West Virginia University - Radiation Safety

Radiation Safety Department Newsletter

Spring 2013

Special Points of Interest:

- RSD requires Dosimeters to be returned in a timely manner.
- ARU/PI's financially responsible for the procurement and disposition of all radioactive materials that they obtain.
- If you have any questions, feel free to contact us at:

radiationsafety@hsc.wvu.edu

Inside this issue:

Welcome!

The purpose of this newsletter is to keep all departments updated on changes in state and federal policy governing radioactive materials. The newsletter will also serve as a medium to inform all users of the introduction of new policies, or changes made by the Radiation Safety Department to WVU existing policies and procedures. The WVU Radiation Safety Department (RSD is responsible for the development of the comprehensive radiation safety programs adopted by WVU, WVU Hospitals, Inc. and Robert C. Bryd Health Sciences Center to ensure the safe handling, transport, use, and disposal of radiological materials. We enforce all the written directives established by the Radiological Safety Committee within the scope of the US NRC license mandates and state regulations, as well as oversee the safe and legal use of radioactive sources. Feel free to contact us with any questions, comments or concerns!

6 Most Common Sources of Radiation

According to the U.S. Department of Energy, the average American receives 370 millirem (mrem) per year. But that figure varies greatly depending on where you live, what you do for a living and some of your personal habits. Radiation is everywhere and we'll list six of the most common encounters of radiation. Leading the way for the most common source of radiation is smoking. Smoking contains nearly 870 mrem per year per pack. Second is something we're all aware of: x-rays. While having a simple bone density scan only produces 10 mrem, having something such as a colonography produces 10,000 mrem! The third most common exposure is through air travel. You get about 6 mrem from a coast to coast flight and an additional 10 mrem from airport security screening. Watching television checks in at number four. Although the exposure is minimal, televisions emit small amounts of radiation. The fifth most common source of radiation is the sun's UV rays, which is approximately 26 mrem per year. Checking in at the sixth most common source of radiation is your cell phone. Cell phones may be the most common encounter we face but they produce non-ionizing radiation. All information was provided by Time Magazine via their website.— <http://health-land.time.com/2010/09/14/do-you-know-how-much-radiation-youre-getting/>

Coordination of State Registration

The Radiation Safety Department (RSD) is responsible and required for registering every radiation producing device with the West Virginia State Radiological Health in adherence to the rules and regulations prior to use. There are five basic steps to properly complete the registration process: notification of purchase, shielding design, installation, registration, and inspection.

For notification of purchase, the user must notify RSD of the purchasing plan, the type of radiation machine (make, model, SN#) and its specifications. During the shielding design phase, RSD determines the requirements for the machine and submits it to the State. The installation phase requires the installer to submit a Report of Assembly (FDA Form 2579) to the State of WV and provide a copy to RSD. The Registration phase requires all radiation producing devices owned or possessed in WVUH to be registered with the WV State Radiological Health. Upon completion of installation and registration, RSD will then perform the inspection phase. RSD will conduct environmental surveys, operational procedures and inspections/ audits annually.

Training

All Radiation Protection Training for WVU Research Laboratories is available online at the WVU SOLE website. Successful completion of online testing is required in order for any laboratory radiation worker and Authorized User to actively use radioactive materials within an authorized laboratory (Note: This also includes sealed source irradiators and portable gauges containing radioactive materials). Principle Investigators, and potential users under their direct supervision, must complete this course regardless of their past training history at other institutions.

All Authorized Users and laboratory radiation workers will then be required to complete each section applicable to them of this training course every other year thereafter, to ensure laboratory is in compliance with institutional Radiation Safety and NRC guidelines. It is the responsibility of each individual to keep track of his/her own training history.

If there are any problems accessing the online training, please contact the Radiation Safety Department.

Changes Coming Soon!

Beginning next quarter (July 1, 2013), WVU will be switching dosimeter badges from Landauer to Mirion!

The Radiation Safety Department will be contacting each department's badge coordinator to discuss what to expect, how the it will impact them and a refresher training with regards to what Mirion offers.

Badge Coordinators should expect and e-mail within the next few weeks to set up a time and date to conduct the information/training session.

The Face Shield

The Radiation Safety Department (RSD) has conducted tests on how the face shield can reduce radiation exposure to the eye when working with fluoroscopy. The face shield eliminates blind spots caused by standard glasses and gives a larger area of protection from radiation. The leaded glass has a 0.1 mm lead equivalency. In addition, two different types of badges were used while conducting the test, the Instant Badge and a Landauer Badge.

The face shield is designed to shield an x-ray technician or machine operator primarily from random secondary or scatter x-rays deflected towards their face, head and neck, ultimately providing more protection.

PET/CT Ammonia N-13 Injection

As of February 2013, PET/CT has begun Ammonia N-13 injections. The procedure is performed once per week on Thursday. The dose is produced in the cyclotron lab.

The injection allows PET imaging of the myocardium under rest or pharmacologic stress conditions to evaluate myocardial perfusion in patients with suspected or existing coronary artery disease. All administrations are performed within applicable regulations and appropriate precautionary measures congruent with industry best practices.

Available Committees

Any persons wishing to express concern, influence policy or review plans have the option to attend any number of the committees currently available. There are five committees that perform these tasks and more and are specific to the type of radiation exposure and its uses.

The Radiological Safety Committee—Meets at least quarterly and reviews policies, procedures and regulations regarding ionizing radiation.

Human Use of Radiation & Radionuclides Committee—meets at least quarterly to adopt rules and policies pertaining to the use of ionizing radiation in or on humans at WVU Hospitals or the Robert C. Byrd Health Sciences Center.

Non-Human Use of Radiation & Radionuclides Committee—Meet quarterly to adopt rules and policies on the in vitro use of sources of ionizing radiation at WVU Hospitals, West Virginia University, the Robert C. Byrd Health Sciences Center, the Blanchette Rockefeller Neurosciences Institute, and at the Charleston Division.

Committee On The Use of Radiation & Radionuclides In Animals—meets when necessary to discuss rules and policies for the use of ionizing radiation in or on animals.

Radiation Research Committee—meets when necessary to evaluate the qualifications of all persons proposing to use radionuclides on the Downtown or Evansdale campus to ensure that they are adequate for the proposed use.

These committees offer an opportunity to implement the best practice for our industry. For more information or for meeting times and dates, please visit our website or contact the Radiation Safety Department.

For a digital copy of this newsletter, frequently asked questions (FAQ) and more information, check out our website at:

http://www.hsc.wvu.edu/rsafety/

Radiation Safety Department
West Virginia University

About Us

The West Virginia University Radiation Safety Department, following the lead of the Radiological Safety Committee and it sub-committees, is dedicated to the continued development and application of safety guidelines and practices concerning the use of radiation and the hazards associated with it throughout all WVU Campuses, the Robert C, Byrd Health Sciences Center, Jefferson Memorial Hospital, WVU Hospitals Inc., and the Blanchette Rockefeller Neurosciences Institute.

The Radiation Safety Department is responsible for providing guidance and overseeing enforcement of safe radiation practices in all research involving radioactive materials, radiation producing devices, and the diagnostic and therapeutic use of radiation in humans and animals. This is done to ensure a safe working environment for all individuals working with radioactive materials or devices located within these facilities.

With respect to U.S. Nuclear Regulatory Commission regulations, the institution has granted the West Virginia University Radiation Safety Officer (WVRSO) authority to identify all radiation safety problems and introduce corrective actions. It is also the Radiation Safety Officer's duty to provide appropriate reports to the U.S. Nuclear Regulatory Commission, as well as the West Virginia Radiological Health Program as required by regulation.

Contact Us

Radiation Safety Department
One Medical Center Drive
P.O. Box 9006
Morgantown, W.V. 26506-9006

Office Hours: Monday - Friday 8:00 a.m. to 4:30 p.m.

Office Phone: 304-293-3413
24 Hour On Call Pager: 304-987-1586
Office Fax: 304-293-4529

Email:radiationsafety@hsc.wvu.edu

Name	Title	Contact
Nasser Razmianfar	Director, Radiation Safety Officer	Phone: 304-293-1554 Email: nrazmianfar@hsc.wvu.edu
Stephen Root	Health & Safety Manager	Phone: 304-293-5556 Email: sroot@hsc.wvu.edu
Dawit Woldemikael	Environmental, Health & Safety Specialist	Phone: 304-293-1549 Email: dwoldemikael@hsc.wvu.edu
Kristen Daft	Program Administrator Sr.	Phone:304-293-9770 Email: kldaft@hsc.wvu.edu
Adrienne Macleod	Program Administrator Sr.	Phone: 304-293-9513 Email: amacleod@hsc.wvu.edu
Lori Brownlee	Program Assistant II	Phone: 304-293-3413 email: lbrownlee@hsc.wvu.edu