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**Section: 2.14      Air Management**

Effective Date: 08/26/2009

Revision Date: 08/17/2009

Approved by: SMF Officers 08/26/2009

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**SCOPE**

This procedure applies to all South Metro Fire personnel who may need to use an SCBA in a hazardous atmosphere.

**PURPOSE**

Air management during SCBA use is critical to the health and safety of fire personnel. Firefighters need to maintain an awareness of their air supply while working in hazardous atmospheres.

**DEFINITIONS**

**Air Management:** An ongoing assessment of air consumption by individual firefighters and/or crews who are breathing air from their Self-Contained Breathing Apparatus (SCBA). Firefighters in a hazardous atmosphere must continually check their pressure gauges to know how much air they have left in their cylinder.

**The Rule of Air Management:** The firefighter knows how much air has been used, and manages the amount of air left in the cylinder. The firefighter leaves the hazardous atmosphere **before** the SCBA low-air warning bell activates.

**Hazardous Atmosphere:** Any atmosphere which is oxygen deficient or which contains a toxic and/or disease-producing contaminant. These atmospheres can be immediately dangerous to life or health (IDLH), or not.

**Point of No Return:** The point in time in which a firefighter has reached the limits able to exit from the hazardous environment.

**AIR MANAGEMENT PROCEDURE**

Air management is each firefighter's responsibility and is closely related to situational awareness. Firefighters must make sure that they have a full cylinder before they enter the hazardous atmosphere. Once inside the hazardous atmosphere, firefighters must look at their pressure gauges at intervals and inform their officer/crew leader of their remaining air supply.

The Officer/crew leader should take the lead in air management. Officer's and crew leaders must make the decision when to exit so that the crew is out of the hazardous atmosphere before their crew's low-air warning bells begin to ring. There are many factors that affect the duration of the crew's air supply, such as: fire conditions, work rates, aerobic fitness of the crew members, and stress.

All firefighters using SCBA will:

- Check their air levels before they enter the hazardous atmosphere. Firefighters must have a minimum of 4000 psi in their cylinder in order to make entry into a hazardous atmosphere.
- Follow the Rule of Air Management when operating in any hazardous atmosphere.
- South Metro Fire Department SCBA are programmed to signal a firefighter when the SCBA has reached 50% capacity (approximately 2200 psi). This signal is transmitted in two ways: Red and amber lights will flash on the Heads-Up Display and audible warning of four beeps from the sentinel.

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- When the first firefighter of a crew reaches 50% capacity, the officer/crew leader shall radio to Command that the crew is at 50% air. This allows Command to plan for replacing that crew in the hazardous atmosphere. The crew should then plan their exit accordingly so that they have exited the structure prior to the activation of their low-air warning.
  
- If a firefighter works into their reserve air and their low-air warning begins to sound in the hazard area, the officer/crew leader shall report over the radio to Command the following:
  1. Unit ID
  2. Location
  3. That a crew member's low-air warning is sounding
  4. An estimation of how close they are to exiting the structure

**Firefighters should exit the fire building or hazardous atmosphere before their low-air warning sounds. This gives them reserve air should something go wrong. A low-air warning at an emergency scene should become an audible warning that a firefighter may be in trouble.**