

## Respiratory Awareness Syllabus

**Time:** 8 hours

**Maximum Class Size:** 20

**Prerequisites:** None

### Course Description:

This course is designed to empower the participant with the skills and knowledge to work safely, effectively, and efficiently with respirators. Using real-life scenarios combined with technical details, participants will be ready for any situation they may encounter while working on the job site and using respiratory protection.

### Goals/Objectives/Student Learning Outcomes:

- List and explain the five forms of airborne contaminants
- Identify the two types of hazardous atmospheres related to respirator use
- Define the meaning of oxygen-deficient atmosphere
- Indicate the most common route of entry by which toxic chemicals enter the body
- List the six physical warning signs of chemical exposure
- Identify the three exposure guides used to inform workers about chemical exposure limits
- State the goal of a respirator
- Identify the three types of air-purifying respirators (APRs)
- Identify the two basic types of filtering devices used with APRs
- List the three-filter series and efficiency ratings for filters
- List the limitations of an APR
- List the two limitations of a PAPR
- List the two types of atmosphere supplying respirators and the limitations of each
- List three types of regulators used with atmosphere supplying respirators
- Explain the term “assigned protection factor”
- State the formula to calculate maximum use concentration
- Properly don a FFAPR
- Work through a performance checklist for the inspection and donning of a FFAPR
- Participate in the demonstration of a quantitative or qualitative fit test for a half-face respirator
- Demonstrate the correct procedure for inspecting, donning, and doffing a SCBA
- Demonstrate the positive and negative-fit checks required after donning the SCBA
- Describe the OSHA requirements for cleaning and disinfecting respirators

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### Standards Addressed

OSHA Respiratory Protection Standard: 29 CFR 1910.134

### Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

### Textbooks/Readings/Materials

- LIUNA: *Respiratory Protection IG*
- LIUNA: *Hazardous Waste Worker PG*
- Respiratory Awareness Student Workbook
- LIUNA: Respiratory Awareness PowerPoint

### Tools/Equipment/Other Materials

- Computer
- LCD Projector
- Flipchart/markers
- Whiteboard/expo markers
- Highlighters
- Flip Chart
- NIOSH *Pocket Guide to Chemical Hazards*
- Filtering face pieces
- Half-pieces APRs
- Full-face APRs
- PAPRs
- Airline (SAR)
- SAR with escape bottle
- SCBA
- Filters (various types)
- 1 FFAPR and 2-P-100 filter cartridges per participant
- 1 probed FFAPR and 2 P-100 filter cartridges
- Wall-mounted mirror

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### Tools/Equipment/Other Materials-continued

- Sanitizing supplies:
- -2 or 3 tubs
- -Sanitizer solution
- -Soft sponge
- -Soft towels for drying
- For Quantitative Fit Test:
- Porta count
- 1 probed full-face APR with P-100 filter per participant (chosen from several sizes and brands)
- For Qualitative Fit Test:
- Any of the following:
- Irritant smoke
- Isoamyl acetate
- Bitrex
- Saccharin
- For administering the test agents:
- Nebulizers
- Paper napkins
- Water
- 1 half-face APR with P-100 filters per participant (chosen from several sizes and brands)
- Sanitizing supplies:
- 2-3 tubs
- Sanitizer solution
- Soft sponges
- Soft towels for drying
- SCBA and a size-appropriate face piece for each team of two
- Wall-mounted mirror
- Cleaning and disinfection supplies

### Personal Protective Equipment

- 20 pairs of gloves
- 20 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 20 hard hats

## **Respiratory Awareness Syllabus**

### **Course Requirements**

To receive credit for the course, participants must:

- Be present for full eight hours
- Participate in all classroom exercises
- Pass a written exam

### **Course Policies**

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

### **Assessment and Grading**

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on activities and exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

### **Safety**

Failure to maintain and use PPE may result in dismissal from the course.