# Dartmouth College Environmental Health and Safety

Occupational Health and Safety Program

(2011)

# Personal Protective Equipment Policy

Prepared in compliance with 29 CFR 1910.132-.138

# DARTMOUTH COLLEGE Personal Protection Equipment Policy

**Introduction:** Personal Protective Equipment is necessary in situations where engineering or work practice controls are not sufficient to control the risk associated with the use or exposure to potentially hazardous materials, equipment or energy. The Dartmouth Personal Protective Equipment policy (DartPPE) provides a simple and flexible guide to assist Dartmouth employees in selecting and using personal protective equipment (PPE).

The DartPPE complies with the Occupational Safety and Health Administration (OSHA), Personal Protective Equipment Standard (29 CFR 1910.132 -.138). Personal protective equipment must never replace engineering and administrative controls. PPE represents a last line of defense in many situations and supplements situations when engineering controls are not adequate, during the implementation of controls or as a necessary and appropriate supplement to such controls.

**Purpose:** the DartPPE outlines the necessary steps in PPE selection, use and care.

**Scope:** this policy applies to all Dartmouth College employees.

**Responsibilities:** to (1) assess the need for personal protective equipment and (2) to select PPE that is appropriate for the hazard(s) present. Never use inappropriate, defective or damaged PPE. Personal protective equipment is available to the employee from his or her supervisor at no cost to the employee with a few exceptions. Exceptions include safety shoes and prescription safety eyeglasses. For these items, the College provides a subsidy. Please speak to your supervisor or EHS for more information.

#### Supervisor

- 1. To identify the hazards and risks associated with the work.
- 2. To select, purchase, provide and require the use of PPE.

- 3. Instruct and periodically remind employees of the importance and limitations of PPE.
- 4. To make sure the employee is aware of how to wear and care for their PPE.
- 5. Audit his or her employees to ensure PPE is used when needed.

#### **Environmental Health and Safety**

- 1. Ensure that PPE certifications are done when needed and to evaluate the effectiveness of PPE use and selection across the campus.
- 2. Act as a resource for information to employees and supervisors.

#### Employee

- 1. Recognize hazards associated with a specific task.
- 2. Become familiar with the capabilities and limitations of PPE used.
- 3. Wear PPE assigned to him or her for when required.
- 4. Report (or replace as appropriate) worn or damaged PPE to their supervisor.

**DartPPE Components**: there are three essential components to the DartPPE policy:

- 1. Hazard assessment done by area, department or discipline.
- 2. PPE certification is on file with EHS. This includes (1) a list of hazards and PPE requirements or by (2) reference of specific Standard Operation Procedures (SOPs).
- 3. PPE training and information--often incorporated into site-specific training such as lab safety or hazard communication.

#### **OVERVIEW of PPE:**

Please refer to the accompanying Compliance Guidelines for Hazard

Assessment and Personal Protective Equipment Selection. Attachment 1.

#### Eye and Face Protection (1919.133):

- All protection must meet ANSI Z87.2003.
- Common sunglasses and prescription eyewear are not ANSI compliant.
- Safety glasses with side shields provide impact protection from flying objects, debris and dusts. Safety glass may also provide *limited* splash/spray hazard protection.
- Chemical splash goggles provide protection from significant chemical splash, sprays and irritating mists while also providing impact protection.
- When working with corrosive chemicals, splash goggles are mandatory.
- Face and neck shields provide additional protection to the eyes and face.
- Never wear a face shield without safety glasses or splash goggles preferably splash goggles.
- Lenses with the appropriate filter designation are necessary for protection against radiant energy—welding for example.
- Specialized eye protection when using lasers is required—contact the Radiation Safety Officer for assistance.

#### Head Protection (1910.135):

- Hard hat designations have been simplified in recent years (ANSI Z89.1-1997)
- ◆ A hardhat is required where there is the danger of falling objects, impact hazards or electrical hazards. Hard hats may be either Type I or Type II.
- Type II helmets provide a degree of protection to the front, side and rear.
   This new category of helmet may be useful to workers who are not always in the upright position when working.
  - ♦ Class G (General Application)—formerly Class A

◆ Class E (Electrical Application)—formerly Class B

Note: Never use Class C caps and helmets.

### Foot and Leg Protection (1910.136):

- ◆ Footwear must comply with ANSI Z41-1999. Recent changes yet to be included in an updated ANSI standard include ASTM F2412-05 and ASTM F2413-05
- Safety shoes are required where there is the potential of puncturing the sole or when there is a risk of falling or rolling objects over 50 pounds. All individuals involved in routine materials handling must wear safety shoes.
- ♦ Slip resistant soles for work on slippery surfaces.
- Detailed information on conducting a job hazard analysis for safety shoes is available from EHS.

### Hand Protection (1910.138):

Glove selection must consider (for example):

- need for barrier protection with biological or radiological hazards
- potential for absorption into the body
- potential acute and chronic toxicity of the substance
- need for cut or abrasion resistance
- need for puncture resistance
- potential for permeation
- potential for thermal burns
- potential/need for protection against electrical hazards

Specialized information on glove selection is available from EHS. EHS has standardized a variety of gloves for various applications across campus. Contact EHS for help in selecting the proper glove for the task.

#### Hearing Protection:

The College's Hearing Conservation Policy (29 CFR 1910.95) covers hearing protection. Hearing protection is required at >85dba and in all posted areas. As a matter of institutional practice, hearing protection is required during all noisy tasks.

#### **Respiratory Protection:**

The College's Respiratory Protection Program (29 CFR 1910.134) covers respiratory protection.

## **Program Effectiveness:**

- The selection and use of PPE is part of several EHS compliance programs.
- Every three years an audit and update to the written program is required.

#### Note:

• In November of 2007, OSHA clarified the requirements for purchasing PPE for employees. Please refer to Attachment 2.

# Dartmouth College Environmental Health and Safety

6216 Clement West/ 646-1762 http://www.dartmouth.edu/~ehs/ Fire or Medical 911

#### Essential Information on Personal Protective Equipment: Hazard Assessment and Use Requirements

The Occupational Safety and Health Administration (OSHA) requires that personal protective equipment (PPE) be selected, provided and worn by employees in situations where PPE could help reduce the potential for harm and injury (29 CFR 1910.132). This guide outlines the likely situations and hazards that require the use of PPE in maintenance, repair, construction and demolition activities by Dartmouth College employees.

Special considerations apply for certain tasks (such as welding) done by designated, qualified individuals. PPE is made readily available to FO&M employees through their supervisors and the tool crib.

**Eye and face protection** (29 CFR 1910.133): Safety glasses are required when operating with or near power tools, lawn equipment and industrial machinery. Safety glasses are required when hammering, grinding, chipping, sawing or cutting. Safety glasses must be worn during all demolition work.

Safety goggles or face shield with safety glasses must be worn when pouring, mixing or using caustic chemicals (any chemical labeled as corrosive). All safety eyewear must meet ANSI Z87-1989.

**Head protection** (29 CFR 1910.135): Hardhats are required on all construction and demolition sites. Hard hats are required in the power plant and other mechanical spaces where there is a possibility of striking or being struck. Additionally, Class E (electrical) hard hats must be worn when electrical hazards are commonly encountered. All hard hats must meet ANSI Z89-1997.

**Foot protection** (29 CFR 1910.136): Safety shoes are required when having to move heavy equipment or objects, such as drums. Safety shoes are also required on all construction and demolition projects. All safety footwear must meet Z41-1991.

**Hand protection** (29 CFR 1910.138): Cuts and other hand injuries are the most common type of accident in maintenance tasks at Dartmouth. A variety of gloves are available for safely handling glass, metal and chemicals are available in the tool crib. Leather gloves and cut resistant-coated kevlar are required when handling sharp objects. Nitrile gloves are suitable for common cleaning and lubricating chemicals. When in doubt, protect your hands.

**Respiratory protection** (1910.134): Respirators may only be worn by participants in the DC Respiratory Protection Program--Call EHS (646-1762).

**Hearing protection** (1910.95): Hearing protection must be worn in all areas posted as noise areas. It is strongly recommended for all noisy operations including lawn and related equipment. Medical surveillance is conducted for employees in high noise locations through EHS. Questions about the program? -- Call EHS (646-1762).

This Certification of Tasks Requiring Personal Protective Equipment for FO&M, DMS, Hanover Inn, Real Estate, Ski way, ORL, Golf Course a DCAD Maintenance Staff.

Prepared in compliance with 29 CFR 1910.132

Issued: October 1996 Updated: April 2000 Updated: Nov. 2011

Job Hazard Evaluation		
Date:		Department
Task	Hazard	Required PPE
EXAMPLE 1: washing walls	chemical splash to eye, skin irritation, slippery floor	eye protection, gloves, slip resistant footwear
EXAMPLE 2: power drilling	flying chips	eye protection