



# Notes

## ENVIRONMENTAL HEALTH and SAFETY

### Review of HML Procedures by RU Required

Representatives from the Environmental Protection Agency (EPA) recently visited campus for an unannounced inspection regarding the management of unwanted hazardous materials. Any hazardous materials use area may be subject to an inspection while EPA is on campus. EPA always inspects to make sure all unwanted material containers:

- are completely closed except when physically adding to the container,
- are labeled with Hazardous Material Labels (HMLs) which are completely filled out,
- are processed for collection within six months from the start date, and
- do not have any signs of spillage or excess material, including the areas adjacent to the container(s).

Each visit, EPA will typically focus on a different part of the regulations. The specific scenario of concern of this inspection was a user collecting unwanted materials in a relatively small, HML-labeled container. Every few days he emptied this small collection container into a larger HML-labeled collection container near his work area. The regulations do not allow laboratory users to combine the contents from one HML-labeled container into a second one. The regulations are less clear about combining the contents of non-HML labeled containers. We are asking RUs to identify any similar practices so that we can evaluate them, and if necessary work with the RU to modify procedures to ensure compliance. Please review the following possible scenarios:

**Scenario 1:** Pouring material from one HML-labeled container into a second HML-labeled container.

**Action Required:** Immediately discontinue this practice. Either request collection of the first HML-labeled container when full (or within six months) or eliminate it from your process. Send an email to "hazmat@missouri.edu" noting the process that has been discontinued so that EHS can document positive compliance actions for the EPA.

**Scenario 2:** Pouring material from a non-HML-labeled collection container, that is filled over a time period GREATER than one working shift (i.e., greater than 8 hours), into an HML-labeled container.

**Action Required:** Email details of your process to "hazmat@missouri.edu". Include your name and contact information. EHS will conduct a site visit to evaluate your process.

**Scenario 3:** Pouring material from a non-HML-labeled collection container, that is filled over a time period LESS than one working shift (i.e., less than 8 hours), into an HML-labeled container.

**Action Required:** Email details of your process to "hazmat@missouri.edu". Include your name and contact information. EHS may conduct a site visit.

If you have questions about regulatory compliance or campus policies related to hazardous material management, please contact us.

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Todd Houts

Assistant Director EHS, EMS



## **Director's Desk**

### **Emergency Preparedness-- Again**

For the past two years EHS has devoted a lot of space in our newsletters to emergency preparedness. Events of the past year demonstrate why: a 15-inch snowstorm in December; a severe ice storm in January, the Virginia Tech shootings, a fire in an apartment complex near campus, and concerns about pandemic flu. These are the big things that make the news, but there are lots of little emergencies that the MU community deals with on almost a daily basis.

MU has taken a three-pronged approach to emergency preparedness. At the campus level, we have prepared an Emergency Operations Plan that clearly details specific responsibilities of key departments and individuals in the event of an emergency of campus-wide significance. At the middle level, several departments, including Residential Life, Campus Dining, Athletics, the Division of Information Technology, and the Research Reactor, have developed their own departmental plans. The third level is building-specific emergency action plans, which have been prepared primarily by Building Coordinators with assistance from EHS.

One of the big issues coming out of the Virginia Tech shootings has been communication. The campus maintains the MUAAlert web site (<http://mualert.missouri.edu>) which contains a variety of emergency preparedness information and resources, as well as being a source of current information during a campus emergency. This fall, MU will

be installing a new mass communication system that will give the campus improved capability to rapidly communicate with faculty, staff and students by multiple methods. You will hear plenty about this as the fall goes on.

EHS has prepared a web page on emergency procedures (<http://ehs.missouri.edu/other/er/>). This site contains guidance for specific types of emergencies you may encounter. It also contains a copy of our recently updated emergency procedures poster.

The best thing you can do to be prepared for emergencies is review the above resources on a regular basis. If you desire more specific training, you might be interested in taking CPR or fire extinguisher training. Classes offered by EHS can be found at <http://mubswb.missouri.edu/ehsweb/training/>. If you can't find a course you are interested in, please call our Training Coordinator, Rebecca Bergfield at 882-3986 to discuss what options might be available.

MU takes emergency preparedness very seriously. Please spend some time reviewing the many resources available.

***Peter Ashbrook***

## **RU Numbers for Hazardous Materials**

For those of you who have been in the hazardous materials Registered User (RU) program for over two years, your RU number is only a 4-digit number. There are no letters associated with the RU number; they were eliminated in 2005.

## Why Use Seatbelts?

40,000 people die each year in car accidents, the leading cause of death for people under the age of 35. Seat belts can prevent death in about half of these accidents. If you know this and are still not wearing a safety belt, ask yourself why and then read on.

### **Components of a Collision:**

Every motor vehicle crash is actually comprised of three (3) collisions.

**The Car's Collision** causes the car to buckle and bend as it hits something and comes to an abrupt stop. This occurs in approximately one-tenth of a second. The crushing of the front end absorbs some of the force of the crash and cushions the rest of the car.

**The Human Collision** occurs as the car's occupants hit some part of the vehicle. At the moment of impact, unbelted occupants are still traveling at the vehicle's original speed. Just after the vehicle comes to a complete stop, these unbelted occupants will slam into the steering wheel, the windshield, or some other part of the vehicle interior.

Many serious injuries are caused by unbelted occupants colliding with each other. In a crash, occupants move toward the point of impact. People in the front seat are often struck by unbelted rear-seat passengers who have become high-speed projectiles.

**The Internal Collision** - Even after the occupant's body comes to a complete stop, the internal organs are still moving forward. Suddenly, these organs hit other organs or the skeletal system, resulting in serious or fatal injuries.

Mythical Reasons for not wearing a seatbelt: "I'm only going to the shopping center." Actually, this is the best time to wear a safety

belt, since 80% of traffic fatalities occur within 25 miles of home and under 40 miles an hour.

"I won't be in an accident: I'm a good driver." Your good driving record will certainly help you avoid accidents. But even if you're a good driver, a bad driver may still hit you.

"I'll just brace myself." Even if you had the split-second timing to do this, the force of the impact would shatter the arm or leg you used to brace yourself.

"I'm afraid the belt will trap me in the car." Statistically, the best place to be during an accident is in your car. If you're thrown out of the car, you're 25 times more likely to die. And if you need to get out of the car in a hurry, you can get out a lot faster if you haven't been knocked unconscious inside your car.

"I don't need a belt - I've got an airbag." Lucky you! An air bag increases the effectiveness of a safety belt by 40 percent. But air bags were never meant to be used in place of safety belts, since they don't protect against side impacts at all.

In summary, seat belts are easy to use and effective. They are often the difference between life and death.

**David G. Dorth**  
Safety Representative

## EHS Newsletter Archive

EHS Newsletters often contain time-sensitive information that may not otherwise be documented in our training programs or manuals. Past copies of newsletters are available on the EHS website at:

<http://ehs.missouri.edu/about/newsletters>

## Radiation Ancillary Worker

An Ancillary Worker is a person (non-radiation safety trained student, laboratory glass washer, custodian or other campus service personal) whose duties require them to work in or visit radiation work areas and have been granted access to restricted areas for the performance of their duties. These unique job duty circumstances can pose a radiation safety exposure concern if these persons are not trained properly in Radiation Safety awareness. Training of Ancillary Workers is the responsibility of the Authorized User. Records of training must be documented, signed, dated, and retained by the Authorized User for three years and an additional copy shall be sent to the RS Office. These training records will be reviewed by EHS personnel during quarterly inspections.

Ancillary Workers are required to know and understand the radiation exposure hazards which they may encounter in the laboratory, the individuals responsible for the work in the areas, and who to contact if they suspect that a problem may exist or if an accident (radioactive material spill) occurs.

The following items should be covered for all personnel frequenting areas where radioactive materials are used:

- Demonstration of the types of radioactive materials and exposure levels present in the lab; this can be done by using survey meters or other suitable measuring equipment.
- Show personnel where radioactive materials are used, stored and disposed.
- Instructions regarding the necessity of maintaining security of radioactive materials.
- Instructions regarding the requirement of no eating, drinking or applying

makeup, etc. while in lab.

- Show some examples of various radiation postings (signage) that they might encounter and explain the meaning of these signs.
- Explain the actions and use of the procedures necessary in the event of a spill or other unusual occurrence. Who to notify and how to control access.

For more information about Ancillary Workers, see the Ancillary Worker training template/form <http://ehs.missouri.edu/rad/forms/trainancillary.pdf>, the Radiation Safety Manual <http://ehs.missouri.edu/rad/manuals/radsafety>, or call EHS (882-7018) for assistance.

**Casey Nelson**

Environmental Health Technician

## DHS Chemical Security Regulation - Update

In our Summer 2007 newsletter (available on our website), we informed you that colleges and universities were likely to be impacted by the Department of Homeland Security's (DHS) "Chemical Facility Anti-Terrorism Standards." Advocacy groups for the interests of higher education continue to work with DHS to minimize the impact, and to try and reach reasonable solutions that meet everyone's needs. At press time, the revised chemical list is still not available, so we cannot determine the exact impact on MU. EHS will communicate directly with the Registered Users (RUs) once DHS publishes final information. If you are working with any hazardous chemicals, and are not an RU or working with an RU, you should contact EHS immediately so that we can include you in the program. Email [hazmat@missouri.edu](mailto:hazmat@missouri.edu) or call 882-3736.

## Holiday Food Safety Tips

Remember, a big part of holiday festivities involves safe/responsible food and drink preparation and serving. The following holiday food safety tips will help minimize trouble for you, co-workers, family and friends.

Keep food, utensils, preparation surfaces and hands clean. Wash utensils and surfaces between preparations of different food groups (ie. uncooked meat and salads). Always wash your hands before and after preparation, serving or eating.

Keep hot foods hot and cold foods cold. Keep hot items above 135°F and cold items below 41°F. Properly handled leftovers should be refrigerated immediately, used within two (2) days and be reheated to 165°F.

Be especially careful with potentially hazardous foods, such as meat items, dairy products, eggs and high protein cooked vegetables (beans and legumes). Pumpkin pies, custards, and cream pies must all be refrigerated.

Bacteria grow best at room temperature and are the most common cause of food-borne illnesses. Do not thaw turkeys, poultry or large meat items at room temperature; place them in the refrigerator before preparation (1 day/5-8 pounds). Hamburger has a high risk of E. coli and should be cooked to a minimum internal temperature of 160°F (well done). Poultry should be cooked to 180°F internal temperature. Condiments should be supplied in a single service form, if possible, or squeeze bottles with sealable lids.

Drive with the holiday spirit – Not Alcoholic Spirits. Ask guests to be designated drivers in advance. Help guests get home safely

with a non-drinking driver or call a cab for them. Also, walk on the dry side. One out of every four holiday season accidents involves a pedestrian who has been drinking.

Do not leave food cooking on the stove or in the oven unattended. It can cause a fire. Keep stove/oven/ducts free of grease. Keep a properly operating fire extinguisher close. Safeguard toddlers and young children from burns, tripping and fall hazards - keep them away from the active kitchen cooking area.

If you are planning to sell, offer or serve special goodies to the public at the MU campus, remember to request a Temporary Food Permit (this does not include a small department get-together). A Temporary Food Permit **MUST** be obtained if any food items are not prepared through a local commercial food preparation service. Non-inspected meat products such as wild game, and home canned foods such as pickles, cannot be served at public events. The permit process is easy, just give me a call at 882-7018, or go to the EHS website at <http://ehs.missouri.edu/food/permits.html>. Let's all work together to have a very happy, safe and responsible holiday season.

**Richard Fancher**  
Sanitarian

## Medical Waste Shipment Training

If you sign Regulated Medical Waste Manifests, or otherwise fill or prepare pathological/infectious waste boxes or tubs for shipment, you must be trained on this function. EHS has prepared a self-guided training course that applicable persons should complete as soon as possible. For more information, see:

<http://ehs.missouri.edu/haz/med-shipping.html>



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## Sharps Handling

Sharps present puncture and cut hazards to both laboratory workers and waste handlers. The term “sharps” is a regulatory waste classification associated with those instruments used to puncture, cut, or scrape body parts and that, as waste, can cause punctures or cuts to solid waste handlers or the public. “Sharps” include, but are not limited to the following:

- needles
- sharp or broken glass contaminated with biohazardous materials
- syringes or IV tubing with needles attached
- scalpel and razor blades
- sharp metal laboratory waste

All sharps must be placed into properly constructed containers. Sharps containers are closable, puncture resistant, leak proof on the sides and bottom, and must be sealed prior to transportation. Sharps containers with biohazardous material must have an International Biohazard Symbol. Syringe car-

tridges and needles should be disposed of intact to prevent needlestick injuries associated with resheathing.

Please note the following related issues:

Syringes and needles used by diabetics cannot be disposed in the regular trash and must be disposed of as sharps. If you do not have access to a sharps container, contact EHS for guidance.

Uncontaminated broken glass, including pasteur pipets, may be placed in a closable, puncture resistant container (such as a cardboard box), labeled as “Broken Glass,” and then disposed in the regular trash.

Sharps contaminated with radioactive materials or hazardous materials require special handling. Contact EHS for guidance.

For more detailed information about sharps, see:

<http://ehs.missouri.edu/bio/labprac/sharps.html>

EHS appreciates campus support of environmental and safety issues. If you have any special needs regarding the format of this publication, or have any comments regarding newsletters, training programs or services, please direct your communications to Rebecca Bergfield, Editor at the above address.

**Roy Parsons**  
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