Troubleshooting SCBA Problems

Format: Groups of up to 10 students (instructor guided)

Time Frame: 10 minutes

Description
This instructor-guided activity provides students with an opportunity to identify common SCBA problems that occur on the fire ground.

Materials
- Full turn out PPE and SCBA

Instructions
Using SCBA equipment, describe common SCBA problems that occur on the fire ground and discuss how to respond:

1. <u>Cracked, Broken, or Damaged Lens</u>
   - Get as low as possible.
   - Cover the damaged area with a gloved hand to filter out particulate matter.
   - Call Mayday.
   - Initiate fire fighter emergency procedures.
   - Search for an exit.

2. <u>Air Discharging Uncontrollably from Regulator</u>
   - If the problem is an open bypass valve:
     - Close valve.
     - Continue operations.
   - If the problem is catastrophic failure:
     - Immediately attempt to control the leakage with a gloved hand.
     - Call Mayday.
     - Initiate fire fighter emergency procedures.
     - Review emergency air conservation methods based on AHJ guidelines, manufacturer specifications, and best practices.
     - Search for an exit.

3. <u>Ripped or Severed Hose</u>
   - Immediately cover or hold together the affected hose with a gloved hand.
   - Call Mayday.
   - Initiate fire fighter emergency procedures.
   - Review emergency air conservation methods based on AHJ guidelines, manufacturer specifications, and best practices.
   - Search for an exit.

4. Decreased Air Flow / Air Supply Interruption
   - Get as low as possible.
   - Keep mask on with regulator attached.
   - Begin an emergency assessment.
     - Check cylinder
       - Is it fully on/open?
       - Is there air in the cylinder?
       - Is regulator attached correctly?
     - Check mask
       - Is MMR attached correctly?
       - Is bypass valve open or closed?
       - Is mask properly sealed?
     - Check hoses and connections
       - Are they damaged?
       - Are they disconnected?
     - Check remote gauge
       - Is there air in the cylinder?
   - If no air, call Mayday.
   - Initiate fire fighter emergency procedures.
   - Search for an exit.

5. Audible Leak from Hose Connection at the Cylinder Connection
   - Assess leak severity.
   - If you can solve it:
     - Attempt to resolve.
     - Review methods based on AHJ guidelines, manufacturer specifications, and best practices.
   - If you can't solve it:
     - Call Mayday.
     - Initiate fire fighter emergency procedures.
     - Get as low as possible to avoid unnecessary exposure to superheated gases.
     - Search for an exit.

6. Low-pressure Alarm Activation (Unanticipated)
   - Begin an emergency assessment.
     - Check cylinder
       - Is it fully on/open?
       - Is there air in the cylinder?
       - Is regulator attached correctly?
     - Check mask
       - Is MMR attached correctly?
       - Is bypass valve open or closed?

        - Is mask properly sealed?
    - Check hoses and connections
        - Are they damaged?
        - Are they disconnected?
    - Check remote gauge
        - Is there air in the cylinder?
- If you cannot find and resolve the issue, call Mayday.
- Initiate fire fighter emergency procedures.
- Get as low as possible to avoid unnecessary exposure to superheated gases.
- Search for an exit.

7. <u>Out of Air</u>
    - Call Mayday.
    - Initiate fire fighter emergency procedures.
    - Search for an exit or safe refuge area.
    - Keep mask on.
        - Use regulator (for as long as possible).
        - If regulator is disconnected, place a gloved hand over mask opening or low-pressure hose to deflect debris.

8. <u>Broken or damaged harness</u>
    - Readjust if possible.
    - Maintain contact with air supply.
    - Search for an exit or safe refuge area.