Safety Meeting Topic

Laboratory Safety Program Reminders

January 2009

Happy New Year! As we begin 2009 we need to continue our focus on laboratory safety and staying up to date on laboratory safety training requirements. In 2008 there were seven (7) significant incidents in laboratories resulting in fires, injuries and chemical spills. There were also five (5) mercury spills related to thermometers. By focusing our attention to completing laboratory safety training requirements and conducting inspections of our high risk laboratories we can reduce the potential for significant incidents in our laboratories.

Recently reminders were sent to everyone in our record keeping system who may not have yet had an opportunity to complete their annual laboratory safety training. Training classes are scheduled regularly through the LMS system and our EH&S training work directly with departments to set up special training sessions to meet the needs of the ASU Community. In order to make the general laboratory safety training more available EH&S has been able to add the Laboratory Annual Refresher Training and the Fire Safety & Prevention Training to Blackboard. Please remember that the Blackboard classes are for refreshers only and that a classroom training session is still required for initial training for Laboratory Safety and Fire Safety & Prevention. For more information please see http://uabf.asu.edu/ehs_training.

LABORATORY SAFETY PROGRAM REMINDERS

ASU Policy EHS 104 requires that all university laboratories must register with EH&S and update this registration annually. At the Biodesign Institute, the Fulton School of Engineering, and the Department of Chemistry, and Macro Technology Works this registration is coordinated through department staff within those organizations (see contact names below).

The Biodesign Institute	Leslie Miller or John Phillips
Fulton School of Engineering	John Crozier
Department of Chemistry	Robert Scavetta
Macro Technology Works	Dave Yost

All other departments must contact EH&S directly. Laboratory registration requires completion of a Responsible Party Information form that can be completed and emailed directly to EH&S. A chemical inventory is also required and a template is available to assist in developing the inventory. All forms and other information related to laboratory registration is now on a new Laboratory Safety Web Page available at http://uabf.asu.edu/ehs_labsafety .

Please send all laboratory registration documents directly to Terisa Baker, EH&S Laboratory Safety Inspector at Terisa.Baker@asu.edu.

For reference, the definition of a laboratory covered by this policy is defined as follows. **A laboratory is defined as a facility or room where the use of potentially hazardous chemicals, biological agents or sources of energy (i.e. lasers, high voltage, radiation, etc.) used for scientific experimentation, research, or education.** This definition is from the ASU Chemical Hygiene Plan which identifies requirements for safe work practices in laboratories available at http://www.asu.edu/uagc/EHS/documents/asu_chp.pdf.

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Storage and Handling of Hazardous Materials

The following information addresses general safety rules for the storage and handling of hazardous materials. It is not intended to supersede any department specific procedures. You should check with your supervisor or lab manager to determine if there are additional requirements within your department.

Compressed Gas Cylinders

- Cylinders must be handled as a high pressure source. Never transport a cylinder with the regulator connected. Always transport cylinders with the safety cap securely installed and use a cylinder cart with straps to secure the cylinder. Do not roll the cylinder by hand along the floor or on their side.
- Always store cylinders upright and secure them individually using approved lock-down device, strap or chain (securing point must be approximately 2/3rds the cylinder height).
- Always use the correct pressure regulator for the specific gas.
- Do not store cylinders with the regulators attached.
- Cylinders which contain toxic gases must be stored in a well ventilated designated area, preferably monitored with environmental abatement technology.
- Cylinders must be clearly labeled with the correct chemical name and chemical formula.
- Use and storage must be below the facility's accumulated maximum allowable physical and health hazard quantities per fire code.

Laboratory storage. Chemical amounts should be as small as practical for their intended use. Long term storage on bench tops and in chemical fume hoods is inadvisable. Exposure to heat or direct sunlight should be avoided. Annual inventories should be conducted and unneeded items being identified as hazardous waste. The hazardous waste must be tagged, stored in the satellite accumulation area, and prepared for pick up by the designated department.

Chemical Storage Cabinets. Purchase and use cabinets rated for the specific materials stored in the cabinet, i.e. flammable storage, acid, corrosive, etc.

Food and Beverage. Do not store, handle, or consume food or beverages in chemical storage areas, refrigerators, glassware or utensils which are designated as use for laboratory operations.

Material Safety Data Sheets (MSDS) must be available for all chemicals/materials used in the laboratory. Electronic copies are acceptable as long as there is a back-up method of retrieval in the event of a power outage and all affected employees have unimpeded access to them. Refer to the chemical's MSDS Handling & Storage section for proper chemical storage and segregation from incompatible chemicals.