

# Laboratory Management

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## College of Nursing first to meet challenge

**Kudos to the College of Nursing** for successful completion of all elements required by OSHA's Lab Standard. Provost Ray and Vice President Moore challenged colleges to complete implementation of the Lab Standard by the end of 2001. While several colleges have been working diligently to complete their plans, the College of Nursing has the distinction of being first. Professor Kathleen Stone, Associate Professor Karen Ahijevych (pictured center), Associate Professor Terry Lennie (pictured right), Assistant Professor Susan Frazier (pictured left) and Rachael Gano were instrumental in seeing that a Chemical Hygiene Plan was created, standard operating procedures were developed and personnel were trained appropriately for their laboratories. Three are shown with their Certificate in Laboratory Safety Management.



The implementation team was asked "What contributed most to facilitating completion of the plan." They indicated that the templates, available from EHS's website, a meeting with the Chemical Hygiene Officer and having a relatively small chemical inventory were all beneficial. In the process, some were surprised that many cleaning chemicals had more hazards than they realized. The team also took the opportunity to clean out unwanted chemicals and submit them for disposal. The team also said that it felt great to be organized and to have Material Safety Data Sheets immediately accessible for the hazardous chemicals. Congratulations to the College of Nursing on a job well done!

## Colleges train lab personnel

Over 1200 researchers have received Lab Standard or Laboratory Safety Course training in 2001. These figures are up from 337 in 2000.

Several colleges have been very active with training activities. The **College of Medicine and Public Health** provided quarterly Lab Standard training and held a series of training sessions last summer to facilitate getting everyone trained in the shortest amount of time. Some of the sessions were standing room only! Kudos to Adrienne Frosthalm for coordinating the sessions.

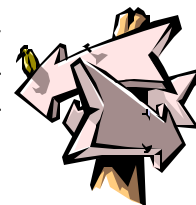


The **College of Veterinary Medicine** provided training at a brown bag lunch session where pizza was provided. There were well over two hundred attendees. Kudos to Jan Sally, Lynn LeMaster, Craig Miller and Gary Bowman for coordinating these activities.

## Maintaining Chemical Hygiene Plans

University laboratories are dynamic. Research queries branch off in new directions. New equipment is obtained. Chemical inventories change. New hazards are discovered. Personnel enter, learn and graduate. Chemical Hygiene Plans need to be changed or revised to reflect these dynamic parameters. Key activities for maintaining plans include:

- ? Documenting training for new personnel,
- ? Documenting training for all personnel on protocols for new hazards,
- ? Updating chemical inventories, and
- ? Annual review (revision when needed) of the Chemical Hygiene Plan.



**Research is dynamic.**

## Revisions to Chemical Hygiene Plans

The University's generic Chemical Hygiene Plan was reviewed and revised, as required to be done annually. The most significant changes, outside of the correction of typographical errors and reformatting the table of contents, were the addition of section 17.9 Oxidizing Chemicals; the addition of a table listing common oxidizing chemicals; clarification of what is to be included in the chemical inventory; clarification of chemicals and operations that require prior approval and lab specific training documentation. Table 12 is now "Partial List of Oxidizers" and Table 13 is now "Compounds with a High Degree of Acute Toxicity". The current version is designated Revision 11/01 in the footer of each page (at the bottom). The revised components can be found on the LabSafety website at <http://www.ehs.ohio-state.edu/labsafety/>

Your plan must be reviewed and or revised annually. Document the cover page with a review date.

## Respected chemicals...Formaldehyde

Formaldehyde in solid form is paraformaldehyde. Laboratories frequently use formaldehyde as a 37% aqueous solution with 10-15% methanol, a.k.a., formalin. Formalin is used commonly to fix living tissues.

"Formaldehyde is moderately toxic by skin contact and inhalation. Exposure to formaldehyde gas can cause irritation of the eyes and respiratory tract, coughing, dry throat, tightening of the chest, headache, a sensation of pressure in the head and palpitations of the heart. Formalin can cause severe eye burns and loss of vision. Eye contact may lead to delayed effects that are not appreciably eased by eye washing. Formaldehyde is regulated by OSHA as a carcinogen. Prolonged or repeated exposure to formaldehyde can cause dermatitis and sensitization of the skin and respiratory tract.

Work with formaldehyde should be conducted in a fume hood or well ventilated area to prevent exposure by inhalation, and splash goggles and impermeable gloves should be worn at all times to prevent eye and skin contact."—Prudent Practices, LCSS for formaldehyde.

Environmental Health and Safety closely monitors formaldehyde use, provides monitoring services and, if needed, a respiratory protection program.

The complete LCSS can be found at <http://www.hhmi.org/research/labsafe/lcss/lcss.html>.

An SOP for formaldehyde is found at <http://www.biosci.ohio-state.edu/~jsmith/SOP/StandardOperatingProcedures.htm>