



# **Respiratory Protection Program**

## **Office of Environmental Health and Safety**

Revised Sept. 2015

# Cleveland State University Respiratory Protection Program

## Introduction

Final rules addressing the use of respiratory protection can be found in 29 CFR 1910.134 (Respiratory Protection) under the authority of the Occupational Safety and Health Administration (OSHA). Through the passage of the Public Employees Risk Reduction Act, the State of Ohio has adopted this OSHA and all public employers are required to comply with its provisions.

The OSHA Respiratory Protection Standard sets forth maximum exposure levels for concentrations of certain airborne contaminant materials. Should employee exposure concentrations exceed these levels, the University shall install appropriate engineering controls and/or implement administrative control methods to reduce employee exposure levels below established standards. These controls and methods include but are not limited to following specific operating procedures, confinement or containment of the material through local exhaust ventilation or chemical hoods, or substitution with a material of lower toxicity. In the event that such controls are not feasible, then employees shall be enrolled in the University's Respiratory Protection Program.

## Program Scope

The purpose of this procedure is to protect the health and safety of personnel who as a function of their job duties, work in atmospheres where respiratory protection has been deemed necessary to ensure employee exposures are kept below established exposure limits of dusts, fumes, mists and vapors, or who are required to perform work in oxygen-deficient atmospheres.

## Program Elements

### Administration

The Respiratory Protection Program is administered for Cleveland State University through the Office of Environmental Health and Safety.

### Respiratory Hazards

Respiratory hazards may be classified as follows:

- \*Oxygen deficiency
- \*Vapor/gas contaminants
- \*Particulate Contaminants
- \*Combination of Vapor/Particulate Contaminants
- \*Dust
- \*Metal fumes
- \*Infectious agents

## Types of Respiratory Equipment

There are two basic types of respiratory equipment: air-purifying and supplied clean air.

\*Air purifying respirators employ the use of filters or sorbents to remove contaminants from the employees' breathable air. They can range from basic disposable respirators to highly sophisticated powered air purifying respirators.

\*Supplied clean air respirators are designed to provide breathable air from a clean air source other than the surrounding contaminated work atmosphere. Examples of such respirators are supplied air respirators and self-contained breathing apparatus (SCBA's).

Respiratory protection provided by the University for its employees are either full/half face air purifying respirators or powered air purified respirators (PAPR). NO SCBA's are to be worn by University employees for any reason.

## Selection of Respiratory Equipment

Selection of respirators used by employees shall be made in accordance with standards set forth by OSHA's Respiratory Protection Standard referenced above, and also the American National Standards Institute's (ANSI) "Practices for Respiratory Protection" (Z88.2) - 2015. Only respirators that have been approved and certified by the National Institute of Occupational Safety and Health (NIOSH) shall be used.

## Medical Surveillance

A medical survey and evaluation shall be completed initially for each employee who will wear a respirator under the Respiratory Protection Program, and annually thereafter. The medical evaluations (including a pulmonary function test) shall be facilitated by the Office of Environmental Health and Safety, and performed by licensed health care physicians at:

St. Vincent Charity Hospital's Occupational Medical Center  
2475 East 22<sup>nd</sup> Street, Suite 310  
Cleveland, Ohio 44115

## Respirator Fit Testing

Employee's assigned respiratory protection shall undergo a respirator fit test (RFT) with a specific respirator to ensure proper sizing and operation for each individual. RFT's shall be facilitated by the Office of Environmental Health and Safety, and performed in accordance with standards set forth in the OSHA regulations at:

St. Vincent Charity Hospital's Occupational Medical Center  
2475 East 22<sup>nd</sup> Street, Suite 310  
Cleveland, Ohio 44115

RFT shall be conducted for employees initially upon issuance of a respirator and annually thereafter. Extraneous factors such as weight loss, dental work, plastic surgery, etc...that may result in the physical alteration of an employees face shall also result in a RFT being indicated for the affected employee.

Facial hair can cause problems by preventing an effective seal from forming between the employees' skin and the sealing surface of the respirator, and may also interfere with proper functioning of internal valves.

## Respirator Cleaning and Sanitation

Respirators shall be thoroughly cleaned and sanitized following each use by the employee it is assigned to. The following procedure is recommended for cleaning and sanitizing respirators:

1. Remove all filters and discard if beyond their usable life (greater than six months from initial service) and/ or following manufacturers' protocol usage for filters.
2. Clean respirator by:
  - a. Remove face piece (if full face) and cartridges
  - b. Wash face piece and respirator in cleaning solution/disinfectant
  - c. Rinse in warm water
  - d. Let air dry
  - e. Inspect valves, head straps and other parts to ensure proper function
  - f. Reassemble and place in storage bag
  - g. Prepared cleaning/disinfection solutions specified for respirator use may be employed as an alternative

## Respirator Storage

Following inspection and cleaning, store respirators so as to protect them from excessive sunlight, moisture, cold temperatures, chemical contact, etc... It is recommended they be stored in sealable plastic bags, labeled with employee's name

## Respiratory Inspection and Repair

Each user shall inspect respirator for potential defects (damaged rubber, straps, inhalation/exhalation valves) prior to each use. Employees are to bring respirators suspected of being damaged to the Office of Environmental Health and Safety for evaluation.

If respirator is found to be defective, the respirator shall be replaced. Replacement respirator cannot be used until employee undergoes a Respiratory Fit Test on the replacement respirator

## Employee Training

Employees assigned to wear respirators shall undergo training on the use and care of respiratory protection initially upon assignment, and annually thereafter, and also should there be a change in their job description where the new changes includes the need for respiratory protection.

## Record keeping

Records pertaining to the Respiratory Protection Program will be maintained by the Office of Environmental Health and Safety.

## Program Evaluation

The Office of Environmental Health and Safety shall review elements of the program on an annual basis, make any modifications as needed to maintain University compliance with applicable regulations.

## Appendix A

### Non-Mandatory Respirator Use (Information for Employees Using Respirators When Not Required By Standard)

Respirators are an effective means of protection against identified hazards provided proper selection and use is practiced. However, if a respirator is used improperly or not properly cleaned and sanitized, the respirator may itself become a hazard. An employee may opt to wear a respirator to avoid exposures to hazards, even if the OSHA permissible exposure limit is not exceeded. If an employee provides their own respirator, the following precautions need to be taken:

- Read and obey all manufacturers' instructions regarding use, care, maintenance, cleaning, sanitation and all warnings regarding limitations of the respirator.
- Choose respirators certified for use to protect against the contaminant you will be working with. The National Institute of Occupational Safety and Health (NIOSH) tests and certifies respirators – look for the NIOSH label on the respirator or package informing you what the respirator is designed for and the level of protection provided.
- Do not wear your respirator into oxygen-deficient atmospheres or atmospheres containing contaminants for which the respirator is not designed to protect or in
- Never wear another employee's respirator; use only the one you have purchased for yourself
- Opt respirator must be Fit tested prior to usage
- Office of Environmental Health and Safety must review the respirator prior to usage