

Based on recommendations from the ICC Fire Code Action Committee (FCAC) and the IAFC Fire and Life Safety Section, Firefighter Air Replenishment Systems (FARS) have been added to Appendix L of the 2015 International Fire Code. This change is meant to promote the use of and standardize the installation criteria of the Firefighter Air Replenishment System (FARS). It is expected that this will become a permanent part of the code within the next few years.



FARS is a permanently installed arrangement of piping, valves, fittings, and equipment to facilitate the replenishment of breathing air in self-contained breathing apparatus (SCBA) for firefighters engaged in emergency operations. The code change recommends that local ordinances should adopt the implementation of the firefighter air replenishment systems based on building characteristics or special hazards.

FARS have existed since the 1980s and are already installed in hundreds of buildings around the country. The system essentially acts as a standpipe for air to supply air to firefighters engaged in emergency operations. Currently, shuttling cylinders up and down stairs is a time consuming, labor-intensive process, causing unnecessary risk and fatigue on the fire ground. This code change is meant to provide a framework for installing systems in all necessary structures.

FARS is meant to be adaptable to a variety of building configurations but will include the same basic requirements and components:

- Exterior mobile air connection to supply a continuous supply of air from responding air unit
- Piping throughout the structure will be protected from impact and fire according to current building code, and will also include control valves at pre-determined locations
- Fill stations/ rupture containment fill station
 - Fill stations shall be provided at the 5th floor above and below ground floor and every third floor thereafter
 - Where approved by the Fire Chief, fill stations can utilize Rapid Intervention Crew/Company Universal Air Connection (RIC/UAC) in lieu of cylinder fill stations that utilize containment areas
- Air storage system to provide a series of cylinders, booster pumps, or other components
 - Minimum design pressure shall be 110 percent of the fire departments normal fill pressure
 - The system should be capable of filling cylinders of a size and pressure used by the fire department of not less than two empty cylinders in 2 minutes
- Air monitoring system to ensure air quality meets NFPA requirements
- Control/Isolation valves for use in the event of building damage
- System shall meet all applicable NFPA, CGA, and ASME standards



FARS also has applications beyond high rise buildings including large underground structures, tunnels, maritime vessels, large warehouses or other horizontal structures where the transportation and supply of air cylinders can be problematic. It has been utilized in various markets including mining operations, POG, cruise ships, marine tankers and container ships.

Scott Safety supports the installation and use of these systems as they have proven to dramatically improve safety on the fireground by minimizing firefighter fatigue, properly utilizing on-scene personnel and providing lifesaving air to firefighters during emergency operations. Firefighters are never far from breathing air replenishment -- it is available at every 1.5 floors in a high-rise building or at every 150' in a horizontal structure such as a tunnel system or big box style structure.

RescueAir and Scott Safety have been partners in this endeavor for more than 15 years. Scott Safety is a leading manufacturer of high quality respiratory protection equipment and strives to constantly improve the way they protect first responders. RescueAir was the first to offer built-in firefighter air replenishment system FARS and is a reliable partner in the design, development, and installation of these systems to improve safety and reduce unnecessary risk during an emergency. For decades, Rescue Air Systems FARS have been tested and proven to work flawlessly with all Scott breathing air systems and allow for system expansion to meet nearly any need.

