

Surplus Computers & Consumer Electronics

During routine site visits and inspections, REHS has noticed substantial accumulations of surplus computers and CRT's in various locations. These items are a safety hazard. Rutgers University is required by the State of New Jersey to be in compliance with regulations from the New Jersey Department of Environmental Protection (NJDEP) in regards to the proper disposal of surplus computers and consumer electronics. These regulations stipulate that all such items be sent to a New Jersey licensed universal waste hauler.

The following are the procedures for the disposal of surplus computers and consumer electronics.

To ensure the proper collection and disposal of these items, simply follow the procedures below:

- Departments contact Material Services Department at (732) 445-2255 to arrange the pick up of surplus computers and consumer electronics.
- Departments are responsible for cleaning each hard drive of all

university information.

- Departments must complete a Surplus Disposal Request Form available at:

<http://www.material.rutgers.edu/surplusform.doc>.

If a property tag number is present on the unit, record this property tag number on the Surplus Disposal Request Form and indicate if the unit is working or not.

- Forward the Surplus Disposal Request Form to Material Services via fax to 732-445-2018 attention Pete Shergalis.
- Material Services will complete the surplus pick up and dispose of those units in the proper fashion.
- If the surplus computer is in working condition, the unit will be made available for sale in the Material Services' surplus



CRT's and other electronic equipment must be disposed of properly.

store.

Please watch both the REHS (<http://rehs.rutgers.edu>) and the Material Services websites (see below) for announcements concerning their support of Rutgers University Earth Day, Thursday, April 22, 2004.

A pick up of surplus computers and consumer electronics will be scheduled on a one-time basis, at no charge to University community.

If you have questions or comments pertaining to compliance issues, please contact Mark Kelly

(mkelly@rehs.rutgers.edu.)

If you have questions pertaining to the collection and disposal of these items please contact Chip Leiher

(leiher@rci.rutgers.edu)

or visit the Material Services website at:

<http://www.material.rutgers.edu>.

Particularly Hazardous Substances

The OSHA Laboratory Standard [1910.1450] requires employers to develop provisions for employees who work with particularly hazardous substances, which are defined as substances with acute toxicity, carcinogenicity, or reproductive health hazards. Prior to 2002, the Rutgers Chemical Hygiene Guide specified the criteria used to classify these health hazards, but did not identify substances that met these criteria. In 2002, REHS identified 36 substances that met these criteria, and in December 2003, the Laboratory Safety and Design Committee, which advises, reviews, and approves university policy on lab safety issues, approved updated requirements for laboratories using any of these substances. For the full text of the particularly hazardous substance (PHS) work require-

ments, as well as the substance list, go to our website at:

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

Stated briefly, labs must implement control measures to minimize and prevent exposures to these substances, regardless of the quantity used. For example, many life science laboratories utilize small quantities of formaldehyde and/or formamide as reagents in established protocols to conduct research activities. To achieve compliance with these PHS requirements for established research protocols in the example described above, supplement the established protocols with the following safety information:

- Identify the designated area [i.e., the fume hood] where these work activities using formaldehyde and

formamide are to be conducted

- Identify and make available the

"Particularly hazardous substances are defined as substances with acute toxicity, carcinogenicity, or reproductive health hazards."

appropriate personal protective equipment [chemical resistant gloves, lab coat, safety glasses, etc.] necessary to protect against accidental eye and skin contact

- Identify, document, and review how lab workers should respond to small chemical spills or accidents with these substances.

Generally Licensed Devices (Devices containing radioactive materials)

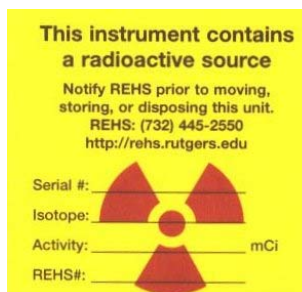
Radioactive materials are used throughout the University in the areas of research, construction and safety. Some radiation sources can be sold to you directly without a specific license from the Nuclear Regulatory Commission (NRC) because of the inherent safety of the source design. These devices are called "generally licensed"; and there are very specific requirements regarding their transfer and disposal. A generally licensed device will have the words "radioactive material" or the

radiation symbol some-where on the device.

Liquid scintillation counters, self-luminous exit signs, electron capture detectors on gas chromatographs, lead paint analyzers and XRF (X-ray Fluorescence) devices all contain radioactive sources and all are considered "generally licensed." NRC regulations prohibit the transfer

of generally licensed devices outside the university by an individual. REHS can help arrange the transfer for you through the manufacturer and will make sure that the NRC is notified and the regulations are followed for you.

Contact REHS for instructions if you locate or possess a device that may contain a radioactive source.



This label must be posted on each generally licensed device.

Univ. Launches Online PI Self-Inspection Program

As part of our agreement with the US EPA, we must implement mechanisms to prevent reoccurrence of violations. One such mechanism is the Principal Investigator (PI) Quarterly Self-Inspection program. This program, which has been developed by the University Laboratory Safety Committee and REHS, was created to encourage compliance with EHS requirements. The checklist is designed to address EHS issues and ensure a safe workplace for laboratory researchers.

REHS provides an online version of the inspection form, with detailed instructions, on our website at:

<http://www.rci.rutgers.edu/~rehs/occhealth/selfaudit3/>.

The online version allows PI's to perform a web-based audit, where each Principal Investigator or designee can add, edit and print all saved inspections. REHS will maintain the electronic database and will be able to provide summary information to deans and department chairs.

PI's who do not wish to perform the Online Self-Inspection may use the paper version available as a PDF on our website. Any Principal Investigator not using the online laboratory self-inspection checklist must maintain paper copies of the self-

"This program was created to encourage compliance with Environmental, Health and Safety requirements."

inspection checklist in his/her laboratory and forward copies to his/her department chair.

To register for the online inspection program or if you require additional information please feel free to contact David Fernandez via email at: dfernandez@rehs.rutgers.edu.

EPA Self Audit and Disclosure

The final self-disclosure audit reports were submitted to the United States Environmental Protection Agency (USEPA) in 2003. The University community has contributed tremendously to this effort and this certainly could not have been accomplished without everyone's support. REHS appreciates all the effort and assistance we received from the University faculty and staff.

This may appear to be the end of a large project, but we see it as the beginning of an ongoing commitment to

protect the environment, the Rutgers community, and the surrounding communities. Rutgers has continued to promote Environmental Excellence by completing the various ongoing commitments made to the EPA. These commitments include the development and implementation of policies/procedures, training programs and auditing programs.

Last year, Rutgers had received the 2002 Environmental Quality Award from the United States Environmental Protection Agency. This prestigious

award has been presented to Michael Quinlan for demonstrating an outstanding commitment to protecting and enhancing environmental quality. It is important for us to recognize that we were the first University to enter into a self-disclosure agreement with the EPA and we have an obligation to continue to demonstrate environmental stewardship. To learn more about the University's agreement visit our website at:

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

Microscaling

Microscaling is a waste minimization technique that can be utilized effectively in various laboratories. The Rutgers Chemistry Department has demonstrated environmental leadership by utilizing this technique. The concept is to use smaller amounts of chemicals initially which will result in smaller amounts of hazardous waste being generated. In addition, less toxic materials are used which adds a safety benefit as well.

Under the direction of Dr. Geeta Govindarajoo and Dr. Patrick O'Connor, both faculty members in the Chemistry Department, a microscaling pilot program began during the 2000 fall semester. The success of the pilot program allowed the Chemistry de-

partment to convert the entire 311 Organic Chemistry course to use microscaling in the 2001 fall semester.

The following benefits to the University were realized as a result of this microscaling:

- Reduction in the cost of purchasing chemicals / supplies per experiment ranged from \$350.00 to \$600.00.
- Organic solvent waste was reduced up to 325 gallons per semester. The cost savings associated with this waste is approximately \$1,000.00 per semester, which includes handling and disposal of this waste.



Using smaller amounts of chemicals initially will result in smaller amounts of hazardous waste being gener-

- Safety concerns were addressed by eliminating the use of nitric acid in certain experiments and the elimination of using bunsen burners.
- REHS encourages all laboratories to develop waste minimization techniques, which will reduce their hazardous waste generation resulting in lower costs for waste disposal. REHS is available to discuss waste minimization techniques, please contact us at (732) 445-2550

Website Improvements

We significantly improved our website to provide greater service to the University community. The ability to take on-line training sessions (radiation safety, x-ray, and laboratory chemical hygiene/RTK/SAA), access databases (PI self-inspection program, REHS laboratory audit information, authoree

information), access PDF policies, forms, and procedures, request services, and access MSDS sites are now available on our website.

Dining, Housing and Maintenance staff, Art and Theater personnel, Farm and Research personnel, Office personnel, and Students are all now represented on the website. Each group

has information regarding safety programs, waste management, and environmental programs.

Got to:

<http://rehs.rutgers.edu>

and check out all the great information.

Compressed Natural Gas (CNG) Vehicles:

Early in 2003, a program to introduce Compressed Natural Gas (CNG) vehicles, into the campus fleet was initiated. CNG Vehicles produce less than 10 % of the emissions of a conventional gasoline

fueled vehicle, which is even less emissions than the new breed of "hybrid cars". Since Natural gas is a domestically produced fuel, CNG cars help support our National goal of re-



Natural gas vehicle being fueled at small filling station.

ducing our dependence on foreign fuel supplies and costs about 20% less than gasoline. Initially this program began with a small filling station and the purchase of four CNG Vehicles, two for REHS and two for The Parking

and Transportation Department. Soon the Facilities Maintenance Department and REHS will be installing an additional fueling station and the fleet will include six additional cars

and two pickup trucks, used by Housing, Dining and Facilities Maintenance Departments. As an incentive to encourage the use of CNG vehicles, the N.J. Board of Public Utilities (NJBPU) has instituted a rebate program for purchasers of CNG vehicles and fueling equipment. Under this program Rutgers has already received \$16,000 and has qualified to receive an additional \$40,000 in rebates. For additional information, please contact Rich Bankowski of REHS at

rbankowski@rehs.rutgers.edu.