



Provide a Safe Learning and Working Environment
SCHOOL DISTRICT 11 SAFETY STANDARD

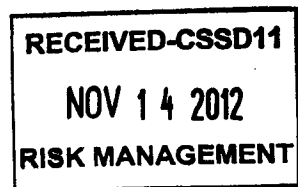
Colorado Springs School District 11
SAFETY STANDARD

Respiratory Protection Program

1. This Safety Standard was developed by the Safety Office-Risk Related Activities Department.
2. A technical review and content acceptance was performed by:
 - The Environmental and Life Safety Supervisor
 - The Environmental and Life Safety Assistant
 - The Chief of Mechanical Systems
 - The Director of Facilities
3. This Safety Standard was reviewed and accepted by the Director, Risk Related Activities Department.

Approved: _____ Date: 11/13/12

Glenn Gustafson
Deputy Superintendent/Chief Financial Officer





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Employee Respiratory Protection Program

Colorado Springs School District 11 is committed to providing a safe learning and working environment. This safety standard addresses employee use of respiratory protection to control exposure to airborne contaminants when performing select facilities maintenance, project activities, and emergency responses. The OSHA General Industry Respiratory Protection Standard was used as a reference in the development of this standard.

Safety Awareness and Practices

Engineering and work practice controls are considered the most effective methods to control exposures to airborne hazardous substances. Respirators should be used for protection only when (1) engineering controls have been shown to be infeasible for the control of the hazard or (2) during an interim period when engineering controls are being installed.

Program Description, Requirements and Responsibilities

1. This safety standard applies to employees who may encounter an occupational exposure to potentially hazardous airborne contaminants (harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors) while performing within the course of their position requirements and/or assigned emergency response responsibilities.
2. A written respirator protection program document will be developed, implemented, and maintained and will address specific requirements and procedures essential to employee safety and work practices.
3. Components of the program document include, but not limited to, the following:
 - a. Selection and use based on the identification and evaluation of the respiratory hazard.
 - b. Medical fitness for employees to confirm a respirator can safely be worn and used.
 - c. Equipment maintenance to ensure the respirator itself does not pose a hazard to the employee.
 - d. Employee training to heighten safety awareness and to ensure the employee is safely using the proper respirator.



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- e. **Equipment fit testing with either qualitative or quantitative methods, based on known exposure levels.**
 - f. **Employee participation in the formal program evaluation and identification of improvements or changes.**
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- 4. **The Environmental and Life Safety Supervisor is responsible for the program administration as described within the respiratory protection program document.**
 - 5. **The Chief of Mechanical Systems is responsible for assisting as needed with the program management, and ensure budget support is given to all program requirements.**
 - 6. **The Director of Facilities is responsible for the overall program administration and accountability.**
 - 7. **The Safety Manager in the Risk Related Activities Department will assist the program administrator as needed with program evaluation and accountability.**

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Colorado Springs School District 11 will ensure that known or reported respiratory hazards are evaluated, and that information concerning these hazards is communicated to employees.

The primary topics addressed in this document include:

- 1. Written Program**
- 2. Responsibilities**
- 3. General Information**
- 4. Respiratory Protection Training Program**
- 5. Employee Involvement**
- 6. Retraining and Refresher Training**
- 7. Minimum Program Elements**
- 8. Respiratory Selection Process**
- 9. Use of Respirators**
- 10. Hazard Evaluation**
- 11. Inspection, Maintenance and Care of Equipment**
- 12. Respirator Fit Testing**
- 13. Continuing Respirator Effectiveness**
- 14. Medical Evaluation**
- 15. Respiratory Protection Program Forms**
- 16. Definitions**
- 17. Fit Testing Procedures (Appendix A)**

The District 11 Environmental and Life Safety Supervisor is responsible for the Respiratory Protection Program management and administration.

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WRITTEN PROGRAM

- 1. School District 11 will develop, implement, and maintain a written respiratory protection program addressing procedures and elements required for respirator use. The program will be administered by the Environmental and Life Safety Supervisor hereinafter referred to as the Program Administrator, who will review and evaluate the written program:
 - a. On an annual basis, or**
 - b. If changes or events occur that require a revision, or**
 - c. If operational changes occur that requires a revision.****

- 2. The respiratory protection program applies to all School District 11 employees. The written program document is available to all employees, with a primary intent of identifying and communicating program goals and objectives.**

RESPONSIBILITIES

- 1. Respirators will be provided by the District when required to protect employee health.**
- 2. The respirator provided will be appropriate for the environmental conditions and approved by the program administrator.**
- 3. The District will provide a sufficient number of respirator models and sizes for employees to select from.**
- 4. Employees will use the respiratory protection in accordance with instructions and training received.**
- 5. The employee will guard against damage to the respirator, and will immediately report damaged or suspected problems to the program administrator.**

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GENERAL INFORMATION

- 1. Engineering controls are designed to control and/or minimize the threat of occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. The primary objective of this program will be to prevent atmospheric contamination, and this will be accomplished when possible by using accepted engineering control measures (i.e., enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not possible, or while they are being established, appropriate respirators will be used.**
- 2. When an exposure cannot be identified or reasonably estimated, the atmosphere in the area or location will be considered to be immediately dangerous to life or health (IDLH). District 11 employees will not work in IDLH or oxygen-deficient atmospheres, or in a gaseous or vaporous atmosphere.**
- 3. NIOSH certified respirators will be used. The respirator furnished will provide adequate respiratory protection against the particular hazard for which it is designated.**
- 4. Employees will receive training in the proper use of respirators and their limitations.**
- 5. Respirators will be regularly cleaned, disinfected, and inspected by the employee using the respirator. Worn or deteriorated parts will be replaced.**
- 6. Respirators will be stored in a convenient, clean, and sanitary location.**
- 7. The program administrator will perform (a) observations of work area conditions and degree of employee exposure or stress, and (b) a regular evaluation to determine program effectiveness.**
- 8. Employees will not be assigned to tasks requiring use of respirators unless a physician has determined they are physically able to perform the work and use the equipment. The medical status for all employees participating in this program will be reviewed on an annual basis.**

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RESPIRATORY PROTECTION TRAINING PROGRAM

1. The Environmental Services Office will develop a standardized training course to meet the requirement for a respiratory protection training program. The training will be comprehensive, clear, and as a minimum will be presented on an annual basis.
2. If a new employee is able to show that he or she has received training within the prior 12 months, the employee will not be required to repeat the training provided knowledge can be presented and demonstrated to the program administrator. In this circumstance, training by the District must be provided not later than 12 months from the date of the previous training.
3. The Environmental Services Office will conduct evaluations of the work area to ensure the written respiratory protection program is being properly implemented. Employees will be consulted to determine and ensure that they are using their respirators properly.
4. The Environmental Services Office will conduct program evaluations as necessary to ensure the provisions of this written program are being effectively implemented.
5. Training will be provided to each designated employee:
 - a. Before the employee is first assigned duties that require respiratory protection.
 - b. Before there is a change in assigned duties.
 - c. Whenever there is a change in operations that present a potential hazard for which an employee has not previously been trained.
 - d. Whenever the District has reason to believe there are deviations from established respiratory procedures required by this instruction, or inadequacies in the employee's knowledge or use of these procedures.
6. Training of employees as a minimum will include:
 - a. Putting on and removing respirators (donning and doffing).
 - b. All limitations on their use.
 - c. Maintenance requirements.
 - d. Procedures used for regular evaluations of the program.
 - e. Where respirator use is not required.

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7. The program administrator will ensure that each employee can demonstrate knowledge of the following:
 - a. Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
 - b. What the limitations and capabilities of the respirator are.
 - c. How to use the respirator correctly in emergency situations, including situations in which the respirator malfunctions.
 - d. How to inspect, put on and remove, use, and check the seals of the respirator.
 - e. What the procedures are for maintenance and storage of the respirator.
 - f. How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.

EMPLOYEE INVOLVEMENT

1. The District will regularly consult employees required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Problems or concerns identified during this assessment will be investigated and corrective actions taken as required.
2. The Environmental and Life Safety Supervisor is designated as the program administrator. They will conduct the program evaluations. The program factors to be assessed include, but not limited to:
 - a. Respirator fit (including the ability to use the respirator without interfering with effective work area performance).
 - b. Appropriate respirator selection for the hazards to which the employee is exposed.
 - c. Proper respirator use in the work area and the conditions encountered.
 - d. Proper respirator maintenance.
 - e. Employee proficiency and compliance required by this program.
 - f. The Director of Facilities and/or the Chief of Mechanical Systems will certify that employee training has been accomplished. Written certification will be maintained and contain:
 - The employee's name.
 - Signature(s) of the trainer(s).
 - The date(s) of training.
 - The written certification will be available for inspection by employees.

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RETRAINING AND REFRESHER TRAINING

- 1. Retraining will be administered annually, and will reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.**
- 2. As a minimum, retraining will be administered should the following situations occur:**
 - a. Changes in the work area or the type of respirator required render previous training obsolete.**
 - b. Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the necessary understanding or skills.**
 - c. Any other situation arises in which retraining appears necessary to ensure safe respirator use.**

MINIMUM PROGRAM ELEMENTS

This program will include the following minimum elements:

- 1. Procedures for selecting respirators for use in the workplace.**
- 2. Medical evaluations of employees required to use respirators.**
- 3. Fit testing procedures for tight-fitting respirators.**
- 4. Procedures for proper use of respirators in foreseeable emergency situations.**
- 5. Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators.**
- 6. Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators.**
- 7. Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations.**

RESPIRATOR SELECTION PROCESS

- 1. District 11 will allow employees to select respirators from a sufficient number of respirator models and sizes.**
- 2. The selection process will ensure a respirator is acceptable to and correctly fits the employee.**

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3. Selection of respirators will be made according to the specific hazard involved and in accordance with the manufacturer's instructions or other related requirements.
4. Asbestos required filter cartridges and canisters (P100 Magenta Filter cartridges and canisters) will be used and stored according to manufacturer's guidelines.
5. District 11 will ensure that all filters, cartridges and canisters used are labeled and color coded with the NIOSH approved label and that the label is not removed and remains legible.
6. Any assigned task or job having a potential for respiratory hazards will be evaluated by the Environmental and Life Safety Supervisor *prior* to any work being done to determine if employee respiratory protection is required.

USE OF RESPIRATORS

1. District 11 will ensure that any employee using a respirator is medically able to use that respirator, and that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the employee.
2. District 11 will provide respirators, training, and medical evaluations at no cost to the employee.
3. There are five conditions under which respirators must be used:
 - a. Known and regulated areas within a District facility.
 - b. In emergencies.
 - c. Where engineering and work practice controls are inadequate.
 - d. Where exposures exceed permissible limits.
 - e. During maintenance and repair activities or brief or intermittent operations where engineering and work practice controls are not feasible or required.
4. This document will specify standard procedures for respirator use.

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5. **The correct respirator will be specified for each work, task or project. The respirator type will be specified in the work procedures by the program administrator.**

The individual issuing them will be adequately instructed to ensure that the correct respirator is issued.

6. **Every respirator wearer will receive fitting instructions including demonstrations and practice on how the respirator should be worn, adjusted, and properly fitted. Respirators will not be worn when conditions prevent a good face seal. Such conditions may be a growth of beard, sideburns, a skull cap that projects under the face piece, jewelry or temple pieces on glasses. Also, the absence of one or both dentures can seriously affect the fit of a face piece and interfere with the face-to-face piece seal or valve function.**
7. **The face piece fit will be checked by the employee each time he/she puts on the respirator. This will be in accordance with the manufacturer's face piece fitting instruction.**
8. **Periodic checks of employees wearing respirators will be accomplished by the program administrator to assure proper protection. This will be done in accordance with the manufacturer's face piece fitting instructions.**
9. **If hair growth or apparel interferes with a satisfactory fit, then they must be altered or removed to allow a satisfactory fit.**
10. **Full-face respirators having provisions for optical inserts will be reviewed for use by the District, and will be used according to the manufacturer's specification. When employees must wear optical inserts as part of the face piece, the face piece and lenses will be fitted by assigned individuals to provide good vision, comfort, and a gas-tight seal.**
11. **Conventional eye glasses will not be used with full-face respirators. A proper seal cannot be established if the temple bars of eye glasses extend through the sealing edge of the full face piece.**

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12. Contact lenses will not be used with full-face respirators. Wearing of contact lenses in contaminated atmospheres with a respirator will not be allowed.
13. If corrective glasses or goggles are required, they will be worn so as not to affect the fit of the face piece. Proper selection of equipment will minimize or avoid this problem.
14. If an employee wears corrective glasses, goggles, or other personal protective equipment, the equipment must be worn in a manner that does not interfere with the seal of the face piece to the face of the user.
15. The following procedures must be performed to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive and/or negative pressure checks listed below will be performed, or the respirator manufacturers recommended user seal check method is to be used:
 - a. **Positive pressure check:** Close off the exhalation valve and exhale gently into the face piece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the face piece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.
 - b. **Negative pressure check.** Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the face piece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the face piece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.
 - c. The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check

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procedures provided that it can be demonstrated that the manufacturer's procedures are equally effective.

HAZARD EVALUATION

1. Environmental Services will develop and maintain a Job Hazard Analysis Program to identify and evaluate respiratory hazards. This evaluation will include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form.

RESPIRATORS FOR ATMOSPHERES THAT ARE NOT IDLH

1. The District will provide a respirator that is appropriate to protect the health of the employee, under routine and reasonably foreseeable emergency situations.
2. Respirators for protection against asbestos particulates. The District will provide:
 - a. an atmosphere-supplying respirator, or;
 - b. an air-purifying respirator equipped with a filter certified by NIOSH as a high efficiency particulate air (HEPA) filter, or an air-purifying respirator equipped with a filter certified for particulates by NIOSH.
3. For contaminants consisting primarily of particles with mass median aerodynamic diameters (MMAD) of at least 2 micrometers, an air-purifying respirator equipped with any filter certified for particulates by NIOSH.

INSPECTION, MAINTENANCE, and CARE of RESPIRATORY EQUIPMENT

1. The District will provide materials for cleaning, disinfecting, storage, inspection, and repair of respirators. Employees will ensure that respirators are cleaned and disinfected using procedures recommended by the respirator manufacturer. Equipment will be properly maintained to retain its original state of effectiveness.
2. Respirators will be cleaned and disinfected at the following intervals:
 - a. Respirators issued for *the exclusive use of an employee* will be cleaned and disinfected as often as necessary to be maintained in a sanitary condition.

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- b. Respirators maintained *for emergency use* will be cleaned and disinfected after each use.
 - c. Respirators used in *fit testing and training* will be cleaned and disinfected after each use.
3. All respirators will be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they will be packed or stored to prevent deformation of the face piece and exhalation valve.
 4. Respirators *used in routine situations* will be inspected by the employee before each use. A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the face piece, head straps, valves, connecting tube, and cartridges, canisters or filters.
 5. Respirators that fail an inspection or are otherwise found to be defective will be removed from service and discarded, repaired, or adjusted only by persons appropriately trained to perform such operations. Only the respirator manufacturer's NIOSH-approved parts, designed for the specific respirator, will be used.
 6. Frequent random inspections will be conducted by the Environmental Department to assure that respirators are properly selected, used, cleaned, and maintained. The respirator manufacturer's inspection criteria will be used as the basis for the inspections. Inspection records will be maintained in the Environmental Services Office.
 7. Routinely used respirators, such as dust respirators, may be placed in plastic bags. Respirators having removable cartridges with imbedded compounds that could evaporate into a sealed bag should be removed so as not to permeate into the rubber parts of the respirator. Respirators should not be stored in such places as lockers or tool boxes unless they are in carrying cases or cartons.

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RESPIRATOR FIT TESTING

1. Prior to any employee using a respirator, the District will conduct fit testing with the same make, model, style, and size of respirator that will be used by the employee.
2. The program administrator will establish a record of the qualitative and quantitative fit tests administered to an employee including:
 - a. Date of test.
 - b. Type of fit test performed.
 - c. The name or identification of the employee tested.
 - d. Specific make, model, style, and size of respirator tested.
 - e. Fit test records will be retained for respirator users until the next fit test is administered.
3. The program administrator will ensure that an employee using a tight-fitting face piece respirator is fit tested;
 - a. Prior to initial use of the respirator.
 - b. Whenever a different face piece (size, style, model or make) is used.
 - c. At least annually thereafter.
4. The program administrator will conduct an additional fit test whenever changes in the employee's physical condition occur that could affect respirator fit. Such conditions include, but not limited to;
 - a. Facial scarring.
 - b. Dental changes.
 - c. Cosmetic surgery.
 - d. An obvious change in body weight.

CONTINUING RESPIRATOR EFFECTIVENESS

1. Appropriate evaluations of work area conditions and degree of employee exposure or stress will be accomplished. When there is a change in work area conditions or degree

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of employee exposure or job stress that may affect respirator effectiveness, the program administrator will reevaluate the continued effectiveness of the respirator.

2. The program administrator will ensure that employees leave the respirator use area under the following conditions:
 - a. To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use.
 - b. If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece.
 - c. To replace the respirator or the filter, cartridge, or canister elements. If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece, this employer must replace or repair the respirator before allowing the employee to return to the work area.

MEDICAL EVALUATION

1. Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Prior to an employee being fit tested or use a respirator in a work area, the program administrator will schedule the employee to receive a medical evaluation by a medical provider that will be selected by the District. The evaluation will be used to verify an employee's ability to safely use a respirator.
2. The District may discontinue an employee's medical evaluations if the employee is no longer required to use a respirator.
3. The program administrator will ensure a follow-up medical examination is provided for an employee who gives a positive response to any question on the medical questionnaire, and/or demonstrates the need for a follow-up examination. If required, the follow-up examination will include any medical tests, consultations, or diagnostic procedures that the medical provider considers necessary to make a final determination.

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4. All medical services are confidential and will be administered during the employee's normal working hours, or a time agreed upon by the program administrator, the employee, and the employee's supervisor. At any time requested, an employee will have an opportunity to discuss examination results with the medical provider.

5. The medical provider will be provided with specific work requirements and information including, but not limited to:
 - a. The expected physical work effort.
 - b. Additional protective clothing and equipment to be worn and used.
 - c. Temperature and humidity extremes that may be encountered.
 - d. The type and weight of the respirator to be used by the employee.
 - e. The duration and frequency of respirator use, including use for rescue and escape.
 - f. Any supplemental information provided previously to the medical provider.
 - g. A copy of the written respiratory protection program.

6. If the District changes the authorized medical provider, the District will ensure the new authorized provider receives the information as described in item 5 above. Employees will not have to be medically reevaluated solely because of such a change.

7. In determining the employee's ability to use a respirator, the program administrator and the authorized medical provider will accomplish the following:
 - a. Obtain a written recommendation regarding the employee's ability to use the respirator.
 - b. Determine any limitations on respirator use related to any identified medical condition of the employee, or relating to the workplace conditions in which the respirator will be used.
 - c. Determine if there is a need for follow-up medical evaluations.
 - d. Ensure the employee has been provided with the authorized medical provider's written recommendation(s).
 - e. If the medical provider identifies a medical condition that may place an employee's health at risk by using a negative pressure respirator, following acceptance and approval by the medical provider, the District will provide a powered air-pressure respirator (PAPR). If a later medical evaluation finds an

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employee medically able to use a negative pressure respirator, the District will no longer provide a PAPR.

8. As a minimum, the District will provide additional medical evaluations based on the following conditions:
 - a. If an employee reports medically related complaints or symptoms that are associated to his or her ability to use a respirator.
 - b. If a medical provider, supervisor, or the program administrator identifies a need for reevaluation to include observations made during fit testing or other program evaluations which indicates the need for a reevaluation.
 - c. If a change occurs in the work area conditions (e.g., physical work effort, protective clothing, and temperature) that may result in a substantial increase in the physiological burden placed on an employee.

RESPIRATORY PROTECTION PROGRAM FORMS

1. The program administrator is responsible for the development, completion and maintenance of the forms and documents used and as prescribed within the written program document, to include;
 - a. Respirator assignment record.
 - b. Respirator inspection record.
 - c. Qualitative fit test form.
 - d. Respirator license form.
 - e. Selection of respirators form.
 - f. Cartridge change out schedule.
 - g. Medical evaluation questionnaire.
 - h. Employee respirator information.

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DEFINITIONS

Air-purifying respirator: A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Atmosphere-supplying respirator: A respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

Canister or cartridge: A container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

Demand respirator: An atmosphere-supplying respirator that admits breathing air to the face piece only when a negative pressure is created inside the face piece by inhalation.

Emergency situation: Any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.

Immediately dangerous to life or health (IDLH): An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Interior structural firefighting: The physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage.

Loose-fitting face piece: A respiratory inlet covering that is designed to form a partial seal with the face.

Employee exposure: Exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

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End-of-service-life indicator (ESLI): A system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

Escape-only respirator: A respirator intended to be used only for emergency exit.

Filter or air purifying element: A component used in respirators to remove solid or liquid aerosols from the inspired air.

Filtering face piece (dust mask): A negative pressure particulate respirator with a filter as an integral part of the face piece or with the entire face piece composed of the filtering medium.

Fit factor: A quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Fit test: The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

Helmet: A rigid respiratory inlet covering that also provides head protection against impact and penetration.

High efficiency particulate air (HEPA) filter: A filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

Hood: A respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

Negative pressure respirator (tight fitting): A respirator in which the air pressure inside the face piece is negative during inhalation with respect to the ambient air pressure outside the respirator.

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Oxygen deficient atmosphere: An atmosphere with an oxygen content below 19.5% by volume.

Physician or other licensed health care professional means: An individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by the respiratory protection standard.

Positive pressure respirator: A respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

Powered Air-Purifying Respirator (PAPR): An air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Pressure demand respirator: A positive pressure atmosphere-supplying respirator that admits breathing air to the face piece when the positive pressure is reduced inside the face piece by inhalation.

Qualitative fit test (QLFT): A pass or fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

Quantitative fit test (QNFT): An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Respiratory inlet covering: The portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a face piece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

Loose-fitting face piece: A respiratory inlet covering that is designed to form a partial seal with the face.

Negative pressure respirator (tight fitting): A respirator in which the air pressure inside the face piece is negative during inhalation with respect to the ambient air pressure outside the respirator.

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Self- Contained Breathing Apparatus (SCBA): An atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Service life: The period of time that a respirator, filter or sorbent or other respiratory equipment provides adequate protection to the wearer.

Supplied-air respirator (SAR) or airline respirator: An atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

Tight-fitting face piece: A respiratory inlet covering that forms a complete seal with the face.

User seal check: An action conducted by the respirator user to determine if the respirator is properly seated to the face.

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**Appendix A
Respirator Fit Testing Procedure**