2.3.14.3. Emergency shut-off valve (ESV) shall be provided after the knockout pot. The ESV shall be linked to a release mechanism so that the valve can be closed from a safe distance of at least 3m from the LPG cylinders. The ESV may incorporate fusible element which melts at not more than 250 degree Celsius when exposed to fire, allowing the ESV to close by itself.

2.3.14.4. An accessible gas shutoff valve shall be provided at the upstream of each gas pressure regulator. Where two gas pressure regulators are installed in series in a single gas line, a manual valve shall not be required at the second regulator.

2.3.14.5. Main gas shut-off valves controlling several gas piping systems shall be prominent and readily accessible for operation and properly installed so as to protect it from physical damage. They shall be marked with a metal tag or other permanent means attached by the installing agency so that the gas piping systems supplied through them can be readily identified.

2.3.14.6. An exterior shut-off valve to permit turning off the gas supply to each building in an emergency shall be provided and plainly marked. Each pipe branch or pipe section should be equipped by isolation shut-off valves for isolation capability

2.3.15. Pigtail

2.3.15.1. Pigtail shall include a 6 mm flexible hose or tube, a 6 mm tee-check valve or excess flow valve and a 6 mm ball valve.

2.3.15.2. Flexible hose shall be fabricated of materials resistant to LPG reaction both in liquid and vapor state. It shall be designed for a minimum bursting pressure of 1,750 psi (121 bar) and working pressure of 255 psi (17.5 bar). The hose shall be marked “LPG” at intervals of not more than 3m.

2.3.15.3. The tee-check valve shall be Underwriters Laboratories Inc. (UL) listed or it shall comply with other recognized/approved standard.

2.3.15.4. The ball valve shall be rated to at least 600 PSI (41 bar). See **Section 6.** for test standards.

2.3.16. Vaporizers

2.3.16.1. All the system valves shall be resistant to action of LPG under service conditions. valves shall be listed and tested as per **Section 6.**

2.3.16.2. Vaporizers, where applicable, shall be constructed in accordance with the applicable provision of NFPA 58, ASME Code or other recognized pressure vessel codes and standards for a design pressure of 250 psi (17.24 bar) and shall be permanently and legibly marked with:

a. Markings required by the Code;