

Chapter 5.0

Personal Protective Equipment/SCBA Evolutions

The following evolutions are designed to build basic skills with personal protective equipment, self-contained breathing apparatus, rapid intervention team equipment, and aerial ladder belt use. They may also include other tools or accessories that may be used in these circumstances. These evolutions may be built on or added to in order to provide the training necessary for members of the crew depending on skill level.

This chapter will be broken down into the following sections:

- 5.1** Donning and Doffing of PPE (turnout/bunker gear) evolution
- 5.2** Donning and Doffing of PPE with SCBA evolution
- 5.3** RIT/Mayday evolution
- 5.4** Search evolution
- 5.5** Ladder belt evolution (with SCBA)
- 5.6** SCBA Air management evolution

Section 5.1

Donning and Doffing of PPE (turnout/bunker Gear) evolution

Mandatory Tools/Equipment needed:

- PPE (turnout/bunker gear)

Personnel Required:

- Minimum of 1 Firefighter

Objectives:

- To become proficient in donning and manipulation of PPE

1. Don appropriate PPE in orderly fashion and sequence.
2. Ensure all zippers/Velcro/buttons/suspenders are in place
3. Ensure gloves are on appropriately
4. Ensure Helmet is on appropriately
5. Complete in 60 seconds or less.

*For new firefighters, disregard the completion time initially and focus on the proper sequence of events for proper donning of PPE. After the new/inexperienced firefighter has gained some repetition and fundamentals, implement the timed standard.

Section 5.2

Donning and Doffing of PPE with SCBA evolution

Mandatory Tools/Equipment needed:

- PPE and SCBA

Personnel Required:

- Minimum of 1 Firefighter

Objectives:

- To become proficient in donning and manipulation of PPE with SCBA

1. Don appropriate turnout PPE in orderly fashion and sequence.
2. Don SCBA harness (turn on cylinder)
3. Secure and tighten shoulder straps (chest strap optional)
4. Secure and tighten waist straps
5. Remove helmet
6. Put on SCBA mask
7. Cover any skin on face and head/mask netting with Nomex hood
8. Replace helmet for proper fit with mask and hood
9. Connect regulator to mask
10. Don structure firefighting gloves
11. Complete in 2 minutes or less

*For new firefighters, disregard the completion time initially and focus on the proper sequence of events for donning PPE with SCBA. After the new/inexperienced firefighter has gained some repetition and fundamentals, implement the timed standard.

Section 5.3

RIT/Mayday evolution**Mandatory Tools/Equipment needed:**

- PPE/SCBA
- Smoke Machine/Blacked out mask
- RIT Bag
- Portable Radio

Personnel required:

- Minimum of 2 firefighters (3 Firefighters if simulating extrication of a down/trapped FF using RIT bag)

Optional equipment/Tools:

- Forcible entry tools
- Thermal Imaging Camera (or SCBA integrated TIC)
- Webbing
- Hose
- Etc.

Objectives:

- Rescue of simulated down/trapped firefighter using the RIT bag in low/no visibility
- Knowledge and practice with Universal Air Connection on SCBA and fittings from RIT Bag
- Knowledge and practice with “buddy breather” connections on SCBA and fitting from RIT bag
- Knowledge and practice with replacement of regulator on simulated down/trapped FF
- Knowledge and practice with replacement of mask and regulator on simulated down/trapped FF
- Procedures and simulation of calling a “Mayday”/Radio operations during RIT(refer to Mayday Policy in Lexipol)
- Knowledge and practice with use of PASS device
- Knowledge and practice of removing/extricating down/trapped FF from IDLH
- Knowledge and practice with use of Thermal imaging camera (during simulated search for down Firefighters)
- Knowledge and practice of tag line use(s)

* This evolution can be performed with 2 firefighters in an open area using material to “blackout” your SCBA mask and the minimum required equipment. In order to enhance the evolution, more personnel and a room or building should be used in conjunction with the simulated RIT crew, smoke machine, thermal imaging camera(s), radio communications, hose lines, and extrication of the simulated down firefighter. These evolutions are designed to enhance familiarity and techniques related to RIT and mayday operations.

Search Evolution**Mandatory Tools/Equipment:**

- PPE with or without SCBA

Personnel Required:

- 1 Firefighter minimum

Optional equipment/Tools:

- SCBA
- Simulated victim or rescue manikin
- Portable Radio
- Flashlights
- Smoke machine/Blackout mask
- Thermal Imaging camera
- Forcible entry tools
- Hose
- Etc.

Objectives:

- Search of room/area using proper and safe techniques (i.e. Right or Left hand search, floor sweeps, furniture sweeps, crib/cradle sweeps, verbal contact with partner(s), tag lines if necessary, feet first, etc.)
- Locate victim(s)
- Communication of locating victims via radio
- Familiarity with search in poor visibility
- Understanding of where victims could be (i.e. anywhere)
- Extrication of victim(s) from IDLH

*this evolution falls under PPE and SCBA due to the fact that practicing a primary search can be done with as little as a set of turnout/bunker gear. This evolution could be done with 1 firefighter and a simulated victim, object, or even an empty room. The purpose of this evolution is to enhance confidence in search techniques and navigation in low visibility. This evolution can be enhanced by adding in obstacles, manikins, live simulated victims, thermal imaging cameras, smoke machine, hose lines, radio communications, VES tactics, etc.

Ladder belt evolution (with SCBA)**Mandatory Tools/Equipment:**

- PPE with SCBA
- Ladder Belt/fall protection strap
- Ladder Truck

Personnel Required:

- 2 firefighters minimum

Optional Equipment/Tools:

- Tools or equipment that may be utilized from aerial platform

Objectives:

- Knowledge and practice with ladder belt/fall protection
- Knowledge and practice with PPE and SCBA using Ladder Truck
- Knowledge and practice with Ladder Truck onboard breathing air
- Knowledge and practice with operating in/from aerial device

*This evolution is designed to provide familiarity with the use of the ladder belts in conjunction with the ladder truck, aerial device, and onboard breathing air on the ladder truck. The evolution should incorporate the use of PPE/SCBA, the ladder belt, set up and use of the aerial device/ladder truck, and use of the onboard breathing air. The ladder belt is significantly easier to manipulate and don if put on before the SCBA. The ladder belt can be worn over the duty uniform during daily/weekly checks of the apparatus, but are meant to be used over the top of the turnout/bunker pants. The best way to become familiar with these belts is to use them in conjunction with the aerial device whether on the rungs of the aerial or on the platform. Also, the onboard breathing air on the ladder truck is used with the adapters found in the storage boxes on the side of the platform of the aerial device. The use of the adapters will be covered further in the "Ladders" chapter. These practices are also part of the Company Performance Standard # 5 "*Tower-1 Forward Lay from Hydrant*".

SCBA Air Management Evolution

Mandatory Tools/Equipment:

- PPE w/SCBA

Personnel Required:

- 1 Firefighter minimum

Optional Equipment/Tools:

- Ladders
- Tools
- Rope/hoisting
- Weights/ Dumbbells
- Etc.

Objectives:

- Manage air and breathing while performing physical training relevant to fire ground operations until the SCBA cylinder is empty.
- Keep heart rate elevated

*This evolution can be as easy or as difficult as necessary and is designed to increase a firefighter's awareness of their capabilities with PPE/SCBA. The easiest way to perform this is to do repetitive movements and tasks while wearing PPE and SCBA. For example one may do a circuit of pushups, stair climbs, hose hoisting, etc. until the low air alarm (bell) begins to sound, and then continue with physical activity until the SCBA cylinder is empty. Keeping track of total time and heart rate can set a baseline for future air management evolutions in order to recognize improvements in air management/physical fitness.