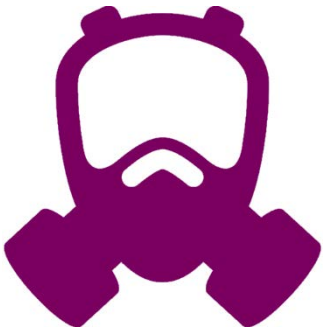
Personal Protective Equipment (Respirators)

Safety Meeting Packet

Respirators protect workers from hazards that cause cancer, lung impairment, disease, or even death. When the work environment exposes employees to contaminated air, the employer is required to provide respirators that are appropriate for the hazard present. Respirators can be used for insufficient oxygen environments, harmful dusts, fogs, smokes, mists, gases, vapors, and sprays. When there is exposure requiring respirators or when the employer's own procedures require respirators, a respiratory protection program is also required.

Respirator Selection



An essential element of a respiratory protection program is the selection of the correct respirator. There are several factors to consider. The employer must identify the respiratory hazards present and a reasonable estimate of employee exposure to those hazards. If the employer is unable to identify or reasonably estimate employee exposure, the employer should consider the atmosphere Immediately Dangerous to Life and Health (IDLH) and provide respirators that meet or exceed IDLH requirements.

Categories

Respirators can be separated into two main categories, based on the way they provide air to the user.

- Air-Purifying: Remove contaminants from the surrounding air with filters, cartridges, or canisters
- Atmosphere-Supplying: Provide the user with clean air from an uncontaminated source

Respirators are further classified based on their fit to the user's head or face.

- Tight-Fitting: Have a seal between the face/neck that keeps out contaminated air. These respirators must be fit tested prior to initial use and annually thereafter.
- Loose-Fitting: Cover the head completely, like a hood or helmet. Fit testing is not required. They may be more appropriate if the user has facial hair that impairs the seal of a tight-fitting respirator.

Types

There are a variety of respirators available within the categories listed above. Some common examples are provided below:

Elastomeric: An air-purifying respirator with replaceable filters, cartridges, or canisters that attach to a rubber or silicone facepiece. The facepiece can be cleaned and re-used and offers protection for gases, particulates, and vapors, depending on the filter or cartridge used.

Filtering Facepiece: Often referred to as a dust mask, it is an air-purifying respirator with a filter that is either the entire facepiece or an integral part of the facepiece. They protect against particulates, but not vapors or gases.

Powered Air-Purifying Respirator (PAPR): An air-purifying respirator that contains a blower to force air through the filtering elements. This type of respirator only uses High Efficient Particulate Air (HEPA) filters.

Self-Contained Breathing Apparatus (SCBA): An atmosphere-supplying respirator with an air source carried by the user.

Supplied-Air Respirator (SAR): Also called an airline respirator, it is an atmosphere-supplying respirator with an air source not carried by the user.

NIOSH Approval

Any particulate respirator used must be approved by the National Institute for Occupational Safety and Health (NIOSH). Every NIOSH-approved filter will have the NIOSH logo, an approval number, and a letter & number to identify its class, either printed on or provided with the filter.

The letter designation refers to the filter's ability to resist oil, which can impair the respirator's filtering ability. There are three designations:

- Not resistant to oil (N)
- Somewhat resistant to oil (R)
- Strongly resistant to oil (P)

The number on a NIOSH-approved filter identifies the level of filtration.

- 95 – filters at least 95% of airborne particles
- 99 – filters at least 99% of airborne particles
- 100 – filters at least 99.97% of airborne particles

Assigned Protection Factors

Assigned Protection Factors, or APFs, are OSHA-assigned numbers that identify the level of protection provided by a specific type of respirator. Employers must confirm that the respirator selected meets or exceeds the required level of protection. The number refers to the respirator's ability to reduce the airborne concentration of the contaminant. For example, an APF of 50 indicates that the respirator will reduce exposure to 1/50th of the airborne concentration.

Medical Evaluation

Before fit testing or permitting an employee to use a respirator, the employee must undergo a physical evaluation to determine if he/she is able to use a respirator. The OSHA Standard for Respiratory Protection (29 CFR 1910.134) contains specific procedures for the medical evaluation process.

Respiratory Protection Program

An employer must implement a written respiratory protection program that includes worksite-specific procedures and elements for respirator use and designate an administrator to oversee the program. The program must include:

- Procedures for selecting respirators
- Medical evaluations for employees who are required to use respirators
- Fit testing procedures (tight-fitting respirators only)
- Procedures for proper respirator use
- Procedures and schedules to clean, disinfect, store, inspect, repair, discard, and maintain respirators
- Procedures to ensure that atmosphere-supplying respirators provide adequate air quality, quantity, and flow
- Training for employees on wearing, using, and maintaining respirators
- Procedures to regularly evaluate the effectiveness of the program

Worker Training

It is recommended that employers educate their workers about the importance of respirator selection, why and how medical evaluations are conducted, and an overview of the respiratory protection program.

- Identify the respiratory hazards present or likely to be present in the workplace.
- Review the different categories of respirator and the fit classifications. Discuss when each would be utilized.
- Review the main types of respirator and discuss the type(s) used in the workplace.
- Review the NIOSH respirator designations and levels of filtration available. Show the employees where the information is found on the respirators that are used in the workplace.
- Explain Assigned Protection Factors and what level(s) are used in the workplace.
- Review the purpose of medical evaluations prior to respirator use.
- Provide an overview of the employer's medical evaluation process.
- Identify the respiratory program administrator.
- Provide an overview of the respiratory protection program.

For additional information, please review the OSHA Standard for Respiratory Protection, 29 CFR 1910.134.

Personal Protective Equipment (Respirators)

Safety Meeting Attendance Acknowledgement

Company Name _____

Department / Division _____

Meeting Date & Time _____ _____ ☐ AM ☐ PM

Meeting Location _____

Name & Title of Individual Conducting Meeting _____

Key Meeting Discussion Points / Important Reminders:

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Internal Procedures Reviewed:

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By signing this document, you confirm your attendance at the meeting and acknowledge the issues addressed above!

Employees in Attendance		
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Employees not present: _____

Suggestions/Recommendations to improve workplace safety and health: _____

Actions Taken: _____

Manager/Supervisor: _____ Date: _____

Disclaimer:

The information provided above was assembled using multiple resources. However, these materials do not contain ALL the information available regarding the required safety standards under local, provincial, state, or federal law for your industry.