PROVIDENCE COLLEGE
RESPIRATORY PROTECTION PROGRAM

(Revised April 2003)

1. INTRODUCTION

The Providence College Respiratory Protection Program sets forth the policy for Providence College employees that have the potential to be exposed to hazardous airborne contaminants. This Program has been established in accordance with OSHA 29 CFR 1910.134 "Respiratory Protection".

The Program addresses the use of negative pressure (half face) respirators, and dust masks (see Appendix A). The Program is intended for those employees that work with hazardous and/or harmful dusts, fogs, fumes, mists, gases, solvents, organic vapors, aromatic hydrocarbons, and particulates. The Plan specifically prohibits employees from entering oxygen deficient (less than 19.5% oxygen) atmospheres or other environments that may present immediate danger to life or health. Work activities that would require an employee to wear a positive pressure respirator are prohibited. In instances where work practices require the use of a positive pressure respirator, a subcontractor will be employed to complete the task. Any environment, which may expose a worker to hazards other than those defined in the Plan, should be brought to the attention of the Respiratory Protection Program Administrator.

It is the policy of Providence College to provide its employees with a safe and healthful work environment. It is recognized that certain work duties require employees to be subjected to airborne contaminants. It is the intent of Providence College to protect those employees from these potential exposures through the administration of the respiratory practices defined in this plan.

2. DESIGNATED PROGRAM ADMINISTRATOR

The Respiratory Protection Program Administrator is Thomas Schenck, Health and Safety Coordinator, Office of Environmental, Health and Safety, extension 2625.

3. SELECTION AND USE OF RESPIRATORY PROTECTION EQUIPMENT

All Providence College employees designated to wear a respirator shall use half face negative pressure respirators. Employees are prohibited from working in environments that require protection levels greater than those permitted with negative pressure respirators.

Respirators used shall be selected from those approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH). An approved respirator contains the following: an assigned identification number placed on each unit: a label identifying the type of hazard the respirator is designed to protect

against; additional information on the label which indicates limitations; and identifies the component parts approved for use with the basic unit. This information is typically found on the respirator box.

Cartridge selection is based upon of type of contaminant to be protected against. See Appendix B for a partial listing of work descriptions and cartridges to be used. Please note that this list is not all inclusive; employees should always read labels, check Material Safety Data Sheets, check with their supervisor, or check with the Office of Environmental, Health and Safety if there is a concern about which filter cartridge is appropriate for specific tasks.

4. MEDICAL SURVEILLANCE

Federal regulations require that only those workers who are medically able to wear a respirator shall be issued one. Medical tests to be considered by a physician may include: pulmonary function tests (FVC and FEV), chest x-ray, electrocardiogram, and any others deemed necessary by the examining physician.

A medical surveillance program is required to determine an employee's ability to use a respirator. Providence College's medical surveillance program shall include pre-placement and annual examinations, including both the medical questionnaire and the physical exam, provided that an employee has not been examined in accordance with the respiratory standard within the past one year period. This standard also outlines the requirements for maintaining medical records on each employee.

A. Pre-Placement Exams

In accordance with the OSHA standard, the required pre-placement examinations must take place before the employee is permitted to wear a respirator. Providence College shall provide their respiratory program participants a complete and comprehensive medical evaluation. This evaluation shall include a mandatory medical questionnaire, which is taken directly from the OSHA regulations 1910.134 Appendix C. In addition, a physical exam shall be administered, including a pulminary function test, blood pressure test, resting pulse rate, and pulse rate after running in place for one minute. Additional medical factors to be considered by a physician include: asthma, emphysema, chronic bronchitis, heart disease, poor hearing, poor eyesight, hernia, epileptic seizures, and other factors which may inhibit the ability of an employee to work in respiratory equipment. A chest x-ray (posterior-anterior 14x17 inches) is optional at the discretion of the physician.

The physical exam will be used to determine whether an employee is capable of safely working while wearing a respirator. A physician's letter stating whether the employee can or can not wear a respirator will be furnished to the employer and employee for their files. The physician must provide to the employer a statement that the employee has been informed by the physician of the results of the medical

examination. The physician is prohibited from revealing in the written opinion to the employer any specific findings or diagnoses from the medical exam. The employer must provide a copy of the physician's letter to the affected employee within 30 days from its receipt. The employer shall maintain the physician's letter on file for the duration of employees' employment plus 30 years.

B. Annual Examinations

It is the policy of Providence College to repeat the questionnaire and physical exam procedure for all program participants annually. Although not required specifically by OSHA, the annual exams will assist the employer in monitoring any respiratory condition that may have developed over the past year, and which could impede upon their using a respirator safely.

5. RESPIRATOR FIT TEST

All employees wearing negative pressure respirators shall be qualitatively fit tested for fit annually. The Program Administrator using irritant smoke will conduct a fit test.

6. RESPIRATORY ASSIGNMENT AND MAINTENANCE

All persons who work in environments in which potential exposure to airborne contaminants exists, will be issued their own negative pressure respirator. Each respirator should be identified as to avoid confusion among other respirators of the same type.

A. Respirator Cleaning Procedures - When issued a respirator, be sure to read all instructions and manufacturer's recommendations and to keep a copy for future reference. Listed below are general methods for cleaning respirators:

! Respirators shall be regularly cleaned and disinfected. Those issued for the exclusive use of one worker should be cleaned after each day's use, or more often if necessary. This applies only to those respirators that are routinely used throughout the day. Cleaning at less than daily frequency is acceptable if proper protection is still afforded to the employee.

! Remove canisters, filters, valves, straps, and speaking diaphragms from the face piece. Wash face piece and accessories in warm soapy water. Respiratory equipment shall be washed with detergent in warm water using a brush. If possible, detergents containing a bactericide will be used. Organic solvents will not be used, as they deteriorate the rubber face pieces.

! Rinse parts thoroughly in clean water.

! Air dry in a clean place or wipe dry with lintless cloth.

! Reassemble.

B. Storage - Respirators shall be stored in a convenient, clean and sanitary location. The purpose of good respirator storage is to ensure that the respirator will function properly when used.

! Care must be taken to ensure that respirators are stored in such a manner as to protect against dust, harmful chemicals, sunlight, excessive heat or cold, and moisture. Storage measures which can be used to protect respirators against dusts, chemicals, and moisture include:

- Hermetically sealed plastic bags or plastic bags capable of being sealed.

- Plastic containers with tight fitting lids, such a freezer containers.

- Cans with tight-fitting lids.

! Pack or store the respirator so that the face piece and exhalation valves will rest in a normal position. Do not hang the respirator by its straps. This is to ensure that proper function will not be impaired by the distortion of the respirator or its straps.

C. Inspection and Maintenance - Provide the following information for the inspection and maintenance of respirators:

! Air Purifying Respirators - Keep records on condition of respirator, replacement of parts, etc. Before putting on your respirator:

- Check rubber face piece for dirt, pliability of rubber, deterioration, and cracks, tears, or holes.

- Check straps for breaks, tears, loss of elasticity, broken attachment snaps, and proper tightness.

- Check valves (exhalation and inhalation) for holes, warping, cracks, and dirt.

- Check filters, cartridges and canisters for dents, corrosion and expiration dates if given. Check protection afforded by canister and its limitations.

D. Repair - At some point, any respirator will need replacement parts or some other repair. The law requires that the person who repairs respirators be trained and qualified. It is important to realize that respirator parts from different manufacturers are not interchangeable. NIOSH approval is invalidated if parts are substituted. If your respirator needs repair, bring it the Office of Environmental, Health and Safety where you will be issued a new respirator.

7. DONNING AND DOFFING RESPIRATORS

The specific procedure for donning (putting a respirator on) and doffing (taking a respirator off) the respiratory protection equipment will differ slightly depending on the individual respirator and the specific application. However, several general principles apply to the use of all respirators. Respirators will be donned prior to entering a work area with hazardous air contaminants, and taken off upon exiting that area. These activities are performed in the following sequence:

When putting the respiratory on:

! Inspect respirator for defects and cleanliness.

! Place respirator on face by putting the chin in the chin cup first and rotating the mask over the nose.

! Tighten straps from bottom to top until the respirator is snug (but comfortable).

! Perform negative and positive pressure fit checks (to be instructed by Program Administrator).

! Place hood of disposable coveralls over the straps of the respirator (if applicable).

When taking the respirator off:

! Wet wipe exterior of respirator while it is still on the face, using a damp paper towel to remove visible debris and dust.

! Remove respirator only after exiting the contaminated area, and dispose of cartridges.

! Clean and disinfect respirator.

! Inspect respirator for defects.

! Allow to air dry.

! Install new cartridges if needed and store in clean location.

8. PROGRAM EVALUATION

The provisions of this Respiratory Protection Program will be evaluated by the Program Administrator annually or whenever site conditions or respiratory protection equipment changes. Any significant alterations to the provisions of this program will be reflected through revisions of the program.

9. RESPIRATORY PROTECTION PROGRAM RULES

Compliance with these written standard operating procedures shall be as follows:

- Respirators shall be selected on the basis of the hazards to which the employee is exposed.
- The user shall be instructed and trained in the proper use of respirators and their limitations.
- Where applicable, respiratory protective equipment will be assigned to individual employees for their exclusive use.
- Respirators shall be cleaned and disinfected in accordance with procedures established herein.
- Respirators shall be stored in convenient, clean, and sanitary locations.
- Respirators used routinely shall be inspected during cleaning.
- Worn or deteriorated parts shall be replaced.
- Regular inspection and evaluation schedules shall be established to determine the continued effectiveness of this program.
- Persons shall not be assigned to tasks or allowed to enter areas which may require the use of respirators until they have completed the required medical evaluations and meet the requirements thereof.

10. RECORDKEEPING

The Program Administrator shall keep the following records:

1. Name of employees trained in respirator use.

2. Documentation of the care and maintenance of respirators.

3. Medical respirator clearance reports of each respirator user.

4. Qualitative fit test results.

5. Any problems or malfunctions associated with respiratory equipment encountered during work.

Employees are to contact the program administrator immediately if they have any questions requiring respirator use or filter cartridge selection. See Appendix B for examples of job descriptions and cartridge selections.

APPENDIX A

DUST MASK ADVISORY

The following basic advisory information on dust masks and non-required respirators has been developed from Appendix D of the OSHA 1910.134 regulation.

Dust masks are an effective method of protection against designated hazards when properly selected and worn. Dust mask use is encouraged, when exposures are below the permissable exposure limit (PEL), to provide an additional level of comfort and protection for workers. However, if a dust mask is used improperly or not kept clean, the dust mask itself can become a hazard to the worker. Sometimes, workers may wear dust masks to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. The College provides dust masks for your voluntary use, and the employee needs to take certain precautions to be sure that the dust itself does not present a hazard.

Read and heed all instructions provided by the manufacturer on use, maintenance, and care, and warnings regarding the dust mask's limitations.

1. Dust masks certified for use to protect against the contaminant of concern shall be worn. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies dust masks. A label or statement of certification should appear on the dust mask or its packaging. It will tell you what the dust mask is designed for and how much it will protect you.
2. Do not wear your dust mask into atmospheres containing contaminants for which it is not designed to protect against. For example, a dust mask will <u>not</u> protect you against gases or vapors.

The program administrator gives the above information to employees:

- At the time of the employee's initial request for a dust mask,
- When an employee requests information about the dust mask, and
- More often at the discretion of the Program Administrator.
- The information may also be disseminated in written form to employees who request it.

APPENDIX B

North Half-face Respirators shall be worn during the following activities, with the noted cartridge. This list is not all inclusive! Employees should always read labels, check Material Safety Data Sheets, check with their supervisor, or check with the Office of Environmental, Health and Safety if there is a concern about which filter cartridge is appropriate for specific

work tasks.

Power Plant

Cartridge Selection: Combination organic vapor and HEPA (North 7581, purple and black).
Cleaning the breaching
Sweeping any soot that forms a visible cloud
Tank cleaning (condensate, air receiving, and deairator)
Boiler cleaning

Plumbers

Cartridge Selection: Combination organic vapor and chemical (North 7500-3, yellow).
Using solvents in an unventilated and/or enclosed area
Whenever exposure to sewer gases exist.

Painters

Cartridge Selection: Organic vapor with pre-filter and cover (North 7500-1, -10, and –27)
In the spray booth
Using paint thinners or other organic solvents in an unventilated and/or enclosed areas

Carpenters

Cartridge Selection: Organic vapor (North 7500-1)
Using solvents and/or adhesives in an unventilated or enclosed area.

Arts Department

Cartridge Selection: HEPA (North 7580)
Working with dry silica, breaking clay, glaze mixing, etc.
Cutting styrofoam, etc.
Any dry and dusty environments.

Mason

Cartridge Selection: HEPA (North 7580)
Cutting tile, sanding, asbestos spot removals (or any other dusty environment)