Fire Engineering

SCBA TRAINING:THE "NO-AIR MANEUVER"

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BY **JOHN G. RIKER**

Firefighters train every day to handle emergencies and use sophisticated equipment. They rehearse how to search for trapped fire victims, force doors, and operate hose streams. One of the most important pieces of equipment firefighters use is the self-contained breathing apparatus (SCBA), and training with it is essential if firefighters are to protect their lives and those of fire victims.

Wearing their SCBA, firefighters must practice maneuvers to free themselves from cables and wires that might entangle them during a primary search. They need to know how to reposition their SCBA to reduce their profile and slip through wall studs or around narrow fire escape railings to enter a fire apartment. There is also a procedure in which firefighters crawl backward pulling their SCBA behind them to reach victims trapped in confined spaces.

Check your SCBA on a regular basis to prevent problems. But even with regular maintenance, firefighting equipment has been known to fail because of the extreme conditions under which it is used. What do you do if your SCBA malfunctions?

In the case of a partial malfunction, you can follow many procedures. Regulator malfunctions are often controlled by opening the purge or emergency bypass valve. When there is a pressure-reducer malfunction, airflow can be controlled by partially closing the cylinder

valve. In each of these emergencies, there is some flow of air to the facepiece, and you can still breathe.

A total malfunction of the SCBA is a different story. Let's face it. This doesn't happen every day, but if it happens only once in your career and you don't know what to do, you could end up being severely injured or killed.

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Years ago, firefighters were taught to remove the low-pressure hose from their regulators and put it under their coats. Technology, however, has changed. With many of the SCBAs in use today, this procedure is no longer an option. A new procedure was needed. The "No-Air Maneuver" is used in an extreme emergency when the SCBA fails to deliver air to the facepiece. The maneuver, outlined here, is designed to give firefighters a fighting chance to survive in a smoke-filled atmosphere. Here are the steps to remember when no air is being delivered to the facepiece:

1. Don't panic. Stop all other actions. Concentrate on the procedure. Work quickly.
2. Drop to the floor. The heat and smoke of a fire are more intense at the ceiling level. Dropping down helps you get relief from heat, improves your visibility, and helps you focus. This action may also alert other firefighters to your problem. It is dangerous to try to run for it in a smoke-filled atmosphere.
3. Call for help immediately by activating your PASS device. Should you fail to gain control, a single breath of toxic atmosphere could render you unconscious, resulting in a delay in your discovery.
4. Open the purge or emergency bypass valve. If air begins to flow to the facepiece, notify your officer, and leave the toxic atmosphere.
5. If no air flows, position your facepiece close to the floor, and remove the regulator. Do not remove the facepiece. It offers some protection and aids your visibility.
6. Place the facepiece opening down on the floor. The only remaining air in a smoke-filled room is at the floor level (see photo 1).
7. Cover the facepiece opening with a NomexT hood or gloved hand. Folding your hood or placing a gloved hand over the opening of the facepiece will act as a crude filter against smoke particles (see photo 2). If possible, signal a mayday according to your department's operational procedures. Give your location, name, and company identification.
8. Leave the hazard. Get to an area where you are able to breathe.
9. Contact your officer; report your condition and location.

Even during training, firefighters who suddenly lost their supply of air found it difficult to remain calm. Many members ripped off their facepiece to take a breath. It was also discovered that wearing the PASS device on the back of the SCBA made it difficult to reach. The PASS device should be readily accessible and activated at the first sign of any emergency. If you are having a heart attack or can't breathe, the 30 seconds the PASS device takes to activate automatically could be a lifetime. There is no one answer for every fireground situation. This procedure will help you escape in an emergency. To have no procedure means you have less of a chance to survive should your SCBA malfunction. This maneuver is a back-to-basics procedure designed to give you a fighting chance. Do not put the lives of the firefighters in your department at greater risk. Train them to do the job. Train them to survive.

About the Author

JOHN G. RIKER, a 31-year veteran of the fire service, is captain of the Newark (NJ) Fire Department, where he heads Hazardous Material Unit, Truck 1. A New Jersey state certified instructor, he is a member of the instructional staff of the Newark Fire Department Division of Training and the Passaic County Fire Training Academy. He is a general partner in Emergency Training Associates, LLC, a fire service consulting firm.

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Return to Previous Page