


## SHELBYVILLE FIRE & RESCUE STANDARD OPERATING PROCEDURES

	<b>SECTION: Safety</b> <b>SUBJECT: Air Management</b>	S.O.P: 104.16
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	<b>Approved By:</b>	<b>Effective Date:</b> December 1, 2012
		<b>Revision Date:</b>

### ***Purpose:***

The purpose of the air management policy is to improve firefighter safety by describing how we will effectively manage the air in our SCBA cylinders while operating in the hazard zone at any incident requiring SCBA usage.

### ***#1 Rule of Air Management:***

**All members utilizing an SCBA in the hazard zone of an incident shall monitor the amount of air in their SCBA's as well as their rate of consumption in order to exit the hazard zone prior to the low air alarm activation of the SCBA.**

Firefighters shall exit the hazard zone of an incident with an emergency reserve of air. It is critical that firefighters understand that the initial 75% of air supply is the "working and exiting air". This includes air utilized for gaining access, working toward the tactical objectives, and exiting the hazard zone.

### ***Strategic Level Air Management***

The incident commander shall consider air management a critical fireground factor when evaluating the risk management profile of the building, performing size-up, and determining the strategy. Command will assist companies air management by:

1. Controlling position and function of crews in the hazard zone (Accountability)
2. Maintain an awareness of how long crews have been working
3. Insure adequate resources are on scene to maintain a tactical reserve
4. Assigning companies to multiple points of egress if possible
5. Relieving and rotating operating crews as needed (recycle/rehab/on-deck).

### ***PACAN Reports:***


Command should seek "air status" of companies in the hazard zone through regular position, air status, conditions, actions, needs reports (PACAN Reports). Benchmarks for PACAN Reports are 10 minute elapsed time on air while operating in the hazard zone.

### ***Task Level Air Management:***

Every member shall check their SCBA at the beginning of the shift to ensure that they have a full air cylinder and the pass device works. On the fire ground every firefighter is responsible for managing his/her own air supply and frequently communicating the status of their air supply to Incident Command. All members shall maintain constant contact with the hose line and manage the lines so that excessive hose is not brought into the structure. This will assist in reducing travel time while following the hose line out of the building when air management is the most crucial.

**All members of the crew will exit prior to the low air of the alarm sounding on the SCBA.**

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### ***Air Emergencies:***

An air is defined as code one. “Anytime the breathing apparatus being used cannot deliver air to the user as designed; whether by mechanical failure or if the individual has consumed the air supply beyond the designed work cycle, or an individual becomes lost or trapped within an IDLH environment regardless of air supply.

Activation of the low-air alarm is an ***immediate action*** item for the individual and the crew involved. Immediate action is described as notifying command of the low-air alarm activation and immediately exiting the IDLH atmosphere intact as a crew and notifying command that you are ***PAR*** after exiting. If a crew member is unable to exit due to being lost, trapped, or injured an immediate MAYDAY shall be called. Furthermore, when remaining air supply in the SCBA cylinder reaches 18% to 15% range, a MAYDAY should be called if personnel are still inside the IDLH atmosphere and will be unable to exit within 5 minutes. In a situation that is not an urgent MAYDAY situation such as a low air alarm activation while still inside an IDLH atmosphere but near an exit able to reach the exterior safely, the notification from the crew to command will trigger a set of questions from the IC to the crew. The IC should determine:

1. Where the crew is located inside the structure (Hot-Zone).
2. Are you able to exit safely?
3. Notify me of a PAR when you are clear of the building.

These questions will help give crews stationed near exits that could affect a rescue a heads up that there could be a possible emergency and rescue personnel can position themselves accordingly. The IC will begin monitoring time elapsed since receiving notification of the traffic. If the crew has not exited in a 5-10 minute timeframe, command should act accordingly to the circumstances of the event. This may include emergency traffic, or a MAYDAY declaration and deployment of a RIT team.

### ***Summary of Key Elements:***

1. Always start with a full SCBA cylinder.
2. Have a round trip ticket planned (entry & exit)
3. Everyone is responsible for air management.
4. IC/Accountability Officer/IC designee shall monitor air supply.
5. Crew’s reports air supply.
6. Sector officers monitor companies in their sector
7. Command communicates with sector and crews and insures adequate resources are on-scene
8. Everyone exits and is out of the hazard zone prior to low air alarm activation 75%-25% rule.
9. Low-air warning (vibe alert/whistle) while operating in an IDLH is considered an air emergency and requires immediate action. (Notification to Command and exiting the IDLH atmosphere intact as a crew).
10. May-Day should be called if unable to leave IDLH atmosphere before exhausting emergency reserve of air supply.