I. POLICY

Employees who are required to work in atmospheres containing potentially harmful dusts, fogs, smoke, fumes, mists, gases, sprays or vapors; or who work in oxygen-deficient atmospheres shall be provided with appropriate respiratory protection and training to protect their health.

II. PROCEDURE

A. Purpose

The purpose of this directive is to establish written guidelines for staff governing the use, storage and maintenance of respirators.

B. Applicability

This directive is applicable to all facilities which have employees who are required to wear respirators.

C. Facility Reviews

A facility review of this directive shall be conducted at least annually.

D. Program Authority

For the purpose of this directive:

1. The Environmental Health Coordinator, Division of Program Services shall be the overall authority on the Department's respiratory protection program.

2. The person designated by the Chief Administrative Officer as the Safety and Sanitation Coordinator shall be one of the four highest ranking employees of the facility and shall be responsible for program coordination and document maintenance.

E. Definitions

Air-purifying respirator – a respirator with filters, cartridges or canisters that remove contaminants as ambient air passes through the air-purifying element before it reaches the user.
Atmosphere-supplying respirator – a respirator which supplies clean air directly to the user from a source independent of ambient air in the work area.

Fit test – a documented procedure required to be performed on every employee wearing a tight-fitting respirator prior to initial use and at regular intervals. The respirator wearer is subjected to a test atmosphere in order to gauge the effectiveness of the facial seal.

High efficiency particulate air (HEPA) – respirators and filters which provide 99.97% filtration of most particulate contaminants.

Immediately dangerous to life and health (IDLH) – an atmospheric concentration of any substance that poses an immediate threat to life, could cause irreversible or delayed adverse health effects or may interfere with a person's ability to escape from a dangerous atmosphere. Oxygen-deficient atmospheres are considered IDLH.

N, P & R respirators and filters – A class of particulate respirators and filters indicated by degree of oil resistance. A filtration efficiency rating of 95, 99 or 100 is assigned to every N, P or R respirator or filter.

Respirator – a device worn over the nose and mouth to protect the wearer from hazardous materials in the breathing zone.

Self-contained breathing apparatus (SCBA) – an atmosphere-supplying respirator in which compressed fresh air is stored in a cylinder and supplied to the wearer via a regulator, hose and mask. Supplied air creates positive pressure within the mask. SCBAs shall be used upon entry into atmospheres which may be immediately dangerous to life and health.

User seal check – a procedure to be performed every time any tight-fitting respirator is donned where the wearer checks for leaks around the mask. After the respirator is donned, all straps are adjusted and then the wearer performs a positive and/or negative pressure check. A positive pressure check is performed by covering the mask or exhalation valve and blowing outward. A negative pressure check is performed by covering the mask or filters and inhaling.

F. Requirements

1. Respirator Selection
   a. Respirators shall be selected based on known or anticipated hazards to which workers will be exposed.

   NOTE: Safety data sheets may be useful in determining appropriate respiratory protection.

   b. Air-purifying respirators and filters shall be approved by the National Institute of Occupational Safety and Health (NIOSH).

   c. Any changes in work conditions which affect existing respiratory protection practices shall be evaluated and appropriate respiratory protection shall be assigned.

2. Respirator Use
   a. General

   Employee use of a respirator shall be prohibited unless the employee has met all of the requirements of this directive.

   (1) Prior to use of any respirator, an employees shall be:
(a) Medically screened in accordance with Section II.F.3.;
(b) Trained in accordance with Section II.F.4.; and
(c) Fit tested in accordance with Section II.F.5.

(2) Employees with facial hair underneath the face seal of a tight-fitting respirator shall be prohibited from wearing the respirator. Eye glasses with temple bars or straps that prevent a tight face seal shall be prohibited. Contact lenses shall be prohibited in contaminated atmospheres.

(3) Employees shall inspect respirators before and after each use and after cleaning. Any damaged or defective equipment shall promptly be reported to the Safety and Sanitation Coordinator and removed from service until the equipment is repaired or replaced.

(4) Each time that a respirator is donned the wearer shall perform a user seal check.

(5) For employees expected to use respirators as part of their job duties, eligibility shall be indicated through roster management notation, an eligibility list or other method. Eligibility records shall be updated in a timely manner.

b. IDLH Atmospheres

(1) Only SCBAs shall be used by employees during entry into potential IDLH atmospheres. SCBAs shall always be used in pairs. Additional requirements include:

(a) At least two standby employees with SCBAs and any suitable rescue equipment shall be positioned at a safe location near the entrance to the work area. Standby employees shall monitor the status of and be prepared to provide emergency assistance to employees in the work area.

(b) Visual, voice or signal line communications shall be maintained with employees in the work area.

(c) Direct visual contact shall be maintained among employees within the work area.

(2) The number of trained staff shall be reviewed on a continuing basis and training shall be provided according to need.

c. Airborne Infection Control

Employees shall wear appropriate respirators where there is a high likelihood of direct exposure to aerosolized infectious pathogens. Possible exposure scenarios can include, but are not limited to:

(1) Occupied respiratory isolation rooms.

(2) Cough-inducing or aerosol-generating procedures.

(3) High hazard or emergency surgical or dental procedures.
(4) Transport of infectious patients in closed vehicles.

d. Confined Spaces

(1) Prior to employee entry into a confined space the atmosphere within the space shall be evaluated. An atmosphere monitor which sounds a warning alarm when dangerous conditions are detected shall be used to test for the following hazards before and during employee entry (in order of testing):

(a) Oxygen content - less than 19.5% or greater than 23.5% by volume.

(b) Flammable gases, vapors, dusts or mists - greater than or equal to 10% of the lower flammable limit.

(c) Airborne combustible dust at a concentration which meets or exceeds its lower flammable limit.

(d) Atmospheric concentrations of any substance which exceeds permissible exposure levels.

(2) If a determination is made that a confined space atmosphere is unacceptable for employee entry, the space shall be ventilated with equipment designed for that purpose. Appropriate respiratory protection shall be used during employee entry if ventilation alone is not sufficient to abate the hazard. Written entry permits and records of atmosphere testing shall be maintained for a period of at least one year and a written program which meets IDOL requirements shall be observed.

(3) Where employees are unable to test or monitor confined space atmospheres prior to entry and, if necessary, provide appropriate ventilation or retrieval equipment, work shall be conducted by a qualified contractor. Only contractors with a written confined space entry program and appropriate equipment shall conduct the work.

e. Other

Where feasible engineering controls and work practices are not sufficient to limit employee exposure to other potentially harmful dusts, fogs, smoke, fumes, mists, gases, sprays, vapors or oxygen-deficient atmospheres, appropriate respiratory protection and training shall be provided.

3. Medical Screening and Evaluation

Employees shall not don or use respirators unless they are medically eligible.

a. Employees shall be required to complete an Employee Respiratory Protection Background Information, DOC 0227:

(1) Prior to wearing a respirator.

(2) Immediately upon a weight gain or loss of 20 pounds or more, change in health or dental status or any other condition which would necessitate changing a response on a previously completed DOC 0227 from a “no” to a “yes.”

(3) Annually.

b. If an employee has answered “yes” to any of the questions on a DOC 0227, a medical
evaluation shall be necessary. A physician or health care professional with appropriate licensure shall evaluate the employee’s ability to wear a respirator. No employee who answers affirmatively to any DOC 0227 question shall be allowed to use a respirator without first being deemed medically eligible.

c. Each DOC 0227 and any related medical records shall be retained by the employer for at least 30 years from the time that the employee leaves state employment.

4. Training

a. Employees who are required to use respirators shall be trained in the proper use of respirators prior to using the equipment and annually thereafter. Training shall include at a minimum:

(1) Review of this Administrative Directive.

(2) Information on when respirators are necessary and how improper fit, use or maintenance can compromise the protective effects of respirators.

(3) Guidelines for selecting respirators.

(4) Types of respirators; their limitations, maintenance, storage and useful life.

(5) Engineering and administrative controls and respirators as added protection.

(6) Recognition of medical signs or symptoms that may limit or prevent effective respirator use.

(7) How to don, doff, adjust and conduct a user seal check on any respirator to be used during the performance of job duties. An opportunity to handle and inspect the respirator shall be provided.

(8) For employees required to wear SCBAs, training shall also include basic equipment operation and emergency use and IDLH requirements. Initial training shall occur within one week following pre-service security training.

NOTE: No employee shall don a SCBA unless they are medically eligible in accordance with II.F.3.

(9) Upon request, the Environmental Health Coordinator shall provide information which can be used to satisfy the training requirements of II.F.4.a.(2)-(6) above.

b. Sign-in sheets shall serve as certification that employees have received and understood respirator training. Sign-in sheets shall contain employee names, the date(s) of training and a summary listing of topics (the listing may be on a separate sheet). All training documentation shall be kept on file for a period of at least three years.

c. Retraining shall occur for one or more of the following reasons:

(1) If specified as an annual cycle training requirement.

(2) If changes in the workplace render previous training obsolete.

(3) If changes in the type of respirator used render previous training obsolete.

(4) If employees demonstrate inadequate understanding or skill.
5. **Fit Testing**

   All employees who wear respirators shall pass a fit test prior to use of the equipment and at least annually thereafter or as required under specific occupational safety standards.

   a. Verification of medical eligibility shall occur prior to fit testing. A current DOC 0227 shall be on file for the employee.

   b. The employee shall demonstrate familiarity with donning, doffing, adjusting and removing the respirator prior to fit testing. An Employee Respirator Evaluation, DOC 0226, shall be completed prior to the employee's initial fit-test and all subsequent fit test sessions.

   c. Employees shall be fit tested within a test atmosphere using an acceptable OSHA protocol.

   d. An Employee Respirator Fit-Test Evaluation, DOC 0228, shall be completed at the time of testing. An alternative fit test record which contains at least the minimum elements of DOC 0228 may be used as a substitute for a DOC 0228.

   e. Respirators used for fit testing shall be cleaned and disinfected after each use.

   f. Fit testing shall be repeated immediately upon a weight gain or loss of 20 pounds or more, significant facial scarring or dental changes, reconstructive or cosmetic surgery or any other condition that may interfere with facepiece sealing.

   g. The employee's DOC 0226 and DOC 0228 shall be retained for at least three years.

6. **Storage and Maintenance**

   SCBAs shall be subject to storage and maintenance requirements contained in Administrative Directive 05.02.111. All other respirators shall be covered by the below requirements.

   a. Respirators and component parts shall be stored under sanitary conditions in a way that will protect the equipment from dust, sunlight, heat, extreme cold, excessive moisture or damaging chemicals.

   b. Reusable respirators shall be properly cleaned and disinfected according to the manufacturer's instructions after each use and prior to storage. All problems or defects shall promptly be reported to the Safety and Sanitation Coordinator.

   c. Any respirator or component part shall promptly be repaired or replaced:

      (1) At intervals according to the manufacturer's instructions.

      (2) If it fails to perform as designed.

      (3) If physical damage, filter loading or other conditions render it unsuitable for use.

   d. Repair or parts replacement shall be performed only by experienced persons and with parts designed for the affected respirator. All maintenance records shall be maintained. Suitable substitute respiratory protection shall be issued to employees awaiting repair or replacement of damaged or defective equipment.

   e. The Safety and Sanitation Coordinator shall inspect stored respirators on a monthly basis for the following:
(1) Cleanliness of respirators and storage areas.

(2) Damaged or defective respirators and parts.

(3) Mixing of components between different types or makes of respirators.

(4) Use of non-approved component parts.

f. A log sheet indicating the date of the inspection and of any findings shall be maintained. Inspection records shall be kept for a period of at least three years.

g. The Safety and Sanitation Coordinator shall establish performance objectives for any staff person who conducts inspections and acts as a designee for the Safety and Sanitation Coordinator (see Administrative Directive 03.03.110).

h. The following materials shall be readily accessible for employee review and kept in a secure area:

(1) NIOSH Publication 78-193B, Respiratory Protection...A Guide For the Employee.

(2) Manufacturer instructions on how to clean and disinfect the respirator after use.

i. Upon request the document listed in II.F.6.h.(1) or an acceptable alternative shall be provided by the Environmental Health Coordinator.

7. Asbestos

a. Employees authorized to engage in asbestos removal, renovation or maintenance activities shall maintain a valid Illinois Department of Public Health (IDPH) Asbestos Worker license. The license serves as evidence that the person has been trained in the proper use and care of respirators. For each licensee, current copies of the following documents shall be maintained at the facility:

(1) IDPH Asbestos Worker license.

(2) Form DOC 0226, Employee Respirator Evaluation.

(3) Form DOC 0227, Employee Respiratory Protection Background Information.

(4) Form DOC 0228, Employee Respirator Fit Test Evaluation.

b. Documented fit-testing shall be performed on employees who work with asbestos-containing materials (ACM) prior to use of the respirator and at least every six months thereafter.

c. Any employee who engages in small scale asbestos maintenance and renovation shall be issued a tight-fitting, powered, air-purifying respirator with HEPA or P100 filtration for their exclusive use.

d. Any employee shall be included in a medical surveillance program as required under 29 CFR 1910.1001 or 1926.1101 for one or more of the following reasons:

(1) When exposed to airborne asbestos fibers at or above permissible levels.

(2) When working with ACM for 30 or more days per year.
(3) When wearing a respirator to protect against inhalation of asbestos.

e. Employees required to work with ACM for less than 30 days per year shall be required to log their exposures. An Asbestos Work Record, DOC 0602, shall be maintained on file with the Safety and Sanitation Coordinator for not less than 30 years after the employee has left state government.

8. Program Evaluation

a. This Respiratory Protection Program shall be reviewed annually and revised as needed by the Environmental Health Coordinator.

b. Facility Safety and Sanitation Coordinators shall review this Administrative Directive at least annually or more frequently if hazard, task, procedure or equipment changes may affect respiratory protection practices.