Laboratory Safety: Electrical Hazards
This is the second part of our series on the hazards posed with electrical equipment.

By: Nicole Campbell, Safety and Industrial Hygiene Specialist

Background
Last month, we reviewed two common issues we find in laboratories: frayed cords and improper use of extension cords. This month, we continue our discussion on the use of extension cords and power strips, and cover use of electrical equipment with flammable liquids.

Extension Cords
• Extension cords are only intended for temporary and short-term use, such as experiments lasting no more than 90 days.
• If you are using extension cords to power permanently installed laboratory equipment (i.e., not portable), you do not have an adequate number of electrical outlets installed.
• If necessary, discuss having additional receptacles installed near the equipment. Campus services can help with this.
• Do not run extension cords through doors, walls or between labs.

Power Strips
• Power strips should not be used for these types of equipment:

Electrical Equipment & Flammable Vapors
• Minimize the generation of flammable vapors near electrical equipment. Flammable substances in the laboratory should be handled in locations with adequate ventilation, such as chemical fume hoods and according to your written Standard Operating Procedure (SOP).
• Additional care should be taken when heating flammable liquids on electric hot plate/stirrer combos. As discussed in May 2015 Lab Rat, the best practice is to keep equipment unplugged when not in use.
• Flammable liquids should not be stored next to hot plates or stir plates.

If you need help replacing your power strip, please contact EHSO.

Eye Wash Testing
Lab personnel should test and document eye wash stations once a month.

Certifications
Biosafety Cabinets, Geiger Meters and Chemical Fume Hoods require annual certification.

Fire Extinguishers
Visual inspections of your fire extinguishers
Sharps Safety Tips:

Sharps are medical devices that can cut or puncture the skin, which include needles, razor blades, exposed ends of dental wires, capillary tubes, etc. These sharp safety tips will help prevent accidental punctures and cuts.

Before working with sharps:
- Consider safer medical devices (blunt tip needles, retractable scalpels and blades, etc.). The CDC estimates that 62% to 88% of sharps injuries can be prevented by using safer medical devices. Visit dol.gov and search for "Needlestick/sharps injuries" for more information.

In your workspace, ensure that:
- The sharps container is less than ¾ full.
- The sharps container is immediately accessible for sharps disposal.
- There is enough space and adequate lighting to do your work.
- You have all the necessary equipment/supplies before starting.
- The sharp is covered or wrapped until time of use.
- You are alert at all times when handling sharps.
- Disposable sharps are immediately disposed before proceeding to another task.

As always:
- Wear designated PPE such as double gloves or cut-resistant gloves.
- Do not recap needles (except in rare circumstances).
- If needles must be recapped, refer to our recommended one-handed technique. Visit ehso.emory.edu and search for "Sharps Guidelines" to view the technique.
- Ensure that all sharps and microscope slides are disposed into a sharps container.
- If an injury occurs, clean the affected area with soap and water for 15 minutes, then seek medical attention.
- Promptly report all injuries on PeopleSoft and to your supervisor.

Reference: EHSO Sharps Guidelines and references within (Search ehso.emory.edu for "Sharps Guidelines")

Want to Share Feedback?
Send comments to biosafe@emory.edu.
We look forward to reading your ideas and comments!

Building Liaisons
Radiation and Research liaisons can be found at http://ehso.emory.edu/about/

Signature Here

| 1. | ______________________________ |
| 2. | ______________________________ |
| 3. | ______________________________ |
| 4. | ______________________________ |
| 5. | ______________________________ |
| 6. | ______________________________ |
| 7. | ______________________________ |
| 8. | ______________________________ |
| 9. | ______________________________ |
| 10. | ______________________________ |
| 11. | ______________________________ |
| 12. | ______________________________ |
| 13. | ______________________________ |
| 14. | ______________________________ |
| 15. | ______________________________ |

Please Read—
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 PI’s EHSO Lab Safety Binder.