

## **RESPIRATORY PROTECTION IN CONSTRUCTION: AN OVERVIEW OF HAZARDS & OSHA'S PROGRAM REQUIREMENTS**

This video provides a brief overview and general information on respiratory hazards in construction and respiratory protection program requirements. The federal Occupational Safety and Health Administration - also called "OSHA" - and State OSHA agencies require employers to have respiratory protection programs, if their workers are required to wear respirators on the job.

This video does not cover all of the things that your employer must do under Federal OSHA or State OSHA respiratory protection standards. This video can be a part of the OSHA-required respiratory protection training, which includes many topics, like how to put on and take off a respirator and how to use, clean, and maintain your respirator. Your employer must also provide you with worksite-specific training.

While this video discusses some of your *employer's* responsibilities under OSHA's respiratory protection standard, it is important to remember that the purpose of a respirator is to protect *your* health and safety.

Gases, dusts, mists, and fumes may be present at construction worksites. Some of these can make you sick or kill you if you breathe them in. These gases, dusts, mists, and fumes are referred to as respiratory hazards. Some respiratory hazards act quickly, like carbon monoxide which can make you unconscious or kill you in minutes. Other respiratory hazards can take years to make you sick, like asbestos which can cause lung cancer decades after you breathe it in. More examples of respiratory hazards in construction include:

- lead dust and fumes from grinding, welding, cutting, or brazing surfaces coated with lead-based paint;
- silica dust from cutting concrete or sandblasting;
- solvent vapors from adhesives, paints, strippers, cleaning solvents, and spray coatings; and
- isocyanate vapors from spray foam insulation and certain spray paints or coatings.

When there are respiratory hazards at your jobsite, your employer must use several methods to reduce your exposure to them, including:

- engineering controls (such as local exhaust ventilation);
- work practice controls (such as using wet-cutting techniques); and
- administrative controls (such as minimizing the number of workers exposed to the hazard).

When you and your co-workers cannot be adequately protected from respiratory hazards through use of these methods, then your employer must provide you with an appropriate respirator to protect your health.

Respiratory protection must be selected based on the hazard you will be exposed to on the job. Not every respirator will protect against every hazard, so it's important for your employer to select the right one. For example, filtering facepiece respirators may protect you against particulate hazards, such as dusts. However, a filtering facepiece respirator will not protect you against gas and vapor hazards, like solvent vapors. If you are exposed to gases and vapors, you will need a different type of respirator. For example, you could use an air-purifying respirator with chemical cartridges or a supplied-air respirator, such as an airline respirator or self-contained breathing apparatus. In addition, supplied air respirators are the only respirators that will protect you against hazardous atmospheres, such as carbon monoxide and lack of oxygen. Selecting an appropriate respirator is your employer's responsibility.

When respirators must be used on your job site, your employer must have a respiratory protection program. This program must meet the requirements of either the Federal OSHA or your State OSHA respiratory protection standard.

The standard requires your employer to do the following:

- develop and implement a written respiratory protection program;
- evaluate the respiratory hazards in the workplace;

- select and provide appropriate respirators;
- provide worker medical evaluations and respirator fit testing;
- provide for the maintenance, storage and cleaning of respirators;
- provide worker training about respiratory hazards and proper respirator use;
- evaluate workers' use of respirators and correct any problems; and
- provide you with access to specific records and documents, such as a written copy of your employer's respiratory protection program.

Some of these requirements, such as training and fit testing, can be provided by an outside party, including a union, an apprenticeship program, a contractor's association, or a past employer, provided they were conducted within the last twelve months. However, it is still your current employer's responsibility to ensure that all of the requirements of the standard have been met.

Because each workplace is different, it is very important that your employer's respiratory protection program address the conditions found in your specific workplace. For example, workplaces may differ in the following ways:

- the types and amount of respiratory hazards present;
- the people who manage the program;
- the policies and procedures for tasks such as respirator selection, maintenance, and use; and
- other methods for controlling exposure, such as using wet-cutting techniques to reduce airborne dusts.

Since construction work settings change over time, the written program must be updated as necessary to account for those changes in workplace conditions that affect respirator use. For example, changes in workplace conditions could include:

- new work processes or techniques, such as introducing sandblasting into an area;
- the use of new or different building materials or chemicals;
- changes in the amount of a respiratory hazard in the workplace; or
- changes in the types of respirators being used.

Notify your supervisor if something changes in your workplace that conflicts with, or may not be covered by, your respirator training or established workplace policies or procedures.

Your employer's respiratory protection program must be managed by a qualified, trained program administrator. This person must monitor the program and make sure that you and your co-workers are adequately protected. The program administrator will know a lot about your workplace respiratory protection program, and should be able to answer any questions you may have about respirator use. The program administrator must know about the requirements of the OSHA Respiratory Protection Standard and must periodically evaluate the program, and make any necessary changes.

This video has provided you with a brief overview of respiratory hazards in construction and respiratory protection program requirements. There are many other things that you must know and do before you can safely use a respirator in a hazardous work environment. While this video may be a part of your respiratory protection training, your employer must also provide you with additional training on respirators, including worksite-specific training. Remember, if you don't know if a respirator is needed for the task you will be doing, or if you are unsure about how to properly use a respirator or which filter or cartridge to use, talk to your supervisor before entering the hazardous area.

For more information about respirator use in your workplace, refer to these OSHA and NIOSH websites. You will find OSHA's respiratory protection standard, additional respirator training videos, and other guidance material to help you work safely.