

## 3. LPG Systems used for flame shows in front of audience

## 3.1. Intention

**3.1.1.** Flame effect shows, both indoors and outdoors, to entertain audiences are getting popular in UAE. This section provides minimum requirements for safe usage of LPG for flame shows in front of audience.

## 3.2. General

- **3.2.1.** Flame effect shows either Temporary or permanent (See definitions, **11.1.37.**, **11.1.38.**), to entertain audiences using LPG shall comply with Section **2.5.**, Table **11.12.** and Section **6.**
- **3.2.2.** No indoor flame effect shows shall be allowed if the building is not fully sprinkler protected and provided with automatic fire detection and alarm system.
- 3.2.3. No indoor flame effect shows shall be allowed if the room does not comply with occupant load, exit width and minimum of two exit requirements as per Chapter 3, Means of Egress.
- **3.2.4.** Flame effect control system shall be an approved product. The approval and certifications shall be produced to Civil Defence for event approval.

Table 11.12: Guidelines for LPG Installations used for Flame Effect	
ITEMS	REQUIREMENTS FOR FLAME EFFECT USING LPG
1. LOCATION OF LPG CYLINDERS OR CONTAINERS	<ul> <li>i. Cylinders or Containers shall be located 6 m away from the audience and stage.</li> <li>ii. No piping or valves shall be located within 3 m of the audience.</li> <li>iii. No indoor flame effect shows shall be allowed if the building is not fully sprinkler protected.</li> </ul>
2. QUANTITY OF LPG	<ul> <li>i. Maximum of 24 kg LPG, if the Flame effect show is indoors. Where more than one cylinder is required for such shows indoors, in the same room, additional cylinders shall be separated by each other by 6 m.</li> <li>ii. For outdoor flame effect shows, using central LPG installations or cylinders, maximum quantity allowed shall not be more than the quantity required for a single day.</li> <li>iii. Additional quantity of LPG in cylinders or containers is allowed to be stored separately in a holding or storage area with risk assessment and emergency response procedures, approved by Civil Defence.</li> </ul>



