Introduction

On January 31, 1990, the Occupational Safety and Health Administration (OSHA) published the final rule for Occupational Exposure to Hazardous Chemicals in Laboratories (29 CFR 1910.1450). The new standard, which became effective on May 1, 1990, applies to all employers engaged in the "laboratory use of hazardous chemicals," as defined by OSHA. While the standard allows employers the flexibility to develop and implement compliance programs that are best suited to the particular features of their own workplace, OSHA requires that employers comply with the standard in the following seven areas:

- Occupational exposure monitoring
- Preparation of a Chemical Hygiene Plan
- Employee information and training
- Medical surveillance
- Labeling and hazard identification
- Use of personal protective equipment
- Record keeping

The new laboratory standard requires each employer to appoint a Chemical Hygiene Officer to provide technical guidance in the development and implementation of a written Chemical Hygiene Plan. The Chemical Hygiene Plan is to set forth policies and performance practices that are (1) capable of protecting employees from the health hazards associated with hazardous chemicals in the laboratory and (2) capable of keeping exposures to OSHA regulated substances below the limits specified in the standard. Chemical Hygiene Plans were to be completed and implemented by January 31, 1991.

Policy

Boston College complies with the requirements of the Occupational Safety and Health Administration standard for Occupational Exposure to Hazardous Chemicals in Laboratories (29 CFR 1910.1450). In so doing, Boston College has developed a CHEMICAL HYGIENE PLAN (CHP) that is written and implemented in accordance with these requirements.

In striving to protect all members of the University community from the health hazards presented by hazardous chemicals, Boston College requires that the procedures, safety equipment specifications, and work practices outlined in the CHEMICAL HYGIENE PLAN be properly enforced, implemented, and observed. The Financial Vice President and Treasurer and the Academic Vice President are responsible for enforcing the provisions of the CHP. The Environmental Health and Safety Officer and laboratory management are responsible for implementing the provisions of the CHP. University employees are responsible for observing the provisions of the CHP and for reporting unsafe conditions to their immediate supervisors for corrective action.

Copies of the CHEMICAL HYGIENE PLAN are available to all Boston College laboratory employees, including students, and may be obtained from the Environmental Health and Safety Office or from individual department heads.
Coverage

The policies, rules, and guidelines set forth in the CHEMICAL HYGIENE PLAN are applicable to all laboratory employees. Laboratory employees include faculty, staff, students, teaching assistants, research assistants and associates, and laboratory technicians paid by Boston College. The laboratory health and safety policies cover the duties and tasks performed by laboratory employees only while physically situated in laboratory facilities.

The academic departments covered under the CHEMICAL HYGIENE PLAN include Biology, Chemistry, Geology and Geophysics, Physics, and Psychology. While the CHP does not specifically cover students enrolled at Boston College, faculty are strongly urged to discuss the elements of the CHP with each student conducting laboratory work.

Organization, Roles, and Responsibilities

Responsibility for implementation of the CHEMICAL HYGIENE PLAN at the operating level is delegated by the Environmental Health and Safety Officer to laboratory management. The assistance and cooperation of all laboratory employees are essential to the successful implementation of the CHP. The management structure for implementation of the CHP provides for a Chemical Hygiene Officer, Chemical Hygiene Committees, and Departmental Chemical Hygiene Officers. The key roles and responsibilities of laboratory employees of all levels are outlined below.

- Chemical Hygiene Officer (CHO)
  The Environmental Health and Safety Officer, or his or her designee, is to serve as the Chemical Hygiene Officer. The CHO is responsible for providing technical guidance in the development and implementation of the CHEMICAL HYGIENE PLAN. In this capacity, the CHO works with the Departmental Chemical Hygiene Officers (see Chemical Hygiene Committees, below) and other employees to develop and implement appropriate chemical hygiene policies and practices. The CHO has the authority to delegate health and safety duties to members of the Chemical Hygiene Committees and laboratory employees and, through interactions with laboratory management and staff, continually seeks to improve the CHEMICAL HYGIENE PLAN. Additional responsibilities of the Chemical Hygiene Officer are outlined in the CHP.

- Chemical Hygiene Committees (CHC)
  There are two levels of Chemical Hygiene Committees. The first level is comprised of the Chemical Hygiene Officer and the five Departmental Chemical Hygiene Officers (see below). This campus-wide committee is to meet once per semester and is responsible for:
  - establishing industrial hygiene monitoring and evaluation programs, as needed;
  - implementing and enforcing the CHEMICAL HYGIENE PLAN; and
  - reviewing, evaluating, and updating the effectiveness of the CHP at least once per year.

Additional responsibilities of the campus-wide committee are outlined in the CHP.

The second level of Chemical Hygiene Committees is comprised of individual committees from each of the departments covered by the CHEMICAL HYGIENE PLAN. Each departmental committee is to appoint a Departmental Chemical Hygiene Officer to oversee its operation and to work directly with the Chemical Hygiene Officer. Departmental CHCs are to meet regularly and are responsible for communicating health and safety policies to laboratory and other affected employees, and for implementing and enforcing the CHEMICAL HYGIENE PLAN. Additional responsibilities of the departmental committees are outlined in the CHP.

- Laboratory Management
  The Departmental Chemical Hygiene Officers are to work with faculty, staff, students, teaching assistants, research assistants and associates, and laboratory technicians to promote laboratory
health and safety. The Departmental Officers are responsible for coordinating the activities of their departmental Chemical Hygiene Committees with the Chemical Hygiene Officer.

Faculty members are to ensure that chemical hygiene policies are fully implemented.

The Departmental Chemical Hygiene Officers, along with faculty members, are responsible for:

- ensuring that all employees know and follow chemical hygiene policies and practices; that employees are properly trained; and that training activities are properly documented;
- following the recommendations of the CHO and correcting any unsafe laboratory conditions; and
- reporting to the CHO all accidents that result in exposure to hazardous chemicals and ensuring that corrective action is taken to prevent the exposure to and/or the release of hazardous chemicals.

Additional responsibilities of laboratory management are outlined in the CHP.

- Laboratory Employees
  Laboratory employees are to observe all of the chemical hygiene policies and practices outlined in the CHEMICAL HYGIENE PLAN and are to exercise professional judgment when making decisions regarding the safe conduct of work. Laboratory employees are responsible for:

  - participating in all required training programs, including chemical hygiene training; and
  - reporting to the responsible faculty, who, in turn, are to report to the departmental CHC, all facts pertaining to accidents that result in exposure to hazardous chemicals, and any action or condition that may cause an accident and/or exposure to hazardous chemicals.

Additional responsibilities of laboratory employees are outlined in the CHP.

Revisions

Proposed revisions to the CHEMICAL HYGIENE PLAN are to be submitted to the departmental Chemical Hygiene Committee, which, in turn, is to forward the proposed revisions to the Chemical Hygiene Officer for review. All final revisions are to be approved by the campus-wide CHC. Revised CHPs are to be published once per year.

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