may seem like an insignificant problem, there is much more to it than initially appears.

Class sizes are limited by the size of the room. On many of our more popular classes it is necessary to cut off registration when that limit is reached. Anyone wishing to sign up for a class for which registration is closed must wait until it is offered again. When people sign up but do not attend, it deprives someone else of the opportunity to acquire needed training.

A recent class exemplifies this quite well. The class limit of 25 participants was reached several weeks before the class was to meet. On the day of the class, only seven of those who had signed up attended. This meant 18 people who may have attended were deprived of that chance because others failed to let us know they would not attend.

We recognize that schedules often create conflicts, but when possible, please contact EH&S when you become aware that you will not be able to attend a class that you had signed up for. This is just good etiquette, and it will allow us to reopen the registration for others who had wanted to attend but could not because the registration was closed.

To those of you who have contacted us when you were unable to attend, we thank you and want you to know we appreciate it. To those of you who have not done so in the past, please do so in the future when possible. It could be you who will get a second chance to register if someone else is courteous enough to notify us when they will be unable to attend. We appreciate your cooperation on this.

### Laser Pointer Update

*Mark Banister*



Laser pointers have been around now for many, many years and are widely used in the college and university environment. Most laser pointers are "Class 3a," referring to their power and visible light emissions. These lasers are of sufficient power to be hazardous under both direct and certain reflected viewing.

There have been many reports of at least temporary vision loss after brief, "prank-type" exposures. Verified retinal injuries have been confirmed from persons exposed to longer periods of time.

Most recently, there has been a troubling surge in the use of even more powerful laser pointers, available from outside the US. In addition to the increased hazard, many of these units are not properly labeled.

Consider the following tips for laser pointer safety:

- Never look directly into a laser beam
- Never shine a laser pointer at anyone. Laser pointers are designed to illustrate inanimate objects.
- Do not allow minors to use a pointer unsupervised. Laser pointers are not toys.
- Do not point a laser pointer at mirror-like surfaces. A reflected beam can act like a direct beam on the eye.
- Never remove filters or otherwise alter the device in any way.
- Do not purchase a laser pointer if it does not have a caution or danger sticker on it identifying its class. Do not use a Class 3b or Class 4 laser pointer. Report suspicious devices to the FDA.

Laser pointers can be very helpful instructional aids. Responsible use of them is necessary due to their potential for harm.

### Were You Prepared?

*Jim Gindlesperger*

The aftermath of Hurricane Ike produced severe winds in the Pittsburgh area in mid-September. Those high winds created numerous power outages throughout the area. You may have been among the thousands who were affected.

Thinking back to those days, how did the power outages limit your activities? Were you able to put gas in your car? Many service stations could not provide gas because they had no electricity to operate their pumps. Did you try to use an ATM, only to find out that no cash was available because the ATM wouldn't operate? How about water for cooking, drinking, or sanitation at home? Did you have to go to one of the centers providing water from portable tanks, or had you followed emergency instructions that recommended having a three-day supply of water on hand for every member of the family, should something like this occur?

Power can go off for many reasons, and often it can be off for as long as weeks at a time. Wind, ice storms, blizzards, failures in the distribution grid . . . all these things can impact our daily lives and prohibit us from doing the things we have come to take for granted.

Before the next emergency, whether it be a power failure, flood, ice storm or some other type of emergency, it would be a good idea to set up an emergency plan for your home, including stocking up on water and food. For guidance on how to do this, go to the EH&S web site: <http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/EmergencyOperations/EOPGeneral.htm> and scroll down to Home Emergency Plan.

### LASER Cutting Devices

*Andrew Lawson*



LASER cutting devices are very versatile tools that can be used to cut or drill wood, plastics, and metals. These devices are often very economical, efficient and can easily be automated. Due to these features, these devices have found their way to campus.

# Carnegie Mellon

## Lifeline Your Safety Resource

A publication of the Environmental Health & Safety Department

Before you purchase this type of equipment there are some things to consider.

Typically, these LASERs are classified by the American National Standards Institute (ANSI) as Class 1 LASERs. Class 1 LASERs emit low levels of energy that are not hazardous to the eyes or skin. However, enclosed within these devices are often Class 3B or 4 LASERs which are capable of emitting high levels of energy which are hazardous to the eyes and skin. Therefore, the beams generated by these devices are safe when operated according to manufacturer's instructions, but only trained personnel should perform maintenance and other procedures that involve breaching the enclosure.

These devices can be hazardous, however, when the beam is used to cut or drill certain metals, plastics, and other materials. As the beam strikes these materials they have the potential to produce Laser-generated Air Contaminants (LGAC). These contaminants may be gaseous or particulate and can, under certain conditions, pose health risks to those exposed to them. The contaminant generated will depend on the type of material that is being cut or drilled. Cutting or drilling of some materials can generate airborne benzene, toluene, hydrochloric acid, isocyanates, and other by-products which may be hazardous.

To control the hazards associated with cutting or drilling certain metals, plastics, and other materials, ventilation systems must be used to reduce or eliminate personnel exposures to these hazards and to safely exhaust them outside of the room in which they are generated.

EH&S must be consulted before the purchase or acquisition of these systems so that the need for ventilation systems, if any, can be adequately addressed and to ensure that all other potential hazards and issues are evaluated and controlled to the greatest extent feasible.

For more information, please contact Andrew Lawson at 8-8405 or Mark Banister at 8-1493.

### Eye Protection

Michael Fouch



According to OSHA, an estimated 1,000 eye injuries occur in American workplaces everyday. Most of these injuries could have

been prevented if the person had been wearing eye protection.

One of the most common safety violations in Carnegie Mellon's labs is not wearing adequate eye protection. Contact with chemicals caused one-fifth of all eye injuries last year. Most of our lab areas contain chemicals which could cause damage to your eyes if they were to come in contact with them. Safety glasses and goggles are required in all areas that use or store hazardous materials. Putting them on as soon as you enter the lab is a good habit to get into.

Eye protection is a big deal in the workplace outside of the university and failure to comply with your employer's policies could result in suspension or even job loss. Repeated failure to wear eye protection here at CMU could result in your losing lab privileges.

Most of the injured workers who did not wear their eye protection said they did not believe it was required by the situation. The lesson here is that you can never predict what will happen next and that it is always better to be "safe than sorry".

Besides safety glasses and goggles, make sure you know where your eyewash is located in your lab and how it operates. Remember you need to flush your eyes for at least 15 minutes. Test your eyewashes often to ensure that they are working properly and that you have a clean and clear flow of water.

If you have any questions about CMU's eye protection requirements or whether your situation requires the use of eye protection, please contact Michael Fouch at [mfouch@andrew.cmu.edu](mailto:mfouch@andrew.cmu.edu) or by phone at 268-3221.

### Congratulations!

Jim Gindlesperger



Andrew Lawson, the Biological Safety Officer for EH&S, recently completed the requirements for his Master of Science degree in Industrial Hygiene at West Virginia University. Please join us in offering congratulations to Andrew for this outstanding accomplishment!

### Shipping of Dangerous Goods

Jeffrey Harris



The Carnegie Mellon University Program for Shipping of Dangerous Goods can be found under the Quick Links Tab on our website ([www.cmu.edu/ehs](http://www.cmu.edu/ehs)). Our office has staff that are trained and certified in how to properly identify, classify, package, mark, label and package in accordance with national and international regulations. Here are a few new changes to know;

**Shipments to or from the European Union:** Customers who offer dangerous goods shipments to or from European Union countries participating in the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) are now required to include the following statement in the Additional Handling section of their Shipper's Declaration for Dangerous Goods: **"ADR European Transport Statement: Carriage in accordance with 1.1.4.2.1."**

If this statement is missing, your shipment may be delayed by local European regulatory agencies. This requirement applies to shipments to or from the following European Union countries: Austria, Belgium, Czech Republic, Denmark, Finland, Germany, Great Britain, Hungary, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and Switzerland.

### Leak-Proof Liner for Liquids:

If you are using outer packaging that is not liquid-tight, a leak-proof liner is required for certain packing groups.

### Unregulated Biological Material:

If the shipment contains perishable biological materials, paste a purple Biological Perishable Materials sticker on box. This includes biological material that definitely cannot cause disease. Examples include purified enzymes, sterilized specimens, non-pathogenic bacteria as well as toxins, antitoxins, vaccines, blood and blood products that are used for transplantation or in a transfusion, but have no or very low probability of producing disease.