

CWRU DEPARTMENT OF OCCUPATIONAL AND ENVIRONMENTAL SAFETY NEWSLETTER



March/April 2004

"Safety Comes First"

SPECIAL ISSUE: USING THE D.O.E.S. WEBSITE

Service Building, 1st Floor (216)368-2906/2907 FAX:(216)368-2236 <http://does.cwru.edu>

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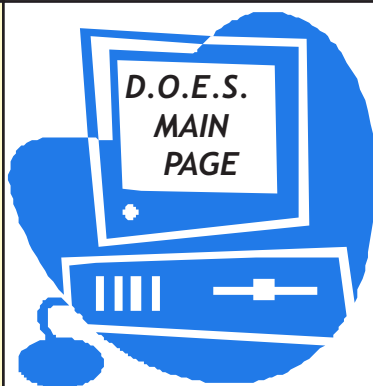
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Safety Questions? Login to: does.cwru.edu

One of the ways in which the Department of Occupational and Environmental Safety accomplishes its mission to promote the health and safety of the Case Western Reserve University community and its environment

is by maintaining its website as a resource for faculty, students, lab volunteers, and university employees. The website is a collaborative effort undertaken by the entire staff at D.O.E.S. through which the department endeavors to give you every-

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New Regulations for Working with "Select Agents"

The CDC defines the term "Select Agent" as a biological agent or toxin deemed to threaten public, animal or plant health, or animal or plant products. As of February 7, new regulations to implement the *Public Health and Security Bioterrorism Preparedness and Response Act of 2002*, regarding the possession of, access to, and use of select agents became effective. Amongst these new regulations is a revised list of nationally recognized select agents. Furthermore, these regulations require that in order to possess select agents, laboratories must register with the Centers for Disease Control and Prevention and submit to the Department of Justice the names of individuals with access to select agents for background checks. Additionally, those who want

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Select Agent Regulations

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to use Select Agents for research must develop biosecurity and biosafety plans, as well as develop a system for taking inventory of the select agents being used. In order to use select agents for research, laboratories must be vigilant about recording the names of students, employees, faculty, staff and volunteers who either use or have access to biological agents which pose a potential threat to human health and safety, and must require training in the use of such agents.

If your lab uses a select agent, you must complete a "Select Agent Registration Form" and file it with D.O.E.S. immediately. The purpose of this new policy is to ensure that all federally regulated Select Agents on Case Western Reserve University's campus are handled safely, secured properly, and registered accurately with the Centers for Disease Control and Prevention (CDC) and the Department of Justice. In the event that your lab plans to use a select agent, you *must* seek approval from D.O.E.S. **There are significant criminal penalties that apply to individuals who attempt to circumvent the legislation and for failure to comply.**

The authorities are serious about these new policies. Recently, Dr. Thomas C. Butler, a former Texas Tech University Professor incited a bioterrorism scare after reporting that 30 vials of plague bacteria were missing from his lab in January 2003.

In the end, Butler was convicted for mislabeling a Federal Express package that contained plague samples and for exporting biohazardous material to Tanzania without the authority to do so. Butler was also convicted on four other counts including theft, embezzlement, fraud, as well as mail and

wire fraud. After his conviction, Butler agreed to retire from the university and pay \$250,000 to the school. He also surrendered his medical license. Butler was fined \$15,000 and ordered to pay restitution of \$38,000 by the court and was sentenced to two years in prison.

So, if you work with any select agents, complete the appropriate registration form and FAX a copy of it to 368-2236, and return the original via campus mail to D.O.E.S., Service Building, LC: 7227. While D.O.E.S. will be sending a "Select Agent Questionnaire" and a "Select Agent Registration Form" to every lab twice a year, you can also find the registration form on our website at <http://does.cwru.edu>.

If you have any other questions or concerns, or for a list of nationally identified select agents, you can check the D.O.E.S. website for up to date information or contact Richard Dell at 368-5864.



Lotion and Latex Gloves?

According to OSHA standard 29CFR1910.1030 (Occupational Exposure to Bloodborne Pathogens), hand lotion is officially *not* considered a cosmetic and *is* permitted in labs. However, petroleum-based hand lotions can diminish the integrity of latex gloves.

To ensure your laboratory safety, D.O.E.S. has compiled a list of five non-petroleum based hand lotions which we recommend if you use latex gloves in the laboratory: Johnson and Johnson Baby Lotion, Cetaphil, Jason Natural Cosmetics, Nexcare, and Keri.

Use one of the lotions listed above or check with D.O.E.S. to make sure that your lotion does not compromise your safety.



Radiation Safety Online

The newest online research specific to Radiation Safety is our new Radiation

Safety Online Database. It offers lab-specific, up-to-date information. You can look up such information as:

- Lab worker list and training dates
- Isotope inventory and possession limits
- Laboratory locations and status
- Radiation meter calibration dates
- Sealed source information
- Active RAM inventory

To log on, use your AU number and password. If you need your password, e-mail us at does@po.cwru.edu or call x2906.

TRAINING SCHEDULE

Radiation (x2906)

- New Training: (check website)
- X-ray Training: (call for times)

Chemical and Biological Safety (x2907)

- OSHA Lab Standard and Regulated Chemicals: Mondays 1-3:00
- Bloodborne Pathogens: Mondays 3-5:00

Please Note: Seats are limited in new training sessions, so be sure to call ahead of time to check on the availability of a training session.

- All online training is available at <http://does.cwru.edu> and **ALL** training (except X-ray) is **REQUIRED ANNUALLY** and all re-training (except regulated chemicals) is available online. Check our website for updates.

Safety Plans: Does Your Lab Need a HazComm, Chemical Hygiene, or Exposure Control Plan?

From the D.O.E.S. main page, follow the link for "Forms/Manuals" to find a plethora of important Chemical Safety and Radiation Safety materials. Of great importance are the documents which allow you to detail the safety procedures in use in your specific laboratory: The Chemical Hygiene Plan, Hazardous Communications Plan, and the Exposure Control Plan for Bloodborne Pathogens. The goal of these documents is to provide the necessary guidance to the employees required to maintain a safe work environment through the avoidance of physical and health hazards related to working with chemicals and bloodborne pathogens. These forms should be completed by the lab PI and returned to the D.O.E.S. office, as well as provided to the laboratory staff.

Please note an important distinction between the Chemical Hygiene Plan and the Hazardous Communications Plan. The Chemical Hygiene Plan only applies to your lab environment if your laboratory meets the following four criteria: Chemical manipulations are carried out on a "laboratory scale"; multiple chemical procedures are used; the procedures involved are not part of a production process, nor in any way simulate a production process; and "protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals. If your lab does not meet all of the above criteria, please refer to the Hazardous Communications Plan.

The Hazardous Communications Plan applies to laboratories that use only commercial products or small amounts of chemicals in a non-
(See *Manuals and Forms Online* on page 4)

Login to does.cwru.edu

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thing from basic safety instructions to the most up to date safety information at your fingertips.

For example, the D.O.E.S. website presents Material Safety Data Sheets on current construction projects as well as announcements about new Emergency Evacuation Plans and opportunities for retraining online. Did you know, for instance, that if you have questions about biohood testing, service, or need to send results, you should call D.O.E.S. or email us at does@po.cwru.edu?

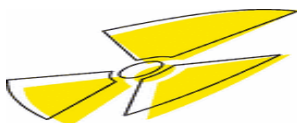
Additionally, the D.O.E.S. website is a convenient location for accessing safety manuals, including Biological Safety, Chemical Safety, Radiation Safety, and Physical Safety manuals. You can also access order forms and inventory forms from our website. You can even complete most of your required retraining online at the D.O.E.S. website. Login and explore the possibilities.

Manuals and Forms Online

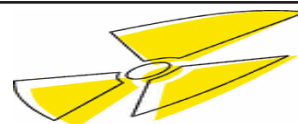
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laboratory use. This plan (the HazComm Plan) also applies to non-laboratory employees who may be exposed to hazardous chemicals in the course of their work, both in normal conditions and emergencies, as well as to consumer products when not used in the same frequency and volume as the consumer.

Other important documents available online include the following manuals: Radiation Safety, Radiation Safety Training, Laboratory Safety, and Physical Safety. Among a myriad of other important documents provided via this link on the D.O.E.S. website, you will also find the following forms: Caution Sign and Label Order Form, Select Agents Registration Form, Select Agents Background Check Form, Destruction of Select Agents Form, Environmental Release Form, and the Lost Dosimetry (Ring or Badge) Form.



Radiation News: Half-Life Calculation



Have you taken the radioactive decay of the isotopes in your lab into consideration? If not, you might find that the activity of the waste in your lab is higher than what you have in your inventory. To correct this problem, be sure to calculate the activity of the isotope based on the half-life and the length of time that the isotope has been in the laboratory.

The half-life of an isotope is the amount of time it takes the activity to decrease by a factor of two. So, keep this calculation in mind:

N = number of half-lives

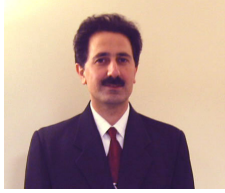
If $N = 1$, then the calculation is $(1/2)$

If $N = 2$, then the calculation is $(1/2)(1/2)$ or $1/4$

If $N = 3$, then the calculation is $(1/2)(1/2)(1/2)$ or $1/8$

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D.O.E.S. Staff News



Congratulations to D.O.E.S. Safety Services Specialist I, Madhi Fahim, who became a United States citizen on January 3, 2004. "I was so impressed with the ceremony," said Madhi, "it was beautiful...so, so amazing."

We are so happy for Madhi who has lived in the United States for four years and has worked for D.O.E.S. for three years. He says, "Since I started working here at D.O.E.S., I've felt at home." His whole D.O.E.S. family is so glad that he is here to stay.

Radiation News: Half-Life Calculation

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To illustrate how half-life calculations work, consider this problem:

P-32 has a half-life of 14 days. If you receive 10 mCi of P-32 on November 1, how much will you have left on November 29?

Because the half-life of P-32 is 14 days, by November 29, P-32 will have had two half-lives. Calculate $(1/2)(1/2)$ or $1/4$. 10 divided by 4 is 2.5. You will have 2.5 mCi left on November 29.

Additional Radiation Safety information is available on the D.O.E.S. website. For more information regarding Half-Life Calculation or to find out about information, issues, and developments that have arisen in Radiation Safety in the last year, see the Case Western Reserve University Radiation Safety Office Annual Laboratory Worker Refresher Training (Radiation Safety Retraining) online. Begin at does.cwru.edu and click the link to training.



Ask Dr. Goggles

Dear Dr. Goggles:

I know that the past issues of the newsletter are available on the D.O.E.S. website. Last month I searched the website for an article I remembered about Dirty Bombs, but it was difficult to find. How can I find out what issues are covered in the newsletters posted online?

--Lost on the Web

Dear Lost on the Web:

You'll be glad to hear that D.O.E.S. recently made some upgrades to our website. One of these improvements was made to the link to the Safety Newsletters.

From now on looking for a specific article should be a simpler task. The headlines from each issue are now listed below the link to each issue of the newsletter.

You can either browse through the headlines or you can click "Edit" and then "Find" and then type in the title or keyword you are looking for. For example, type in "Dirty Bombs" and you will find the article you were looking for in the August/September 2002 issue. Have fun reading those old issues.

--Dr. Goggles



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