

RADIATION REVIEW

**UW – Madison Environment, Health & Safety Department
30 East Campus Mall, room 260
265-5000**

**Radiation Safety Program
<http://www.wisc.edu/safety>**

**December 2008
WI License: 25-1323-01**

Holiday Time – Plan Ahead



Many radioactive material vendors may close or temporarily decrease service hours due to the upcoming holidays. This year the CORD office will be open for business except during legal holidays. To serve you better we advise you to plan ahead and place your orders with CORD as early as possible. CORD will process orders received via EH&S Assistant and deliver the material when received.

Liquid Scintillation Counters (LSC)

Liquid scintillation counting is a method of assaying radioactive samples by dissolving each sample in a liquid scintillation cocktail. Most laboratories utilize LSC to count the wipe test swabs for removable contamination. To assure proper LSC operations, calibration check and maintenance must be done periodically.



To check the operation of the counter at a minimum, run a set of standards, normally H^3 and C^{14} , and check the efficiency of your counter. If you do not have a set of standards you or your Department will need to purchase a set, in the mean time feel free to contact Safety and inquire about borrowing a set of C-14 & H-3 unquenched standards.

For more information on LSC link to the URL address below.

http://www2.fpm.wisc.edu/safety/Radiation/docs/lsc_guide.pdf

Increased Control (IC) for Unescorted Access to Irradiator Rooms

Irradiator users with unescorted access to the irradiator rooms are now required to meet the increased control requirement mandated by the Nuclear Regulatory Commission and the State of Wisconsin.

All irradiator users and any individuals who would like unescorted access to these rooms must secure trustworthy & reliability statement (TWRS) from their PI, Supervisors, Dean or their Departmental Human Resources; and go through fingerprinting and Federal Bureau of Investigation (FBI) identification and criminal history records check.

If you wish to use one of the irradiators on campus or you are an irradiator user and wish to continue using the irradiator, you must satisfy this mandate. To obtain proper forms, and go through this process, contact Victor Goretsky at 265-5000.

UW Staff Changes

Bindu Timilsina joined the Radiation Safety team in April 2008 as a Health Physicist. Currently Bindu's primary duties are managing the day-to-day issues regarding dosimeters, populating the Health Physicist Assist program, environmental radiation safety, and assisting with



Bindu Timilsina

the University's Central Ordering Receiving & Distributions (CORD) of radioactive materials.

Greg Dierks joined the Radiation Safety team in July 2007 as a Health Physicist ADV. Greg has over 15 years of experience in the University's Radiation & Chemical Safety programs. His primary new duties are the University's Dosimetry program, radiation lab audits & consultation, radiation safety training programs, and processing application to use radioactive materials in research.

Keith Burdick was designated as the interim Safety Director in November, 2008. In addition to his current duties as Environmental Health Manager, Keith is now responsible for the over all administration of the Environment, Health & Safety Program.

Kurt Kellesvig has recently joined the Radiation Safety team as Health Physicist – ADV. Kurt worked as waste management specialist for the past 11 years, and was responsible for mercury spill response; thermometer exchange program; conducting radiation & chemical lab audits; incineration of animal waste; participating in chemical & radioactive waste runs; and shipping of hazardous chemicals. His primary new duties will be managing the radioactive waste program, sealed source program, and the radiation producing devices program, i.e. x-rays, lasers, cyclotron, and accelerators.

Off to Retirement -



Sally Rowe

Our Environmental Health Specialist, Sally Rowe, has retired after serving our research community for over 30 years. Sally plans to do what she enjoys most: spending more time with her family, reading, and traveling. Sally will be missed by many on campus.

Reporting of Events Involving the Use of Radioactive Materials

State Regulations requires certain events involving radioactive materials or devices utilizing radioactive materials be reported to the State. Some events must be reported to the State immediately and no later than 4 hours after discovery. Remember, the clock starts from the time the event is discovered, no matter how it was discovered or who discovered it.

Radiation Safety reports to the State, and to UW & Hospital administrations of events requiring notifications. It is important that you immediately notify the radiation safety office and your principle investigator if any of the following events occurs in your laboratory:

- Fires
- Explosions
- Toxic gas release
- Spills of any radioactive materials or chemicals.
- Contamination in levels above action levels is detected in any area or room where radioactive material is used or stored.
- Contamination detected on any equipment, unless the PI secured approval from the University Radiation Safety Committee for an exception allowing contaminated equipment.
- Contamination detected on any worker, attire, or shoes.
- Failure of equipment engineered for safety controls, e.g. Hoods where volatile radioactive material is used.

Note: Label broken radiation survey meters as broken until they are repaired and calibrated.



When you notify Safety, provide the following information:

- Your name and call back telephone number.
- A description of the event, including the date and time of its occurrence.
- The exact location & building of the event.
- The isotopes, quantities, and chemical and physical form of the material involved.
- The authorized user's name.
- Any preliminary actions taken

Work safely, and remember to let safety and your PI know of radiological contaminations, fires, explosions, spills, and failure of equipments utilizing radioactive materials or equipments used to guard against the inhalation or ingestion of radioactive materials. The phone numbers to report events involving the use of radioactive materials are 265-5000 during business hours, and 911 for non-business hours.

Fires in a Lab Where Radioactive Materials are used or Stored

If you encounter minor fire in a lab where radioactive materials are used or stored you will need to take at least the following steps:

Immediately attempt to put out the fire by approved methods (e.g., fire extinguisher) if other fire hazards or radiation hazards are not present. For more information on fire extinguishers visit Safety's web site at



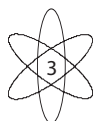
<http://www2.fpm.wisc.edu/safety/gsp/> and for fire extinguisher training contact Dale Kidd at 265-0693.

- Notify all persons present to vacate the area and have one individual immediately call the RSO. If you were unable to put out the fire contact the fire department.
- Once the fire is out; lock, secure, and isolate the area to prevent the spread of possible contamination.
- Survey all persons involved in combating the fire for possible contamination.
- Decontaminate personnel by removing contaminated clothing and flushing contaminated skin with lukewarm water, then washing with a mild soap.

- In consultation with the RSO, determine a plan of decontamination and the types of protective devices and survey equipment that will be necessary to decontaminate the area.
- Allow no one to return to work in the area unless approved by the RSO.
- Cooperate with the RSO and/or the RSO's staff (e.g., investigation of root cause, provision of requested bioassay samples).
- Follow the instructions of the RSO and/or the RSO's staff (e.g., decontamination techniques, surveys, provision of bioassay samples, requested documentation).

For Fires, Explosions, or Major Emergencies-

- Notify all persons in the area to leave immediately.
- Notify the fire department.
- Notify the RSO, your PI, and other facility safety personnel.
- Upon arrival of firefighters, inform them where radioactive materials are stored or where radioisotopes were being used; inform them of the present location of the licensed material and the best possible entrance route to the radiation area, as well as any precautions to avoid exposure or risk of creating radioactive contamination by use of high pressure water, etc.
- Lock, secure, and isolate the area to prevent the spread of possible contamination
- Cooperate with the RSO and/or the RSO's staff (e.g., investigation of root cause, provision of requested bioassay samples).
- Allow no one to return to work in the area unless approved by the RSO.
- Follow the instructions of the RSO and/or the RSO's staff (e.g., decontamination techniques, surveys, provision of bioassay samples, requested documentation).



EH&S Assistant

EH&S Assistant Log Off

Choose PI
PI: 0048: SAFETY, RADIATION

RAM	CHEM	ADMIN
Requisitions	Requisitions	Reports
Inventory/Disposals	Inventory	Labs
Waste Pickup	Training	
PI's Permit Limits	Waste Pickup	
Training	Reports	
Reports	Permit Worker Registration	
Permit Worker Registration		

The procedure for ordering radioactive materials and requesting radioactive waste pickups have changed. Ordering & waste pickup requests can be done using “Health Physics Assistant” program. In addition the program allows Authorized Users (AU) to review the records of their authorization to possess and use radioactive materials, e.g. list of laboratories approved for work involving the use of radioactive materials, list of radiation workers, the radioactive materials & the order & possession limits, & the amounts of radioactive materials currently on hand, and much more.

To access the HPA program login to your account at:

<http://www2.fpm.wisc.edu/safety/Radiation/rad.htm>

Click “Account Login” and enter your NetID and Password. Please let Victor Goretsky, vgoretsky@fpm.wisc.edu, know if you have an access problem.

Familiarize yourself with the program, review the records, and let us know if any update is necessary. Start using the program immediately.

TAKE NOTE

Environment, Health & Safety Changes

- Our address now is 30 East Campus Mall, room 260. We did not move but the street name has changed from Murray Street to East Campus Mall.
- The phone number to our main office, 262-8769, is no longer in service. Our new main office number is 265-5000. Feel free to update any postings in your lab with the address and phone number.
- Starting January 1, 2009, the radiation Safety & Chemical safety trainings will no longer be held at the Union South due to remodeling. These trainings will be held at the University Welcome Center” located at 21 North Park Street, room 5045. The Welcome Center is located at the intersection of Park Street & Regent Street and this location is on the Free Route 82 bus line.



Chemical Safety and Radiation Protection Training Schedules

To register for classes link to URL address below.

<http://www2.fpm.wisc.edu/safety/Radiation/schedu.html>

http://www2.fpm.wisc.edu/chemsafety/chem_schedu.htm

January 2009 - December 2009

CLASSES ARE HELD IN ROOM 5045 AT 21 NORTH PARK STREET

Radiation Worker Training:

You are required to attend this course if you are planning to work with radioactive materials at the University of Wisconsin - Madison. You must attend this course to become an authorized user of radioactive material or a radiation worker, even if you have attended training at another institution.

1. Familiarize yourself with the "[Radiation Safety for Radiation Workers](#)" training manual. Manual URL address is <http://www2.fpm.wisc.edu/safety/radiation/trainman.htm>
2. If you will need a badge, you also need to complete an Application for Radiation Dosimeter, have your Authorized User sign it and bring it to class.
3. Register at the links shown in the grid below. If your plans change and you are not able to attend, cancel at these links.

4. Bring a notebook and a pen. A copy of the "Radiation Safety for Radiation Workers" training manual will be provided for your in-class use on the open book quiz.
5. The training consists of a 1.5 hour lecture/demonstration. At the end of the lecture, an open book, 33 multiple-choice question exam will be handed out. To obtain a passing score and corresponding certificate, you must obtain a score of 70% or greater.

Additional training is required if you need to use an irradiator or a portable radioactive gauge or if you will transport material or prepare radioactive material for transport.

If you have any questions, please contact Greg Dierks, 608-262-9735.



Chemical & Radiation Worker Training

The 60 - 90 minute class will be followed by a short quiz. Attendees will be awarded a certificate upon completion, which will satisfy the minimum training requirement to work in any lab on campus.

2009 Training Dates	Chemical Safety Training	Radiation Safety Training
January 8	1:30-3:30 pm	9:00-11:30 am
January 22	9:30-11:30 am	12:30-3:00 pm
February 2	1:30-3:30 pm	9:00-11:30 am
February 19	9:30-11:30 am	12:30-3:00 pm
March 5	1:30-3:30 pm	9:00-11:30 am
March 20	9:30-11:30 am	12:30-3:00 pm
April 2	1:30-3:30 pm	9:00-11:30 am
April 16	9:30-11:30 am	12:30-3:00 pm
May 4	1:30-3:30 pm	9:00-11:30 am
May 19	9:30-11:30 am	12:30-3:00 pm
June 4	1:30-3:30 pm	9:00-11:30 am
June 15	9:30-11:30 am	12:30-3:00 pm
June 22	9:30-11:30 am	12:30-3:00 pm
July 3	1:30-3:30 pm	9:00-11:30 am
July 15	9:30-11:30 am	12:30-3:00 pm
August 6	1:30-3:30 pm	9:00-11:30 am
August 12	9:30-11:30 am	12:30-3:00 pm
August 17	1:30-3:30 pm	9:00-11:30 am
September 3	9:30-11:30 am	12:30-3:00 pm
September 16	1:30-3:30 pm	9:00-11:30 am
October 8	9:30-11:30 am	12:30-3:00 pm
October 19	1:30-3:30 pm	9:00-11:30 am
November 5	9:30-11:30 am	12:30-3:00 pm
November 18	1:30-3:30 pm	9:00-11:30 am
December 10	9:30-11:30 am	12:30-3:00 pm

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