

RESPIRATORY PROTECTION

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INTRODUCTION

There is no substitute for a good ventilation system in protecting your manufacturing plant employees who are exposed to airborne contaminants generated from sanding, grinding, painting or other operations. However, where ventilation cannot adequately control the hazard due to large items being processed or where workers are continually mobile along an assembly line, then properly used respirators can protect the worker.

The use of respiratory protection devices can often help reduce occupational diseases and injuries that result from harmful dust, fumes, mist, gases, or vapors. Under some circumstances, airborne contaminants can be mitigated through engineering controls such as substitution and ventilation, coupled with administrative measures like staff

rotation and shift scheduling. However, when such controls are not practical or effective, respiratory devices should be used either as the primary means of direct protection or as a supplement to other controls.

Proper use of respirators is not as easy as giving an employee a respirator and hoping for the best! The OSHA standard 1910.134 mandates that a Respiratory Protection

RESPIRATOR PROGRAMS

The basic requirements for a respirator program are as follows:

SELECTION AND USE

Choose the respiratory protective equipment based on the conditions under which it will be used. A careful analysis of the contaminants present in the workplace will help determine the specific type and classification of protection device that should be used. Before selecting equipment, ask the following questions:

- What types of substance will the worker be exposed to on the job?
- What are the physical properties and hazards of each substance?
- What are the conditions of exposure and what is the expected concentration of air contamination?
- Will there will be adequate oxygen in the air (>19.5%)? Note that some contaminants can significantly displace oxygen.
- What are the physical limitations that could impact the safety of workers (e.g., restriction of movement)?
- Has adequate training been provided to workers regarding the use and fit of a respirator?
- Do you have a formal safety program in place?

Special note: Workers using respirators in oxygen deficient atmospheres (< 19.5%), or where high concentrations of toxic contaminants exist, should be provided with an independent source of clean air. The separate supply of air must meet strict requirements (Type 1, Class D air - ANSI/CGA) and should be routinely checked for ox

