

**APPENDIX 1**

**OCCUPATIONAL EXPOSURE TO HAZARDOUS CHEMICALS IN LABORATORIES  
29 CFR 1910.1450**

## Occupational Exposure to Hazardous Chemicals in Laboratories Rule

### (Laboratory Standard)

#### Regulatory Overview

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). An overview of the Laboratory Standard, as well as a full copy of the regulation is given 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.

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.

Generally, the Laboratory Standard requires:

- 1) EXPOSURE LIMITS: For OSHA - regulated substances, adherence to Action Levels, or, in their absence, Permissible Exposure Limits (PELs) for laboratory employees.
- 2) EXPOSURE DETERMINATION: Initial monitoring and, when necessary, periodic monitoring of employee exposures to OSHA - regulated substances when there is a reason to believe that an Action Level, or in its absence, a PEL, has been exceeded. Employees must be notified within 15 days of the results of the monitoring.
- 3) CHEMICAL HYGIENE PLAN: A Chemical Hygiene Plan must be developed. When implemented, the plan must be capable of protecting employees from health hazards associated with chemicals in the laboratory and must keep exposures below occupational exposure limits.
- 4) EMPLOYEE INFORMATION AND TRAINING: Employees must be provided with information and training regarding the requirements of the Laboratory Standard and the Chemical Hygiene Plan, and the hazards of chemicals present in the work area. This training must be provided when an employee is initially assigned to a laboratory area, or when new hazards are introduced.
- 5) MEDICAL CONSULTATIONS/EXAMINATION: Laboratory employees shall be provided with medical examinations under the following conditions:
  - \* When an employee develops signs or symptoms or exposure to a hazardous chemical in the laboratory.
  - \* When monitoring reveals exposure in excess of an Action Level or PEL.
  - \* When an event, such as a spill or explosion takes place, where there is a likelihood of exposure.

These examinations shall be provided at no cost to the employee.

- 6) HAZARD DETERMINATION: Labels on incoming chemical containers must not be removed or defaced. Material Safety Data Sheets (MSDSs) that are received must be maintained and must be readily accessible to employees. For substances created in the laboratory, a hazard determination must be made.

- 7) RESPIRATORY PROTECTION: When respirators are required, they must be maintained and used in accordance with 29 CFR 1910.134.
- 8) RECORDKEEPING: Results of exposure monitoring as well as medical consultations and exams must be kept in accordance with 29 CFR 1910.1020.