

Introduction

Every day, workers depend on respiratory protection to keep them safe from contaminant exposures encountered in the workplace. This includes workers in industries such as oil and gas, construction, mining, manufacturing, healthcare, and public safety/emergency response. Respirators protect workers against low-oxygen environments, harmful dust, fog, smoke, mists, gases, vapors, and sprays, which can cause acute or chronic impairment, disease, or death.



What is Respiratory Protection?

A respirator is a device that is designed to protect the wearer from inhaling hazardous atmospheres and/or contaminants. Respirators can protect users by removing contaminants from the air (air-filtering) or by supplying clean respirable air from another source (air-supplying). Respirators that fall into the air-supplying category include airline respirators, which use compressed air from a remote source; and self-contained breathing apparatus (SCBA), which include their own air supply.

Respirators should only be used in situations where substitution, engineering, and administrative controls are in place, and where employee exposures to hazardous atmospheres and airborne contaminants are still above established exposure limits despite the use of all other feasible controls. It is important to be aware that the use of respirators in response to workplace contaminants is the "last line of defense" against respiratory hazards.

OSHA Respiratory Protection Requirements

The Occupational Safety and Health Administration (OSHA) general industry regulations applicable to respiratory protection are found in 29 CFR 1910.134. The construction industry regulations relating to respiratory protection (29 CFR 1926.103) refer employers to the more robust general industry regulations.



If employees use respirators, even on occasion, respiratory protection foundational training, hazard or chemical-specific training, annual refresher training, and situational retraining must be performed.

The National Institute for Occupational Safety and Health (NIOSH) approves respirators in accordance with the 42 Code of Federal Regulations Part 84 (42 CFR 84). NIOSH also provides guidance for their use in occupational settings and develops standards in collaboration with government and industry partners.

Employee exposure to hazardous atmosphere or airborne contaminants in the workplace and a non-existent or insufficient respiratory protection program (RPP) may result in OSHA violations and fines. It is essential for employers to understand the importance of having an RPP and training workers appropriately to not only comply with regulations but to protect workers from harmful exposures.



Respiratory Protection Training

The purpose of the RPP is to ensure that all OSHA respiratory protection requirements are summarized and employees are protected from adverse exposure to respiratory hazards in the workplace.

Training is an important part of the respiratory protection program and is essential for correct respirator use. Employees working under an RPP must receive training prior to using a respirator. For the training to be effective, the training must be comprehensive and presented in an understandable way.

OSHA regulations require employers to train all workers who use respiratory protection devices to recognize which equipment is suitable for the potential exposure scenario and work tasks, as well as each assigned or available respiratory device's capabilities and limitations. Workers also must be trained on the actual use of respiratory protection equipment.

Basic respiratory protection training must cover, at a minimum, the following topics:

01

Requirements of the OSHA respiratory protection standard

02

Why respirator use is necessary

03

Proper selection of appropriate respirators

04

Procedures for inspecting, donning, doffing, seal/fit testing, wearing, maintaining, cleaning, and storage of assigned respiratory devices 05

Safety and health consequences of improper fit, usage, or maintenance of respirators 06

Limitations and capabilities of the respirator selected, including expected service life and cartridge change schedules (as appropriate)

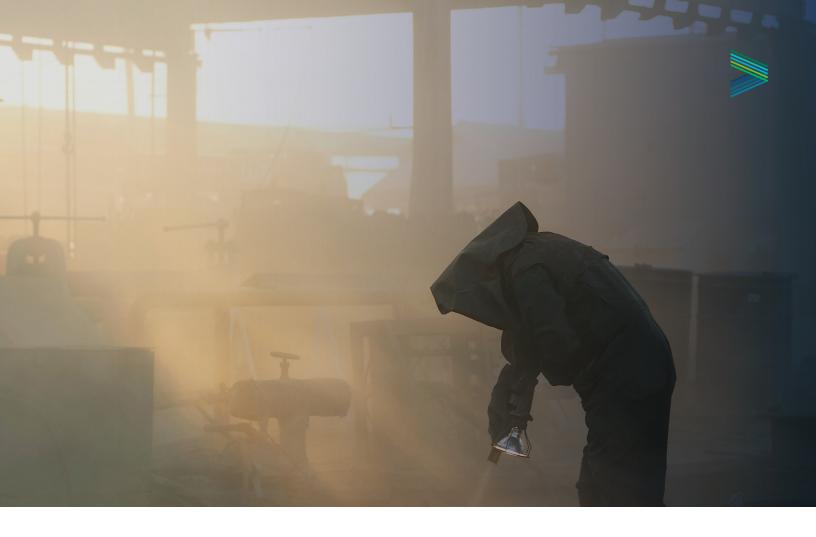
07

Use of respirators in emergencies and any malfunctions that could occur

08

Signs and symptoms that may prevent or limit effective use of respirators

All respirator training is required to be documented by the employer, including the type, model, and size of the respirator assigned to each employee.



Training for Specific Hazards

Employers are required to identify job-specific hazards and ensure that their workers attend safety training appropriate for the work or tasks to be performed. Hazardous atmosphere and contaminant-specific training is also required for each exposure scenario that provides employees with in-depth knowledge of the contaminant(s) of concern, considerations for working around these hazards, and detailed information about respiratory protection measures relative to specific respiratory use. Some of these hazards include (but are not limited to), H2S, asbestos, lead, silica, heavy metals, petroleum compounds and mixtures, and volatile organic compounds (VOCs).

Ongoing Respiratory Protection Training Requirements

Respiratory protection refresher training must be done annually. Circumstances requiring retraining include work situations where changes in the type of respirator assigned to the employee render previous training obsolete or inadequate, or when the worker(s) have not acquired sufficient understanding or skill to use assigned respirators properly.



Whether you have an existing respiratory protection program or are developing one for the first time, the fundamental goal is the same: to protect workers from harmful atmospheres as part of a hierarchy of controls within their workplace. For your employees, it is important for them to understand the exposure hazards of the tasks they are assigned, the need for respirators, how each class of required respirators work, how to appropriately wear and care for their respirators, and what respirator limitations are as they go about their work.

Authored by members of the Veriforce Strategic Advisory Board:

James A. Junkin, CSP, MSP, SMS, ASP, CSHO

Dr. Linda F. Martin, PhD, PMP, CIH, CSP, MSP, CHMM

Bill Walker, CSP, CIH