

Respirator and SCBA Training

Introduction

Respiratory hazards are invisible until they become critical. Whether it's toxic gases, dust, or oxygen-deficient atmospheres, workers need more than basic awareness, they must be competent in selecting, using, and maintaining respiratory protective equipment.

This program gives participants a solid foundation in respirator theory, regulatory expectations, practical use of filtering respirators, and hands-on competency with Self-Contained Breathing Apparatus (SCBA). The emphasis is on safe decision-making, correct equipment handling, and confidence under pressure.

Program Objectives

By the end of this training, participants will be able to:

- Understand the science and principles of respiratory protection
- Identify respiratory hazards relevant to common industrial settings
- Match hazards to appropriate respirator types
- Conduct fit testing and pre-use inspection of respirators
- Demonstrate safe use of SCBA, including donning, operation, and emergency procedures
- Maintain and store respiratory protective equipment properly

Learning Outcomes

Participants who complete the program will be able to:

- Explain how respiratory hazards impact the body
- Compare and contrast filtering respirators vs supplied-air systems
- Select respirators based on hazard characteristics and workplace conditions
- Perform qualitative or quantitative fit testing
- Don and doff respirators and SCBA according to safety practices
- Respond safely to equipment alarms and emergency situations
- Carry out routine maintenance and storage procedures

Who Should Attend

This course is appropriate for:

- Workers required to wear respiratory protection on the job
- Safety and health officers
- Supervisors overseeing operations with respiratory hazards
- Confined space entrants and rescue personnel

Entry Requirement:

Participants must be medically fit to use respirators and capable of safely performing respirator tasks.

Methodology

To ensure competence and confidence, the training includes:

- Conceptual presentations
- Hazard identification exercises
- Fit testing demonstrations
- SCBA donning/doffing workshops
- Hands-on practice with real equipment
- Scenario-based simulations
- Competency assessments

The goal is not passive learning but demonstrable skill and sound judgment.

Program Outline

Day 1 – Respiratory Protection Fundamentals and Fit Competency

Session 1: Respiratory Hazards and Protection Principles

The program starts by focusing on why respiratory protection matters. Participants explore how particulate matter, gases, vapours, and oxygen deficiency affect health. Hazard-recognition case examples help connect workplace risks to protection needs. The science of air filtration, face sealing, and breathing resistance is presented in simple, practical terms.

Session 2: Respirator Types and Selection Criteria

Participants learn the differences between air-purifying respirators (filtering facepieces, elastomeric respirators, powered air-purifying respirators) and atmosphere-supplying systems. The session explains how to match respirator class and filter type to specific hazards, considering factors like gas concentration and work duration.

Session 3: Fit Testing and Pre-Use Inspection

No respirator is effective without a good fit. This session covers the purpose of fit testing, the differences between qualitative and quantitative methods, and common causes of fit failure. Participants practice inspection and fit test procedures, reinforcing a systematic approach to ensuring protection before every use.

Session 4: Respirator Maintenance and Storage

Participants learn how to clean, inspect, replace filters, and store respirators to prolong service life and maintain reliability. Common failures and maintenance mistakes are discussed with real examples to sharpen attention to detail.

Day 2 – SCBA Application and Competency

Session 5: Introduction to SCBA and Supplied-Air Systems

The session begins with an overview of SCBA components, operation principles, limitations, and appropriate use cases. Differences between SCBA and supplied-air respirators are highlighted to support correct application decisions.

Session 6: Hands-On SCBA Donning, Operation, and Safety Checks

Participants receive hands-on instruction in inspecting SCBA cylinders, regulators, facepieces, harness systems, and alarm functions. The focus is on methodical checks that ensure the system is ready, safe, and comfortable before entering a hazard zone.

Session 7: Scenario-Based Practical Exercises

Under supervision, participants practice donning SCBA, performing air-tightness checks, navigating through basic movement scenarios, responding to low-air alarms, and executing safe doffing procedures. This session repeats real-world movement patterns to build comfort and confidence.

Session 8: Practical Assessment and Debrief

Participants complete a hands-on competency assessment covering donning, operating, and responding to simulated challenges. Assessors provide targeted feedback to reinforce best practices and correct unsafe tendencies. The session ends with open discussion and key takeaways for ongoing safe practice.