

## Respiratory Protection

OAR 437  
Division 2/I

### Respiratory Protection

#### General-Industry Requirements

Employers must implement a comprehensive written respiratory program when employees are exposed or potentially exposed to hazardous gases or vapors, dust, fumes, mists, other airborne particles and infectious agents, or insufficient levels of oxygen. Respiratory protection is required when control of the hazard is not feasible through engineering controls or while controls are being instituted. An effective respiratory protection program consists of worksite-specific procedures and policies that address all respiratory-protection elements as required by 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 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 make sure it is effective.

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

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

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

A Conduct a worksite hazard analysis. A hazard analysis 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. OSHA's **Small Entity Compliance Guide** has suggestions for measuring or making reasonable estimates of worker exposure. ([www.osha.gov/Publications/secgrev-current.pdf](http://www.osha.gov/Publications/secgrev-current.pdf)) 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.

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## Q What is appropriate respiratory protection?

A Only NIOSH-certified respirators can be used. NIOSH updated its respiratory-certification procedures in 1995 under 42 CFR Part 84 ([www.cdc.gov/niosh/part84.txt](http://www.cdc.gov/niosh/part84.txt)). 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?

A 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 re-evaluation: an employee reports signs or symptoms related to the ability to wear a respirator; the physicians or other licensed health-care professional (PLHCP), program administrator, or supervisor determines it is necessary; the respiratory-protection program indicates a need for re-evaluation; 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?

A 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?

A Mandatory use of negative- or positive-pressure tight-fitting respirators (including dust masks) requires fit testing. Loose-fitting respirators (e.g., hoods) do not. Fit test prior to initial use; whenever a different size, style, or manufacturer's respirator facepiece is used; and at least annually. Employees must pass an appropriate qualitative or quantitative fit test administered in accordance with 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?

A Inspect and store respirators in accordance with 1910.134. Clean and disinfect using the procedures found in Appendix B-2, **Respiratory Cleaning Procedures (Mandatory)** or equally effective manufacturer's procedures. Sanitize respirators worn by different individuals, emergency-use respirators, and training/fit-testing respirators prior to use.

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

A Voluntary use of respiratory protection is highlighted in the "**Voluntary Respiratory Protection**" fact sheet found on OR-OSHA's Web site. 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 breathing air?

A 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 to 23.5% 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?

A Evaluation frequency will depend 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 that respirators are used properly.

### Resources

For the full text of Oregon-OSHA rules for respiratory protection, refer to **OAR 437, Division 2/I, Personal Protective Equipment; Division 3/E, Personal Protective and Life Saving Equipment; Division 4/I, Protective Equipment; Division 5, Maritime Activities (1915/I, 1917/E, and 1918/J); Division 7/D, Personal Protective Equipment and Programs; and substance-specific standards** on Oregon OSHA's Web site, [www.orosha.org](http://www.orosha.org). (Rules/Laws)

### Related resource links

[www.osha.gov/SLTC/respiratoryprotection/index.html](http://www.osha.gov/SLTC/respiratoryprotection/index.html)

[www.osha.gov/dcsp/ote/trng-materials/respirators/major\\_requirements.html](http://www.osha.gov/dcsp/ote/trng-materials/respirators/major_requirements.html)

[www.cbs.state.or.us/external/osha/pdf/pds/pd-233.pdf](http://www.cbs.state.or.us/external/osha/pdf/pds/pd-233.pdf)

[www.cdc.gov/niosh/userguid.html](http://www.cdc.gov/niosh/userguid.html)

[www.cbs.state.or.us/external/osha/pdf/pubs/3330.pdf](http://www.cbs.state.or.us/external/osha/pdf/pubs/3330.pdf)

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