The Lab Rat NEWS
December 2012

EMORY UNIVERSITY
Environmental Health and Safety Office
Research Administration

Top Ten Findings from EHSO Laboratory Inspections

In the spring of this year, EHSO conducted beta-testing of the Scorecard Inspection Process. The Scorecard is a document that identifies the strengths and areas for improvement from an individual lab's perspective and a overall department perspective. The process is designed to give the PI and the Department Chair a depiction of the safety culture and compliance within the research spaces for which they have oversight.

Each lab's score is based on the results of validation and follow-up inspections conducted by the Research Safety Building Liaisons. Each section of the EHSO Laboratory Self-Inspection Form receives an overall score based on the number of questions in that section that are answered with a "No" response.

The following list identifies the most common inspection findings that were observed during the validation inspection and the follow-up inspection performed by EHSO.

Fire Safety

1. 18" inches rule *– In the event of a fire, the flow of water must not be obstructed by items that are stored too close to the sprinkler heads. Storage in the lab must be 18" from the ceiling so that the spray from the sprinkler heads is not obstructed.*

2. Adequate means of egress *– Personnel must be able to quickly identify and utilize the nearest exit from their lab to reach the outside of the building. Exit doors must not be blocked by storage of laboratory equipment or furniture. Aisles, hallways, and walkways must also have at least 36 inches of clearance to ensure adequate egress in an emergency.*

Biohazard Waste Disposal

3. Open Biohazard Waste Containers *– The Georgia Department of Natural Resources Environmental Protection Division requires that Biohazard waste containers remain closed except when adding waste to the container. This includes Stericycle boxes. Stericycle provides lids for the biohazard containers. These lids can be purchased directly from the vendor.*

4. Improper Biohazard Waste Disposal *- Pastuer Pipettes used for cell culture must be placed in a sharps container. These items cannot be placed into the Glass Box for disposal. The glass box is used to contain non-contaminated glassware*

5. Over filled Biohazard Waste and Sharps Containers *- Biohazard Waste containers and Sharps containers must be replaced once the container is 3/4^{ths} full. Once the Stericycle boxes are full, they must be properly prepared for pickup. The bag must be secured by twisting the top of the bag until it forms a "goose neck"and secured with tape. Then, tape the box closed and affix the barcode label. For a demonstration on how to pack a Stericycle box, visit the following link : http://youtu.be/e5sQMoX-X5w*

Training

Most of EHSO's Trainings are available online.
www.ehso.emory.edu
for registration information.
Radiation Safety Training
2nd Tuesdays at 10:00 am
Laboratory Safety Training
3rd Thursdays at 10:00 am

Chemical/Radioactive Waste Pick-up Schedule

Full Schedule here...
All **chemical** waste pick up should be requested by emailing chemwaste@emory.edu
All **radioactive** waste pick up should be requested via EHS Assist pick-up.
Chemical waste disposal inventory form and/or **radioactive** waste inventory form should accompany all waste containers at the time of pick-up.

PPE

Choice to be based on potential exposures involved:
Eye: Glasses, goggles & face shields
Gloves: Appropriate for the type of procedure
Clothing: Gowns, lab coats, aprons, coveralls
Respirators: Appropriate for the type of procedure

Personal Protective Equipment (PPE)

6. Lack of proper PPE while working *– OSHA requires that lab personnel wear appropriate PPE to minimize their exposure to hazardous materials and infectious substances. Proper PPE includes but is not limited to: gloves, lab coats, safety glasses, safety goggles, face shields, and respirators. PPE must be selected based on the potential routes of exposure of a particular activity. Of course, PPE alone is not adequate protection. Lab personnel must remember that PPE is to be used in conjunction with other engineering controls that are present in the lab for protection. Review the table below for examples of adequate protection based on potential exposures. You can also visit the EHSO Gloves Guide for guidance on selecting adequate hand protection: http://www.ehso.emory.edu/links/*

Selecting PPE – Example of a Hazard Assessment*

Hazard Type	Examples of Hazard	Common Tasks	Examples of PPE Required
Impact	Flying particles, fragments, particles, dust	Drilling, sanding, transferring samples from ultra cold freezer	Safety Glasses with side shields, and Hand Protection
Heat	Anything emitting extreme heat	Using heat guns, casting	Safety Glasses with side shields or safety goggles (depending on heat intensity)
Chemicals	Splashes, Fumes, Vapors, and Irritating Mists	Handling acids, organic solvents, plating, and degreasing	Safety Goggles, Hand Protection, Lab Coat
Optical Radiation	Radiant Energy, glare, intense light	Handling UV lamps, soldering, laser work, welding	Safety Glasses or Safety Goggles with Z.87 designation or appropriate face shield and hand protection

Training

7. Training requirements *- Training must be completed according to regulatory requirements. Documentation of training completion must be available in the EHSO Lab Safety Binder. The labs should utilize the Emory Learning Management System to complete online training requirements. Personnel can print certificates as training documentation for all courses completed in ELMS. At this time, Laser Safety Training can still be completed in Blackboard. A useful tool for tracking training for the personnel in your lab is the EHSO Training Tracking Template. This template can be found at: training template.*

- *Biosafety Training must be completed once every three years.*
- *Bloodborne Pathogen Training (BBP) must be completed every year.*
- *Lab Safety Training must be completed must be completed every year.*
- *Shipping Training must be completed every two years.*
- *Radiation Safety Training - must complete initial training, and then refresher training every three years.*

Eye Wash Testing

Lab Personnel should test the eyewash station once a month.

Certifications

All Biosafety Cabinets, Chemical Fume Hoods, and Geiger Meters must be certified annually.

Fire Extinguishers

Visual fire extinguishers inspections conducted monthly:

A. Is it present and mounted in its proper location?

B. Is it readily accessible?

C. Initial and date attached tag.

If it appears to need servicing contact the Maintenance HELP line at 7-7463

Tell us how we are doing!

The newsletter has a new home. Every individual article is now hosted online at blogs.emory.edu/labratnews/

Got something to share? Tell us! Post comments, related articles/links, and safety concerns.

Feel free to also send your comments to **biosafe@emory.edu**.

We look forward to reading your ideas and comments!

Building Liaisons

Click here to find your building's Radiation and Research Safety liaisons.

8. On Going Training (Lab Rat Newsletter) *- All personnel must read and sign the Lab Rat Newsletter each month.*

Chemical Storage /Chemical Waste

9. Chemical Labeling *- Consider the picture: Based on the affixed label, would you be able to identify the chemical stored in the container? For the purpose of Hazard Communication, chemicals must be labeled with the chemical name to identify the contents. In most instances, the label must include the full name of the compound. However, common names such as, EDTA, are acceptable when making buffer solutions and aliquots.*

10. Unidentified Chemical Waste *- Chemical waste containers must be labeled with the EHSO Waste Label.*

Tips on Reducing Hazardous Waste

Maintain an up-to-date chemical inventory

- A computerized chemical inventory helps the labs to know what items are present and what items need to be purchased.

Chemical Substitution:

- One way to reduce the amount of hazardous waste generated by the lab is to identify less toxic or less hazardous chemicals that can be used. The Massachusettes Institute of Technology has created a "Green" Alternatives Wizard that provides greener alternatives for hazardous chemicals and provides information on how to modify or replace a process. You can check out this tool by visiting the following link: ehs.mit.edy/greenchem/

Identify and Redistribute Surplus Chemicals:

- Review your chemical inventory and you may become aware of unused and unwanted chemicals. If so, then contact EHSO for a waste pickup. All of the chemicals that are unused and in good condition we receive from the lab are made available at no cost to any investigator.

Properly label containers:

- Laboratories must manage the chemicals that are purchased from "cradle to grave". Containers labeled "Waste" or "Solution B" do not provide sufficient information to ensure proper storage and disposal. To ensure effective chemical managment, stock bottles, reagents, aliquots, solutions, and waste containers must be labeled to clearly identify the contents.

Notice

Signature indicates: I have read and I understand the information in this issue of Lab Rat Newsletter. Use an additional sheet of paper for more signatures, if needed and attach to this document.

- This newsletter is a tool to help fulfill a legal requirement for ongoing safety training.
- Supervisors are responsible for ensuring that individuals in their area have read and understood the information that applies to their area.
- The signed newsletter should be placed into the PIs EHSO Lab Safety Binder.

1. _____
2. _____
3. _____
4. _____
5. _____

Holiday Hazardous Waste Collection Schedule

The Environmental Health and Safety Office will suspend the normal hazardous waste collection schedule from Friday December 21, until Wednesday, January 2. If there is a critical need for waste collection during this time period please call at (404) 727-5922 or e-mail at chem-waste@emory.edu. This suspension will not impact Emory University Hospital.

The normal hazardous waste collection schedule will resume on Wednesday, January 2.