

Sample Lesson Plan
Construction Training Program (30 Hour)
Respiratory Protection

Introduction

A respirator is a protective device that covers the nose and mouth or the entire face or head to guard the wearer against hazardous atmospheres.

Two types of respirators

- Tight-fitting—half masks that cover mouth and nose or full face masks
- Loose-fitting—hoods or helmets that cover the entire head

Two classes of respirators

- Air-purifying--remove contaminants from the air
- Atmosphere-supplying-- provide clean, breathable air from an uncontaminated source

Instructor's Activities

- PowerPoint presentation
- Discuss 29CFR Part 1910.134
- Participant discussion

Learning Objectives and Outcomes

I. Hazardous conditions requiring the use of a respirator

- A. Insufficient oxygen in environment
- B. Harmful dusts, fumes, smokes, gases, vapors or sprays

II. Health hazards from contaminated atmospheres

- A. Increased breathing and heart rates
- B. Impaired thinking and coordination
- C. Lung impairment
- D. Cancer

III. Choose correct respirator

- A. Consider physical and chemical properties of contaminant
- B. Consider toxicity and concentration of hazardous material
- C. Consider amount of oxygen present

IV. Air-purifying respirators

- A. Use filters or sorbents
- B. Do not supply oxygen
- C. Cannot be used IDLH atmospheres

V. Atmosphere-supplying respirators

- A. Provide breathable air
- B. Include supplied air respirators (SAR's) and self-contained breathing apparatus (SCBA's) units

VI. Elements of a Respiratory Protection Program

- A. Written worksite specific procedures
- B. Thorough training to fit, clean, maintain and store respirators
- C. Appropriate selection of NIOSH approved respirator
- D. Medical evaluations
- E. Air quality standards
- F. Qualified program administrator designated by employer
- G. Program mandatory when respirators are required by employer or OSHA

References

OSHA Standard: 29 CFR subpart E 1926.103

OSHA Publications

<http://www.osha-slc.gov/OshDoc/Additional.html>

- 3079 Respiratory Protection

OSHA References/resources

Construction Safety and Health Outreach Program – Respiratory Protection

- <http://www.osha.gov/doc/outreachtraining/htmlfiles/subparte.html>

OSHA Technical Manual – Respiratory Protection

- http://www.osha.gov/dts/osta/otm/otm_viii/otm_viii_2.html

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