FREQUENTLY ASKED QUESTIONS ABOUT

RESPIRATORY PROTECTION

FIT TESTING

Over 3 million United States employees, in approximately 1.3 million workplaces, are required to wear respiratory protection. The Occupational Safety and Health Administration (OSHA) (29 CFR 1910.134) Requires an annual respirator fit test to confirm the fit of any respirator before it is used in the workplace. This ensures that users are receiving the expected level of protection by minimizing any contaminant leakage into the face-piece. The following are some frequently asked questions about respiratory protection and fit testing.

WHAT IS A RESPIRATOR FIT TEST?

A fit test is conducted to verify that a respirator is both comfortable and correctly fits the user. Fit test methods are classified as either qualitative or quantitative. A qualitative fit test is a pass/fail test that relies on the individual's sensory detection of a test agent, such as taste, smell, or involuntary cough (a reaction to irritant smoke*). A quantitative fit test uses an instrument to numerically measure the effectiveness of the respirator.

The benefits of a fit test include better protection for the employee and verification that the employee is wearing a correctly-fitting model and size of respirator. Higher than expected levels of exposure to a contaminant may occur if the respirator has a poor face seal against the user's skin, which can result in leakage.

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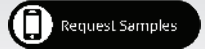
HOW OFTEN MUST FIT TESTING BE CONDUCTED?

In addition to fit testing upon initially selecting a model of respirator, OSHA requires that fit testing be conducted annually, and repeated "whenever an employee reports, or the employer or the physician or other licensed health care professional makes visual observations of changes in the employee's physical condition that could affect respirator fit (e.g., facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight).NIOSH completed a study that confirmed the necessity of the current OSHA respirator fit testing requirement, both annually and when physical changes have occurred.

ONCE I AM FIT TESTED, CAN I USE ANY BRAND/MAKE/MODEL RESPIRATOR AS LONG AS IT IS THE SAME SIZE?

A successful fit test only qualifies an employee to use the specific brand/make/model and size of respirator that he or she wore during that test. Respirator sizing is not standardized across models or brands. For example, a medium in one model may not offer the same fit as a different manufacturer's medium model.

CAN I HAVE FACIAL HAIR AND STILL BE FIT TESTED TO WEAR A TIGHT-FITTING RESPIRATOR?

The OSHA respirator standard prohibits respirators to be worn by workers who have facial hair that comes between the sealing surface of the face-piece and the face of the wearer. Facial hair that lies along the sealing area of a respirator, such as beards, sideburns, or some mustaches, will interfere with respirators that rely on a tight face-piece seal to achieve maximum protection. Research tells us that the presence of facial hair under the sealing surface causes 20 to 1000 times more leakage compared to clean-shaven individuals. Gases,vapors, and particles in the air will take the path of least resistance and bypass the part of the respirator that captures or filters hazards out. A common misconception is that human hair can act as a crude filter to capture any particles that are in the air-stream between the sealing surface and the user's skin. However, while human hair appears to be very thin to the naked eye, hair is much larger in size than the particles inhaled. Facial hair is not dense enough and the individual hairs are too large to capture particles like an air filter does; nor will a beard trap gases and vapors like the carbon bed in a respirator cartridge. Therefore, the vast majority of particles, gases, and vapors follow the air stream right through the facial hair and into respiratory tract of the wearer. In fact, some studies have shown that even a day or two of stubble can begin to reduce protection.