**The Top 5 Respiratory Protection Issues Cited by OSHA in 2021**

The [list of the most cited OSHA standards](https://www.safetyandhealthmagazine.com/articles/21811-fall-protection-remains-atop-oshas-top-10-list-of-most-frequently-cited-violations) is out for 2021. As you may know, the list contains the same issues each year, usually just in a different order. Fall protection in construction is number one for the 11th year in a row. Hazard communication, usually towards the top of the list, surprisingly fell to 5th. Respiratory protection in general industry is the new overall number two for this year, and the top issue found in general industry.

So what are the issues most commonly cited for respiratory protection?

**1. 1910.134(e)(1) Medical Evaluations**

The most commonly cited relates to medical evaluations. Employers are to provide medical evaluations to determine the employee’s ability to use a respirator, before fit-testing and before they’re required to use the respirator in the workplace.

There is a medical questionnaire in Appendix C that you can choose to use, or you can choose to do a medical examination instead as long as the examination contains the same information found in the questionnaire. As an employer, you cannot look at the answers, and must provide employees with instructions on how to deliver or send the completed questionnaire to a physician or other licensed health care professional (PLHCP) for review.

Seasonal and temporary workers are required to have evaluations if their jobs require respirator use. Those workers who voluntary choose to wear dust masks (after you’ve determined there is no hazard in that area) are not required to have medical evaluations but must be made aware of the limitations of the dust mask as outlined in Appendix D of the standard.

**2. 1910.134(f)(2) Fit Testing**

Employers are to ensure employees wearing tight-fitting facepiece respirators are fit-tested:

1. Before use
2. Whenever a different respiratory facepiece is used (size, model, make, style)
3. Annually

Fit-testing is done qualitatively or quantitatively. Qualitative fit-testing uses items such as saccharine, Bittrex, banana oil or irritant smoke to determine protection. It relies on the person being tested’s ability to sense odor or irritants. Qualitative fit testing is only for half-face, full-face and N95 filtering facepiece respirators that have an Assigned Protection Factor (APF) of 10.

Quantitative respirator fit-testing uses a machine to measure pressure loss inside the mask or to count quantities of particles to calculate a fit factor. Quantitative testing is considered more accurate than qualitative fit-testing. Quantitative fit-testing must be conducted for respirators requiring an APF over 10. Full-face tight fitting respirators that are quantitatively tested have an APF of 50 .

**3. 1910.134(c)(1) Written Program**

In any workplace where there is respirator use, there needs to be a written program with site-specific procedures. The program is to be administered by a “suitably trained” program administrator. Whenever conditions in the workplace changes, the program should be updated. If you have people voluntarily wearing respirators, you still are required to have a program.

The program is to contain the following elements:

* Procedures for selecting respirators;
* Medical evaluations of employees required to use respirators;
* Fit testing procedures for tight-fitting respirators;
* Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
* Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
* Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
* Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
* Training of employees in the proper use of respirators, including putting on (donning) and removing them (doffing), any limitations on their use, and their maintenance; and
* Procedures for regularly evaluating the effectiveness of the program.

Annual reviews are not required, but reviews should be done periodically in accordance with the complexity and factors of your hazards, types of respirators used, and worker experience using them. Workplace changes are an automatic trigger for updates. For instance, if your workplace conditions change such as different exposure amounts or types, if you change respirators, or change fit-testing protocols, an update would be necessary.

In your review, employees should be questioned on factors affecting their performance such as difficulty in breathing, limits of motion, impacts to vision/hearing/communication, discomfort and if they have any concerns on effectiveness.

**4. 1910.134(k)(1) Training**

Employers need to make sure employees can demonstrate their knowledge of the following:

* Why the respirator is necessary
* How proper fit, usage and maintenance can compromise its protective effect
* Limitations and capabilities of a respirator
* How to use it in an emergency
* What to do if it malfunctions
* How to inspect, don, doff and check its seals
* How to properly clean, disinfect and store the equipment
* How to recognize medical signs and symptoms that may limit or prevent the respirator’s effectiveness; and,
* The general requirements of this section of the standard.

Employees need to be trained BEFORE using a respirator in the workplace, and ANNUALLY (within 12 months). Training needs to include the above elements each year. Besides the annual training requirement, retraining is required whenever there are changes in the workplace, when you see the employee has inadequacies in his/her knowledge or use of it, or any other case in which it looks like the employee would benefit from retraining.

To determine the employee’s understanding, you can ask the employee in writing or orally about the information and observe their hands-on use of respirators.

**5. 1910.134(d)(1) General Requirements**

The general requirements are the general rules for selection of respirators. That is, it is the employer’s duty to:

1. **Select appropriate respirators** based on the hazards to which they’re exposed and the workplace factors that will affect them such as temperature/humidity, need for unimpeded vision, need for communication with other workers, usage in conjunction with other PPE, amount of time to be worn, etc.
2. Select **NIOSH-certified respirators** and use them in compliance with the conditions of that certification. So don’t use parts for one brand on a different brand of respirators and for airline respirators use in accordance with operating procedures and hose specifications.
3. **Evaluate the respiratory hazards of the workplace**. This includes quantifying exposures, identifying the contaminant’s chemical and physical form. You must do an analysis to determine if respirators are needed. If it’s not possible to identity or estimate, the atmosphere should be considered to be IDLH, or immediately dangerous to life or health.
4. **Select respirators in a sufficient number of models and sizes** so that they are acceptable and correctly fit. Not everyone’s face is the same. We’ve found in fit-testing that not only are there size variances between people, but some just cannot successfully fit test in certain brands and shapes of respirators.

**Need Help? Have Questions?**

After reviewing these 5, does your program have all of these bases covered?

If you have questions, or need help shoring up your respiratory protection program, iSi is here to help! We can write or review your written programs, help you determine workplace exposures, help with sampling plans, help with respirator selection, and conduct training. [Contact us](https://isienvironmental.com/contact-us/) today!