



## S.C. DEPARTMENT OF LABOR, LICENSING, AND REGULATION

### Division of Fire and Life Safety

Office of State Fire Marshal

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## LP-Gas System Design Reviews and Fire Safety Analysis

Construction documents (drawings, specifications, calculations, etc.) submitted for review by the Office of State Fire Marshal must contain (when applicable) the following information:

1. A completed fire safety analysis per NFPA 58 6.25.3.2. Fire Safety Analysis must conform to the NPGA/NFPA analysis manual.
2. The name and street address of the facility containing the proposed system.
3. The name, address, and telephone number of the owner or owner's representative.
4. The name, address, telephone number, and license number of the contractor installing the system.
5. A description of each container used, including size and data plate markings per (2008) NFPA 58 5.2.8.3(C).
6. The manufacturer and model number of all components of the storage, filling and dispensing system. Please include the manufacturer's technical information sheets for all components of the propane fuel storage, filling and dispensing system.
7. A scaled drawing (site plan) showing locations of new and existing containers, dispensers, fill connections, piping route between containers and dispensers, piping route between containers and fill connections, pumps, compressors, vaporizers, buildings on the same property, fencing and fence height, property lines (including near and opposite sides of a public way), emergency shutoff valves and switches, vehicle impact protection, fire extinguishers, location of warning signs, location of fire hydrants and vehicle access points.
8. Drawing(s) of piping layout (i.e. schematic) with valve and fitting details, including material type, schedule, size, design/working pressures, joining method installation method (aboveground/underground) corrosion protection.
9. Container and piping support details sufficient to demonstrate compliance with applicable requirements such as NFPA 58 5.2.7.
10. Location of any pumps, compressors, vaporizers, container heaters, vaporizing burners, or gas-air mixers, including make, model, and manufacturer's numbers. Include manufacturers cut sheets for all components used in the system.
11. Electrical plan showing enough information to verify compliance with applicable electrical requirements in NFPA 58 6.22.2 and Table 6.22.2.2.
12. Details of vehicle impact protection. We accept the guard post design listed in Section 312 of the 2006 International Fire Code as meeting NFPA 58 8.4.2.2 requirements for adequate collision barriers. Submission of plans and calculations proving other designs meet the design criteria of IFC 312.3 is required if you use another design.
13. Details of Hazard Identification Signs per IFC 2703.5. Hazard Identification Signs in accordance with NFPA 704 shall be posted at each buld propane plant and propane air mixing plant.
14. Identification of any alternate provisions utilized per NFPA 58 6.26.
15. Any other information not covered above which is necessary to demonstrate compliance with applicable sections of NFPA 58 related to the system design (such as other requirements in Chapters 5 and 6).
16. A completed copy of the Operations and Maintenance manual for the installation in accordance with Chapter 14 of NFPA 58 shall be submitted at time of plans submission.

### Notes:

- A. Plans must be done in CAD and submitted on compact disk media in a read-only format (i.e. CD-R). It should be accompanied by a letter, and references the drawing files on the CD by filename, date, and size.
- B. Omission of required information will delay the review process.