Welcome to the 2005 Fall edition of the REHS Newsletter. The University has developed an Environmental Health & Safety (EHS) Management System. This edition includes the University's EHS Policy, known as the “Commitment to Health, Safety and Environmental Affairs”. This edition also contains articles pertaining to important events and aspects of the University’s EHS program. 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.

Establishing an Effective Departmental Safety Committee

According to the Public Employees Occupational Health and Safety Administration (PEOSHA), a well-organized safety committee is a critical part of an effective health and safety program. The purpose of establishing a safety committee is to improve overall health and safety at the University by identifying and implementing measures to prevent and reduce workplace injuries.

Each department or division at the University should establish a safety committee. The committee should consist of a chairperson that is at the managerial level, members that are non-managers and are representative of all occupations within that department (i.e. custodians, mechanics, & administrative assistants), and a safety professional to provide technical and regulatory guidance.

To ensure success, a safety committee must:

- Establish a strong management commitment to safety, have a stated purpose, and set specific goals;
- Hold meetings on a consistent basis, have a clear agenda that is adhered to, and keep accurate records of all of its activities;
- Focus on hazard recognition and prevention, and should encourage input/involvement from all employees;
- Take action to address committee recommendations, including corrective action and follow up on all hazards that are brought to the committees’ attention.

The most important benefit of establishing a departmental safety committee will be aiding in the prevention of workplace accidents and thus protecting our most valuable resource, our employees.

REHS is available to assist you in developing your departmental safety committee.

Please contact REHS at (732) 445-2550.

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Commitment to Health, Safety and Environmental Affairs

The following policy is the cornerstone to the Rutgers University Environmental Health & Safety Management System (EHSMS). This policy contains the principles, which are used to guide the University as we continuously improve our EHS performance. Rutgers University President, Richard McCormick, has endorsed this policy. (For more information regarding our EHSMS please see the June 2005 edition of this newsletter online at http://rehs.rutgers.edu/rehs_geninfo.htm.)

Rutgers, the State University of New Jersey, is committed to protecting the health and safety of all members of the University community and our environment. To demonstrate this commitment, Rutgers shall be a leader among public research universities for health, safety and environmental performance. Therefore it shall be the policy of Rutgers University to:

• Provide facilities and operations that are safe and healthful;
• Strive to prevent all occupational injuries and illnesses by emphasizing safety management, education and training, and safe work practices;
• Comply with all applicable health, safety, and environmental laws and regulations;
• Minimize waste; and reuse / recycle materials when it is economically and environmentally appropriate;
• Ensure that health and safety and environmental protection is a principal consideration in the design, construction, and/or renovation of all buildings and facilities;
• Establish goals, measure, and report our health, safety, and environmental performance;
• Include health, safety, and environmental behaviors and values in our teaching and research while maintaining the independence and vitality of these activities.
• Be open and communicate broadly our health, safety, and environmental activities and performance.

All members of the University, including students, faculty, staff, visiting researchers and contractors, are expected to be committed to health, safety, and environmental affairs.

A University Committee structure will advise the senior administration on all matters of health, safety, and environmental protection and assist in developing policies and procedures to achieve these goals.

Poisonous Plants: How to Protect Yourself While Working Outdoors

A common health risk related to working outdoors is skin contact with poisonous plants, including Poison Ivy, Poison Sumac, and Poison Oak. These plants all contain the oily irritant urushiol on their leaves, stems, and roots. Urushiol will also persist in dead or dormant plants. Contact with the oil can produce an itchy rash on the skin that could lead to blisters lasting 4 to 5 weeks if left untreated.

Nearly 90% of people are allergic to urushiol oil. The more you are exposed to these plants, the more likely you will develop an allergic rash.

Things you can do to protect yourself:

• Use the following resources to learn more about poisonous plants: http://www.rcre.rutgers.edu/harmfulplants/
  http://www.state.nj.us/health/eh/peoshweb/Outdoor.pdf

• Know what poison ivy, sumac and oak look like. The ability to recognize poisonous plants is critical in reducing exposure.
• Wear work gloves and clothing that covers as much skin as possible while working in areas where poisonous plants may be present.
• After working outdoors, wash your hands and forearms with soap and water to remove the oil. This will reduce the chance of developing a rash and will minimize the effects of exposure.

If you feel that you have been exposed or if a rash develops on your skin after working outdoors at work, contact Occupational Health at 932-8254 to schedule an appointment.
Title V Air Permit Program

The 1990 Clean Air Act Amendments (CAAA) contain the most comprehensive air quality management program to date. This program is known as the Title V operating permit program. The Title V permitting program consolidates all of a facility’s CAAA requirements into one enforcement document. Title V permits are only required for “major facilities”, which are typically large manufacturing facilities or contiguous facilities (such as a college campus) that use a large amount of fuels such as natural gas and fuel oil.

Until recently, only the combined Busch/Livingston campuses were considered a “major facility” and received a Title V permit in 2002. Due to some changes in the definition of “major facility”, the combined Cook/Douglass campuses will soon be receiving their own Title V permit.

One of the most unique challenges of a Title V permit is the requirement for a 6-month compliance certification. Every 6 months, all required recordkeeping and monitoring data must be reviewed and deficiencies must be reported to the NJDEP and USEPA. The report is compiled and submitted by REHS. Any reported deficiencies can result in non-compliance penalties, typically in increments of $10,000 dollars. In general, the monetary penalties for air permit violations are the highest of any of our regulatory programs.

What you need to know:

- Before installing a new piece of combustion equipment (replacement or new construction), such as a boiler or an emergency generator with a fuel rating of 1,000,000 BTUs/hr or greater, a Title V permit modification must be submitted by REHS. REHS must be notified well in advance (at least six months prior to installation).

“REHS must be notified well in advance (at least six months prior to installation) whenever the installation of new fuel burning equipment is planned.”

Fire in a Rutgers Laboratory

On Wednesday, March 10, 2005, Rutgers Environmental Health and Safety (REHS) responded to an explosion and fire in a research laboratory. In addition to REHS, RUPD, RUES, Facilities Maintenance, Risk Management, the local fire department, and New Jersey Department of Environmental Protection responded to the incident.

Fortunately, no one was seriously injured as a result of the incident, but the laboratory was completely destroyed. Additional smoke, water and physical damage occurred to the entire building. The following is a summary of the incident:

- The fire occurred in a fume hood where four distillation units (commonly referred to as stills) were being used to purify solvents.
- The stills contained both flammable solvents and reactive metals. Stills of this type, typically, run for an extended period of time depending on the amount of solvent being distilled.
- Over time, compounds known as peroxides can form, and if the solvent completely evaporates, a dangerous peroxide residue is left behind.
- We surmised that the explosion and resulting fire was due to the still being left unattended for an extended period of time and the formation of peroxides.
- The hood was being used to store chemicals (flammable solvents & reactive metals) that added “fuel to the fire” in this laboratory incident.
- The Principal Investigator (PI) was on scene and provided valuable information to the emergency responders and during post-incident clean-up activities.

To prevent and minimize incidents such as this, lab personnel should follow these requirements:

- Develop and Review Standard Operating Procedures (SOP’s) for lab operations. SOP’s can prevent incidents by identifying and mitigating hazards as part of the experimentation.
- Avoid leaving experiments unattended. Many accidents can be either prevented or minimized by proper supervision and prompt emergency response.
- Avoid storing chemicals in the fume hood. Chemicals should be stored in the appropriate location, away from the activities that take place in the fume hood.
- Review the University Emergency Action Plan (http://rehs.rutgers.edu/rehs_eap.htm). Knowing what to do in case of an emergency may save your life. The time to plan for an emergency is before it happens.

REHS is available to assist in the development of SOP’s and the implementation of other measures to prevent laboratory incidents. If you would like assistance, please contact REHS at (732) 445-2550.
Rutgers Environmental Health and Safety Department is sponsoring its first Laboratory Safety Fairs. The Laboratory Safety Fairs will provide a one-stop opportunity to discuss Environmental Health & Safety (EHS) related topics with various Rutgers staff and laboratory supply vendors.

All laboratory workers and individuals who support laboratory related research activities are invited to attend.

Laboratory vendors, REHS staff and other Rutgers departments who provide services to laboratories will be present. They will be providing health & safety information, through displays and demonstrations, which are related to the following topics:

- **Hazardous Waste** (Generation, Management, Disposal & Minimization)
- **Shipping Dangerous Goods & Hazardous Materials**
- **Lab Ergonomics** which includes Pipetting, Floor Mats and Lab Furniture
- **A Liquid Nitrogen Demonstration**
- **Personal Protective Equipment** (Safety Gloves, Eyewear, etc.)

The following Rutgers University Departments will be represented at this event:

- **RUPD** – will provide information on Laboratory Security
- **Material Services** – will provide information on how to properly manage surplus lab equipment (including resale or disposal)
- **Purchasing** - will provide information pertaining to the acquisition of laboratory supplies and equipment
- **Facilities Maintenance Services** – to answer questions regarding lab maintenance issues
- **Health Services** – will provide information on health and wellness issues

The fair will take place on the following two dates (please mark your calendar):

**Monday, October 17, 2005**
11 am to 3 pm
Busch Campus Center
Multi-Purpose Room (MPR)

**Tuesday, October 25, 2005**
11 am to 3 pm
Cook Campus Center
Multi-Purpose Room (MPR)

Free pizza, refreshments and giveaways will be provided at these events.

Please take this opportunity to ask questions, see new products and obtain information. If you have questions about these events, please call Rosemarie Kulp at REHS at 5-2550.

Check out all the links to each story by going to our website at [http://rehs.rutgers.edu](http://rehs.rutgers.edu).