SCBA Refresher

Time Requirement: 2-3 hours total (depending on number of participants)

Number of Instructors: Minimum of 2, consistent with ratio in Minimum Criteria

Materials

• Participant Guide and worksheets
• Whiteboard or easel and easel paper; markers
• SCBAs

Objectives

When completed, participants will be better able to:

➢ Identify types of respiratory protection
➢ Identify components of SCBA
➢ Identify fit testing requirements for SCBA use
➢ Identify practices to care for SCBA
➢ Demonstrate checkout, proper donning and doffing of SCBA
Suggested Instructor Preparation

- Select this exercise only if everyone is bringing their SCBA to training; can be used in ERR or 8HR.
- Review Participant Guide and exercises
- Test all web links prior to the session and if any are inoperative please notify the Midwest Consortium at hilbertj@ucmail.uc.edu
- Review the Chemical Protective Clothing (CPC), Respiratory Protection, Work Practices and Decon sections of the program that these participants have completed
- Review OSHA standard 1910.134, Respiratory Protection
- Review OSHA standard 1910.1020, Access to employee exposure and medical records
- Conduct reconnaissance: obtain the respiratory protection program for the company where the training will be conducted and identify the hazards that result in selection of SCBAs. If open enrollment, obtain a generic program for participants to review
- Ensure you are familiar with the SCBAs that will be used
- Obtain a facepiece that you can use to illustrate positive-pressure user check
- Copy Worksheets for each exercise (minimum of 4 exercises)
- Prepare agenda and class notes to be included in the program file
- Ensure that you have assembled all the materials needed for the exercise

Minimum Content Requirements

- Discuss uses of SCBAs
- Discuss the need for fit testing and routine user checks
- Discuss the need for rigorous cleaning, storage, inspection, and maintenance procedures
- Note the requirements for the written program
- Medical fitness review for anyone using an SCBA
- Four exercises: Current practices, Identify parts of the SCBA, Monthly checks (optional), Donning/Doffing, Current practices revisited
Questions You May Be Asked

1. Be prepared to discuss the company Respiratory Protection Program. Some participants may not know it exists, or question if it is complete. For open enrollment, general approaches of working through union or company health and safety officers to obtain a copy should be discussed.

2. Trainees may question whether various procedures are adequate (‘I just keep the facepiece in the bottom of my locker’). For contract programs, reconnaissance will provide you with information about the written procedures, but these may not be implemented.

3. "What do I do when my employer tells me there is no budget to get new equipment, but the facepiece no longer fits me?” Be prepared to facilitate a discussion on strategies to improve the company respirator program through discussions with employee or management representatives. Emphasize that the law requires that employers provide adequate protection from respiratory hazards.

4. "What about facial hair? My employer has a 'no beard' policy, and I don't like it."

Emphasize that facial hair prevents a good fit, resulting in exposure to toxic substances. OSHA clearly states that you cannot have anything interfere where the mask contacts the face. Fit tests are not allowed when a beard is present.

5. “I have not been fit tested in a few years. Does that mean I cannot respond?” From your knowledge of the company program, it could be that the participant was fit tested but does not remember. Facilitate a discussion of who to contact.

Presentation of the Session

This session can be presented as follows:

Review the objectives

Respiratory Protection/Types of Respirators

This section is a very brief review. Draw attention to the focus of this exercise: SCBAs.
Exercise – Current Practices for your SCBA

Distribute the Worksheet ‘Current practices’ and have participants complete it.

Ask: How many of you were fit tested in the past year?

Ask: Why do you need to use an SCBA?

Have participants keep this worksheet and return to it following the review at the end of the session.

SCBAs

Ask: When can SCBA be used according to standard practice?

Ask: How do SCBAs work? Demonstrate the parts of an SCBA using one brought by a participant. Explain the purpose of each component.

Exercise – Identify all the parts of your SCBA

Describe the exercise and distribute the worksheet. Sign off only after each participant/group has correctly identified all parts. You may set a time limit, to simulate the need to check out a unit rapidly in a response.

Respirator Fit

Review the importance of proper fit, to assure that the air is filtered before it is inhaled. For SCBA, the fit helps assure that there is not leakage around the facepiece, contaminating clean air coming from the bottle.

Follow up on the previous question regarding when participants were fit tested, and Ask: Describe how you were fit tested?

Illustrate the difference between the figures in the handout for qualitative and quantitative fit testing.

Ask: What tasks did you do during the fit testing?

Ask: Do you know the protection factor from your fit test?
Ask: On the Current Practices worksheet, did you check ‘yes’ for a User Check?

Illustrate the positive-pressure check using a facepiece you have brought. Illustrate negative pressure check using your mask, or the illustration in the handout. Note that some participants may not have hands large enough to cover the inlets.

**Cleaning, Storage, Inspection and Maintenance**

In a contract program, you should know the written program for this topic; however, it may not be followed as written.

Ask: How many of you answered ‘yes’ to ‘wash the facepiece’ on the Current Practices worksheet?

Ask: How many of you answered ‘done by others’ to wash the facepiece’ on the Current Practices worksheet?

Review cleaning procedures.

Ask: Who answered ‘yes’ to both parts of question 4 about respirator storage on the Current Practices worksheet?

Review the requirement.

Ask: Who has been trained to inspect your face piece before and after each use or at least monthly?

Review the importance and OSHA requirements.

Ask: Who do you tell when something needs to be fixed on your facepiece?

Underscore that repair must be made by qualified persons. If participants are responsible for the monthly check of the SCBAs, you may want to include a separate performance measure for this responsibility. It should be tailored to the company program, if consistent with 29CFR1910.134.

**Exercise – Monthly Checks**

If participants are responsible for the monthly checks, complete this exercise. Distribute the checklists and identify the completeness of the required review.

Review any inconsistencies with the employer SOP.
Minimum Requirements for a Respiratory Protection Program

Refer everyone to the page showing the points that must be included in the written program. Be prepared to facilitate a discussion of the importance of each item.

Medical Fitness to Wear a Respirator

Facilitate a discussion of the stresses of wearing a respirator (heat, weight of SCBA, extra effort to breathe) to show why medical fitness is important to safety.

Emergency Procedures

Using the company Respirator program and SOPs as guidance, facilitate a discussion of actions to be taken if there is an SCBA failure, such as an air hose leak. If training has not been provided regarding this type of emergency, facilitate a discussion regarding foreseeable equipment failures what should be done. Generally, any problem during use will involve alerting and exiting the hot zone.

Exercise – Donning and Doffing an SCBA

Distribute the Worksheet and have each participant complete.

Observe the don/doff procedures and make constructive comments as needed before signing off as to proficiency. Two facilitators may be helpful to assure proficiency is achieved before signing the worksheet. For some items on the worksheet, the company may have a checklist (example: after use); if so, incorporate that into the after-donning activities.

Welcome questions and facilitate a discussion of issues that arose during the exercise.
Exercise – Current practices for your SCBA revisited

Review the completed worksheet on current practices and identify any area where your SCBA work practices will change, based on this exercise.

List report back items on a writing surface viewable by all.

Facilitate a discussion on approaches to improve SCBA practices and procedures, as needed.

- Ask local fire department to discuss options for response with employer.
- Discuss with team members and employer the hazards (liability) of incomplete procedures
- Access the OSHA e-tool for respiratory protection program/practices.
  
  https://www.osha.gov/etools/respiratory-protection

Summary

Review the objectives

Ask: Based on this exercise, what takeaways do you have as you go back to work?

  List them on a writing surface viewable by all.

Answer any remaining questions

Follow up

Make this exercise better:

  Forward suggestions to your Program Director
  Are there other ‘Questions you may be asked’ that should be included?

Organize the listing of ‘takeaways’ and forward to your program director. These are very important impacts to report to NIEHS.
Name:___________________________

Respiratory Protection Performance Checklist
Current Practices for use of your SCBA

1. What brand and size of facepiece do you use?  Brand_________________ Size_______

2. Important dates:
   When were you last fit-tested?   Month ____    Year _______
   When were you last medically cleared to use an SCBA?  Month ____    Year _______

3. Circle the word below that describes how often you use the SCBA.
   Daily   Weekly   Monthly   less than monthly
   Approximate date last used: ____/_____/_____

4. When not in use, is your respirator facepiece stored
   a. in a clean location?----------------------------------------------------------------- □ Yes □ No
   b. in a plastic bag or other container to prevent contamination? ----------------- □ Yes □ No

5. The last time you used your SCBA, did you
   a. check the facepiece straps prior to donning? ---------------------------------- □ Yes □ No
   b. inspect the facepiece for cracks or color changes?-------------------------- □ Yes □ No
   c. inspect the valve flaps for crack or wear? ---------------------------------- □ Yes □ No
   d. conduct a user check for fit? ----------------------------------------------- □ Yes □ No
   e. control breathing (in through nose, out through mouth, breathe deeply)?--------------- □ Yes □ No
   f. monitor remaining air supply? ----------------------------------------------- □ Yes □ No
   g. maintain contact with a buddy/others? ---------------------------------------- □ Yes □ No
   h. wash the facepiece?----------------------------------------------------- □ Yes □ No □ done by others
   i. dry the facepiece thoroughly before storing? ----------------------------- □ Yes □ No □ done by others
   j. inspect the facepiece before re-stowing?--------------------------------- □ Yes □ No □ done by others
   k. alert the health and safety rep to deficiencies? ----------------------- □ Yes □ No □ None found

Date ______________ Instructor’s Signature__________________________________
Group or Name: ______________________

**Respiratory Protection Performance Checklist**

**Identify all the parts of the SCBA assembly**

Identify each of the following parts of the SCBA and enter √ or NA.

<table>
<thead>
<tr>
<th>Air Cylinder</th>
<th>√ or NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinder air gauge</td>
<td></td>
</tr>
<tr>
<td>Cylinder wheel valve</td>
<td></td>
</tr>
<tr>
<td>Hydrostatic test date(s)</td>
<td></td>
</tr>
<tr>
<td>Specification plate</td>
<td></td>
</tr>
<tr>
<td>Production date</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Harness Assembly</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Air cylinder coupling</td>
<td></td>
</tr>
<tr>
<td>O-ring</td>
<td></td>
</tr>
<tr>
<td>High pressure hose</td>
<td></td>
</tr>
<tr>
<td>1st stage regulator</td>
<td></td>
</tr>
<tr>
<td>Low pressure hose lines</td>
<td></td>
</tr>
<tr>
<td>2nd stage regulator</td>
<td></td>
</tr>
<tr>
<td>Air saver switch</td>
<td></td>
</tr>
<tr>
<td>Purge/by-pass valve</td>
<td></td>
</tr>
<tr>
<td>Mask connection location</td>
<td></td>
</tr>
<tr>
<td>P.A.S.S. device (do not activate)</td>
<td></td>
</tr>
<tr>
<td>Shoulder air gauge</td>
<td></td>
</tr>
<tr>
<td>Quick fill/buddy breathe</td>
<td></td>
</tr>
<tr>
<td>Shoulder and belt straps/connectors</td>
<td></td>
</tr>
<tr>
<td>Chest straps</td>
<td></td>
</tr>
<tr>
<td>Face piece</td>
<td></td>
</tr>
<tr>
<td>Lens</td>
<td></td>
</tr>
<tr>
<td>Head harness and straps</td>
<td></td>
</tr>
<tr>
<td>Face seal</td>
<td></td>
</tr>
<tr>
<td>Speaking diaphragm/voice amplifier</td>
<td></td>
</tr>
<tr>
<td>Exhalation valve</td>
<td></td>
</tr>
<tr>
<td>Nose cup</td>
<td></td>
</tr>
<tr>
<td>Heads up display (HUD)</td>
<td></td>
</tr>
<tr>
<td>Eye glass attachment</td>
<td></td>
</tr>
</tbody>
</table>

Date ______________ Instructor’s Signature: ______________________________

Updated 03/21/2022
Respiratory Protection Performance Checklist - Monthly Checks

Enter √ for each of the items below that are done as part of the monthly check; if not done, put NA.

<table>
<thead>
<tr>
<th>Is everything there?</th>
<th>√ or NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facepiece assembly</td>
<td></td>
</tr>
<tr>
<td>Regulator and hoses</td>
<td></td>
</tr>
<tr>
<td>Air bottle and valve</td>
<td></td>
</tr>
<tr>
<td>Harness and back frame</td>
<td></td>
</tr>
<tr>
<td>P.A.S.S.</td>
<td></td>
</tr>
<tr>
<td>Escape bottle</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is condition ready for use?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Examined for cracks/discholoration/change in shape</td>
<td></td>
</tr>
<tr>
<td>Face piece</td>
<td></td>
</tr>
<tr>
<td>Nose cup</td>
<td></td>
</tr>
<tr>
<td>Lens</td>
<td></td>
</tr>
<tr>
<td>Exhalation valve</td>
<td></td>
</tr>
<tr>
<td>Examined for damage/wear</td>
<td></td>
</tr>
<tr>
<td>Regulator</td>
<td></td>
</tr>
<tr>
<td>HUD</td>
<td></td>
</tr>
<tr>
<td>Air bottle(s)</td>
<td></td>
</tr>
<tr>
<td>Hoses</td>
<td></td>
</tr>
<tr>
<td>Valves</td>
<td></td>
</tr>
<tr>
<td>Back frame</td>
<td></td>
</tr>
<tr>
<td>Back frame harness</td>
<td></td>
</tr>
<tr>
<td>Batteries charged</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Checks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purge Valve</td>
<td></td>
</tr>
<tr>
<td>Air valve</td>
<td></td>
</tr>
<tr>
<td>Audible air leaks</td>
<td></td>
</tr>
<tr>
<td>Purge valve</td>
<td></td>
</tr>
</tbody>
</table>

| Notification                                  |         |
| Deficient items tagged                        |         |
| Notification of tagging made to SCBA administrator |   |

Date ______________ Instructor’s Signature: ____________________________________
Group or Name: ________________________

Respiratory Protection Performance Checklist
Donning and Doffing an SCBA

1. I performed the following check-out procedures prior to donning:
   a. Head straps attachments are not loose-------------------------------------------☐ Yes ☐ No
   b. Head harness shows no cracks or other defect---------------------------------☐ Yes ☐ No
   c. Head straps are stretchy--------------------------------------------------------------☐ Yes ☐ No
   d. Head straps can be adjusted--------------------------------------------------------☐ Yes ☐ No
   e. Exhalation valve flaps are flexible-------------------------------------------------☐ Yes ☐ No
   f. Exhalation valve flaps are not discolored-----------------------------------------☐ Yes ☐ No
   g. P.A.S.S. or escape bottle-------------------------------------------------------------☐ Yes ☐ No

2. After donning, I performed the following
   a. Adjusted head harness----------------------------------------------------------------☐ Yes ☐ No
   b. Tightened chin straps------------------------------------------------------------------☐ Yes ☐ No
   c. Tightened forehead straps -----------------------------------------------------------☐ Yes ☐ No
   d. Conducted user fit check -------------------------------------------------------------☐ Yes ☐ No
   e. Adjusted chest straps------------------------------------------------------------------☐ Yes ☐ No
   f. Adjusted waist straps ------------------------------------------------------------------☐ Yes ☐ No

3. After doffing, I did the following
   a. Loosened all straps--------------------------------------------------------------------☐ Yes ☐ No
   b. Followed company policy for inspection-----------------------------------------------☐ Yes ☐ No
   c. Followed company policy for cleaning-----------------------------------------------☐ Yes ☐ No
   d. Followed company policy for after-use checkout----------------------------------☐ Yes ☐ No
   e. Followed company policy for any identified damage/defect-----------------------☐ Yes ☐ No

Date ______________ Instructor’s Signature: __________________________________________