



# RADIATION REVIEW



UW - Madison Safety Department  
262-8769

Radiation Safety Program  
December 1993

## Our New Digs

We are scheduled to move into our new location on Lake St. in late January. Because this is out of the way, we will establish a "Safety Department Annex" in room 19 Biochemistry and will open for business January 3, 1994. Hours of operation will be 9 am to 3 pm including lunch Monday through Friday. Services provided will include survey meter calibration, thyroid scanning, urine bioassay dropoff, as well as the availability of forms and other literature. The phone number is 265-5241.

## Radiation Worker Training Schedule for Second Semester

The weekly four hour radiation safety training has trained over 200 workers since September 1. The session is divided into a lecture, several demonstration type labs and an exam. This class is open to everyone. Radiation workers attending are not required to complete the exam. The schedule for the second semester is at right. Training is held in Room 1 and 1B Biochemistry.

## Training Schedule

<u>Date</u>	<u>Day</u>	<u>Begins</u>	<u>Ends</u>
06 Jan 94	Thursday	12:30 pm	4:30 pm
11 Jan 94	Tuesday	12:30 pm	4:30 pm
21 Jan 94	Friday	8:00 am	12:00 noon
26 Jan 94	Wednesday	4:00 pm	8:00 pm
04 Feb 94	Friday	12:30 pm	4:30 pm
09 Feb 94	Wednesday	8:00 am	12:00 noon
14 Feb 94	Monday	12:30 pm	4:30 pm
25 Feb 94	Friday	12:30 pm	4:30 pm
02 Mar 94	Wednesday	4:00 pm	8:00 pm
07 Mar 94	Monday	8:00 am	12:00 noon
16 Mar 94	Wednesday	12:30 pm	4:30 pm
25 Mar 94	Friday	12:30 pm	4:30 pm
29 Mar 94	Tuesday	12:30 pm	4:30 pm
06 Apr 94	Wednesday	8:00 am	12:00 noon
11 Apr 94	Monday	12:30 pm	4:30 pm
22 Apr 94	Friday	12:30 pm	4:30 pm
27 Apr 94	Wednesday	12:30 pm	4:30 pm

1) Training is held at Biochemistry teaching lab, room 1B Biochemistry.

2) Training dates and locations are subject to change. Call Safety office (2-8769) a few days before the scheduled training date to confirm.

## Winter's Here

To avoid freezing liquid waste, please put waste out in cabinets no earlier than 12:00 noon Monday or Wednesday, the day of the pickup. If the waste cabinet is full, please return the waste to your laboratory, call 2- 8769, and request that the waste pickup crew call your lab when they arrive at your building. After they call, they will wait at the loading dock for you to bring your waste. Please remember that radioactive waste must never be left outside the designated metal cabinets or waste room.

## CORD Holiday Hours

CORD will be closed from December 24, 1993 until January 2, 1994.

Orders will not be placed with vendors for delivery of any radioactive material during the time CORD is closed. Please plan ahead.



Backordered items that are received from vendors will be delivered during the time CORD is closed.

## Health Physics Corner

**THE NEW 10 CFR PART 20 - WHAT DOES IT MEAN TO ME?**

### Occupational Exposures from Other Jobs

If you have a radiation job outside of UW Madison, please contact UW Radiation Safety Dosimetrist at 2-7530 and let us know. We are required to request your exposure from this worksite and set up a plan to periodically obtain your other dose history and provide you with your combined dose history.

### Pregnant Workers

If you are a pregnant radiation worker, and want to be subject to the reduced dose limits provided for in 10 CFR 20.1208, you must declare your

pregnancy in writing to your supervisor and UW Radiation Safety. The maximum permissible dose for an embryo/fetus during the pregnancy will then be limited to 500 mrem. This dose is greater than the dose currently received by 99% of our workers.

## Radiation Safety Surveys

Authorized users who have 200 :Ci or more of unsealed radioactive material on-hand in any 30 day period must perform monthly surveys of all labs and post these results. Previous surveys must be kept for three years or until a final room survey is performed and the room deleted by UW Safety. Meter surveys are required for beta emitters of greater than 100 keV. If you use C-14, S-35, Ca-45 or any other radionuclide in this category you will be required to purchase or otherwise obtain, at a minimum, a thin window G-M meter. Required levels for cleaning removable contamination have changed and are summarized in the table below. Further information on survey requirements can be found in University Radiation Safety Regulations section IX.

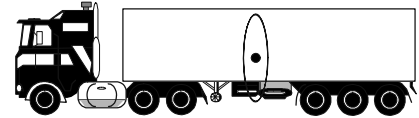
CONTAMINATION UNITS	TYPE OF RADIOACTIVE EMITTER		
	ALPHA A (")	& <sup>1</sup> ,(X	LOW RISK \$ <sup>2</sup>
DPM/100 CM <sup>2</sup>	66	660	2200
NET CPM/100 CM <sup>2</sup>	23	230	770

1. & emitter values are applicable for all & emitters other than those considered low risk.
2. Low Risk includes & energies less than 200 keV max, e.g. <sup>3</sup>H, <sup>14</sup>C, <sup>35</sup>S.



## Transporting Radioactive Material

As mandated by Congress in HM-126F and HM-181, the Research and Special Programs Administration has devised sweeping changes in the regulations applying to transportation of hazardous materials. The changes, as embodied in Code of Federal Regulations Title 49, were an effort to bring U.S. standards in line with established international standards, as well as to change packaging requirements from specification oriented to performance oriented. The new rules will affect University users of radioactive materials principally in the area of training. All persons who, in the course of employment, directly affect hazardous materials transportation safety are required to receive initial training and recurrent training every two years. These employees include those who transport radioactive material: a) to and from research stations, b) on campus by motor vehicle, c) in instruments, such as soil moisture probes, as well as people who prepare packages of radioactive materials for shipment. It is the responsibility of each principal investigator whose program involves transporting radioactive materials to ensure that his or her employees meet the training requirements. Please call Ralph at 262-1524 for more information.



## Waste Watchers

Packing up and documenting waste from your labs is crucial to safe (ALARA) operation of your lab. There are several things you could do to help us more easily process your waste:

### Packaging -

- ☛ Close all liquid containers tightly. Use containers with a capacity between .5 L and 4L.
- ☛ Pack vials in the original trays. Make sure all caps are on tightly.
- ☛ Use adequate packing material for liquid containers. Mark "This End Up" on liquid and vial boxes.

### Documentation -

- ☛ Always list scintillation cocktail brand name.
- ☛ List chemical constituents for liquids
- ☛ Attach a sticker to each box and a tag to each liquid container.

For further information, read Chapter XIX in the University Radiation Safety Regulations.

## X-Ray Producing Equipment and Electron Microscopes

If you purchase an electron microscope, or a machine that produces x-rays either by design or incidental to a process, please contact Radiation Safety. We will check your machine for exposure levels and leakage, and put it on a yearly inspection schedule.



### DID YOU KNOW?

*During the 1920s and 1930s, radium was thought to have many beneficial effects on the human body. It was widely accepted that radium could electrically revitalize the body and destroy disease-causing organisms. Many consumer products containing radium were available including cosmetics, medicinal salves, blankets, cigarette holders, toothpaste, candy, earplugs, suppositories and even contraceptives.*

## RADIATION SAFETY NOTICES

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**Autogamma Counter to Loan -**  
Dr. John Mansfield at Veterinary Science has a Packard AGC he is willing to loan for an indefinite period of time. If interested, please call him at 2-2596

★  
**Watch This Space -** If you have any notices you'd like to have posted, send them to Ralph at UW Safety or email to:  
ralph.north@mail.admin.wisc.edu

★  
**Radiation Safety Regulations**  
You should have received a copy of the September 1993 Radiation Safety Regulations. If you do not have a copy or would like additional copies, please let us know. Please dispose of the old (yellow three-ring) regulations.

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Beginning January 3, 1994, for thyroid counts, come to room 19 Biochemistry between 9 am and 3 pm. Call 5-5241 for an appointment.

**UW-Safety Dept.**  
**317 N. Randall Ave.**  
**53715**  
**(608)262-8769**