



Safety Matters

Brought to you by



April 2008

Respirator Testing

One of the most important items in our tool kits may be the respirator. Many people use this in various industries for various reasons. When it comes to equipment maintenance in manufacturing industries, respirators are used to protect us from harmful vapors and particles. These respirators have a direct impact on our health and the ability to get the job done safely.



Sounds great! Let's go to the store and buy one! Not so fast. OSHA (Occupational Safety and Health Administration) has various requirements that must be met prior to using a respirator. The basic requirements are a successful Pulmonary Function Test, Respirator Fit Test and proper training in donning the respirator.

Pulmonary Function Test

The Pulmonary Function Test (PFT, spirometry, or spirogram) is considered a lung function test. The test can provide various data, most notably how much air your lungs can hold, how quickly you can move air in and out of your lungs, and how well your lungs put oxygen into and remove carbon dioxide from your blood. This testing can provide a general conclusion of how well you should be able to breathe while wearing the respirator, and a snapshot of your lung health before performing work around hazardous particles or vapors.



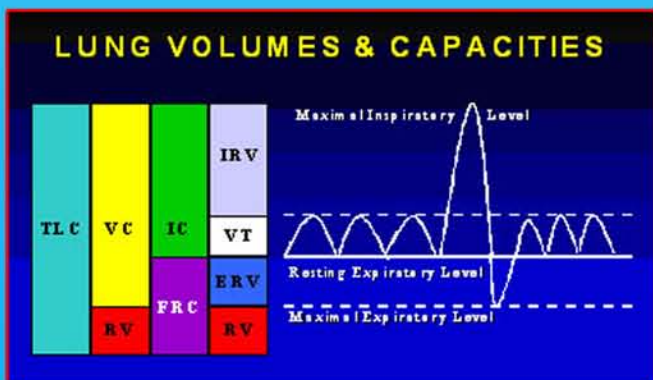
To prepare for this test, you should not eat a heavy meal before hand, and you should not smoke for 4 – 6 hours prior to taking the test. If you use any medications, ensure the healthcare professional knows. If you use any bronchodilators or inhaler medications, you may need to take them just prior to the PFT.

Respirator Fit Test

The second test that must be completed is the respirator fit test. For the respirator to be effective, it must provide a proper seal around the user's face. This means that the respirator must be the proper size, have a seal that is in good condition, and should be tested on a clean shaven (or hair free) face. The fit test can only be completed by someone certified to perform Fit Tests.

The two types of testing that can be performed are quantitative and qualitative. Generally, qualitative testing is sufficient but the OSHA standard should be consulted to ensure the proper testing is given.

During the respirator fit test, the certified tester may also provide the necessary training on the proper donning and usage techniques. This training is important because improper use can leave you feeling protected from deadly particles and vapors, when you are not. If you do not receive the proper training for your respirator, it is very important that you contact your direct manager to schedule the appropriate training.



- FRC - Residual Capacity
- TLC - Total lung capacity
- ERV - Expiratory reserve volume
- IC - Inspiratory capacity
- IRV - Inspiratory reserve volume
- RV - Residual volume
- VC - Vital Capacity
- VT - Tital Volume



Remember... Safety Matters.

Comments and suggestions are always welcome and encouraged.



Email Jason at Jtippett@nstars.com