

# Respiratory Protection

OAR 437 Division 2/I



## General industry requirements

Respiratory protection is required when control of the hazard is not achievable through engineering controls or while controls are being set up.

Employers must implement a comprehensive written respiratory program when employees are exposed to – or potentially exposed to – hazardous gases or vapors, dust, fumes, mists, other airborne particles and infectious agents, or insufficient levels of oxygen.

An effective respiratory protection program consists of worksite-specific procedures and policies that address all respiratory-protection elements as required by federal OSHA Rule 1910.134, *Respiratory Protection*. Employers must provide respirators, training, and medical evaluations at no cost to employees.

## Respiratory Program element highlights

- Appoint an administrator to oversee and implement program.
- Identify respiratory hazards; estimate or measure worker exposure.
- Select appropriate National Institute for Occupational Safety and Health (NIOSH)-certified respirators and respirator components.
- Provide medical evaluations; ensure records are kept.
- Fit-test workers who wear respirators with tight-fitting facepieces; maintain records.

- Develop procedures for using respirators in routine situations and emergencies.
- Ensure voluntary respirator users receive a copy of 1910.134, Appendix D.
- Train all workers required to wear respirators.
- Ensure that respirators are clean, sanitary, and properly stored.
- Ensure that breathing air for atmosphere-supplying respirators meets Grade D quality.
- Evaluate the program to be sure it is effective.

### Q | What are the qualifications for an administrator?

An administrator must have training or experience according to the program's level of complexity. Training is appropriate if it enables the administrator to recognize, evaluate, and control workplace hazards.

### Q | How do I identify and evaluate worksite hazards?

Conduct a worksite hazard analysis, which is a decision-making process that results in determining if a hazard or potential hazard is present. It should focus on worksite chemicals, process equipment, production material and by-products, and the capabilities, limitations, and possible failures of the process.

Determine the state and physical form of the hazard; solid, liquid, or gas. Select appropriate respiratory protection based on the hazard. Develop procedures for respiratory use in routine situations and emergencies.

Personal monitoring is the most accurate way to obtain worker exposure information. Federal OSHA's [Small Entity Compliance Guide](#) has suggestions for measuring or making reasonable estimates of worker exposure. If you are unable to determine or estimate employee exposure, you must consider the worksite atmosphere "immediately dangerous to life or health" (IDLH) and select appropriate respiratory protection.

### Q | What is appropriate respiratory protection?

Only NIOSH-certified respirators can be used. NIOSH has [standard respirator testing procedures](#). This certification establishes filter efficiency and filter efficiency degradation classifications. Respirators must be used in compliance with the conditions of their certification.

### Q | What is the requirement for medical evaluations and record retention?

Medical evaluations are required prior to the fit-test and before respirator use. Beyond the initial medical evaluation, there are no annual or periodic requirements. However, certain conditions could trigger medical reevaluation: an employee reports signs or symptoms related to the ability to wear a respirator; the physician or other licensed health-care professional (PLHCP), program administrator, or supervisor determines it is necessary; the respiratory protection program indicates a need for reevaluation; or substantial changes in workplace conditions increase the physiological burden of wearing a respirator.

Medical questionnaires can be completed at the workplace as long as employee information is kept confidential. The PLHCP, operating within the scope of their license, performs a medical evaluation in

conjunction with the questionnaire and provides a written recommendation regarding the employee's ability to use the respirator. Medical evaluation records must be kept in accordance with 1910.1020, *Access to Employee Exposure and Medical Records*.

### Q | What are the training requirements?

Employers must provide training that is comprehensive and understandable, and it must reoccur at least annually. Any format or media can be used, as long as the training is effective and covers all training elements defined in the standard. The employee must be able to demonstrate respirator use competency and an understanding of the training components.

### Q | What is the fit-testing requirement for tight-fitting respirators?

Mandatory use of negative- or positive-pressure tight-fitting respirators (including dust masks) requires fit testing. Loose-fitting respirators (hoods) do not. Fit test before initial use; whenever a different size, style, or manufacture's respirator facepiece is used; and at least annually. Employees must pass an appropriate qualitative or quantitative fit test administered according to accepted protocols and procedures contained in 1910.134, Appendix A, *Fit Testing Procedures* (Mandatory). Maintain fit-test records until the next fit test.

Seal checks are not a substitute for fit testing. Employees must perform a seal check each time tight-fitting respirators are used. Tight-fitting respirators may not be worn when there is facial hair between the sealing surface of the facepiece and the face; hair cannot interfere with valve function.

## Q | What are the cleaning, inspection, and storage requirements?

Clean and disinfect using the procedures found in Appendix B-2, *Respiratory Cleaning Procedures (Mandatory)* or equally effective manufacturer's procedures:

- As often as necessary to maintain sanitary condition
- After each use, if used by more than one person
- Before being issued to another person
- After each use for emergency-use and fit-testing/training respirators

Inspect and store respirators according to 1910.134; inspect regularly to ensure they're in good condition and safe to use; inspect before each use and during cleaning. Clean and dry before storing, and store away from sun, dust, heat, chemicals, cold, and moisture. Emergency respirators must be immediately accessible and clearly marked.

## Q | What are the respiratory protection requirements for "voluntary" use of respirators?

Voluntary use of respiratory protection is highlighted in the [Voluntary Respiratory Protection fact sheet](#). The respiratory protection standard requires that employees who voluntarily use respirators receive a copy of 1910.134, Appendix D, *Information for Employees*.

## Q | What is the requirement for compressed breathing air?

Compressed breathing air must meet at least the requirements for Grade D breathing air. ANSI/CGA G.7-1-1989 specifies the contents of Grade D breathing air as 19.5 percent to 23.5 percent oxygen; 5 mg/m<sup>3</sup> or less condensed hydrocarbon; 10 ppm or less carbon monoxide; 1,000 ppm or less carbon dioxide; and the lack of a noticeable odor.

## Q | What is the evaluation process for respiratory protection programs?

Evaluation frequency depends on the program complexity and variability of workplace processes. Conduct evaluations of the workplace to ensure that all elements of the written respiratory program are properly implemented and effective. Observe and consult with employees to determine if they have problems and to ensure respirators are used properly.

### More information

- ☞ Federal OSHA's [General Respiratory Protection Guidance](#) and [Major Requirements](#)
- ☞ [NIOSH Guide to the Selection and Use of Particulate Respirators](#)
- ☞ [NIOSH Respirator Overview](#)
- ☞ [Oregon OSHA Program Directive 233: Respiratory Protection](#)
- ☞ [Oregon OSHA's Breathe Right! Guidebook](#)
- ☞ Oregon OSHA Rules: OAR 437, Division 2/I, Personal Protective Equipment; Division 3/E, Personal Protective and Life Saving Equipment; Division 4/I, Protective Equipment; Division 7/D, Personal Protective Equipment and Programs



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