

REHS News

Rutgers Environmental Health and Safety

Issue 3, December 2004

Welcome to the 2004 winter edition of the REHS Newsletter. We appreciate everyone's efforts in fostering a safe and environmentally conscious culture at the University. This edition contains articles about new initiatives, pre-existing programs and some seasonal

safety information. If you have a suggestion for a future Environmental, Health or Safety article, please feel free to contact us through the Safety Suggestion Link on our website at <http://rehs.rutgers.edu> or by contacting us at (732) 445-2550.



Eagleton Institute on the Douglass campus

Have a wonderful Holiday Season.

Holiday Safety

The holiday season is a time to decorate our homes, visit friends and relatives, go on vacation, or enjoy the time off. The following are simple suggestions to ensure you have an enjoyable and safe holiday season:

Tree Safety

- Fresh trees should not lose excessive needles when touched or shaken. Test the tree by gently pulling on the branches or tamping the tree on the ground.
- Do not place the tree near radiators, fireplaces or other heat sources
- Ensure the tree stand is always filled with water.
- Use only fire resistant artificial trees.

Lights and Electrical Safety

- Holiday lights, extension cords and other electric decorations should be in good condition and not overloaded.

- Outdoor lights and extension cords should be approved for outdoor use and plugged into a GFCI outlet.
- Unplug holiday lights and other decorations when you are out of the room or sleeping.

Home Safety

- Do not shut off your heating system while on vacation to prevent the pipes from freezing.
- Be careful on snowy walkways and steps especially at night when the walkways may refreeze.
- During inclement weather, dress appropriately, drink plenty of fluids and take rest breaks during outdoor activities.
- Pace yourself when shoveling snow and use proper lifting techniques.

Driving Safety

- Maintain your vehicle in good mechanical condition, ensure your tires are properly inflated and

- maintain your gas tank at least half full.
- Do not drink and drive. Designate a sober driver before you go out.
- Buckle your seatbelts and avoid using cell phones while driving.
- During inclement weather, drive slowly, add more time to your commute and stay home if you don't have to drive.

Fire Safety

- Avoid leaving lit candles and fireplaces unattended. Use only flame-retardant/resistant decorations.



Inside this issue:

Holiday Safety	1
Free Chemicals!	2
Cold Stress	2
Reproductive and Developmental Health Assessments	2
Laser Safety Program	3
NJ PEOSH Adopts Federal HAZCOM Standard	3
Spill Prevention Control & Countermeasure (SPCC) Plan	4
PCB's – Management and Compliance	4



Free Chemicals!

REHS has implemented a chemical reuse program where chemicals that are no longer needed, or are being disposed of as waste are collected, stored and offered for reuse. The chemicals available are un-opened, have a long shelf life, or are not past their expiration date. There is no cost to the laboratory for participating in this program, regardless if they are donating or requesting the chemicals. Researchers can participate in this program in the following ways:

- Donate unwanted chemicals for redistribution
- Request an available chemical to

be delivered to your lab

- Post a “Chemicals Wanted” request

Many laboratories have unused chemicals from a change in research or discontinuation of a specific research protocol. REHS collects these unwanted chemicals, posts them on our website and delivers them to laboratories that can utilize them for their research. Researchers can also post a “Chemicals Wanted” advertisement through our website.

The redistribution and sharing of unused chemicals will reduce the

amount of chemical waste generated and can reduce the cost of research. Chemical redistribution is also one way to comply with federal regulations, enforced by the Environmental Protection Agency, which requires Rutgers University to minimize the amount of hazardous waste generated.

Please visit our website at http://rehs.rutgers.edu/docs/lswaste_min.htm to learn more about waste minimization, view chemicals that are currently available, or post your own “chemical wanted” request.

Cold Stress – How To Protect Yourself While Working Outdoors This Winter

With the onset of cold weather, REHS is reminding employees to take necessary precautions to prevent cold-related health problems. Employees who are required to spend prolonged time outdoors during their workday should follow these cold weather tips:

- When possible, try to schedule outdoor work for the warmest part of the day (between the hours of 10am to 2pm).
- Wear loose fitting, layered clothing.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
- Use the buddy system - work in pairs, when possible, so that one

worker can recognize danger signs.

- Drink warm, sweet beverages (sugar water, sports-type drinks) and avoid drinks with caffeine (coffee, tea, sodas or hot chocolate) or alcohol.
- Eat warm, high-calorie foods such as hot pasta dishes.

Individuals taking certain medications, are in poor physical condition, or have a pre-existing medical condition (i.e. diabetes, hypertension or cardiovascular disease) may be more susceptible to cold related health issues. These individuals should consult their physician or Occupational Health for further guidance.

“Take necessary precautions to prevent cold-related health problems.”

New Jersey Public Employees Occupational Safety and Health Program (PEOSH) has information on how to identify symptoms of cold stress and how to protect yourself. The following is a link to the PEOSH outdoor work guidelines:

<http://www.state.nj.us/health/eoh/peoshweb/Outdoor.pdf>

If you have questions about how to work safely in cold temperatures, please talk to your supervisor or contact REHS.

Reproductive and Developmental Health Assessments

REHS conducts workplace assessments to identify and evaluate potential health and safety issues as part of its occupational health and safety program. On occasion, REHS also receives workplace assessment requests from employees with reproductive or developmental health concerns.

The University is in the process of finalizing a reproductive and developmental health policy that includes the following components:

- Identifies the available resources
- Establishes an assessment process
- Fosters communication
- Prioritizes recommendations

Participation in this policy is strictly voluntary, and is intended to provide the student, faculty, or staff member with information about potential reproductive health issues associated with their University environment, as well as recommended control measures, so they can make an

informed decision, with their personal obstetrician, about their continued work or learning activities.

Any student, faculty, or staff member who is pregnant, has a reproductive and developmental health concern, or works with known mutagenic, teratogenic, or carcinogenic agents may contact REHS at (732) 445-2550 to request an assessment. A copy of the finalized policy will be available for review on the REHS website in January 2005.

Laser Safety Program

The word "laser" is an acronym for Light Amplification by the Stimulated Emission of Radiation. Lasers produce either visible or invisible beams in the non-ionizing region of the electromagnetic spectrum, and have many uses in consumer products and research applications. Examples of laser use in consumer products include CD players, laser printers, and supermarket scanners; laser use in research applications include particle counters, flow cytometry, DNA sequencing machines, Raman spectroscopy, and confocal microscopes. Improper use of lasers may result in eye and/or skin injury from direct or diffuse beam exposure. Non-beam hazards include injury from electrical shock, fire, and compressed gas or chemical exposures from other laser

components. The hazards associated with a laser are dependent upon the beam's output energy, operating



wavelength, beam accessibility, conditions of use, and the characteristics of the laser.

Rutgers University has a Laboratory Laser Safety Program that evaluates and controls beam and non-beam hazards based upon the ANSI

Z136.1-2000 Standard for the Safe Use of Lasers and the ANSI Z136.5-2000 Standard for the Safe Use of Lasers in Educational Institutions. REHS audits open beam laser systems, provides laser safety training, and is available to assist in the design of laser laboratory spaces and help identify acceptable laser safety products.

If you have a laser system, anticipate purchasing a laser system to support your research, or just have questions or concerns, please visit the Laboratory Personnel/Laser Safety section of our website at http://rehs.rutgers.edu/lslab_ls.htm. You may also call or e-mail our Laser Safety Officer, Tom Block at (732) 445-2550 or tblock@rehs.rutgers.edu

NJ PEOSH Adopts Federal HAZCOM Standard

On May 3rd 2004, NJ Public Employees Occupational Safety and Health Program (PEOSH) adopted the Federal Hazard Communication Standard. This resulted in the combining of certain elements of the NJ Right to Know Program with the Federal Hazard Communication Standard creating the PEOSH HCS.

Like the NJ RTK law, the new program applies to all work operations at the University where employees are exposed or may be exposed to hazardous chemicals.

The PEOSH HCS contains traditional requirements of NJ RTK such as:

- Submittal of an annual RTK workplace survey (chemical inventory)
- Chemical labeling requirements
- Access to Material Safety Data Sheets (MSDS's) and Hazardous Substances Fact Sheets (HSFS's)
- Training
- Request for information

The main changes to the NJ RTK requirements are:

- Employees must be trained prior to starting work. Previously, the NJ RTK program allowed 30 days to train workers.
- Chemical inventories and MSDS's must be updated as new chemicals

Hazard Communication: Foundation of Workplace Chemical Safety Programs

are brought into the workplace and made readily available during each workshift. NJ RTK required an annual update of the inventory and access to MSDS's within 5 working days.

- Labels must meet the requirements of both RTK and HCS standards.
- A written Hazard Communication Program must be developed for the workplace.

Laboratories are required to:

- Ensure that labels are not defaced or removed from incoming containers

- Maintain MSDS's and make them readily available in their work areas during each workshift.
- Provide information and training for laboratory employees.
- Ensure when shipping hazardous chemicals that containers are labeled in accordance with PEOSH HCS and MSDS's are provided. REHS provides training and assistance regarding shipments of hazardous chemicals, please visit our website at http://rehs.rutgers.edu/rehs_dot.htm for additional information.

REHS will be distributing a copy of the written Hazard Communication Standard to all affected departments and it can be found on the REHS website at http://rehs.rutgers.edu/rehs_hcs.htm.

If you have questions, please contact David Fernandez by phone at (732) 445-2550 or email at dfernandez@rehs.rutgers.edu.

Spill Prevention Control & Countermeasure (SPCC) Plan

Rutgers has many locations where we store oil, i.e. tanks, drums, electrical transformers, etc. These locations must be properly maintained as part of a spill prevention program. In fact, the United States Environmental Protection Agency (USEPA) requires Rutgers to have a comprehensive Spill Prevention Control & Countermeasure (SPCC) Plan.

This plan contains the following:

- Descriptions of facilities and oil storage
- Lists of tank and drum locations
- Descriptions of potential spills and drainage pathways
- Descriptions of spill prevention measures
- Information pertaining to spill response and notifications.

“The USEPA requires Rutgers to have a comprehensive Spill Prevention Control & Countermeasure (SPCC) Plan.”

The following Rutgers Campuses/ Research Stations are required to maintain and implement SPCC plans:

- Cook/Douglass
- Busch/Livingston
- College Ave
- Rutgers Plant Science Research Center in Adelphia
- Rutgers Blueberry and Cranberry Research Center in Chatsworth
- Rutgers Agricultural Research & Extension Center in Bridgeton
- Rutgers Fruit Research and Extension Center in Cream Ridge

These plans affect Facilities Maintenance, Utilities, Housing, Athletics, Research Farms, and the Golf Course. Each of these groups or facilities has a trained and qualified person to conduct monthly inspections and initiate corrective actions for each oil storage location. The responsible individuals must have annual training and be prepared to respond to a spill. Penalties for not complying with this regulation can be as high as \$25,000 a day, per violation. Rutgers has implemented this program to comply with our regulatory obligations and protect the surrounding environment and natural resources.

Check out all the links to each story by going to our website at <http://rehs.rutgers.edu>.

PCB's – Management and Compliance

PCB's are a class of chemicals known collectively as polychlorinated biphenyls. These compounds were commonly used in electrical transformers, compressors, hydraulic fluid, vacuum pumps and fluorescent light ballasts because they were resistant to high temperatures. PCB's are persistent in the environment and elevated levels in fish have resulted in consumption advisories. In the mid-seventies, the United States Environmental Protection Agency (USEPA) enacted the Toxic Substances Control Act (TSCA). This act regulates the manufacturing, processing, distribution, use, clean-up, storage and disposal of PCB's.



At Rutgers, we have removed PCB's from large electrical equipment, although these chemicals are occasionally found in older vacuum pumps and other small equipment (light ballasts, transformers and capacitors). Additionally, a few laboratories are conducting research with PCB's. Rutgers Environmental Health & Safety (REHS) has implemented a program to properly manage PCB's. These programs can be found through the following links:

Laboratory information - http://rehs.rutgers.edu/lsenv_pcb.htm.

Facilities & Utilities information -

“Proper management of these materials is important.”

http://rehs.rutgers.edu/ms_waste_pcb.htm.

Light Ballasts information - http://rehs.rutgers.edu/pdf_files/FMS_Waste.pdf.

Proper management of these materials is important because it protects our health, the environment and ensures that we maintain compliance with the applicable regulations. If you have equipment, which you suspect contains PCB's, please contact REHS at (732) 445-2550. We will sample the oil and provide assistance with disposal.