

2. LPG Systems Design and Installation

2.1. Intention

- 2.1.1.** LPG is the most popular cooking fuel in UAE and this chapter addresses mainly the requirements for LPG in terms of Cylinders and Tanks. Other gases such as LNG, SNG and CNG are not directly covered in this chapter. However, the distribution, piping and fitting material, regulations regarding areas to be avoided in piping distribution and general safety requirements shall be as per LPG requirements and relevant international standards.
- 2.1.2.** LPG Cylinders storage (Waiting to be used), LPG Filling Plant, CNG Cylinders, SNG blending plants, Bulk LPG plants, Bulk Gas Dispensing Units, LNG Infrastructure distribution etc. shall be evaluated by Civil Defence approved House of Expertise and comprehensive risk assessment report shall be submitted to Civil Defence for approvals.
- 2.1.3.** The LPG System requirements in this chapter are to address the following.
- 2.1.3.1.** LPG Systems for cooking and industrial burning, heating are installed in safe location and distances from buildings and structures to minimize the damages caused by fire and explosion.
 - 2.1.3.2.** LPG installations are safe to use by regulating materials, equipment and safety devices test standards and approvals.
 - 2.1.3.3.** To ensure Fire-fighting access to LPG installation locations and provide protection systems to LPG installations to assist fire fighters during emergencies.
 - 2.1.3.4.** To ensure parking requirements of LPG bulk tankers are provided in the initial design and complied with.

Did You Know?

LPG was first identified in 1910.

Walter O. Snelling, a chemist and explosives expert with the U.S. Bureau of Mines, was asked to wonder why the gasoline was half gone by the time it got home from retail.

He experimented to device Cylinders to capture and retain LPG, contributing to the evolution of LPG Cylinders.

2.2. General Requirements for LPG Systems

- 2.2.1.** The materials, equipment including LPG cylinders, Tanks, piping, fittings, gauges, valves etc. shall be approved and listed by Civil Defence.
- 2.2.2.** All LPG Designers, installers, commissioners and maintenance personnel shall be qualified, approved and licensed by Civil Defence.
- 2.2.3.** **NFPA 54 and NFPA 58 and manufacturer's design, installation and maintenance guidelines** shall be referred to for requirements not effected or covered under this Chapter for LPG system design, installation and maintenance.