HOW TO DETERMINE IF YOUR EMPLOYEES REQUIRE APRS

By Susan Silver

Employers need to ensure a safe work environment for their employees by recognizing when additional Personal Protective Equipment, like Air-Purifying Respirators (APRs), are needed. APRs help protect workers from harmful airborne contaminants.

Determining the need for APRs involves understanding working conditions, hazards, and regulations. This guide explains how to assess if your employees need APRs.

Understanding Air-Purifying Respirators

What Are APRs?

Air-Purifying Respirators are devices designed to protect wearers from inhaling hazardous airborne substances by filtering contaminants from the air, thus providing clean, breathable air. APRs come in various forms, including disposable masks, half-face respirators, and full-face respirators, each tailored to specific working conditions and hazards.

Common Hazards Requiring APRs

Work environments with risks of airborne contaminants typically necessitate the use of APRs. Common hazards include:

- Chemical fumes and vapors
- Dust and particulates
- Biological agents
- Mists and sprays

Understanding the specific hazards present in your workplace is the first step in determining the need for APRs.

Regulatory Requirements

EU Legislation and Standards

Directive 89/656/EEC covers the use of Personal Protective Equipment (PPE), including respirators, necessary for workers when risks can't be sufficiently controlled by other measures. This Directive defines PPE as gear designed to be worn or held by workers to protect against workplace hazards that could threaten their safety and health. It also includes any accessories designed to meet this protective goal.

In the European Union (EU), respiratory protection standards are governed key EN standards, including EN 149, EN 143, and EN 14387, which specify requirements for filtering half masks, particle filters, and gas filters, respectively:

- EN 149 covers filtering half masks (FFP masks) and defines classes FFP1, FFP2, and FFP3 based on filtration efficiency
- EN 143 specifies "P" class particle filters (P1, P2, P3) for reusable respirators
- EN 14387 details the requirements for gas and combined filters

Assessing the Need for APRs

Conducting a Hazard Assessment

Performing a thorough hazard assessment is crucial in identifying the need for APRs. This involves:

- Identifying potential airborne contaminants
- Evaluating the concentration levels of these contaminants
- Determining the duration and frequency of exposure
- Assessing the effectiveness of existing control measures

A comprehensive hazard assessment will provide a clear understanding of the risks and the need for respiratory protection.

Monitoring Air Quality

Regular monitoring of air quality is essential in determining the presence and concentration of airborne contaminants. Using air sampling equipment, employers can measure the levels of hazardous substances and compare them to permissible exposure limits (PELs) set by regulatory agencies. If contaminant levels exceed these limits, the use of APRs becomes necessary.

Employee Feedback and Health Monitoring

Listening to employee feedback and monitoring their health can provide valuable insights into the need for APRs. Workers reporting symptoms such as respiratory irritation, dizziness, or difficulty breathing may be exposed to harmful airborne substances. Regular health monitoring and medical evaluations can help identify early signs of exposure and the need for respiratory protection.

Implementing a Respiratory Protection Program

Developing a Written Program

A written respiratory protection program outlining the procedures and protocols for using APRs is a best practice for employers and it should include:

- Hazard assessment findings
- Selection criteria for APRs
- Fit testing procedures
- Training and education for employees
- Maintenance and inspection protocols
- Medical evaluations for workers

Training and Fit Testing

Proper training and fit testing are essential components of a respiratory protection program. Employees should be trained on the correct use, limitations, and maintenance of APRs. Fit testing ensures that the respirator forms a proper seal on the wearer's face, providing adequate protection. There are two types of fit tests: qualitative and quantitative. Employers should conduct fit tests at least annually and whenever there is a change in the worker's physical condition that could affect respirator fit.

Recommended: North® APRs

One of the key features of North® APRs is their advanced filtration system, which efficiently removes particulates, gases, and vapors from the air. This high level of filtration is crucial for environments where workers are exposed to toxic substances. These APRs are engineered to be user-friendly, with intuitive designs that make them easy to don and doff. This reduces the risk of improper use and enhances overall safety.

Half masks

MX/PF 950
Designed to provide optimal sealing and protection with its triple face seal, the MX/PF 950 Half Mask helps to ensure a secure fit and minimizes the risk of contaminants entering the mask. The mask features a single unit four-point harness with a neck strap, making it comfortable for long-term work.

Valuair Plus
The Valuair Plus Half Mask excels in safety and comfort with its ergonomic, soft thermoplastic elastomer body. The four-point harness ensures correct positioning, while the click-fit cartridge system allows quick changes.

Premier
The Premier half mask, with its silicone body, offers superior comfort and flexibility across various temperatures. Easy to clean, it features an extra-comfortable harness for extended use and a click-fit cartridge fastening system for convenience.

HM5500
Our new HM5500 half mask offers optimal fit and comfort for the wearer, thanks to its wide, contoured sealing area, latex-free straps and flexible nose bridge. It is easy to clean and maintain, and workers can use it together with other personal protective equipment (PPE) such as safety glasses, hard hats and earmuffs.

HM7700
Our new HM7700 Half Mask is made from 100% premium grade silicone which is soft, durable and hypoallergenic and offers a high level of protection against particulates, gases, vapors and biological agents.

N7700 Class 2
The N7700 Class 2 half mask is designed for worker comfort and functionality. Made from soft, durable premium grade silicone, it ensures an optimal fit. Its ergonomic design and improved suspension system provides high comfort levels.

Full Facepieces

N5400 Class 2
The N5400 Class 2 full facepiece is made from light silicone, it is soft and flexible, with a head harness featuring five sturdy plastic straps for a secure fit. The integrated speech diaphragm enables clear communication, and the mask's high resistance to chemicals makes it ideal for hazardous environments.

Opti Fit Twin
The Opti Fit Twin full facepiece offers a comfortable and secure fit with its silicone body and ergonomic design. The integrated plastic speech diaphragm enables clear communication, making it a practical choice for respiratory protection.

Panoramasque
The Panoramasque full facepiece is designed to offer unparalleled safety and comfort. Its broad and flexible body ensures an optimal seal, providing maximum protection against harmful substances.

Regular Program Evaluation

To maintain the effectiveness of the respiratory protection program, regular evaluations and updates are necessary. This involves:

- Reviewing hazard assessments and air quality data
- Monitoring the health and feedback of employees
- Updating training and fit testing procedures
- Ensuring compliance with regulatory changes

Regular program evaluation helps identify areas for improvement and ensures that respiratory protection measures remain effective.

Conclusion

Helping to ensure the safety and health of workers is a top priority for any organization. Recognizing the need for Air-Purifying Respirators requires a thorough understanding of workplace hazards, regulatory requirements, and the implementation of a comprehensive respiratory protection program. By conducting hazard assessments, monitoring air quality, and prioritizing employee health, employers can create a safe and compliant work environment. Investing in respiratory protection is not just a regulatory obligation but a commitment to the well-being of your workforce.