

FIREHOUSE®

Weekly Drill

DRILL #55: SCBA AIR MANAGEMENT

Introduction

As firefighters, we all know that our self-contained breathing apparatus (SCBA) is our lifeline while operating in an immediately dangerous to life and health (IDLH) environment. Air management is as vitally important to us because we never know when the unthinkable might happen. Too often firefighters end up caught in situations that they had no intention of getting into, such as a partial floor collapse in a burning structure, or becoming entangled in the building's furnishings, to name just a couple.

Before we get started, each firefighter should have a comprehensive understanding of all the safety features on the SCBA and how they function. In addition, all department standard operating guidelines (SOGs) addressing the SCBA should be acknowledged along with your department's Mayday protocols. This is to insure that all firefighters follow your department's procedures and establish a pre-plan for such an operation. Remember, different fire departments use different manufacturer brands of SCBAs.

Every firefighter needs to be able to manage his/her air supply. Just talking about air management really does us little good; we actually need to put ourselves through the test and this means getting into our turnout gear with your SCBA.

For this particular drill, we are going to have the training officer set up a course that the firefighters will follow, simulating some type of fireground activity. Generally, having firefighters climb stairs and crawl around on the floor with a tool is a good starting point. Set up the course so the firefighters keep ascending the stairs and crawling around on the floor then descending the stair and crawling around on the floor. The stairs will get their heart rate and breathing to increase, while the crawling around on the floor will allow some recovery time to bring it back down a little.

The safety officer will be equipped with a stopwatch and a spreadsheet of participating firefighters. The spreadsheet will be used to log the amount of air the firefighter started out with, the time at which the low-air warning device was activated and the time the firefighter actually ran out of air. Time starts when the firefighter goes on air.



Throughout the training, each firefighter will monitor his air usage so he can have a better understanding of the drill and how he is doing with his air management. Because each firefighter will operate differently from one another, the low-air warnings will activate at different time intervals. Once the low-air activation occurs on a firefighter's SCBA, he should stop all activities and begin using air management techniques to conserve his air. At this point, the amount of time used should be logged on the spreadsheet.

The training officer has to encourage each firefighter to control his breathing at this point by using a method known as "skip breathing," this is where the firefighter takes a breath and tries to hold it as long as he can before exhaling slowly. Then draws another breath slowly and holds it again before exhaling slowly. This will continue until all the air remaining in the SCBA cylinder has been used. Once again, mark the time on the spreadsheet that the firefighter completely ran out of air. Have the firefighter remove all his turnout gear and follow your rehabilitation protocols as this concludes the drill.

Looking at the results, all times recorded have been in minutes and seconds. Each firefighter can see the time when the low-air warnings activated, giving him an understanding of how much time expired while under a workload and how much air remained at this point. The firefighter then can see how long the remaining air lasted while using the skip-breathing technique. Firefighters are often surprised to see how much time they are able to get out of the remaining air in their cylinders once the low-air warning activates.

—Prepared by Russell Merrick