

LABORATORY & RADIATION SAFETY

Cornell University Department of Environmental Health & Safety

125 Humphreys Service Building, Ithaca, NY (Tel. 255-8200)

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NEWS

Fall 1999

LABORATORY FIRE STARTS IN TRASH CAN



Description of the Accident

On July 8, 1999 at 9:55 p.m. the fire alarm sounded for a fire that was in progress in a second floor chemistry laboratory. The last person had left the lab approximately twenty minutes earlier. The fire was extinguished within twenty minutes of the first alarm.

The fire began in a plastic trash barrel that was located next to the sink, under which about 10 gallons of flammable liquids were stored. It started when a small chip or filing of sodium metal came in contact with water from paper towels and ignited. The contents of the trash barrel burned, creating enough heat to catch the plastic trash can on fire. The radiant heat from the fire caused the sink cabinet doors to become hot enough to, in turn, heat a bottle of a flammable liquid to the point where it exploded. The explosion sheered the tops off most of the flammable liquid bottles under the sink and broke the soapstone sink and the water lines to the sink. The broken water lines dumped several thousand gallons of water on the second floor of the building.

The fire burned a wooden test tube rack above the sink, but most of the damage was caused by intense heat that began to melt plastic items in the room such as light fixture covers.

The fire department responded very quickly, and aggressively put out the fire, preventing much more serious damage. No one was seriously injured in the fire, and most of the research equipment and materials were

undamaged. This laboratory fire that started in a trash can caused approximately \$100,000 worth of damage. Fortunately, there was no structural damage from the fire.

How Could This Fire Have Been Prevented?

After the fire, this department took steps to prevent a fire like this one from happening again. A meeting was held that included a discussion of the proper storage of flammables, procedures for treating sodium, and treatment of Kimwipes and weighing paper that have contacted sodium. Lab personnel were instructed to remove all flammable materials from under sink cabinets and to store them in flammable storage cabinets or under laboratory exhaust hoods, depending on whether they were waste solutions, reaction products, or commercial chemicals. They were also instructed to remove any equipment that was blocking access panels to the utility control valves housed in their labs. All groups that use sodium and other alkali metals were asked to review the correct disposal procedures from the department Safety Manual with their members. The plastic trash barrels in the labs were also replaced with metal units.

DO NOT Use Procurement Cards for Radioactive Materials Purchases

Using procurement cards to pay for purchases may be convenient, but it bypasses the controls on the purchase of radioactive materials that exist with purchase orders. Because New York State requires Cornell to have procedures to prevent unauthorized individuals from obtaining radioactive materials, the procurement card policy prohibits using the card to buy these items. Please forward this information to the individual(s) who place your orders for radioactive materials and instruct them not to use procurement cards for this purpose. **Orders for radioactive materials must be made using purchase orders.**

CHEMICAL SAFETY TRAINING

The next new employee laboratory worker OSHA Laboratory Standard training programs, "Chemical Safety for Laboratory Workers", will be held in 118 Humphreys Service Building on:

Wednesday, Oct. 6, 9:00 a.m. - 12:00 noon
Wednesday, Nov. 3, 9:00 a.m. - 12:00 noon
Wednesday, Dec. 1, 9:00 a.m. - 12:00 noon

Please contact Veronica Parsons-Zieba by e-mail at vjp4@cornell.edu or by phone at 254-4693 to register, or register on our web site at <http://www.ehs.cornell.edu>.

Special programs for **undergraduate students** who will be working in laboratories will be given (no registration is necessary), all in **Emerson 135**:

Thurs., Sept. 16, 3 programs,
at 10:10 a.m., 12:15 p.m., and 2:25 p.m.

Friday, September 24, 3 programs,
at 10:10 a.m., 12:15 p.m., and 2:25 p.m.

RADIATION SAFETY TRAINING

Individuals must receive radiation safety training **prior** to starting work with radioactive materials. This training is required by law. The course is given in two separate presentations; both sessions must be attended. There is a short exam, which can be taken either at the end of the second day, or later at our office during normal business hours. Please bring your university ID number. *Prior registration for this course is necessary, as seating is assigned on a first come first served basis.*

Following is the training schedule:

September 13 & 15 1:00 - 4:00 p.m.
October 1 & 4 9:00 a.m. - 12:00 noon
October 22 & 25 9:00 a.m. - 12:00 noon
November 9 & 11 1:00 - 4:00 p.m.
December 6 & 8 9:00 a.m. - 12:00 noon

To register for this course, please use our "Online Form" available on our EH&S Web page, or call the EH&S main desk, at 5-8200.

To use the online form, visit our website at www.ehs.cornell.edu, select "Online Forms", and scroll down to "Register for a Class", and select "Radiation Safety Training" or "Chemical Safety for Laboratory Workers" (or any other

course). The next screen shows you the class schedule, followed by the blank boxes to fill in to register. All fields are required, and you will need to fill in the following information: First name, Last name, Social Security Number/Cornell ID#, Permit Holder (PI) (*only for the Radiation Safety course*), Work Phone, E-mail address, and Class Date (select date from the options listed). Then click on the "Submit Form" button!

ADVANCED RECORD KEEPER TRAINING

This special radiation safety training is held monthly, on the last Friday of every month. It is geared just for those who perform and record the monthly lab meter/wipe test surveys and for those who do monthly reports to reconcile the individual stock vial inventory sheets. The survey class, taught by Chris Bell, is from 1:00 to 2:00 p.m., and the inventory class, taught by Marlene Larson, is from 2:15 to 3:15 p.m. **Call Agnes Morris at 5-5600 for the class schedule or to register.** See the tentative schedule below:

Register by:

September 17
October 22
November 12

Class Date:

September 24
October 29
November 19



Radiation Safety Eagle Awards



We are pleased to recognize the following laboratories for receiving radiation safety awards:

July

R. Bell, Baker Institute for Animal Health
G. Lust, Baker Institute for Animal Health
J. Roberts, Biochem., Molec. & Cell Biol., Biotech. Bldg.
R. Granados, Entomology, Boyce Thompson Institute
M.A. Topa, Boyce Thompson Institute
* **A. Brown**, Veterinary Molecular Medicine, VMC
R. Cerione, Veterinary Molecular Medicine, VMC
B. Pauli, Veterinary Molecular Medicine, VMC
M. Roberson, Veterinary Biomedical Science, VMC
G. Sharp, Veterinary Molecular Medicine, VMC

August

* Winners of Party Packs from Puggies Pizza