

RESPIRATORY PROTECTION

Respiratory Protection is the means used to minimize exposure (via inhalation) to harmful chemicals. Such controls include chemical substitution, engineering controls, and respirators.

Chemical Substitution is the replacement of a hazardous material with one which is less hazardous. This may be as simple as substituting a powder-form chemical with a liquid-form in order to remove the airborne dust exposure hazard.

Engineering Controls include 1) ventilation systems that capture vapors, gases and dusts after they've been released, but prior to reaching the breathing area; 2) bulk dispensing which removes the necessity of manual opening and dumping of small containers; and 3) enclosing an operation.

Respirators are used only as a last resort, when other means of minimizing the inhalation hazard are not feasible. Respirators may be in the form of air purifying (including disposable dust masks) and air-supplied (self-contained and air line).

Who Is Affected By Respiratory Protection?

Everyone who handles chemicals or who is exposed to chemicals during any of the many company processes is affected. You may be aware of examples of times when the company substituted one chemical product with another which was found to be less hazardous. As you look around your work area you may note different types of ventilation systems; they may be local (at the point of chemical emission) or general (ceiling/ roof exhausts). You may work at a position where chemicals are bulk dispensed or pre-weighed and packaged. There are few tasks within the company where a respirator is required or recommended. Typically, those tasks so identified are non-routine tasks. These may include maintenance activities where a feasible means of controlling exposure does not exist (i.e., cleaning exhaust system's) or during the clean-up of a chemical spill within an enclosed area.

How Does The Company Provide Respiratory Protection?

The preferred choices of respiratory protection are chemical substitution and engineering controls. By selecting one of these routes, it prevents the introduction of a hazardous chemical into the breathing zone. When this is not feasible, and air sampling has determined that an excessive exposure is likely, then respirators are provided. Sometimes respirators are provided while a permanent means of removing the hazard are introduced. All locations which provide respirators (including disposable dust masks) must have a Respiratory Protection Program in place, and anyone who is provided a respirator must be included in that program. Elements of this program include medical surveillance, training, fit-testing, and respirator maintenance.

How Can You Help Maintain An Effective Respiratory Protection Program?

Bring ventilation system problems to the attention of your supervisor or maintenance department. Reduction in chemical "capture" may indicate blockage or fan/ motor problems. Increase in production or a particular task/ activity may make it necessary to have filters changed more frequently. If you are responsible for filter changes, be sure to do it frequently enough; if you aren't, be sure to notify appropriate personnel, if necessary.

If you notice that pre-packaged/ pre-weighed products are arriving in unacceptable condition (i.e., torn bags), then bring it to your supervisor's attention. One of the reasons for purchasing the products in this manner is to minimize your exposure.

Use care when handling "dusty" chemical products. It is a fact that exposures vary from person-to-person, depending upon their handling "technique".

If you are performing a task where respiratory protection is required, recommended, or preferred, be sure to follow the plant's Respiratory Protection Program requirements. Not only is this an OSHA requirement, but is for your protection. Using a respirator without first going through medical surveillance (typically a pulmonary function test and completing a medical questionnaire) and receiving proper training and fitting, could be a threat to your health and safety.

If you are assigned a respirator, be sure to store and maintain it properly, and prior to each use, check your fit. Report any problems with your respirator to your supervisor.