

310 Air Management

The purpose of this Standard Operating Guideline is to establish Air Management guidelines for East County Fire and Rescue. Air management is critical for the health and safety of all members of East County Fire and Rescue. Firefighters need to manage their air supply to ensure they have an adequate amount of air to exit hazardous conditions safely. All members are required to constantly maintain an awareness of their air consumptions and the amount of air remaining in their SCBA bottle.

“The first 75% of your air is yours; the last 25% is your family’s.”

DEFINITIONS:

Air Management: Air management is the ongoing assessment of air consumption by individual firefighters and/or teams that are breathing air from a 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 bottle.*

The Rule of Air Management (R.O.A.M.): The Rule of Air Management (R.O.A.M.) is defined as each individual firefighter knowing how much air they have used, and manage the remaining air left in their bottle so that they may exit any hazardous atmosphere safely.

Hazardous Atmosphere: A hazardous atmosphere is 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.

IDLH: An IDLH is any condition that would pose an immediate or delayed threat to life, cause irreversible adverse health effects, or interfere with an individual’s ability to escape unaided from a hazardous environment.

Air Levels:

4500 PSI - 100% (Full)
3375 PSI - 75%
2250 PSI - 50 %
1485 PSI - 33%
1125 PSI - 25% (Reserve air)

GENERAL INFORMATION:

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 a hazardous atmosphere. Once inside a hazardous atmosphere, firefighters must monitor their pressure gauges at regular intervals and inform their officer/team leader of remaining air supply.

Examples of times one could check air supply:

- Check your air at natural breaks
- Before changing levels
- Before entering a room
- After moving down a hallway
- After searching a room
- Before and after a physically demanding task
- Before beginning a new assignment
- At timed benchmarks

The officer/team leader should take the lead in air management. Officers and team leaders shall make the decision when to exit the hazardous atmosphere so that the team members are out of the hazardous atmosphere safely. This gives them the discretion to decide what an adequate amount of air is needed to exit the hazardous environment safely. There are many factors that affect the duration of the team's air supply, such as; fire conditions, work rates, physical fitness of the team members, and stress levels.

“If it took 25% air to get to the objective, it will take 25% or more to get back.” It is unrealistic to think that air levels will always fall exactly on a certain percent level. If a member’s PSI level is just above or just below 50%, then it is communicated in +/- terms. It is good practice to inform Command when the crew is entering/exiting the structure on/off air. It is also important to give command a Personnel Accountability Report (PAR) when exiting the structure.

Example: *“Command, E91 is exiting the structure, side Alpha, and is PAR with 25% + air.”*

AIR MANAGEMENT GUIDELINES:

It is the expectation that all East County Fire and Rescue members utilizing SCBA will:

- Check their air levels before they enter any hazardous atmosphere. Members must have a minimum of 4050 psi in their cylinder in order to make entry into any hazardous atmosphere.
- If a crew leaves the hazardous atmosphere and is required to re-enter after using a portion of their air, they shall perform an air check and inform Command of their air level and destination before entering the hazardous area.
- Follow the Rule of Air Management (R.O.A.M.) when operating in any hazardous atmosphere.
- When the first member of any team has reached 50% air via heads-up-display (HUD) lights activated (two flashing amber lights) or pressure gauge, the officer/team leader shall report to Command that the team has 50% of their air remaining. This allows Command to pre-plan for replacing that team in the hazardous atmosphere.
- If a team member works into their reserve air and their low-air warning bell begins to ring in the hazardous atmosphere, the officer/team leader shall report to Command their unit number, location, that a team member’s low-air warning bell is ringing, and an estimate of how close they are to the exit. Command shall immediately replace that team in

the hazardous atmosphere. Crews shall remain assigned until properly relieved by replacements unless emergency circumstances dictate early withdrawal.

- If members hear a low-air warning bell ringing in the hazardous atmosphere, and there is not an immediate radio report from the team whose bell is ringing, that bell should be considered an emergency alarm until proven otherwise. Command will attempt contact with the team to verify status. If communications are unsuccessful, the emergency recovery procedures will follow.

“Our crew is only as efficient as the member with the lowest air level.”

REFERENCES:

NFPA 1404-Standard for Fire Service Respiratory Protection Training
WAC 296-305-4001-Respiratory Equipment Protection
WAC 296-842-Respirators