

Loss Control Bulletin

Respiratory protection has long been accepted as emergency equipment, first in warfare and later on in industry. Some of the uses of respiratory protection in industry are to protect against toxic chemicals, nuisance dusts, and oxygen deficiency. The growing list of hazardous substances used in industrial operations is resulting in a growing reliance on this form of worker protection.

In California, General Industry Safety Orders #5144 through 5155, and Construction Safety Orders #1531 and related appendices, explain the requirements on use, selection, and care of respiratory protection equipment. This bulletin provides an overview and does not contain all of the provisions of the Safety Orders. Reference to the actual regulations is recommended. The applicable Federal standards are in 29 CFR 1910.134 and 1926.103.

Respiratory Protection Program Elements

- Selection of the appropriate approved respiratory device should be made based on a full understanding of the exposures involved. NIOSH (National Institute of Safety and Health) is the agency charged with the responsibility to test and approve the use of all types of respiratory equipment, including particulate masks, chemical cartridge respirators, positive pressure self-contained breathing apparatus, airline respirators, face masks and hoods.
- Education and training are important are needed for a respirator program to be effective. Employees should receive instructions on the proper use, care, and limitations of the equipment.
- Proper maintenance and sanitation procedures must be set up to assure that the equipment will perform properly whether under normal or emergency situations.
- If compressed air is used, the compressor must be oil-free and must be cared for properly to ensure that air quality standards are maintained.
- Special precautions that include standby emergency personnel with communications equipment and rescue equipment must be provided when work involves life threatening or health-hazardous atmospheres.
- Personnel trained in first aid and cardiopulmonary resuscitation procedures may be required to be immediately available.
- Prior to allowing any worker to use a respirator, a medical examination must be conducted to determine whether a person is physically capable to wear a respirator while performing the prescribed work. This medical examination needs to be periodically repeated. Contact lenses must not be worn in an atmosphere requiring a respirator.

Page 1 of 2

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- The respirator program should include written procedures, monitoring of workplace changes and periodic evaluation of the program's effectiveness. Workplace monitoring requirements are published in California T8CCR Section 5155 [E][1].

Conclusions

Working environments that require the use of respiratory protection can pose serious health and safety hazards. Management and workers must have a thorough understanding of the hazards and the regulations that govern worker health and safety in hazardous atmospheres. Manufacturers and suppliers of respiratory protection equipment are good sources of technical assistance for employers to use. Republic's Loss Control Consultants can also provide additional technical assistance.

Additional information on developing a Respirator Protection Program is available at the following website.

http://www.dir.ca.gov/dosh/dosh_publications/respiratory.pdf

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