# LAB SAFETY AND RESEARCH

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

# **CONTRACTOR SAFETY**

The contractor safety manual (pdf) of The University of Southern Indiana serves as a guideline for contractors to follow while performing work at the University. Contractors are expected to monitor the safety of the job site, and implement their own safety programs. Contractors are also expected to comply with all applicable federal, state and local laws and follow safe work practices as outlined in this manual. See <a href="http://www.usi.edu/ehs">http://www.usi.edu/ehs</a>.

# **ENVIRONMENTAL HEALTH AND SAFETY**

Environmental Health and Safety has developed environmental health programs to help protect university students, faculty and staff. Environmental health concerns including asbestos and mold are addressed in these programs. In the programs, specific procedures are followed to minimize and control the hazards associated with these environmental health concerns.

#### **ASBESTOS**

Asbestos-containing material is defined as any material that contains greater than one-percent asbestos. Asbestos was incorporated into a number of widely used products, many of which were used in building construction beginning in the late 1800s. By the mid-1980s most products containing asbestos were removed from the market. The most common uses of asbestos in USI buildings were in floor tiles and mastic glue, thermal insulation, acoustical decorative plaster, ceiling tiles, structural steel fireproofing and drywall joint compound. On the USI campus, the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA) and the state of Indiana regulated the asbestos removal process. According to the OSHA Asbestos Standard (29 CFR 1926.1101), building material installed prior to 1980 must be presumed to contain asbestos unless historical information and testing indicate otherwise.

The Mesothelioma and Asbestos Awareness Center is the web's leading resource for information about asbestos hazards and related health complications.

# MOLD

Mold removal requires a strategy to deal with the cause(s) of moisture and the mold contaminants. The university follows the New York City Department of Health & Mental Hygiene, Bureau of Environmental & Occupational Disease Epidemiology, Guidelines on Assessment and Remediation of Fungi in Indoor

Environments. Environmental Health and Safety (EHS) provides technical assistance in the evaluation and mitigation of mold. EHS assists in the development of a campus mold abatement strategy, which includes determining abatement priorities; writing abatement contracts; supervising abatement contractors; monitoring environmental and occupational mold levels before, during and after abatement; collecting and disposing of waste; and complying with applicable regulations.

# **EMERGENCY PROCEDURES**

The University has developed emergency procedures to provide direction to members of the University community for a variety of emergency situations. This emergency procedures section is intended for use by faculty, staff, students and visitors.

The details of individual department's emergency procedures are contingent upon the type of emergency. The Emergency Procedures Guide has been prepared as a convenient source of emergency information. It is to be posted in conspicuous locations in buildings across campus where there are multiple individuals who may need quick access to this information. If there are further questions or comments, contact Environmental Health and Safety at 812 461-5393.

#### FIRE EMERGENCY

A fire emergency exists when a building fire alarm is sounding or when there is a presence of smoke or flame. Campus buildings shall be immediately and totally evacuated whenever the building fire alarm is sounding. Upon discovery of a fire, contact Public Safety at 7777. Follow the university's procedures for fire evacuations.

# **CHEMICAL SPILL / RELEASE**

The University has developed procedures and chemical spill response plans to contain and clean up chemical spills.

Since chemical spills may be potentially dangerous, University personnel should not attempt to handle any chemical spill unless they are properly trained in handling chemical spills. If a chemical spill or release occurs in your immediate area, Security at 812 464-1845.

# **BIOLOGICAL SPILL / RELEASE**

A biohazardous spill/release (blood or other infectious material) can occur anytime there is an unplanned release of potentially infectious material into the work environment. Proper response to these incidents can ensure personnel and community safety while eliminating environmental contamination. Generally, a spill **greater than 1 liter** will require outside assistance for cleanup. However, each situation should be evaluated on a case by case basis. Factors to be considered in determining in-house spill cleanup versus outside assistance would include: amount of surface area contaminated, type of surface (i.e., porous or vinyl), volume of material and the source (i.e., crime scene, injured person). Indoor Spill Housekeeping personnel have the necessary training and the capabilities of cleaning and decontaminating indoor biohazard spills. Outdoor Spill The Grounds personnel have the necessary training and the capabilities of cleaning and decontaminating outdoor biohazard spills. Spill Beyond Our Control (greater than 1 liter and/or circumstances) USI holds a contract with an outside environmental company to respond to biohazard spills. Coordinate efforts through Environmental Health and Safety. If a biological spill or release occurs in your immediate area, contact Security at 7777 or 464-1865.

#### **NATURAL GAS**

All gas leaks are potentially dangerous. Any incident involving gas leaks or suspicious odors should be reported so that appropriate departments can be notified and the source of the odor can be investigated. If you encounter or suspect a gas leak, contact Security at 812 464-1845. Environmental Health and Safety (EHS) will perform monitoring and evaluation procedures to determine the source. In the event that the source cannot be found, EHS will contact Vectren for an on-site evaluation. If a gas leak requires evacuation, follow the university's evacuation procedures. EHS can be contacted at 812-461-5393 and after hours through Security at 812 464-1845.

#### **EMERGENCY PREPAREDNESS**

Emergencies or disasters can happen at any time, and they usually occur without warning. When an emergency (such as a fire or hazardous materials release) occurs, our safety and prompt recovery will depend on existing levels of preparedness and a thoughtful response among students, faculty, staff and visitors.

#### **ASBESTOS FIBER RELEASE**

Accidental asbestos fiber releases are uncommon at USI, however, the potential does exist. In the event of a release, Environmental Health and Safety will assess and coordinate the emergency isolation, cleanup and air monitoring activities. If an asbestos release occurs within a building, the affected area will be evacuated and sealed off. All HVAC inlets and outlets to that area will be isolated, and all doors and windows will be closed. If you encounter or suspect an asbestos fiber release, contact Physical Plant at 812 464-1782.

# **EMERGENCY CONTACT NUMBERS**

- Public Safety Emergency Number (main campus) 812 464-1845
- Director of Public Safety Stephen Woodall 812 464-1845
- Director of Risk Management and Safety John W. Hunt 812 461-5366
- Manager of Environmental Health and Safety Bryan J. Morrison 812 461-5393
- Director, Facilities Opr and Planning Stephen Helfrich 812 464-1782
- Indiana Emergency Response Commission Ken Zuber, Chair 708 Stanley Ave. Evansville, IN 47711 812-435-5035, 812-426-7331 (24 hr) Fax 812-435-5078 email: vlepc@evansville.net kzuber@evansvillefiredepartment.net Web: www.lepc.evvindiana.org
- Indiana Emergency Response Commission (IERC) 302 Washington St., Rm. E208 Indianapolis, IN 46204-2760 Tel: (317) 232-3830
- National Response Center 800 424-8802
- EPA Region V Office Environmental Hotline 800 621-8431 or 312 886-2395
- CHEMTREC (CHEMical Transportation Emergency Center) 24-Hour Hotline 800 339-2111

# SEVERE WEATHER/TORNADO ANNOUNCEMENT

The University Safety Committee wants the entire USI community to be prepared for the upcoming severe weather/tornado season. Although severe weather and tornados can occur at anytime during the year (remember the November 6, 2005 Tornado that occurred in Vanderburgh and Warrick County), spring through early summer is the peak tornado season for this area. Many may remember the April 3-4, 1974, super tornado outbreak—the worst tornado outbreak in U.S. history. With these facts in mind here are some actions that you need to be prepared to take.

# What to do when a tornado warning has been issued for your area.

When a tornado has been sighted, seek safe shelter immediately.

- 1. If you are in a small building, or other lightly built structure, move to a safe area in a larger, heavily constructed building. If the severe weather/tornado is upon you, and there is no time to escape to a safe area in a larger building, seek the safest area in your building (refer to item 2).
- 2. If you are in a larger building, shown on the attached chart, move to an interior hallway or room on the lowest floor away from windows, doors and outside walls.
- 3. Never try to outrun a tornado in a car or truck; instead, leave the vehicle immediately for safe shelter.
- 4. If caught outside with no shelter, lie flat in a nearby ditch or depression and cover your head with your hands.
- 5. Do not get under an overpass or bridge. You are safer in a low, flat location.
- 6. Protect yourself from flying debris. Flying debris from tornadoes causes most of the fatalities and injuries.

# **TORNADO WATCH vs. TORNADO WARNING**

When conditions are favorable for severe weather to develop, a severe thunderstorm or *TORNADO WATCH* is issued. Remain alert for approaching storms. When a WATCH is issued tune in and listen to either NOAA Weather Radio (162.550 MHz), commercial radio (WIKY 104.1 FM) or television (Local 7 WTVW), (Channel 14 WFIE) or Channel 25 WEHT) for the latest watch or warning information.

When a *TORNADO WARNING* is issued, a tornado has been sighted or indicated by weather radar. If a tornado warning is issued for your area move immediately to your pre-designated place of safety. In the Vanderburgh County area, emergency warning sirens are activated when there is a severe weather/tornado warning. This siren will be a long blast lasting 3 minutes or longer and you should seek safe shelter immediately.

#### **OUTDOOR AREAS**

If you are at an outdoor recreation field or caught outside when a severe weather siren sounds, you need to seek safe shelter immediately. Go to the nearest "SAFE AREA." If a "SAFE AREA" is not available, lie flat in a nearby ditch or depression away from trees or power lines and cover your head with your hands and avoid flying debris.

# **USI APARTMENT BUILDINGS**

If you are located in a USI apartment building and hear an emergency warning siren, move to an

interior room such as bathroom or hallway, away from exterior walls and windows. If you can, lay flat in the bathtub, cover your head to protect yourself from flying debris. Bring your battery powered weather radio, blanket, and flashlight with you.

#### **SAFE AREAS**

A SAFE AREA is defined as an interior hallway or room on the lowest floor of a larger, heavily constructed building away from windows, doors and outside walls. See the following attachment for a list of buildings with a "SAFE AREA" for severe weather/tornados.

# **FIRE SAFETY**

The University has developed a Fire Prevention Plan aimed at reducing the risk of fire-related incidents and injuries. The University's policies are based on the premise that most fires are preventable and all members of the University community have the responsibility to prevent fires. All faculty, staff and students should be aware of potential fire hazards related to a campus environment. The University community should also be knowledgeable of the emergency procedures that should be followed in the event of a fire. The University takes student fire safety seriously and has established fire safety programs for students living in our campus residence halls. Fire evacuation plans have been developed for each residence hall and copies of these plans can be found on the inside of the door of each room. The University also has specific fire safety programs that target Physical Plant employees and contractors working on our campus. Red Tag Permits are physical tags that are placed on equipment such as sprinklers and fire pumps to remind workers to return the equipment to service when repairs are completed. Hot work permits should be used by contractors, employees and students who work with torches and other hot sources.

#### **USI FIRE PREVENTION PLAN**

OSHA's Fire Prevention Plan regulation requires a written plan that contains specific program elements. This plan addresses fire emergencies that could possibly occur on campus. This Fire Prevention Plan is intended to provide pertinent information to faculty, staff and students in order to reduce the possibility of fires and to specify the type of equipment to use in case of fire. This plan addresses the following issues:

- Major university fire hazards and proper handling and storage procedures.
- Potential ignition sources for fires and their control procedures.
- The type of fire protection equipment or systems which can control a fire involving them.
- Personnel responsible for maintenance of equipment and systems installed to prevent or control ignition of fires and for control of fuel source hazards.

Under this plan, faculty, staff and students will be informed of the plan's purpose, preferred means of reporting fires and other emergencies, types of evacuations to be used in various emergency situations and the alarm system. The plan is closely tied to our emergency action plan where procedures are described for emergency escape route assignments, accounting for all employees after emergency evacuation has been completed and rescue and medical duties for those employees who perform them.

#### **EMERGENCY ACTION PLAN**

OSHA's Emergency Action Plan standard requires the University to have a written emergency action plan (EAP). This plan applies to all operations in the University Community where faculty, staff and students may encounter an emergency situation. The EAP communicates to faculty, staff and students policies and procedures to follow in emergencies. This written plan is available, upon request, to employees,

their designated representatives and any OSHA officials who ask to see it. Under this plan, faculty, staff and students will be informed of the plan's purpose, emergency evacuation procedures and route assignments. The procedures are to be followed by employees who remain to control critical plant operations before they evacuate, and to account for all employees and students after emergency evacuation has been completed. Additional elements of this plan include the rescue and medical duties, preferred means of reporting fires and other emergencies, types of evacuations to be used in various emergency situations and the alarm system.

# FIRE EXTINGUISHER USE

Elements of Fire Before extinguishing a fire, it is important to understand the elements that make up a fire. In order for fire to occur, four elements must be present: oxygen, fuel, heat and a chemical chain reaction. This is represented by the Fire Tetrahedron. When any of the four elements are removed, the fire will go out. Fire extinguishers function by removing one of the four components of the Fire Tetrahedron.

Types of Fires Fire extinguishers are rated based upon the types of fires they are designed to put out. These ratings are identified on the label of the fire extinguisher. Care should be taken to ensure the extinguisher chosen to put out a fire is proper for the type of fire. Listed below are the four main types of ratings.

- Class A: Ordinary combustible materials, wood, paper, plastics and clothing
- Class B: Flammable liquids and gases
- Class C: Energized electrical equipment
- Class D: Combustible metals

Types of Fire Extinguishers The University uses the following types of fire extinguishers:

- Water (Class A)
- Carbon dioxide (Class BC)
- Multipurpose dry chemical (Class ABC)
- Dry powder (Class D)

PASS Follow the PASS procedure when operating any fire extinguisher: **P:** Pull the pin. **A:** Aim at the base of the fire. **S:** Squeeze the handle or lever. **S:** Sweep from side to side. Rules for Extinguisher Usage

- Be trained in extinguisher use
- Use on small fires that are not spreading;
- Know what type of fuel is burning;
- Before extinguishing the fire, position yourself with the exit at your back;
- Do not attempt to extinguish the fire if you are in jeopardy or feel uncomfortable doing so.

Maintenance Missing or discharged fire extinguishers should be reported immediately to Emergency Minor Maintenance at 812 464-1700.

#### HOUSING AND RESIDENCE HALL FIRE EVACUATION DRILLS

Fire drills are conducted twice a year in all housing buildings and residence halls. The first drill is scheduled early in the fall semester and the second drill is conducted during the spring semester. All fire drills are unannounced.

The purpose of fire drills is to prepare building occupants for an organized evacuation in case of fire or other emergency. At USI, fire drills are used as a way to educate and train occupants on fire safety issues specific to their building. During the drill, occupants 'practice' drill procedures and familiarize themselves with the location of exits and the sound of the fire alarm.

In addition, fire drills allow the University an opportunity to test the operation of fire alarm system components.

Fire drills are monitored by Environmental Health and Safety, Security and Housing and Residence Life to evaluate egress and behavioral patterns. Reports are prepared by participating departments and recommendations are followed through to correct any 'identified deficiencies.'

# **RED TAG PERMIT**

The University uses a Red Tag Permit System which consists of an easy-to-use wall kit containing red tags, decals and checklists describing the basic steps to take before, during and after an impairment to fire protection equipment. If you are taking any fire protection equipment out of service, please contact Risk Management to obtain the Red Tag Permit System kit.

#### **HOT WORK PERMIT**

Cutting and welding operations (commonly referred to as hot work) are associated with machine shops, maintenance, and construction activities, as well as certain laboratory-related activities, such as torch soldering. Potential health, safety and property hazards result from the fumes, gases, sparks, hot metal and radiant energy produced during hot work. Hot work equipment which may produce high voltages or utilize compressed gases, also requires special awareness and training on the part of the worker to be used safely. The hazards associated with hot work can be reduced through the implementation of the University's Hot Work Permit Program (a.k.a. Welding, Cutting and Brazing Safety Program).

#### **OCCUPANTS WITH DISABILITIES**

The University has developed specific evacuation procedures for occupants with disabilities. University Security, with input from other departments, including Environmental Health and Safety, has provided the following procedures to assist in the evacuation of students with disabilities.

#### **COMMON FIRE HAZARDS**

- Arson
- Cooking
- Smoking materials
- Open flame (i.e., candles/incense)
- Electrical (wiring, appliances and equipment) hazards
- Residential furnishings
- Accumulation of combustible materials
- Improper handling and storage of combustible/flammable liquids
- Use of Halogen lamps
- Space heaters
- Hot work hazards (i.e., cutting, welding)

# **GENERAL SAFETY**

The University recognizes the importance of maintaining a healthy and safe workplace for not only students and staff, but also for the entire University Community. We, as an employer, have the duty to keep the workplace safe. In keeping with that philosophy, the university has provided employees with a list of their rights and responsibilities. One of the best ways to maintain a safe workplace is to report unsafe conditions. Employees are encouraged to prevent accidents from happening by reporting hazardous and unsafe conditions.

#### **EMPLOYEE RIGHTS UNDER OSHA**

The Occupational Safety and Health (OSH) Act of 1970 created the Occupational Safety and Health Administration (OSHA) within the Department of Labor. The OSHA Act gave employees many new rights, including the right to do the following:

- Review copies of appropriate standards and regulations available at the workplace.
- Request information on safety and health hazards in the workplace, precautions that may be taken, and procedures to be followed if employee is involved in an accident or is exposed to toxic substances.
- Have access to relevant employee exposure and medical records.
- Request OSHA to conduct an inspection if they believe hazardous conditions or violations of standards exist in the workplace.
- Observe any monitoring or measuring of hazardous materials and see the resulting records.
- Review the Log and Summary of Occupational Injuries (OSHA No. 300A) at a reasonable time and in a reasonable manner (or secure an authorized representative for this task.)
- Have their names withheld from their employer, upon request to OSHA, if they sign and file a
  written complaint with the Occupational Safety and Health Administration (OSHA)

# **EMPLOYEE RESPONSIBILITY FOR SAFETY**

Although OSHA does not cite employees for violations of their responsibilities, each employee "shall comply with all occupational safety and health standards and all rules, regulations, and orders issued

under the Act" that are applicable.

An employee should do the following:

- Read the OSHA Job Safety & Health Protection poster
- Comply with all applicable OSHA standards.
- Follow all lawful employer safety and health rules and regulations, and wear or use prescribed protective equipment while working.
- Report hazardous conditions to the supervisor.
- Report any job-related injury or illness to the employer and seek treatment promptly.
- Exercise rights under the Act in a responsible manner.)

# REPORTING UNSAFE CONDITIONS

Environmental Health and Safety encourages employee involvement in reporting hazards and unsafe conditions. All employees are encouraged to report hazards and unsafe conditions in the workplace to their supervisor. The supervisor will take prompt and appropriate action to determine if a hazard exists and to correct the hazard. Technical assistance can be provided by Environmental Health and Safety upon request. If the issue cannot be resolved at the departmental level, the employee and/or supervisor should contact Environmental Health and Safety at 812 461-5393. All reports of hazards and corrective measures/actions taken will be documented and followed up. The reporting employee will be notified of the corrective action taken.

# **HAZARDOUS MATERIALS**

Hazardous materials are used by nearly all of the teaching and research labs at the University, as well as in many of the construction and maintenance operations performed. Anyone working with hazardous materials must be properly trained. In addition, laboratory personnel should be well acquainted with the Hazardous Waste Management Plan, which includes the University's protocols for collection and disposal of hazardous (chemical) waste.

# HAZARD COMMUNICATION PROGRAM

OSHA's Hazard Communication Standard was enacted to ensure that employees are aware of the potential hazards associated with occupational exposure to chemicals. The regulation requires employers to compile and maintain a chemical inventory and to provide training to employees concerning those hazardous chemicals.

Material Safety Data Sheets (MSDS) must be readily accessible to employees. Labeling requirements for containers of hazardous chemicals are also included in the regulation. Finally, the employer must have a written hazard communication program to outline how these requirements are to be accomplished. Laboratories are exempt from this standard. Please note that a separate OSHA regulation exists for employees using hazardous chemicals in laboratories. For more information refer to the Lab Safety & Research section.

Since the University uses hazardous chemicals in many areas, all departments are covered by the standard. Individual departments, where the use of hazardous chemicals is an essential function of the job, will receive specialized training on those hazards.

# HAZARDOUS WASTE MANAGEMENT PROGRAM

With the enactment in 1976 of the Resource Conservation and Recovery Act (RCRA), the transportation,

handling, storage and disposal of solid and hazardous wastes became strictly regulated under federal, state and local laws. The Environmental Protection Agency (EPA) and the state of Indiana have developed regulations for compliance with RCRA.

Responsibility for compliance with hazardous waste regulations begins with the person generating the waste material and follows through to disposal. Environmental protection, regulatory requirements and escalating disposal costs underline the importance of waste generators doing their part to ensure that wastes are properly managed at the university.

The Hazardous Waste Management Plan (HWMP) serves as a guide for handling hazardous wastes generated at the university. The goal of the HWMP is to handle hazardous waste in a safe, efficient and environmentally sound manner and to comply with local and federal regulations.

# **USED OIL PROGRAM**

Used oil is defined in Title 40 of the Code of Federal Regulations as "any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities."

Used oil is typically contaminated or mixed with dirt, fine particles, water or chemicals, all of which affect the performance of the oil and eventually render it unusable. Used oil does not include products derived from vegetable or animal fats or petroleum distillates used as solvents. Antifreeze, cleaning agents, gasoline, jet and diesel fuels are not used oil.

#### **MERCURY-CONTAINING LAMP PROGRAM**

Most fluorescent lamps and High Intensity Discharge (HID) lamps use mercury. The mercury is in vapor form, and is essential in emitting the ultraviolet light that makes fluorescent and HID lamps glow. Lamps that use mercury include common fluorescent lamps, metal halide lamps and high-pressure sodium lamps used for floodlights and streetlights.

Because mercury can be extremely harmful to humans and the environment, large quantities of waste mercury-containing lamps are managed under the University's Mercury-Containing Lamp Program. This plan was developed in accordance to the city of Evansville's universal waste and hazardous waste regulations.

#### **BATTERY RECYCLING AND DISPOSAL PROGRAM**

The University of Southern Indiana uses many different kinds of batteries on campus. Determining how to dispose of dead or unwanted batteries can be tricky. The Battery Recycling and Disposal Program lists the common types of batteries used and proper disposal methods for each. If you have unwanted batteries not listed in this program, please contact Environmental Health and Safety at 812 461-5393 for disposal instructions.

#### **BIOHAZARDOUS WASTE DISPOSAL PROCEDURES**

Infectious waste boxes are the cardboard boxes with the red plastic liners that are used for the disposal of research materials. Contaminated research materials include: tissue samples, animal cadavers, animal organs, slides, broken lab glassware, absorbent pads, pharmaceuticals and small quantities of chemicals. Sharps should be collected in the red puncture resistant collection containers. The sharps collection boxes are purchased through each department. Outlined below are the disposal instructions to be followed:

The boxes are delivered constructed (from Housekeeping). Request boxes and liners from 465-7111. All sharps must be placed in a red puncture resistant collection container inside of the red lined bag which is placed inside of the infectious waste box. Do not pour liquids in the boxes or over pack -- weight limit is 40 lbs. Use only the biohazard boxes and liners provided. Do not use for disposal of non-hazardous material.

When the infectious waste box is ready for disposal, label the box with the building name and lab room #. Seal the plastic liner, NOT the cardboard top. Call 812 465-7111, request a pickup and a replacement box.

# INDUSTRIAL HYGIENE

The aim of the industrial hygiene program is to recognize, evaluate and control the risk of exposure to health hazards. Work is directed at minimizing the hazards associated with improper ventilation and chemical handling; and excessive chemical, noise and temperature exposures. Laboratories and fume hoods are inspected annually, odor complaints are investigated and industrial hygiene surveys are made upon request. Personnel in these areas work closely with Environmental Health and Safety.

# LAB SAFETY AND RESEARCH

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

# **CHEMICAL HYGIENE PLAN**

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

# **CHEMICAL EXPOSURE INCIDENT REPORTING**

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

#### CHEMICAL FUME HOOD INFORMATION

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and

Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

#### LABORATORY HAZARD SIGNS

Emergency information signs are located outside all laboratories and workshops across the university. These signs describe the types of materials present within the laboratory and workshop. Emergency information signage provides emergency responders with information on how to respond appropriately to an emergency.

#### **BIOLOGICAL SAFETY**

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

# **rDNA HANDLING GUIDELINES**

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

#### **SELECT AGENTS**

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

### **ANIMAL RESEARCH**

People who work in scientific laboratories are exposed to many kinds of hazards. This can be said of most workplaces; in some, the hazards are well recognized and the precautions to be taken are obvious. Laboratories, however, involve a greater variety of possible hazards than do most workplaces, and some of those hazards call for precautions not ordinarily encountered elsewhere. Environmental Health and Safety works in partnership with faculty, researchers, staff and students to promote safe and healthful laboratory environments that will support the University's science and research mission.

#### LASER SAFETY

Lasers have become increasingly important research tools in Physics, Chemistry, Earth & Environmental Science, Biology and Engineering. If improperly used or controlled, lasers can produce injuries (including burns, blindness or electrocution) to operators and other persons, including visitors to laboratories, and can cause significant damage to property. Individual users of all lasers must be adequately trained to ensure full understanding of the safety practices outlined in the University's Laser Safety Policy.

#### RADIATION SAFETY

Radiation is the process of emitting energy in the form of waves and particles. Radiation occurs when the particles of an atom undergo a change in position or energy. Matter that contains unstable atoms that frequently undergo such changes are said to be radioactive.

If you will be using radioactive material in your lab, please contact USI Radiation Safety Officer: Kent W. Scheller, Ph.D. Radiation Safety Officer 812 464-1903 Email: kschelle@usi.edu

# **SHIPPING DANGEROUS GOODS**

Anyone shipping dangerous goods (such as infectious, biological, chemical or radioactive materials) is required to receive special training. Shippers are directly responsible for the correct and legal transport of dangerous goods by surface or air. Anyone who offers advice for transport, transports or handles hazardous materials for transport must be trained. (49 CFR Part 172- Subpart H). Please contact Environmental Health and Safety to schedule a training date.

#### **DISPOSAL OF HAZARDOUS WASTES**

Biohazardous Waste Disposal Procedures were written to provide general biosafety rules and guidelines to ensure safe laboratory conditions for all members of the university. Refer to the Biohazardous Waste Disposal Procedures section for proper disposal information.

The disposal of hazardous chemicals is strictly regulated under the Resource Conservation and Recovery Act (RCRA) and the Environmental Protection Agency (EPA) regulations. Environmental Health and Safety has established written procedures for Hazardous Waste Disposal. Refer to the Hazardous Waste Management Plan for these procedures.

# **WASTE MINIMIZATION PLAN**

Wherever feasible, generation of waste should be reduced or eliminated as much as possible. Implementing a comprehensive waste minimization plan may reduce the generator status of the University and therefore reduce the compliance requirements. The plan can also reduce exposure to toxic materials, potential environmental liabilities and help protect the environment through more efficient resource utilization.

From a cost savings perspective, the program reduces expenses by minimizing waste treatment and disposal costs, raw material purchases, and other operating costs.

There are many ways to prevent or minimize hazardous waste generation. This list provides some ideas for waste minimization techniques.

- Maintain a limited inventory of chemicals on hand so those chemicals do not expire or deteriorate and necessitate disposal. Only purchase what is needed.
- Develop a running inventory of chemicals on hand.
- Use the inventory to track unused chemicals for possible use by other departments.
- Reduce or eliminate the use of highly toxic chemicals in lab experiments.
- Establish reasonable waste minimization goals within your department.
- Perform laboratory experiments on a microscale whenever feasible.
- Reuse or recycle spent solvents.
- Recover metal from catalyst.
- Initiate procedures to reduce mercury use; e.g., replace mercury-bearing instruments with alternatives.

- Polymerize epoxy waste to a safe solid.
- Replace chromic acid cleaning solutions with Alconox or a similar detergent.
- Replace ethidium bromide with Syber Green.
- Recycle office equipment such as computer monitors.

Waste handling options and the priority in which they should be considered are illustrated below. Prevention Elimination Reduction Recycling Treatment Disposal.

# LAB CLOSE OUT PROCEDURES

Hazardous materials such as chemicals, microorganisms, tissues, and radioactive materials can injure faculty, students, staff, contractors and visitors if handled inappropriately. Proper disposal of hazardous materials is required whenever a responsible individual leaves the University or transfers to a different laboratory. "Responsible individuals" can include, faculty, staff, post-doctoral and graduate students. While the primary responsibility for the proper disposal of all hazardous materials used in laboratories lies with the principal investigator or researcher, the ultimate responsibility for hazardous materials management lies with each department.

Plan the disposal of hazardous materials carefully. Hazardous materials such as chemicals, microorganisms, tissues and radioactive materials can injure faculty, students, staff, contractors and visitors if handled inappropriately. Any regulatory action or fines resulting from improper management or disposal of hazardous materials will be charged to the responsible department.

Please consult the Chemical Hygiene Plan and the Hazardous Waste Management Plan for guidance on University procedures regarding the transport and storage of potentially hazardous materials. Coordinate any lab clean out or close out with Environmental Health and Safety.

# OCCUPATIONAL SAFETY

The University has developed a number of occupational safety programs to ensure workers are afforded the protection they deserve. The programs vary according to job title and duties outlined in the employees' job description. For example, employees working with bloodborne pathogens are required to participate in the exposure control plan. Workers who may enter confined spaces such as boilers and manholes are trained in safe entry procedures. Employees who maintain and service electrical equipment must follow lockout/tagout procedures. Personal protective equipment is available to employees who may work with chemicals or who may be potentially exposed to hazards during material handling. Respiratory protection is provided to employees such as painters who must first become medically evaluated and considered fit to wear a respirator. Operators of industrial lift trucks such as forklifts must be trained and certified before operating these vehicles. The power tool safety program is available to users of power tools throughout the University. Operation of aerial lift machines is limited to authorized and trained operators.

#### **BLOODBORNE PATHOGENS**

Exposure to blood or other potentially infectious materials can pose a risk of infection with bloodborne pathogens like Hepatitis B and HIV viruses. For any employee who can reasonably be expected to have such exposure as part of their job responsibilities, it is required that they be given the appropriate training and offered the Hepatitis B vaccination. In collaboration with the Student Health Ceter, Environmental Health and Safety offers the Hepatitis B vaccination series for individuals working with

bloodborne pathogens. The University is committed to providing a safe and healthful work environment for its employees. In pursuit of this endeavor, the following Exposure Control Plan (ECP) is provided to eliminate or minimize occupational exposure to needlesticks, bloodborne and other potentially infectious materials in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

# **CONFINED SPACE ENTRY**

The University has developed a Confined Space Entry Program to protect employees who may be required to enter confined spaces such as manholes, boilers, crawl spaces and sewer pits during the course of their work. These workspaces are considered "confined" because they are large enough to be entered to perform work, have limited means for entry/exit, and are not designed for continuous employee occupancy. Confined spaces that pose additional hazards including atmospheric, engulfment and entrapment hazards are referred to as "permit-required confined spaces." The Confined Space Entry Program has identified the locations of permit required and non-permit spaces on campus. A confined space entry permit is available at Environmental Health and Safety and must be filled out prior to entering a permit-required confined space.

# **ERGONOMICS**

Ergonomics is defined as fitting the workplace to the worker and examining the interaction between the worker and his/her environment. Applying ergonomic principles can help reduce the risk of injuries or illnesses for employees working with computers, working in laboratories, and working at jobs requiring repetitive activities and heavy materials handling. The goal of the University ergonomics program is to reduce or eliminate hazards that contribute to the development of musculoskeletal disorders (MSD). The program involves all employees whose job duties expose them to ergonomic risk factors. The primary tools of USI's Ergonomic Program include symptoms survey, worksite evaluations, training and implementation of ergonomic control strategies.

# HAZARD COMMUNICATION PROGRAM

OSHA's Hazard Communication Standard was enacted to ensure that employees are aware of the potential hazards associated with occupational exposure to chemicals. The regulation requires employers to compile and maintain a chemical inventory and to provide training to employees concerning those hazardous chemicals.

Material Safety Data Sheets (MSDS) must be readily accessible to employees. Labeling requirements for containers of hazardous chemicals are also included in the regulation. Finally, the employer must have a written hazard communication program to outline how these requirements are to be accomplished. Laboratories are exempt from this standard. Please note that a separate OSHA regulation exists for employees using hazardous chemicals in laboratories. For more information refer to the Lab Safety & Research section.

Since the University uses hazardous chemicals in many areas, all departments are covered by the standard. Individual departments, where the use of hazardous chemicals is an essential function of the job, will receive specialized training on those hazards.

# LOCKOUT / TAGOUT

Employees who service or maintain machines or equipment may be at risk due to the sudden start-up or release of stored energy from this equipment. The Occupational Health and Safety Administration (OSHA) has issued a lockout/tagout standard known as the Control of Hazardous Energy Sources Standard, to protect workers.

The basis of this standard is a systemized approach to servicing or maintaining certain equipment. The University has developed a written program, detailing procedures for disabling energy sources, obtaining lockout/tagout devices and training of workers. Audits of the lockout/tagout program are conducted on an annual basis by supervisors to ensure safe procedures are being followed.

#### **MRSA**

What is Staphylococcus aureus? Staphylococcus aureus (staph) bacteria are commonly found on the skin (armpit, groin, and genital areas) and in the nose of many people. These bacteria normally do not cause illness. However, when these bacteria enter the body through a break in the skin, they can cause small infections such as pimples and boils. Staph can also cause serious infections such as bloodstream infections, pneumonia, or surgical wound infections. Methicillin-resistant Staphylococcus aureus (MRSA) is a type of staph bacteria that is resistant to the antibiotic methicillin and other antibiotics related to penicillin.

#### How is MRSA spread?

MRSA is spread by close contact with an infected person, either by direct skin contact or indirect contact with shared objects or surfaces, such as shared towels, razors, soap, wound bandages, bedding, clothes, hot tub or sauna benches, and athletic equipment. Wound drainage or pus is very infectious.

### Who is at risk for MRSA?

Your risk is higher if you: \* Have recurrent skin infections or open skin areas (e.g., abrasions or cuts) \* Have contact with someone who is infected with MRSA \* Have a weakened immune system due to illness or kidney dialysis \* Are an injection drug user \* Had recent antibiotic use \* Live in crowded conditions \* Play in close-contact sports \* Are a man who has sex with men\* Have been a patient in a health care facility within the past year \* Have poor personal hygiene\*

# How do I know if I have MRSA?

Symptoms of MRSA infection may include: \* Red, swollen, warm, and painful pimple, boil, or blistered areas \* Pus or other drainage \* Fever and chills \* A wound that looks like a spider bite See your health care provider if you think you have MRSA. Your health care provider may collect a sample from the infected area and send it to a laboratory for testing. Your health care provider can then prescribe an antibiotic that is right for you.

# How can MRSA be treated?

Seeing your health care provider right away when symptoms develop will prevent the infection from becoming worse. If your health care provider prescribes an antibiotic, take it exactly as directed, finish all doses, and do not share it with anyone else. (See Quick Facts about Antibiotic Use and Antibiotic Resistance.)

How is MRSA prevented? \* Wash your hands properly and often. (See Quick Facts about Hand Washing.) \* Keep infected areas covered with a clean, dry bandage. \* Avoid direct contact with another person's wound, drainage, or bandages. \* Avoid contact with surfaces contaminated with wound drainage. \* Do not share personal hygiene items, such as washcloths, towels, razors, toothbrushes, soap, nail clippers, clothing, or uniforms. \* Clean shared athletic equipment and surfaces before use. All information presented is intended for public use. For more information, please refer to the Centers for Disease Control web site.

#### PERSONAL PROTECTIVE EQUIPMENT

The University has developed a personal protective equipment program for employees to ensure workers are protected on the job. Personal protective equipment (PPE) is used to create a protective barrier between the worker and the hazards in the workplace. PPE includes such equipment as chemical resistive gloves, safety shoes, protective clothing, safety glasses, and respirators. Personal protective equipment is not a replacement for good engineering controls, administrative controls or work practices. Rather, PPE should be used in conjunction with these controls to ensure the health and safety of employees. As part of the program, hazard assessments are conducted for job tasks to determine what PPE may be necessary and training is conducted to ensure the proper use of PPE. Assistance for performing the PPE hazard assessment is available through the Office of Risk Management.

# RESPIRATORY PROTECTION PROGRAM

The Occupational Safety and Health Administration (OSHA) have set maximum exposure standards for many airborne toxic materials. The Office of Risk Management can assist in determining whether a worker's exposure to chemicals exceeds these standards. If the permissible exposure limit is exceeded, the exposure must be reduced to acceptable levels through the use of engineering and/or administrative controls.

Respirators and other personal protective equipment may be used where engineering controls are not feasible or cannot reduce exposure to acceptable levels, or while engineering controls are being installed. The need for a respirator is dependent upon the type of operations and the nature and quantity of the materials in use and must be assessed on a case-by-case basis.

The Office of Risk Management has developed a respiratory protection plan to protect workers from harmful exposures to chemicals. As part of the program, ORM arranges medical examinations for respirator users and conducts training on an annual basis.

# **INDUSTRIAL LIFT TRUCKS (FORK LIFTS)**

A powered industrial truck is any mobile, power-propelled truck used to carry, push, pull, lift, stack, or tier materials. More commonly known as forklifts, pallet trucks, rider trucks, fork trucks or lift trucks, they can be ridden or controlled by a walking operator. Powered industrial trucks can have electric or combustion engines and can be designed for a wide variety of applications. The University has developed an Industrial Lift Truck program, to ensure the safe operation of these material handling vehicles.

#### **POWER TOOLS**

Hand and power tools enable employees to apply additional force and energy to accomplish a task. These tools improve efficiency and make better products. However, because of the increased force of hand and power tools, the potential for injury increases.

The University has developed a power tool safety program to help prevent such injuries from occurring when using hand and power tools. The program contains a power tool inventory worksheet used to identify tools used in the various shops throughout the University. The program also provides for inspections of tools and the correction or replacement of unsafe tools.

#### **AERIAL LIFT MACHINES**

Aerial devices are vehicle-mounted, elevated and rotating work platforms. OSHA defines a vehicle as, "any carrier that is not manually propelled," and a platform as, "any personnel-carrying device (basket or bucket that is a component of an aerial device." Vehicle-mounted devices-telescoping, articulating or both - used to position personnel are considered aerial devices. This includes extensible and articulating

boom platforms, aerial ladders, vertical towers and a combination of any of the above. The University of Southern Indiana developed the Aerial Lift Program to ensure that these devices are properly used and personnel are appropriately trained.

#### **SUMMER SAFETY**

The U.S. Department of Labor (DOL) wants employers around the country to know that three simple steps can mean the difference between life and death for their employees. According to a news release from the DOL, thousands of outdoor workers experience heat illness every year. Heat illness often manifests as heat exhaustion, which, if not addressed quickly, can become heat stroke. More than 30 U.S. workers died of heat stroke in 2010. "If you're working outdoors, you're at risk for heat-related illnesses that can cause serious medical problems and even death," said Secretary of Labor Hilda L. Solis in the news release. "But heat illness can be prevented. This Labor Department campaign will reach across the country with a very simple message—water, rest and shade."

Mark Lovelace is the Laredo, Texas, area safety manager for the U.S. Customs and Border Protection service. He and the border patrol deal with hot weather most of the year. "Heat injury is without a doubt one of the greatest hazards my folks face in South Texas," Lovelace said. "Almost every day from the first of April to the first of November they battle hazardous heat conditions."

Heat exposure is particularly dangerous because its effects can be cumulative, Lovelace said. "The problem with repeated exposure to high temperatures is that, when coupled with fatigue, nutrition or hydration shortfalls, the individual experiences exponentially increased risk. If I am not properly hydrated, fed or rested after the first workday, then I start the second workday with a deficit," Lovelace said.

The deficit increases each succeeding day, he added, and any additional stress—physical or mental—can compound the problem. Mental acuity and productivity at work are affected in the short term, but long-term effects can include chronic organ diseases.

"Many managers don't understand the cumulative effect of heat exposure," Lovelace said. "I spend a great deal of time educating them not 'how' to take care of their people but 'why' to take care of them. I feel this is a huge problem that only compounds the risk in other hazardous situations." The DOL's Occupational Safety and Health Administration (OSHA) has developed heat illness educational materials in English and Spanish as well as a curriculum to be used for workplace training. Additionally, a new web page provides information and resources on heat illness—including how to prevent it and what to do in case of an emergency—for workers and employers. The page is available at www.osha.gov/SLTC/heatillness. "Drinking water often, taking breaks and limiting time in the heat are simple, effective ways to prevent heat illness," said OSHA Assistant Secretary David Michaels in the news release.

Federal OSHA has partnered with the California Occupational Safety and Health Administration to adapt materials from that state's successful outreach campaign on heat illness for use in this national effort, according to the news release. OSHA also has partnered with the National Oceanic and Atmospheric Administration (NOAA) on weather service alerts that will incorporate worker safety precautions when heat alerts are issued across the country. NOAA will include pertinent worker safety information on its Heat Watch web page. Beth Mirza is senior editor for HR News.

# **TRAINING**

The Office of Risk Management (ORM) offers an extensive variety of safety training programs, classes and resources for the USI community. For more information about any of the services offered, or if you'd like to arrange a class for your department or group, please contact ORM at 812 465-7003.

# **INSURANCE AND CLAIMS MANAGEMENT**

The Office of Risk Management (ORM) is responsible for identifying and analyzing potential areas of risk to the University, making recommendations as to those risks which are to be insured, and those that are to be self-insured or assumed, as well as recommending the types and amounts of coverage purchased to protect the University's assets. The Office of Risk Management has been delegated the overall responsibility for the procurement and administration of all property and casualty coverages for the University. Additionally, the ORM coordinates policy administration and will respond to all questions related to insurance matters and coverage needs. Any incident, which may result in a property or liability claim, should be immediately reported to the Office of Risk Management. Claims involving a crime, such as theft of University property, should first be reported to Security for an official report and investigation. The Office of Risk Management will investigate reported incidents and complete and submit all claims to the appropriate insurance carriers. All checks reimbursing the University for losses for which a claim has been filed, are channeled through this office in order to insure a proper audit trail, and that funds due the University are collected and deposited appropriately. If you have questions about the University's insurance programs and claims management process, contact the ORM at 812 461-5366.

# **MOTOR VEHICLE OPERATORS**

The purpose of the Motor Vehicle Safety Program is to: ensure the safe operation of University owned or leased motor vehicles, ensure the safety of the drivers and passengers, and to minimize the physical damages to our fleet and reduce third party claims made against the University. It is the University's policy that all University-owned or leased vehicles are operated in a safe and responsible manner. All vehicle operators must possess a valid state driver's license. Drivers should also report accidents immediately to Motor Vehicle Operations, attend drivers safety training programs and ensure that the vehicles they operate have received routine maintenance service.

# **WORKERS' COMPENSATION INFORMATION**

The University provides workers' compensation insurance coverage, at no charge, to all employees. Workers' compensation benefits are the employee's exclusive remedy for accidental injury, occupational disease or death, arising out of and in the course of employment. Eligible employees may receive benefits including medical, surgical, vocational rehabilitation services and certain supplies, as well as compensation for medically authorized lost time due to disability. The Human Resources Department administers the workers' compensation claims for the University. Workers' compensation cases are handled by the Hanover Insurance Company, the University's current insurer.

# INTERNATIONAL TRAVEL INSURANCE

The Office of Risk Management administers an International Travel Insurance Program that provides insurance coverage and some travel assistance for employees engaged in official university international travel.

University employees and student workers are covered under the University's International Travel Insurance Program as set forth in the International Travel Insurance Policy. The employee program coverage includes general liability insurance, foreign voluntary workers' compensation, excess auto liability insurance, medical services, travel advice, security evacuation and repatriation services. International Liability and Foreign Voluntary Workers' Compensation Program.

The University's International Liability and Foreign Voluntary Worker's Compensation program covers University employees' liability while working abroad. This policy does not cover students' liability while studying abroad. The program includes coverage for claims arising from a third party against a University employee while engaged in University business, transportation expenses for employee injured while abroad, automobile liability for owned, leased or rented vehicles (primary auto liability insurance must be purchased in the country where the vehicle is operated), hospital admission deposits, medical monitoring, legal access and coverage to third country nationals in the employ of the University.

#### **POLICY DESCRIPTION**

The following is a general outline of the ACE American Insurance Company international insurance coverage. It is a general outline and does not detail all of the specific exclusions and coverage limitations. If you have questions, please contact John Hunt at 812 461-5366.

# International Commercial General Liability Coverage:

This coverage provides bodily injury, property damage, and personal injury liability protection for the University. Insureds include the University and their employees, but only for their acts within the scope of their employment by the University. There is no coverage extended for students or anyone else in the traveling party. It is highly recommended that all non-university employees be required to obtain their own insurance.

# International Excess Automobile Liability Coverage:

This coverage provides automobile liability coverage for bodily injury and property damage. Insureds include the University as well as anyone using a covered automobile with the University's permission. The auto insurance is excess of the compulsory admitted insurance for the jurisdiction where the vehicle is licensed. This auto coverage is NOT a substitute for compulsory admitted coverage. When renting a vehicle, purchase the insurance coverage offered by the rental firm.

# International Workers Compensation Coverage:

This coverage provides Workers Compensation coverage for the University's employees in the same manner as they would be covered under the laws of Indiana. The coverage is on a 24-hour basis while our employees are in foreign jurisdictions. The coverage will also pay for repatriation expense (\$250,000 limit per employee and \$500,000 policy limit).

# RENTER'S INSURANCE

Why Get Renter's Insurance?

The purpose of renter's insurance is to provide you with a quick and relatively painless recovery from disaster. Renter's insurance policies are designed to indemnify (cover your loss) you in the event of a covered loss to your personal property and protect you in the event you are responsible for bodily injury or property damage to others. It is available for apartments or a rented house.

Suppose you have visitors to your apartment and someone slips on a wet kitchen floor and breaks an

arm? Who is responsible for the medical costs? In most circumstances you are.

Renter's insurance provides "named peril" coverage, meaning the policy states specifically what you are insured against. Some named perils include fire or lightning, smoke, vandalism or malicious mischief, theft, accidental discharge of water and 10 or more others. Liability coverage also includes Medical Payments coverage, which applies to nonresidents of the insured premises. This coverage pays for the actual medical expenses incurred up to the limit for a non-resident guest.

Always read the renter's insurance contract for specific explanations of coverage and exclusions.

Costs: You might think you don't need renter's insurance if you rent, but think again! Add up the cost of your furniture, your electronic equipment, your CD collection, computer, garments and other personal property. Can you afford to replace everything in the event of a fire or burglary? Renter's insurance is relatively inexpensive. The average cost of renter's insurance is approximately \$12 a month for around \$30,000 worth of property coverage and \$100,000 worth of liability coverage. Rates vary depending on coverage and your location and the amount you want to cover.

Renter's insurance may cover: repair or replacement of your personal property damaged, destroyed or stolen as the result of various types of peril -- fire or lightning, windstorm or hail, explosions, smoke, vandalism, theft, damage by glass, electrical surge damage and water-related damage from home utilities and more. If your home is made unlivable by one of these perils, renter's insurance will pay for the associated expenses (cost of a temporary residence, meals eaten out, etc.). Coverage is usually limited to a percent of the total value of the policy.

Claims "actual cash value" or "replacement cost coverage": Although you will pay about 15 percent more for it, you're usually better off with replacement cost coverage, which pays for what it actually costs to replace the items you lost. Actual cash value, on the other hand, pays only for what your property was worth at the time it was damaged or stolen. Typically you can lower your cost even further by increasing your deductible or having multiple policies with the same carrier (renter's insurance and auto insurance, for example). It's certainly cheaper than replacing all your possessions after a disaster.

Renter's insurance provides the security of knowing that if you lost everything today, you wouldn't be forced to start from scratch. Renter's insurance can even cover you for personal possessions that don't happen to be in the apartment at the time of the loss. If that friendly tour guide in Milan happens to find his way back to your hotel and makes off with a suitcase full of your stuff, you don't have to just suffer the loss. Of course, you can always count on part of your landlord's policy, right? Well, not quite. Many renters are under the impression that their landlord's policy covers their belongings as well. Unfortunately that's not the case, and they often don't find that out until the worst possible time, after a disaster or a robbery. Your landlord's policy doesn't cover anything that's yours. The only exception to this would be if the loss was caused by negligence on the part of your landlord, and then you would still have to prove it in court. That is where renter's insurance comes in.

Here are just some of the facts you need to know when deciding whether or not you need renter's insurance:

- 1: Your landlord's policy does not cover any part of your belongings. It covers the structure alone.
- 2: Basic renter's insurance also provides you with liability in case someone is hurt in your home and

decides to sue. An average policy includes about \$300,000 in liability coverage.

- 3: A basic policy covers 17 perils, but floods and earthquakes are not included. However, you can add flood and earthquake coverage for a relatively small amount of money. Flood insurance is covered by a government subsidized program and, along with earthquake insurance, is purchased through participating insurance companies.
- 4: If you live in a dormitory, your parents' policy may cover you. If you live in an apartment, it may not cover you. In either case, you should check with your parents and their agent and not take for granted that you're covered while in your college dorm.
- 5: The most common disasters are fire and flood. A fire spreads in three to five minutes, and the chance for a total loss is very high.
- 6: After a disaster, you may not be able to return to your apartment. Renter's insurance may pay for temporary housing or foot the bill for permanent relocation.