

MEMORANDUM

To: All Fire Inspectors
From: Christian Noles, P.E., Chief Fire Protection Engineer
NC Department of Insurance/OSFM
Date: Monday, April 05, 2004
Re: 2002 North Carolina Fire Prevention Code changes

The purpose of this memo is to alert inspectors of the 2002 North Carolina Fire Prevention Code changes that have been approved by the North Carolina Building Code Council between the printing of the current code and April 2004. These modifications will not appear in print until the 2006 edition of the North Carolina Building Codes is published.

In accordance with Section 407 of the North Carolina Administration and Enforcement Code, rules that have been approved by the Rules Review Commission are required to be used as an alternative method, if requested by the owner or the owner's agent.

Code changes that have not been approved by the Rules Review Commission are allowed to be considered as an alternative method in accordance with Section 205.1 of the North Carolina Administration and Enforcement Code at the discretion of the inspector.

The underlined and crossed-out portions of the following revisions reflect the changes made in the code:

Section 106: Inspection Schedule

<i>Once every year</i>	<i><u>Hazardous, Institutional, High Rise, Assembly except those noted below and Residential except one and two family dwellings and only interior common areas of dwelling units of multi-family occupancies</u></i>
<i>Once every two years</i>	<i><u>Industrial and Educational (Except public schools)</u></i>
<i>Once every three years</i>	<i><u>Assembly occupancies with an occupant load less than 100, Business, Mercantile, Storage, Churches and Synagogues</u></i>

This schedule was amended to address the disparity regarding the 1999 edition (and earlier) North Carolina Building Code and the 2002 edition (and later) North Carolina Building Code regarding the classification of Group A occupancies. In the 1999 edition of the building code, a room or space would become classified as a Group A occupancy when the occupant load is 100 persons or greater. The 2002 edition of the building code states that a room or space would become classified as a Group A occupancy if it was the primary use, regardless of the occupant load. Otherwise, accessory rooms or spaces that have an occupant load 50 persons or greater are classified as a Group A occupancy.

This code change made inspection schedules the same for small assembly occupancies, such as McDonalds or Burger King.

Approved as Petition for Rulemaking – March 11, 2003

Approved in Public Hearing - December 9, 2003

Rules Review Commission Approval – TBA

903.3.1.1 NFPA 13 sprinkler systems. *Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system, sprinklers shall be installed throughout in accordance with NFPA 13 except as provided in Section 903.3.1.1.1, ~~903.3.1.2~~ or 903.3.1.3.*

This change is consistent with the ICC Code Change F53-00 to the International Fire Code, eliminating the ambiguity associated with this section. When this section was originally written for the IFC, this section was intended to allow the exemptions contained in NFPA 13R for NFPA 13R systems and the exceptions contained in NFPA 13D for NFPA 13D system. This change removed the implication that exceptions contained in NFPA 13R and NFPA 13D applied to NFPA 13 systems.

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903.2.1.3 Group A-3. *An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:*

1. *The fire area exceeds 12,000 square feet (1115 m²).*
2. *The fire area has an occupant load of 300 or more.*

Exceptions:

1. *This requirement shall not apply to assembly occupancies used primarily for worship with fixed seating and part of a separated use.*
2. *This requirement shall not apply to assembly occupancies used primarily for worship consisting of a single multipurpose room that are not used for exhibition or display and are part of a separated use.*

3. *The fire area is located on a floor other than the level of exit discharge.*

This code change addresses a situation where the trigger for sprinkler requirement comes from an occupant load that exceeds 300 persons. This revision parallels a requirement contained in NFPA 101 allowing sprinklers to be removed from religious institutions.

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905.2 Installation Standards. *Standpipe systems shall be installed in accordance with this section and NFPA 14.*

Exception: In other than high-rise buildings, where buildings are sprinklered in accordance with 903.3.1.1, the water supply is not required to meet the higher pressures required for a standpipe system.

This code change provides an exception to Section 5-7 of the 1999 edition of NFPA 14 requiring 100 psi at the most hydraulically demanding outlet, when the building is provided with a sprinkler system designed in accordance with NFPA 13.

This code change was approved before the implementation of the APA rule-making procedure, making it effective December 31, 2001.

907.2.3 Group E. *A manual fire alarm system shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.*

Exceptions:

1. ~~Deleted.~~ *Group E occupancies with an occupant load of less than 50.*
2. *Manual fire alarm boxes are not required in Group E occupancies where all the following apply:*
 - 2.1. *Interior corridors are protected by smoke detectors with alarm verification.*
 - 2.2. *Auditoriums, cafeterias, gymnasiums and the like are protected by heat*

- detectors or other approved detection devices.*
- 2.3. *Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.*
- 2.4. *Off-premises monitoring is provided.*
- 2.5. *The capability to activate the evacuation signal from a central point is provided.*
- 2.6. *In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in locations specifically designated by the code official.*

This section was changed so that smaller school buildings, such as modular units or building areas separated by a fire wall, could be exempted from the fire alarm requirements. This modification reinstates the original requirement in the International Building Code.

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Table 911.1

Explosion Control Requirements

<i>Material</i>	<i>Class</i>	<i>Barricade Construction</i>	<i>Explosion (deflagration) venting or explosion (deflagration) prevention systems</i>
<i>Flammable gas, <u>not including liquefied petroleum gas</u></i>	<i>Gaseous Liquefied</i>	<i>Not required Not required</i>	<i>Required Required</i>
<i>Liquefied petroleum gas distribution facilities</i>	<i>-----</i>	<i>Not required</i>	<i>Required</i>

This code change clarifies the scope of LP distribution facilities in accordance with Chapter 38 of the North Carolina Fire Prevention Code. In accordance with Sections 3801.1 and 3801.3 of the North Carolina Fire Prevention Code, the storage, handling and transportation of liquefied petroleum gas is under the jurisdiction of the North Carolina Department of Agriculture. This change is intended to eliminate confusion associated with the rules enforced by the Department of Agriculture.

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911.5 Liquefied petroleum gas distribution facilities. *Liquefied petroleum gas distribution facilities shall comply with Chapter 119, Article 5 of the General Statutes of North Carolina, and the North Carolina Administrative Code, Title 2, Chapter 38, Section 0.700, as enforced by the N. C. Department of Agriculture and Consumer Services through the provisions of NFPA 58.*

This code change clarifies the scope of LP distribution facilities in accordance with Chapter 38 of the North Carolina Fire Prevention Code. In accordance with Sections 3801.1 and 3801.3 of the North Carolina Fire Prevention Code, the storage, handling and transportation of liquefied petroleum gas is under the jurisdiction of the North Carolina Department of Agriculture. This change is intended to eliminate confusion associated with the rules enforced by the Department of Agriculture.

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2206.2.3 Above-ground tanks located outside, above grade. *Above-ground tanks shall not be used for the storage of Class I, II or IIIA liquids motor fuels except as provided by this section.*

- 1. Above-ground tanks used for outside, above-grade storage of Class I liquids shall be listed and labeled as protected above-ground tanks and be in accordance with Chapter 34. Such tanks shall be located in accordance with Table 2206.2.3.*
- 2. Fleet Vehicle Service Stations:
When approved by the code official, aboveground storage tanks, 1,100 gallons or less in capacity, may be used to store Class I liquids at fleet vehicle service stations in accordance with NFPA 30A.*
- 3. Above-ground tanks used for above-grade storage of Class II or IIIA liquids are allowed to be protected above-ground tanks or, when approved by the code official, other above-ground tanks that comply with Chapter 34. Tank locations shall be in accordance with Table 2206.2.3.*
- 4. Tanks containing motor fuels shall not exceed 12,000 gallons (45 420 L) in individual capacity or 48,000 gallons (181 680 L) in aggregate capacity. Installations with the maximum allowable aggregate capacity shall be separated from other such installations by not less than 100 feet (30 480 mm).*
- 5. Tanks located at farms, construction projects, or rural areas shall comply*

with Section 3406.2.

This code change is intended to allow the provision contained in NFPA 30A. Without this change, the code supercedes the allowance for Fleet Vehicle Service Stations and excludes the exception.

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2207.1 General. *Service stations for LP-gas fuel shall comply with Chapter 119, Article 5 of the General Statutes of North Carolina, and the North Carolina Administrative Code, Title 2, Chapter 38, Section 0.700, as enforced by the NC Department of Agriculture and Consumer Services through the provisions of NFPA 58.*

2207.2 Attendants. *Motor vehicle fueling operations shall be conducted by qualified attendants or in accordance with Section 2207.3 by persons trained in the proper handling of LP-gas.*

2207.3 Private fueling of motor vehicles. *Self-service LP-gas dispensing systems, including key, code, and card lock dispensing systems shall not be open to the public and shall be limited to the filling of permanently mounted fuel containers on LP-gas powered vehicles.*

Self-service LP-gas dispensing systems shall be in accordance with the following:

- 1. The system shall be provided with an emergency shutoff switch located within 100 feet (30.480 meter) of, but not less than 20 feet (6.096 meters) from dispensers.*
- 2. The owner of the dispensing facility shall provide for the safe operation of the system and the training of the users.*

This code change is intended to define the points of inspection by the fire inspector, leaving the remaining issues associated with the LP Gas Motor-vehicle Fuel-Dispensing Station to the Department of Agriculture and Consumer Services.

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