Dislodged Sizing Dot on Firefighter's SCBA Causes Malfunction

October 3, 2016



Photo1 is a close up showing a black sizing dot (see arrow) wedged inside the facepiece regulator.

Photo courtesy of Everett FD



Photo 2 shows correct position of sizing dots. Sizing dots (circled) come in color-coded sets of 4. Photo courtesy of Everett FD



Photo 3 shows a facepiece with 2 missing sizing dots (see arrows).

Photo courtesy of Everett FD

SCBA failure can be caused by something as small as a sizing dot gone rogue. This recently happened to a firefighter during a live-fire training event in Washington State and caused an unexpected exposure. The exposure occurred because the exhalation diaphragm on the firefighter's SCBA facepiece was held open by a dislodged sizing dot (see Photo 1). The opening allowed smoke from the fire to enter the facepiece.

Sizing dots on the facepiece are attached with adhesive by the manufacturer (see Photo 2). They are used as an insulator and to indicate the mask size by color code.

Immediate Actions for Prevention:

Visually check the facepiece after maintenance and before use.

- Ensure that all four sizing dots are in place and secure.
- Inspect the inside of the facepiece and regulator for dislodged sizing dots or debris that may obstruct the diaphragm or face seal.
- If sizing dots are missing (see Photo 3), remove the facepiece from service and contact your manufacturer service provider to replace the missing dots. An improved version of the sizing dots is available if the facepiece is within the 10-year warranty.

Always perform a user seal check before you enter the SCBA use area to ensure the SCBA is functioning properly. See seal checking procedures in WAC <u>296-842-22020</u>. You must complete a positive- and a negative-pressure check each time.

Examine the facepiece storage bag or container for dislodged sizing dots and debris.

Repair or replace any respirator that is not functioning properly before reuse.

Ongoing Actions for Prevention:

Inspect SCBAs before each use AND during cleaning; OR monthly if NOT used. See WAC <u>296-842-17015</u> for specific requirements.

If SCBAs fail inspection or are not functioning properly during use due leakage or other problems ALL of the following apply:

- Do NOT permit such respirators to be used until properly repaired or adjusted by an appropriately trained individual.
- Use only NIOSH-certified parts.
- Use the manufacturer or a technician trained by the manufacturer to repair or adjust reducing and admission valves, regulators, and warning devices on SCBAs.
- Follow the manufacturer's recommendations and specifications for the type and extent of repairs.

Follow procedures established for cleaning and disinfecting respirators. See WAC 296-842-22015.

Store respirators properly and follow additional requirements for emergency respirators. See WAC <u>296-842-17010</u>.

Follow the respirator rules (see WAC <u>296-842</u>) and the procedures for your specific respirator outlined in the manufacturer's operating & maintenance instructions (available at www.scottsafety.com) when inspecting, testing, and repairing respirators.

To find more resources visit L&I's Respiratory Protection topic page.

Share this bulletin with others in your industry and safety network.

This ebulletin was developed by L&I's Division of Occupational Safety and Health (DOSH) to alert employers, labor groups, and employees to potential hazards associated with work activities. This is not a rule and creates no new legal obligations. The information provided includes suggested guidance on how to avoid workplace hazards and describes relevant mandatory safety and health rules. DOSH recommends you also check related rules for additional requirements.

#2HeB2016