

MIOSHA Fact Sheet

Respiratory Protection



To reduce or eliminate occupational disease caused by exposure to air contaminated with harmful dusts, fog, fumes, mists, gases, smokes, spray, or vapors, the primary objective is to reduce or eliminate the atmospheric contamination. The prevention of atmospheric contamination must be accomplished, as far as feasible, by engineering control measures or by substitution of less toxic materials. When engineering controls are not feasible, or while they are being implemented, appropriate respiratory protection must be used.

Respirators are a common item of personal protective equipment found on construction work sites. Respiratory protection can range from simple particulate dust masks to supplied-air hoods. Any respirator used must be certified by the National Institute for Occupational Safety and Health (NIOSH).

Employer Responsibilities

The General Industry and Construction Standard [Part 451, Respiratory Protection](#), applies to all construction work operations where an employee uses a respirator. There are different sections of the standard that are required based upon the use of the respirator.

The employer must establish and implement a written respiratory protection program, with worksite-specific procedures, wherever respirators are necessary to protect the health of the employee or whenever respirators are required by the employer. The program shall be updated as necessary to reflect those changes in workplace conditions that affect respirator use. The written program must include the following:

- Procedures for selecting respirators for use in the workplace.
- Medical evaluation of employees required to use respirators.
- Fit testing procedures for tight-fitting respirators.
- Procedures for proper use in routine and emergency situations.
- Procedures and schedules for cleaning, disinfecting, storing, inspecting, and otherwise maintaining respirators.
- Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators.
- Training of employees in the respiratory hazards to which they are potentially exposed.
- Training of employees in the proper use and limitations of respirators.
- Procedures for regularly evaluating the effectiveness of the program.

Where respirator use is not required, an employer may allow employees to voluntarily wear respirators. In this case, whether respirators are supplied by the employer for voluntary use, or employees decide to use their own respirators, there are still some requirements based on the type of respirator.

LEO is an equal opportunity employer/program.



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- If the employer determines that any voluntary respirator use is permissible, the employer shall provide the respirator users with the information contained in Appendix D to the standard. This information can be provided verbally or in written form. It is recommended that the method of providing the information be documented.
- If the respirator to be used voluntarily is a filtering facepiece (dust mask) then the sole requirement is that the employer shall provide the information contained in Appendix D to the standard. This information can be provided verbally or in written form. It is recommended that the method of providing the information be documented.
- If the respirator to be used voluntarily is any type other than a filtering facepiece, the employer must establish and implement those elements of a written respiratory protection program that ensure:
 - Any employee using a respirator voluntarily is medically able to use that respirator.
 - The respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the employee.
 - The employee is trained on the use and limitations of the respirator.

How to Avoid Hazards

As mentioned above, the preferred method for controlling air contaminants is to use accepted engineering controls or substitution with less toxic materials. Dependent upon the type of operation and contaminant to be controlled, engineering controls could include:

- Mechanical local or general exhaust ventilation.
- Dust collection systems.
- Powered tools equipped with shrouds and high efficiency particulate (HEPA) vacuums.
- Enclosing cabs on machinery to limit exposure to contaminants.
- Utilizing wet methods for cutting or in dust suppression.

The implementation of an effective respiratory protection program is vital. A respirator only functions properly if it is the correct respirator for the contaminant and if it fits properly. A respirator also must be cleaned, stored, and maintained properly.

For information on hazards associated with Asbestos, Lead and Silica at construction worksites, MIOSHA has created Construction Fact Sheets that address these hazards. They are available on the MIOSHA website at: www.michigan.gov/mioshaconstruction.

The MIOSHA Consultation Education and Training Division has developed a [sample written respiratory protection program](#) that can be used and downloaded from the MIOSHA website.

There is also a Federal OSHA document entitled "The Small Entity Compliance Guide to the Revised Respiratory Protection Standard" that can be utilized to help answer questions or develop a written program.

Additional sources of information include:

- OSHA websites - <http://www.osha.gov/SLTC/etools/respiratory/index.html>, <http://www.osha.gov/SLTC/respiratoryprotection/index.html> NIOSH website - <https://www.cdc.gov/niosh/ppe/respirators/>