

Policy Subject: Chemicals Requiring Review Prior to Use	Effective: 8/15/13
Affected Areas: Laboratories at the University	Review/Revised: 7/15/14

I. Purpose, Applicable and Scope:

Purpose: The Occupational Safety and Health Administration's (OSHA) Chemical Hygiene Plan requires review and approval for work involving "particularly hazardous" substances. This plan has been developed to fulfill that requirement.

Applicability: This written document shall apply to students, staff and faculty at the University of Tennessee of Tennessee.

Scope: See section IV and Appendix A below regarding the substances covered by this procedure.

II. Abbreviations, Acronyms, and Definitions

Abbreviations

ACGIH -American Conference of Governmental Industrial Hygienist
 CFR – Code of Federal Regulations
 DOT – United States Department of Transportation
 EHS – Environmental Health and Safety
 IARC – International Agency of Research on Cancer
 SDS – Safety Data Sheet (formerly known as material safety data sheets)

III. Roles and Responsibilities

A. Environmental Health and Safety shall

1. Maintain this procedure in the online safety manual
2. Support implementation of this procedure
3. Review concerns and comments regarding this plan
4. Screen Appendix B submittals before sending to the Chemical Safety Committee
5. Check the chemical inventory for substances found on this list.
6. Assist employee

B. Individual working with hazardous substances shall:

1. Complete the annual chemical inventory
2. Read the substances SDS and determine if any substances in the work area are listed in Appendix A
3. Complete Appendix B when a chemical requiring review will be used in the lab.

4. Contact EHS for disposal of chemicals that are not longer needed

C. Chemical Safety Committee

IV. Substances Covered by This Standard

Appendix A of this procedure contains a list of chemicals have been identified as being particularly hazardous. Note that a substances SDS should be consulted to determine if it meets one of the criteria below. The criteria used to develop this list include the following:

- a. Carcinogens – as defined by OSHA, ACGIH (classification A-1, A-2), IARC (category 1, 2A), NTP (category 1, 2)
- b. Explosives - as defined by DOT
- c. Highly reactive substances – as defined by
- e. Extremely hazardous substances with a reporting threshold of 1 pound or less – as defined by EPA (40 CFR APPENDIX A TO PART 355)
- f. Reproductive hazards - as defined by OSHA and
- g. Department of Homeland Security’s Chemical Facilities Anti-Terrorism Standard

A search of Appendix A may be conducted by the chemical's name or Chemical Abstract Services (CAS) number.

Note the requirements of this plan apply to chemicals that are to be purchased, stored in the work area, are in current use or have been proposed for use. This plan also applies to byproducts generated in the workplace. The requirements of this plan apply to substances containing more than 0.1 % of the substances found in Appendix A or meet a similar hazard. This procedure doesn’t apply to gaseous by-products that are vented into a chemical fume hood or other local exhaust unless the reportable quantity under 40 CFR 355 is exceeded.

This program does not apply to radionuclides, biohazards or the Select Agents List.

Appendix A is not an all-inclusive list. When work with a particularly hazardous substance is proposed, it shall be the responsibility of the principal investigator and employee to follow the approval process listed below.

V. Approval Process

Individuals working with chemicals should follow the steps below:

1. Purchasing - Determine if any highly hazardous chemicals to be purchased are included in Appendix A. If the quantity and concentration to be acquired exceeds the threshold in column D of Appendix A, complete Appendix B and send to EHS in electronic format or hard copy. EHS will submit the completed form to the Chemical Safety Committee
2. Storage and Use - Review hazardous chemicals that are currently stored in the work area or that are will be used to determine if any substance is found on Appendix A. Determine whether the threshold concentration and quantity have been exceeded. Contact EHS for disposal is the substance will no longer need.
3. EHS will review the application, solicit additional information if necessary and submit to the Chemical Safety Committee for approval.
4. The applicant and EHS will retain a copy of Appendix B.

VI. Training

No special training is required by this procedure. However, it should be noted that the following topics are closely related to this subject:

- a. Laboratory Safety
- b. Hazard Communication
- c. Hazardous Waste Management

Screening

EHS will compare the annual chemical inventory to the list of chemicals found in Appendix A to identify chemicals that fall under this procedure. When a substance is identified on the inventory that is also found in Appendix A, verification shall be made by EHS that an approval has been provided in accordance with this policy.

Standards

29 CFR 1910.1450

Department of Homeland Security, Chemical Facility Anti-terrorism Standard

Forms

1. List of Substances Requiring Review Before Use (Appendix A)
2. Hazardous Substance Use Review (Appendix B)

Appendix B
Hazardous Substance Use Review

Please see Appendix A of this plan to determine if there are any hazardous substances in the workplace that require review prior to use. Answers may be completed on a separate page if necessary.

I. General Use Information

Location where substance will be used _____

Applicant's name and contact phone number _____

Name and CAS# of hazardous substance _____

A. Describe how the substance will be used?

B. In which physical state (solid, liquid, gas) will this substance be used?

C. What concentrations will be used?

D. What quantity of the hazardous substance will be stored in the work area?

E. How will waste materials containing the hazardous substance be managed?

F. What provisions have been made for spill control?

G. Have less hazardous alternatives been investigated for substitution?

H. How will non-lab workers (custodians, maintenance) be protected?

I. Will medical monitoring of workers be necessary?

II. Personal Protective Equipment

- A. What type(s) of personal protective equipment (PPE) will be necessary?

- B. Will the PPE be discarded or decontaminated after use?

III. Training and Information

- A. Will there be a Safety Data Sheet available?

- B. Will special signs or labels be necessary?

- C. Will workers who handle the substance receive any special training?

IV. Controls

- A. Will any of the following controls be necessary? (Check all that apply)
 - a. Chemical fume hood

 - b. Glove box

 - c. Controlled entry or other security features

 - d. Safety shower

 - e. Eye wash

 - f. Flammable liquid storage cabinet

 - g. Acid storage cabinet

V. Other Safety, Health and Environmental Protection Information