



↻ UC IRVINE RADIATION SAFETY NEWSLETTER ↻

Volume III, #1 (June 2007)

Prepared and distributed by the staff of the Radiation Safety Division of EH&S

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 more information.



RECENT RADIOISOTOPE SHIPMENT DELIVERY ADDRESS CHANGE

Effective April 2007, the proper mailing address for all radioisotope shipments is as follows:

**UC Irvine
EH&S/Radiation Safety
Attention Debra Hamano/Name of PI
4600 Bison Avenue
Irvine, CA
92697-2725**

Please make sure that your Principal Investigator's name (*not the name of a lab staff member or the departmental purchasing agent*) is on all order forms submitted to UCI Purchasing. It is possible to include the name of the staff member who is placing the order right after the Principal Investigator's name if desired.

The radioisotope package delivery schedule will remain the same:

- Biological Sciences, Physical Sciences, Engineering, and Social Ecology labs: 2:00 – 2:25 pm
- Medical Sciences labs: 2:30 – 2:55 pm

If you are not familiar with the package delivery locations, you will be provided with that information when we notify you that a package has arrived for your lab. Also, if you are asked to bring your lab's most recent wipe test results along when you pick up your package, make sure that you do so as EH&S will not give you your package until you can provide us with your wipe test results.



RADIATION SAFETY TRAINING

For the past 20 years, there have been two components of EH&S radiation safety training. **Radiation Safety Seminars** (currently 3 hours in length) covering all aspects of radiation safety have been offered up to six times per year. For those who couldn't wait until the next scheduled seminar before starting to use radioisotopes, we offered **Radiation Safety Interim/Initial Training** as an introduction to radiation safety principles. It involved viewing a radiation safety video and then passing a quiz. Persons attending the Interim/Initial Training could begin radioisotope work immediately afterwards, but attendance at a seminar was still required within six months.

By July 1, 2007, radiation safety training will include two parts: Part I will be an online introduction to radiation safety which will be required before beginning work with radioactive materials; and Part II will be classroom training (expected to last 90 minutes) covering topics previously introduced in the Part I course but covered in greater detail in the Part II course. All Principal Investigators with Radiation Use Authorizations will be informed when the online course is available for viewing on the UCI Training & Employee Development website (www.ted.uci.edu). Lab personnel will continue to register for both courses at this website.



MEMORABLE QUOTE

*"Basic research is what I am doing when I don't know what I am doing."
Werner Von Braun (1912-1977); German rocket engineer, in U. S. after 1945.*



RADIATION SAFETY ATTIRE

Please keep in mind that whenever radioisotopes are used, it is required that you wear a buttoned lab coat, disposable gloves, enclosed shoes (no thongs or sandals), and long pants or the equivalent (no shorts) – even during the summer months when it is hot. In the past, the legs and feet of lab personnel who were not properly attired had to be decontaminated when they spilled radioisotopes onto themselves. This decontamination process is not pleasant so make sure you are always dressed for the job to prevent this problem.



CONTAMINATION MONITORING

Contamination monitoring must be performed at least every 30 days or whenever contamination is suspected. This entails performing a **wipe (swipe) test** **and a Geiger counter scan of all appropriate rooms/areas** and retaining the related records in your radiation safety notebook. Make sure that a background/blank wipe test sample is counted and identified in the records. Areas and items contaminated more than 3 times background must be decontaminated and then resurveyed to ensure the contamination was sufficiently removed. Ideally, a Geiger counter scan is performed following each radioisotope experiment to help prevent the spread of contamination around your lab. *[Keep in mind that ^3H cannot be detected with a Geiger counter due to the low energy of its beta particle.]*



CLEAN AREAS IN RADIOISOTOPE LABS

Clean areas are locations in labs in which it is safe to eat and drink due to the absence of hazardous substances. Thus, it is very important to establish your clean areas such that they cannot be impacted by radioisotopes, chemicals, or biological agents. This can be done either by isolating your clean areas well away from hazardous areas of the lab (at least 5 feet away) or setting up a physical barrier such as a sheet of Lucite to prevent the splashing of hazardous materials onto the clean area. If there is an elevated level of external radiation in a location, it would not be a suitable place for a clean area. In addition, if extremely hazardous agents are used in a lab (e.g., pathogenic agents, very dangerous chemicals), it is possible that there will be no safe location for a clean area in that lab.



MEMORABLE QUOTE

"That theory is worthless. It isn't even wrong!"

Wolfgang Pauli (1900-1958); Austrian Physicist famous for the Pauli Exclusion Principle which established the physics theory validating Dmitri Mendeleev's Periodic Table.




RADIOISOTOPE INVENTORY

The most common radiation safety deficiency that EH&S currently finds when performing radiation protection surveys is that radioisotope inventories are not being updated on-line using the CiBR-Trac system at least every 6 months. EH&S sends email messages to all Principal Investigators who have Radiation Use Authorizations each January and July to remind them to do this; and hopefully these reminders are being communicated to the staff members responsible for the inventory updates.

It is advisable to make notations on your personal calendar or your lab's calendar indicating that these CiBR-Trac updates are due every January and July. Of course, you may update the inventory as frequently as you want but they are only required every 6 months.

The web address for CiBR-Trac is: <http://ucirvine.ecompliance.net/index.jsp>. Contact EH&S if you need assistance in navigating through this program for your inventory updates.

 **If you have any questions about radiation safety, please contact EH&S at 949-824-6200. We will be happy to assist you with any radiation safety-related matter!**

