

# Safety Zone: Respiratory Protection Program **Best Practices**

## Respiratory Protection Program

A respiratory protection program is a collection of written worksite-specific procedures and policies that, taken together, address all respiratory protection elements required by OSHA.

For example, a respiratory protection program must contain specific procedures describing how respirators will be selected, fitted, used, maintained and inspected in a particular workplace. When respirators are used during operations where exposures exceed OSHA's permissible exposure limit (PEL), properly functioning respirators are essential to ensure that employees are not placed at significant risk of material impairment of health.

### When to use the Respiratory Protection Program

Generally, you are required to establish a respiratory protection program whenever you or OSHA require your employees to wear respirators. You may need to establish a respiratory protection program if:

- Your employees work in situations where the level of oxygen is insufficient or potentially insufficient.
- Your employees are potentially exposed to harmful levels of hazardous gases or vapors.
- Your employees are exposed to other potential respiratory hazards, such as dust, airborne biological hazards, mists, fumes, sprays, and other airborne particles.

Employees must be supplied with respirators when all preferred methods of protecting them from breathing contaminated air have been determined to be insufficient to reduce the contamination to non-hazardous levels. You must also consider the potential for emergencies, that is, for reasonably foreseeable emergencies, when evaluating the respiratory hazards in the workplace. These preferred methods include:

- Engineering controls, such as local or general dilution ventilation, change of the work process, isolation or enclosure, or substitution.
- Administrative controls, such as employee rotation or scheduling major maintenance for weekends or when few employees are present.

The standard operating procedures that protect each employee from respiratory hazards are outlined in OSHA's respiratory protection standard (1910.134).

### A written respiratory protection program should include the following provisions

**Procedures for the proper selection of respirators for use in the workplace:** Respirators are selected based on respiratory hazards to which the worker is exposed and workplace and user factors that affect respirator performance and reliability. Select a NIOSH-certified respirator (NIOSH stands for the National Institute for Occupational Safety and Health). Identify and evaluate the respiratory hazard(s) in the workplace, including a reasonable estimate of employee exposures to respiratory hazard(s) and identifying the contaminant's chemical state and physical form. Consider the atmosphere to be immediately dangerous to life or health (IDLH) if you cannot identify or reasonably estimate employee exposure. The Program Administrator makes all selections. The Program Administrator will develop detailed written standard operating procedures governing the selection of respirators using 29 CFR 1910.134(d) and the following guidelines: Detailed procedures will be included as appendices to the respirator program. Outside consultation, manufacturer's assistance, and other recognized authorities should be consulted if there is any doubt regarding proper selection.

**Medical evaluations of employees required to use respirators:** A medical evaluation to determine whether an employee can use a given respirator is an important element of an effective Respiratory Protection Program and is necessary to prevent injuries, illnesses, and even, in rare cases, death from the physiological burden imposed by respirator use.

**Fit testing procedures for tight-fitting respirators:** Qualitative fit testing (QLFT) involves the introduction of a gas, vapor, or aerosol test agent into an area around the head of the respirator user. If that user can detect the presence of the test agent through subjective means, such as odor, taste, or irritation, the respirator fit is inadequate. In a quantitative respirator fit test (QNFT), the adequacy of respirator fit is assessed by measuring the amount of leakage into the respirator, either by generating a test aerosol as a test atmosphere, using ambient aerosol as a test agent, or using controlled negative pressure to measure the volumetric leak rate.



**Procedures for proper use of respirators:** Do not permit respirators with tight-fitting facepieces to be worn by employees who have: Facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function or any condition that interferes with the face-to-facepiece seal or valve function. If an employee wears corrective glasses or goggles or other personal protective equipment, ensure that such equipment is worn in a manner that does not interfere with the seal of the facepiece to the face of the user. For all tight-fitting respirators, ensure that employees perform a user seal check each time they put on the respirator using the procedures in 29 CFR 1910.134 Appendix B-1 (User Seal Check Procedures) or procedures recommended by the respirator manufacturer that you can demonstrate are as effective as those in Appendix B-1.

Appropriate surveillance of work area conditions and degree of employee exposure or stress must be maintained. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, reevaluate the continued effectiveness of the respirator.

**Ensure that employees leave the respirator use area:** To wash their faces and respirator facepieces as necessary to prevent eye or skin irritation associated with respirator use; or if they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece; or 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 facepiece, replace or repair the respirator before allowing the employee to return to the work area.

## Procedures for IDLH Atmospheres

**Ensure that:** One employee or, when needed, more than one employee is located outside the IDLH atmosphere; Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere; The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue; The employer or designee is notified before the employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue; The employer or designee authorized to do so by the company, once notified, provides necessary assistance appropriate to the situation; Employee(s) located outside the IDLH atmospheres are equipped with: Pressure demand or other positive pressure self-contained breathing apparatuses (SCBAs), or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either: Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry.

## AmTrust Financial Services, Inc. makes the following recommendations when setting up a Respiratory Program

- Develop procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators.
- Provide training of employees in the respiratory hazards to which they are potentially exposed during routine and emergencies.
- Provide training for employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance.
- Develop procedures for regularly evaluating the effectiveness of the program.

For additional information on developing a respirator program, you may log on to

<https://www.osha.gov/respiratory-protection/general>

## The following documents are helpful references

- OSHA standard 29 CFR 1910.134, Respiratory Protection, and Appendices
- OSHA standard 42 CFR 84, Approval of Respiratory Protective Devices
- ANSI Z88.2, Respiratory Protection
- NIOSH Guide to the Selection and Use of Particulate Respirators Certified Under 42 CFR 84 (4/23/96)

For additional information and resources on this topic and other safety and risk management subjects, be sure to visit the AmTrust Loss Control section on our website

<https://amtrustfinancial.com/loss-control>

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