BOWDOIN COLLEGE
RESPIRATORY PROTECTION PROGRAM

Purpose
This document meets the requirements outlined in OSHA Title 29 CFR 1910.134 (Respiratory Protection Standard) for the development, implementation, and maintenance of a written respiratory protection program (RPP). The purpose of the program is to provide information to designated employees of Bowdoin College regarding respiratory hazards in their workplace, and the proper use of respiratory personal protective equipment (PPE).

Scope
The RPP applies to designated employees who may be occupationally exposed to hazardous atmospheres, where engineering and work practice controls may not be adequate to prevent exceedance of health standards. Employees who are required to wear a respirator are automatically enrolled in the RPP. Employees may elect to wear a respirator “voluntarily” when hazard assessments do not demonstrate that one is required. Employees voluntarily wearing a respirator will also need to participate in the program. No employees is permitted to wear a respirator without review and approval from the Program Administrator.

Program Responsibilities

1. **Program Administrator.** The Associate Director of Environmental Health and Safety (EHS) will be the RPP program administrator. Duties include:
   - Assist supervisors in identifying work areas, processes, or task that require workers to wear respirators, and evaluating the associated hazards.
   - Selecting appropriate, approved respiratory protection options.
   - Monitoring respirator use to ensure that respirators are used in accordance with their certifications.
   - Arranging for and or conducting training.
   - Coordinating the medical surveillance program.
   - Maintaining required program records.
   - Evaluating the respiratory protection program.
   - Updating the written program, as necessary.

2. **Supervisors.** Supervisors are responsible for ensuring that the respiratory protection program is implemented in their work areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Supervisors are required to:
   - Ensure that employees under their supervision (including new hires) have received appropriate training, fit testing, and annual medical evaluation.
   - Ensure the availability of appropriate respirators and accessories.
   - Be aware of tasks requiring the use of respiratory protection.
   - Enforce the proper use of respiratory protection.
   - Ensure that respirators are properly cleaned, maintained, and stored in accordance with the program.
   - Monitor work areas and operations with sufficient frequency to identify respiratory hazards and select proper equipment.
   - Coordinate with the program administrator on how to address respiratory hazards or other concerns regarding the program.

3. **Employees.** Each employee must wear his or her respirator when and where required and in the manner in which they were trained. Employees also are required to:
   - Be familiar with this program.
   - Schedule and attend annual medical and fit testing appointments.
- Maintain facial hair, such that it does not interfere with the proper fit of their respirator
- Care for and maintain the respirators as instructed, and store in a clean sanitary location.
- Inform the supervisor if the respirator no longer fits well, and request a new one that fits properly.
- Inform the supervisor or program administrator of any potential respiratory hazards or other concerns regarding the program.

Program Components

1. Hazard Determination. Supervisors are responsible for reviewing their operations and job requirements to determine if employee respirator usage is necessary. Hazards may include airborne concentrations of fumes, dusts, fogs, mists, sprays, smoke, gases, particulates, or vapors that exceed the National Institute of Occupational Safety and Health (NIOSH) air quality standards for the specific materials or chemicals. Information from Material Data Safety Sheets (MSDSs) may be used to make this determination. The Program Administrator may perform workplace exposure monitoring to provide qualified data on the exposure hazards.

Upon determination of a hazard, the Supervisor will provide the employee with written work practices specific to the task and location, and conduct work area surveillance during the performance of the task.

Whenever possible, mechanical methods (such as exhaust ventilation) should be used to minimize employee exposure to potentially hazardous chemical substances. However, for certain situations or operations, the use of mechanical controls may not be feasible or practical. Under these circumstances, or during an interim while mechanical systems are being developed or installed, the use of personal protective respiratory equipment may be necessary.

2. Equipment Selection. Respiratory PPE must be selected to address the specific hazards identified, and is based on respirator function, materials, and the type of filtration needed.
   - Of the two types of respirators (air-purifying and supplied-air), only air-purifying respirators (APR) or “cartridge”-type respirators are to be used by College employees. Cartridge respirators use disposable filters to remove airborne contaminants, and may be either half-mask (HM) or full-face (FF) in design. Cartridge respirators do not supply air, and cannot be used in oxygen-deficient atmospheres. Dust masks or filtering face pieces are considered an APR and are covered under this program. Most commonly used are N95 disposable masks.
   - Most respirators are constructed of rubber, silicone, and/or synthetic materials suitable for most atmospheres; check the MSDS and the vendor reference tables to ensure that the materials used are compatible with the hazards being addressed.
   - Filter cartridges are specific to various categories of hazards (i.e., chlorine, ammonia, particulates, etc.) and must be selected on that basis.

All respiratory protective devices must be jointly approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH), and must not impair the employee’s ability to see, hear, communicate, or perform their task safely. The Program Administrator will coordinate the purchase of respirators, cartridges, and associated PPE.

3. Respirator Usage. Each employee required to wear a respirator will be issued one of the appropriate size and type for their sole use; employees may only wear their own
respirator, and are responsible for its cleaning and maintenance. All employees will wear their assigned respirator if the completed hazard assessment determines that a respirator is required as part of the PPE necessary to completed the task safely.

Respirator cartridges will be replaced on the following schedule or at any time that breakthrough of chemical is detected:
1. The manufacturer's expiration date marked on the respirator cartridge.
2. After two year of use base on the date marked by employee on the cartridge upon installation.

4. **Voluntary Use.** Employees may choose to wear a respirator voluntarily when the job task hazard assessment does not determine that one is required. Voluntary users must participate in the program to the extent that is necessary to ensure safe use of respirators. At minimum, employees that want to use a filtering face piece must receive direction in accordance with Appendix D of the standard (1910.134). Medical clearance and additional evaluation is necessary for the use of a tight fitting HM or FF APR.

5. **Employee Training.** The Program Administrator will coordinate annual training, fit testing, and medical evaluations for employees who use respirators. Records of training will be kept by the EHS Office and Human Resources for 3 years.

Training is mandatory for any employee prior to using any respirator, and shall include (at a minimum) the following components:

- The nature of respiratory hazards, and consequences of improper respirator use.
- Available engineering and administrative controls and the need for respirators.
- Reasons for the selection of a particular type of respirator.
- Capabilities and limitations of various respirators.
- Methods of donning, inspecting, checking fit, and operation of the respirator.
- Proper maintenance, cleaning, and storage of the respirator.
- Proper method for handling emergency situations, including situations in which the respirator malfunctions or the cartridges "break through".
- Recognition of medical signs and symptoms that may limit or prevent the effective use of respirators.

6. **Fit Testing.** Fit testing shall be conducted annually, in conjunction with the medical evaluation. A satisfactory qualitative fit test (QLFT) with their issued equipment will be completed for each employee who is required to wear a respirator. Any employee who is required to wear a respirator must be clean-shaven at the time of testing and use, to ensure a tight and appropriate seal. Eyeglasses may also present a problem for obtaining a satisfactory fit with a full-face respirator, and will be evaluated during fit testing. No employee shall wear a respirator unless they have been trained and fit tested within the previous 12 months. Records of fit testing will be kept by the EHS Office and Human Resources for 3 years.

7. **Medical Evaluations.** Employees who are required to use respirators, or choose to wear an APR voluntarily, will receive baseline and annual medical evaluations to ensure that they are physically able to perform work with a respirator. Employees are not permitted to wear respirators until they are medically approved to do so. Employees refusing the medical evaluation are not permitted to work in an area requiring respirator use. The evaluation may consist of a medical questionnaire, physical exam, and/or pulmonary function test. If employees are working in toxic atmospheres, appropriate medical testing may be ordered at any time to determine exposure levels. Occupational Health Associates (OHA) shall conduct the exams, and provide a written
recommendation regarding the employee’s ability to use a respirator, including any limitations of respirator use and or work conditions, and whether any follow up medical evaluation is necessary. The employee shall be provided with a copy of any recommendations made by the medical provider. Records of all medical evaluations will be kept by the EHS Office and Human Resources for 30 years.

8. **Inspection, Cleaning, Maintenance, and Storage.** All respirators must be inspected before and after each use, with special attention to rubber or plastic parts subject to deterioration. Maintenance and repairs must be performed in accordance with the manufacturer’s guidelines. Respirators must be stored to protect them from dust, sunlight, heat, extreme cold, excessive moisture, damaging chemicals or other threats to their condition. If a respirator is reissued to another employee, it must first be cleaned and disinfected.

**Program Review**
This written program will be audited by EHS at least annually, by reviewing the status of employee respirator usage, annual training, fit testing, and medical evaluations. Supervisors of employees who wear respirators shall inform EHS of any changes in respirator usage or needs.