RESPIRATORS

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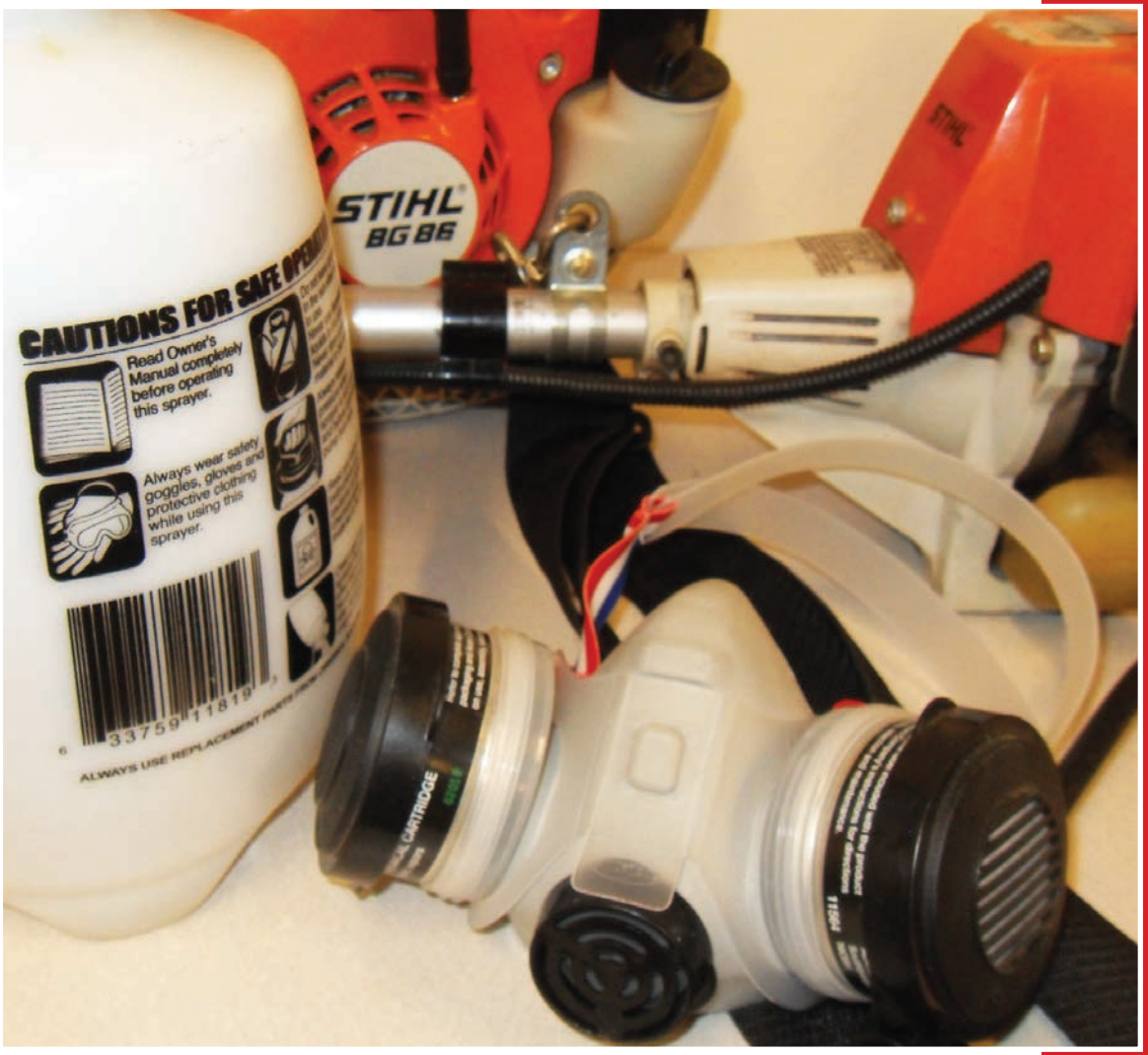
Whether employees are required to wear respirators as part of a personal protective equipment (PPE) program or voluntarily use dust masks to filter airborne particles, consideration needs to be given to the OSHA standards for respiratory protection.



The first step is to assess the need for respiratory protection. If employees are not exposed to harmful levels of hazardous gases or dust, respiratory protection may not be needed. However, many employers make dust masks or filtering face pieces available for employees to use when they clean or perform other tasks that make airborne particulates a nuisance even though they are below permissible exposure limits. If respirators are not required, consideration should be given to removing them from the premises.

Respirators and other personal protective equipment should always be the last option and used only after engineering or administrative controls are considered.

If employees are required to wear any form of respiratory protection, employers must have a written program and employees must follow it. If employees voluntarily use their own or employer-provided respiratory protection, a more limited program as defined below must be followed. To determine whether an employee is required to wear respiratory protection, a hazard assessment must be performed. For more information about assessing hazards, see Chapter 36, Personal Protective Equipment.

RESPIRATORY PROTECTION PROGRAM

If respiratory protection equipment use is mandated, the required written program must include the following components.

- **Selection of respirator:** Depending on the hazards encountered in the workplace, specific respiratory equipment is required to filter that hazard best. These exposures and equipment are defined in the program.
- **Medical determination:** Some employees may experience claustrophobia or breathing difficulty when donning respiratory protection equipment. At a minimum, a medical evaluation is made of the employees using a questionnaire (Appendix C of OSHA Standard 29 CFR1910.134 is commonly used), which is then reviewed by a health care provider. The provider then determines whether individuals are able to wear a respirator or whether a follow-up medical exam is needed.
- **Fit testing:** If a tight-fitting respirator, such as a filtering face piece respirator, is required, a qualitative fit test must be conducted. This fit test often uses a challenge agent, such as isoamyl acetate or irritant smoke, to assure the equipment is properly fitted to the individual.
- **Training:** Employees must be trained before initial use and again annually on the following:
  - The respiratory hazards and why the respirator is necessary.
  - The limitation and capabilities of the respirator.
  - How improper fit, use or maintenance can compromise the protective effect of the respirator.
  - How to inspect, put on and remove, and use and check the seals of the respirator.
  - How to clean, store and maintain the respirator.

Risk Management Considerations

If gases, dust or other particulates are found to be above the permissible exposure limits, consideration should be given to engineering the hazard to acceptable levels or transferring the risk to a third party. Examples of engineering controls include:

- Installation of ventilation systems to help control and/or eliminate air contaminants.
- Enclosing or confining operations to mitigate employee exposure.
- Substituting chemicals or materials that are less hazardous.
- Transfer risk to a third party.

VOLUNTARY USE OF A FILTERING FACE PIECE OR DUST MASK

If employees voluntarily want to use filtering face pieces (such as an N95 particulate filter), whether self- or employer-provided, the employer must:

Dust mask

- Determine that such use would not create an additional hazard (such as limit visibility or fog glasses); and
- Make the employee aware of the information in Appendix D of OSHA Standard 29 CFR1910.134 found at the end of this chapter.

The employee should read and sign the document, and it should be retained as acknowledgment of the information.

Further safety rules and regulations regarding respirator equipment, the written program and Appendix C can be found in OSHA Standard 29 CFR1910.134, Respiratory Protection.

RESPIRATOR CHECKUP

ITEM	YES	NO	ACTION ITEM
Has an assessment been made to determine if respiratory equipment is needed?			
Have engineering or administrative controls been considered to reduce or eliminate the need for respiratory protection?			
If respiratory equipment is needed, is a written respiratory protection program in place?			
Does the respiratory protection program include the following components: • Equipment selection?			
• Employee medical determination?			
• Fit testing?			
• Employee training?			
Are respirators regularly cleaned and maintained? Are records kept of these inspections?			
If employees voluntarily use filtering face pieces (such as N95 masks) or dust masks, are they presented with information from Appendix D from OSHA Standard 29 CFR1910.134?			

29 CFR1910.134, APPENDIX D—(MANDATORY) INFORMATION FOR EMPLOYEES USING RESPIRATORS WHEN NOT REQUIRED

Under the Standard, respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard. You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.