The purpose of this newsletter is to keep radioactive material users at UC Irvine informed regarding campus radiation safety policies and procedures including tips to improve safety. Visit the EH&S website (www.ehs.uci.edu) under “Radiation & Laser Safety” for previous issues of this newsletter and more information on radiation safety.

ON-THE-JOB TRAINING

EH&'S provides general radiation safety training to the campus community by offering the online Radiation Safety Part I course and the classroom-type Radiation Safety Part II course (both at www.uclc.uci.edu). Radiation safety principles and methodology are covered in these courses, including information on such topics as the forms of ionizing radiation, biological effects of exposure to ionizing radiation, radiation detectors, radiation safety precautions, radioactive waste, radioactive spill cleanup, and campus rules regarding radiation safety.

While the EH&S general radiation safety training is a critical component of the training new radioactive material users need to perform radioisotope work on campus safely, another very important component of training is the on-the-job training that people receive in their labs. On-the-job training involves the hands-on methods needed to perform specific lab tasks safety. It is conducted by a person in the lab knowledgeable/experienced regarding the techniques to be performed. The trainer could be the Principle Investigator, the lab manager, or another senior person in the lab. All persons who will use radioactive material must be trained such that they are competent in performing their lab procedures, and they need to document this training by completing an On-the-Job Training Form and sending it to EH&S. A blank form can be found about half-way down the left column on the EH&S Radiation & Laser Safety website (http://www.ehs.uci.edu/radsafe.html).
RADIOACTIVE MATERIAL CAUTION TAPE

All radioisotope work areas must be labeled with radioactive material caution tape. You do not need to completely mark all of the borders of the use areas with this tape – just use enough so that people in your lab know that the area is potentially contaminated with radioactivity.

Label all items (such as beakers, pens, pipettes, test tubes, microcentrifuges, pens, etc.) which are potentially contaminated with radioactive material caution tape and store these items in the labeled radioisotope use areas. Ensure that these labels do not get obscured by placing/posting other items over them.

Below are a couple of vendors which sell radioactive material caution tape.


GEIGER COUNTER OPERATIONAL CHECKS

During the next several months EH&S Radiation Safety staff will visit all labs which have Geiger counters to perform operational checks to make sure that these meters function properly. We will make sure the Geiger counter’s batteries are sufficiently charged, that the instrument zeros properly, and that it reads accurately (within ±20% of calibrated EH&S meters).

EH&S will use a beta particle source and a gamma-ray source so that the meters will be checked with radiation sources appropriate for the kinds of radioisotopes used in the lab. Readings will be taken on both the x1 mR/h (milliroentgens/hour) scale and the x10 mR/h scale.

Some meters (radioiodine survey meters, Geiger counters that read only in counts per minute) will be checked to ensure that they respond to radiation sources, and they will be marked “for audio use only”.

UCI LASER SAFETY NEWSLETTER
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PERSONNEL CONTAMINATION WITH RADIOACTIVITY

If you or a person in your lab becomes contaminated with radioactive material, there is no need to panic. The quantities of radioisotopes used in almost all of the labs on campus are small enough so that no health effects at all should be produced provided that the contamination is removed promptly.

First, remove all contaminated items of clothing and bag them, placing a radioactive material caution label on the bag. Then wash contaminated skin areas with cold water and a non-abrasive soap. Use a Geiger counter to assist in determining which body areas are contaminated areas – except for H-3 contamination since the beta particle from H-3 cannot reach the sensitive volume of the Geiger detector. Don't worry about contaminating a sink or emergency shower -- these can be cleaned later. Notify EH&S as soon as possible (949-824-6200).

If you have any questions concerning laser safety, please contact Rick Mannix from EH&S (949-824-6098; rcmannix@uci.edu).

BE SAFE!