

# **RESPIRATORY PROTECTION PROGRAM**

October 2019

II. Scope

make decisions to ensure the success of the program.

#### The Program

- 1. Identifying work areas, processes, or tasks that require employees to wear respirators, and evaluating the associated hazards;
- 2. Selecting appropriate, approved respiratory protection options;
- 3. Monitoring respirator use to ensure that respirators are used in accordance with their certifications;
- 4. Arranging for and or conducting training;
- 5. Ensuring proper storage and maintenance of respiratory protection equipment;
- 6. Conducting qualitative fit testing;
- 7. Administering the medical surveillance program;
- 8. Maintaining required program records;
- 9. Evaluating the respiratory protection program;
- 10. Updating the written program, as necessary, and,
- 11. Monitoring work areas and operations to identify respiratory hazards.
- B. Dean/Supervisor

The Dean/Supervisor or their designee has the responsibility to halt any operation where danger is perceived to any employees in a location or work area in the District where respirators may be used and notify inistrator above immediately to take corrective action. Ensuring that

- 1. Dusts and fibers are solid particles that are formed or generated from solid materials through mechanical processes such as crushing, grinding, drilling, abrading or blasting. Examples are lead, silica, and asbestos.
- 2. Fumes are solid particles in the air that result when a metal or other solid vaporizes and the molecules condense (or solidify) in cool air. Examples are metal fumes from smelting or welding. Fumes also may be formed from processes such as soldering.
- 3. Mists are tiny droplets of liquid suspended in the air. Examples are oil mist produced from lubricants used in metal cutting operations, acid mists from electroplating, and paint spray mist from spraying operations.
- 4.

E. When to Leave the Work Area

Employees must leave the respirator work area:

- 1. To wash their faces and respirators as necessary.
- 2. If they detect vapor or gas breakthrough, changes in breathing resistance or face-piece leakage.
- 3. To replace cartridges or filters
- F. Respirator Training

District employees must be **trained on respirator** safety before using a respirator and should be retrained at least every year. The District must select a knowledgeable and qualified person to do the respirator training.

Employees should also be **retrained** when the type of respirator is changed or when a staff member demonstrates poor understanding of safe work practices.

G. Proper air quality testing

The Program Administrator must monitor the work area for changing conditions and degree of employee exposure or stress utilizing proper air quality testing and share the results with Faculty and staff.

- Combination Air-Supplied Respirators have an extra self-contained air supply for emergencies when the regular supply fails. They may be used in IDLH environments.
  Self-Contained Breathing Apparatus

To assure proper protection, the wearer will check the face piece fit each time it is in use by performing negative and positive fit checks prior to each use.

# A. Fit Testing Procedure

A properly fitting respirator is essential if employees are to receive maximum protection against airborne contaminants. Employees must be fit-tested with the same make, model, style and size of respirator that they will use in the workplace. If an employee obtain a satisfactory fit with a respirator, the District must take steps to correct the problem. Respirator fit testing will be performed after completing the medical questionnaire and receiving a medical release. The Respirator Fit Test form (see Appendix A page 13) shall be filled out and signed to document fit testing.

#### 1. Positive Pressure Check

To perform a **positive pressure seal check**, close off the exhalation valve and exhale gently into the face piece. The face piece 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 seal testing requires the wearer to first remove the exhalation value cover before closing off the exhalation valve and then carefully replace it after the test. (see Appendix B page 13)

2. Negative Pressure Check

To perform a **negative pressure seal check**, close off the inlet opening of the canister or cartridge by covering with the palm of your hand or by replacing the filter seal. Inhale gently so that your face piece collapses slightly and hold your breath for 10 seconds. 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. (See Appendix B page 13)

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 nitrite glove.

B. Voluntary Respirator Usage

respirators at no cost to employees. The District requires employee to read and understand

#### <u>Appendix D § 5144</u>.

Employees who decide to use respirators voluntarily must:

- 1. Read and obey all instructions provide by the manufacturer.
- 2. Choose respirators certified to protect against the contaminant in question.

Employees who decide to use respirators must NOT:

- 1. Wear respirators in atmospheres containing contaminants for which the respirators are not designed. For example, a respirator designed to filter dust particles will not protect against gases or vapors.
- 2. respirator.

### C. Respirator Care

#### 1. Inspection

All respirators must be **inspected** before each use and during cleaning. Emergency respirators must be inspected monthly and after each use. Defective respirators must be removed from service. Respirators must be inspected for:

- a. Proper function
- b. Tightness of connections
- c. Proper condition of components
- d. Signs of deterioration on elastomeric parts such as those made from rubber or silicone
- 2. Cleaning Procedure

Respirators must be **cleaned and disinfected** as often as necessary to maintain sanitation. They must be cleaned after each use and before use by another employee. Respirators used in fit testing or training must also be cleaned and disinfected after each use. There are key steps when cleaning respirators: (see Appendix B-2 page 13)

- a. Remove cartridges, filters and canisters.
- b. Disassemble face piece by removing the diaphragm, values and other components.
- c. Wash in warm water with a disinfecting cleaner. Use a stiff bristle brush to remove dirt. however.)
- d. Rinse thoroughly in warm water.
- e. Dry with a lint-free cloth or allow to air dry.
- f. Reassemble the respirator.
- g. Test to make sure all components work properly.
- 3. Maintenance & Repair

For proper respiratory protection, the seals on the face piece must be maintained. Therefore:

- a. Employees may not have facial hair under the sealing surfaces of the face piece. Facial hair is not allowed to interfere with valve function.
- b. If employees wear glasses or personal protective equipment while using respirators, they must not interfere with maintaining the seals.

supervisor should have replacement parts such as fresh cartridges on hand. Respirator repairs may be performed only by appropriated trained persons, and all repair parts must be NIOSH-approved. Valves, regulators and alarms should be repaired only by the manufacturer, where applicable.

4. Storage

Everyone should know where their respirators are located, in an area accessible to the worksite. Respirators must b

This section requires the District to establish and retain written information regarding medical evaluations, fit testing, and the respirator program. This information will facilitate employee involvement in the respirator program, assist the District in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.

### A. Medical Evaluation

Records of medical evaluations required by this section must be retained and made available in accordance with section 3204.

# B. Fit Testing

The District shall establish a record of the qualitative and quantitative fit tests administered to an employee including:

- 1. The name or identification of the employee tested;
- 2. Type of fit test performed;
- 3. Specific make, model, style, and size of respirator tested;
- 4. Date of test; and
- 5. The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.
- C. Fit Test Records

Fit test records shall be retained for respirator users until the next fit test is administered.

D. Written Respirator Program

A written copy of the current respirator program shall be retained by the District.

E. Other Written Materials

Written materials required to be retained under the Cal/OSHA Respiratory Protection Program shall be made available upon request to affected employees and designated OSHA staff for examination and copying.

#### X. Definitions

**Air-Purifying Respirator (APR)** A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying.

Assigned protection factor (APF) means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the District implements a continuing, effective respiratory protection program.

**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 (SAR's) and self-contained breathing apparatus (SCBA) units.

**Canister** or cartridge a container with a filter, sorbent, or catalyst, or a combination of these items, that 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 substantial release of an airborne contaminant.

**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.

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

# XI. Major Types of Respirators & Common Uses

Respirator Type	Common Uses	Example
Disposable or Filtering Face piece Respirator (e.g. N95). Includes all disposables with N, R, or P and 95, 99 or 100 combination ratings (e.g., R99).	Animal Care (DLAM) Nursing EMTs Most Infectious Agents Nuisance Particulates Non-Toxic Dusts /Powder Wood & Metal Shops Mold Custodial Services	
Half-Face Air Purifying Respirator. Requires Chemical-Specific Cartridges and/or Filters.	Organic Vapors & Solvents Toxic Dusts / Powders Asbestos, Lead, Mold Acid Gases Formaldehyde Radionuclides Mercury Most Infectious Agents Nanoparticles Welding Fumes	