

Rutgers University Chemical Hygiene Guide

Introduction

Purpose

In February 1993, New Jersey's Public Employees OSHA adopted 29 CFR 1910.1450, Federal OSHA's "Occupational Exposure to Hazardous Chemicals in Laboratories Rule", (also known as the Laboratory Standard). The standard provides for the health and safety of employees in the laboratory by generally requiring the following:

- * Development of a laboratory Chemical Hygiene Plan.
- * Designation of a Chemical Hygiene Officer.
- * Standard operating procedures to be followed when using hazardous chemicals.
- * Establishment of "designated areas", as well as other protective measures, when working with select carcinogens, reproductive toxins, or particularly hazardous materials.
- * Procedures for the "prior approval" of hazardous laboratory operations.
- * Training of laboratory workers.
- * Medical consultations and examinations for employees with hazardous chemical exposures.
- * Identification of hazards.
- * Recordkeeping for any measurements of employee exposure and medical consultations/examinations.

An overview of the Laboratory Standard, as well as a full copy of the regulation, is provided in Appendix 1.

The purpose of this Guide is to provide a model for the development and implementation of a Chemical Hygiene Plan (CHP) for each university laboratory, as required by the Laboratory Standard. While it is not mandatory that all University laboratories use this model plan, it is provided as a guide for compliance for those who do wish to use it. This document is "generic" and applies to many types of laboratories; however, it must be modified and amended for each specific laboratory. When properly developed and followed, this plan should serve as a comprehensive health and safety program for each laboratory. If this model plan is not used, it is the responsibility of the principal investigator to produce a Chemical Hygiene Plan that is thorough and complete, will demonstrate compliance with the Laboratory Standard and is fully consistent with the policies contained herein.

Scope/Applicability

At Rutgers University, the Laboratory Standard applies to all employees and students engaged in the "laboratory use" of hazardous chemicals. It applies to research and teaching laboratories that are carrying out small-scale operations (those which can be handled safely and easily by one person) using multiple chemicals and procedures, where the procedures are neither a part of, nor simulate, a production process.

Designation of Responsibility

The following designates responsibility for implementation of the Laboratory Standard at Rutgers University:

- * **LABORATORY WORKER** - Follows safe work practices, attends required training and is familiar with the laboratory Chemical Hygiene Plan.
- * **LABORATORY SUPERVISOR** - Assures that all employees/students in the lab follow safe work practices, provides necessary hands-on training, develops the laboratory Chemical Hygiene Plan, ensures the Chemical Hygiene Plan is available to all occupants of the lab, and provides "prior approval", when necessary.
- * **CHEMICAL HYGIENE OFFICER** - Implements the laboratory Chemical Hygiene Plan, provides guidance on safe laboratory procedures, and assists in the annual review and update of the Chemical Hygiene Plan.
- * **DEPARTMENT CHAIR** - Designates the Chemical Hygiene Officer (either one for the department, or individual Chemical Hygiene Officers for each lab), assures department compliance with the standard, appoints department Unit Safety Committee.
- * **UNIVERSITY LABORATORY SAFETY AND DESIGN COMMITTEE** (Subcommittee to the University Health Safety Council) - Serves as the University Chemical Hygiene Committee, reviews annually the Chemical Hygiene Guide, reviews and approves University policy on laboratory safety.

CHEMICAL HYGIENE PLAN ELEMENTS

The Laboratory Standard requires that the CHP, when implemented, be capable of protecting employees from health hazards associated with chemicals in the laboratory and that it keep exposures below occupational exposure limits.* The laboratory Chemical Hygiene Plans must be made readily available to all laboratory employees, and must contain the following elements:

- A. Standard operating procedures for laboratory safety and health.
- B. Criteria that Rutgers University will use to determine and implement control measures to reduce employee exposures to hazardous chemicals.
- C. Documentation of requirements that fume hoods and other protective equipment are functioning properly, and measures that will be taken to ensure their adequate performance.
- D. Provisions for employee information and training, as detailed in the standard.
- E. Documentation of circumstances under which certain laboratory operations will require prior approval.
- F. Provisions for medical consultations and exams, as detailed in the standard.
- G. Provisions for additional employee protection when working with "particularly hazardous substances", as defined in the standard.

* At Rutgers University, these occupational exposure limits include either Threshold Limit Values (TLVs), which are established by the American Conference of Governmental Industrial Hygienists (ACGIH) or Permissible Exposure Limits (PELs) promulgated by Federal OSHA, whichever is LOWER.

This Chemical Hygiene Plan encompasses the following area(s) (to be completed by Chemical Hygiene Officer):

Name of Department or Division: _____

Name(s) of Chemical Hygiene Officer(s): _____

List building/room(s) covered by the Plan: _____
