

## The Importance of Laboratory-Specific Training

### A Message from the Campus Chemical Hygiene Officer:



In the previous issue of the Chemical Safety Mechanism I wrote about the importance of preparing an effective Chemical Hygiene Plan. In this issue my focus is on training. The Environment, Health and Safety Office (EH&S) provides a wide range of training courses and are working on expanding our available classes (check out our [new website](#) where you should be able to find our courses more easily). Most of our classes are very general in their scope. For example, our Laboratory Safety Class covers topics such as chemical storage, labeling, and disposal as well as some basic information on toxicology and how you can protect yourself from hazards.

While the classes we offer are valuable it would be impossible for us to train on all the laboratory procedures that are performed on campus. It has to be the responsibility of the Principal Investigators or laboratory supervisors to determine what laboratory-specific training is necessary and to ensure that the training is received by those performing the procedures. Whether PI's provide the training themselves or whether they designate the responsibility to someone else in the lab – or even to an outside organization – is up to the PI. Regardless of who provides the training, there are key aspects that should be considered:

The training needs to cover not only how to perform the procedure but there has to be an emphasis on the safety aspects of the procedure. It needs to identify the main hazards and the steps taken to mitigate these hazards. Below are topics that should be included in training:

- The engineering controls that are required (fume hood, ventilation, safety interlocks, alarms)
- The personal protective equipment necessary at each step
- What should be done in the event of a spill or other release
- How to identify certain hazardous conditions (for example, how will you know if there has been a leak of a hazardous gas)
- How to handle emergency situations such as chemical exposures and fires and
- How to dispose of used chemicals and decontaminate equipment.

The person providing the training has to ensure that the individual receiving the training understands the material.

Training should be documented. There should never be any doubt as to whether someone has received necessary training. This can be done with a simple sign-off sheet. Just remember that the documentation should include a brief description of the training and what was done to ensure that the trainee understood the material. Usually, a statement on the training documentation such as “training was verified by visual observation” suffices.

Lastly, make sure that the person truly understands how to perform the task safely. If your visual observation of the person performing the procedure shows problems that could compromise their safety, don't sign off on the training. Do a quick review on the points they missed. Only sign off once you are sure they understand the task(s) assigned to them. Students working in the labs are highly intelligent, but they come with a wide range of experience and aptitude so not everyone should be expected to "pass" on the first attempt.

Let us know if you have any questions concerning training requirements or if you have suggestions on additional training modules that you would like us to prepare.

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