

PROPOSED CHANGE

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MODIFICATION PROPOSÉE

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Comment

Commentaires

Document	NBC 2005	Document
Provision	3.2.5.13.(2), (3) and (7)	Exigence
Committee	Fire Protection • Protection contre le feu Use and Egress • Usage et des moyens d'évacuation des bâtiments Housing and Small Buildings • Maisons et petits bâtiments	Comité
Minutes	2005-2 and 2005-3 TG-Residential Care Facilities; 4.6.7. Standing Committee on FP; 5.6.6. Standing Committee on UE and 2005-05 Standing Committee on HSB	Procès-verbaux

EXISTING PROVISION

3.2.5.13. Automatic Sprinkler Systems

2) Instead of the requirements of Sentence (1), NFPA 13R, "Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height," is permitted to be used for the design, construction, installation and testing of an automatic sprinkler system installed in a *building of residential occupancy* throughout, not more than 4 *storeys* in *building height* conforming to Article 3.2.2.42., Article 3.2.2.43., Article 3.2.2.45. or Article 3.2.2.48.

3) Instead of the requirements of Sentence (1), NFPA 13D, "Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes," is permitted to be used for the design, construction, installation and testing of an automatic sprinkler system installed in a *building of residential occupancy* throughout that contains not more than 2 *dwelling units*.

7) Fast response sprinklers shall be installed in *residential occupancies* and in *care or detention occupancies*. (See Appendix A.)

PROPOSED CHANGE as submitted for Public Review in 2008

Replace Sentences 3.2.5.13.(2), (3) and (7) as follows:

Other Code Provisions Affected: None

3.2.5.13. Automatic Sprinkler Systems

2) Instead of the requirements of Sentence (1), NFPA 13R, "Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height," is permitted to be used for the design, construction, ~~and~~ installation ~~and testing~~ of an automatic sprinkler system installed

a) in a *building of residential occupancy* throughout, not more than 4 *storeys* in *building height* conforming to Article 3.2.2.42., 3.2.2.43., 3.2.2.45. or 3.2.2.48., ~~or~~

b) in a *building of care occupancy* not more than 3 *storeys* in *building height* conforming to Articles 3.2.2.42.-2010 to 3.2.2.46.-2010.

3) Instead of the requirements of Sentence (1), NFPA 13D, "Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes," is permitted to be used for the design, construction, ~~and~~ installation ~~and testing~~ of an automatic sprinkler system installed

a) in a *building of residential occupancy* throughout that contains not more than 2 *dwelling units*, ~~or~~

b) in a *building of care occupancy* with not more than 10 residents, of whom not more than 2 are incapable of self-preservation.

7) Fast response sprinklers shall be installed in *residential occupancies* and in *care, ~~treatment~~ or detention occupancies*. (See Appendix A.)

PROPOSED CHANGE accepted then revised and re-submitted for Public Review in 2009

Delete Clause 3.2.5.13.(3)(b), Sentence 3.2.5.13.(7) and Appendix Note A-3.2.5.13.(7) as follows:

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Other Code Provisions Affected: None

3.2.5.13. Automatic Sprinkler Systems

2) Instead of the requirements of Sentence (1), NFPA 13R, “Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height,” is permitted to be used for the design, construction and installation of an automatic sprinkler system installed

- a) in a *building of residential occupancy* throughout, not more than 4 *storeys in building height* conforming to Article 3.2.2.42., 3.2.2.43., 3.2.2.45. or 3.2.2.48., or
- b) in a *building of care occupancy* not more than 3 *storeys in building height* conforming to Articles 3.2.2.42.-2010 to 3.2.2.46.-2010.

3) Instead of the requirements of Sentence (1), NFPA 13D, “Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes,” is permitted to be used for the design, construction and installation of an automatic sprinkler system installed in a *building of residential occupancy* throughout that contains not more than 2 *dwelling units*.

~~b) in a building of care occupancy with not more than 10 residents, of whom not more than 2 are incapable of self-preservation.~~

~~**7)**—Fast response sprinklers shall be installed in residential occupancies and in care, treatment or detention occupancies. (See Appendix A.)~~

~~A-3.2.5.13.(7)Fast Response Sprinklers~~

~~Several types of sprinkler will respond to a fire faster than a conventional standard response sprinkler. The Response Time Index (RTI) is used to quantify the sensitivity of the sprinkler link for any given sprinkler. The RTI for the group of fast response sprinklers described below will on average range from $22 \text{ s}^{0.5} \cdot \text{m}^{0.5}$ to $33 \text{ s}^{0.5} \cdot \text{m}^{0.5}$. RTI values for standard response sprinklers will typically be in the range of $83 \text{ s}^{0.5} \cdot \text{m}^{0.5}$ to $110 \text{ s}^{0.5} \cdot \text{m}^{0.5}$.~~

~~Any confusion as to the appropriate type of fast response sprinkler for different types of building should be alleviated by considering the testing criteria described below and the reference to the appropriate NFPA installation standards.~~

~~Although the Code specifies where fast response sprinklers are required it does not prevent the appropriate use of fast response sprinklers in other occupancies.~~

~~Residential sprinklers are tested in accordance with ANSI/UL 1626, “Residential Sprinklers for Fire Protection Service.” They are installed in accordance with NFPA 13R, “Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height,” with NFPA 13D, “Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes,” and with Section 5-4.5 of NFPA 13, “Installation of Sprinkler Systems,” for residential occupancies and for dwelling units.~~

~~Quick-response sprinklers are tested in accordance with ANSI/UL 199, “Automatic Sprinklers for Fire-Protection Service.” They are installed in accordance with NFPA 13, “Installation of Sprinkler Systems,” for spacing, density and location. They are acceptable for limited use as described in NFPA 13R, “Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height,” but are not permitted for use under NFPA 13D, “Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes.”~~

~~Early suppression fast response sprinklers are tested in accordance with FM 2-2, “Installation Rules for Suppression Mode Automatic Sprinklers.” They are installed in accordance with NFPA 13, “Installation of Sprinkler Systems,” but are not accepted for use under either NFPA 13R, “Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height,” or NFPA 13D, “Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes.”~~

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~~Quick response extended coverage sprinklers are tested in accordance with ANSI/UL 199, "Automatic Sprinklers for Fire Protection Service." They are installed in accordance with NFPA 13, "Installation of Sprinkler Systems," for spacing, density and location. They are acceptable for limited use as permitted by NFPA 13R, "Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height," but are not permitted for use under NFPA 13D, "Installation of Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes."~~

RATIONALE

Problem

General Background

The provinces and territories, through the Provincial-Territorial Policy Advisory Committee on Codes, identified a number of priority tasks that they wished to have addressed in the 2005-2010 code development cycle. One of these was to review and update as needed the code requirements that apply to residential care facilities. Problems with regulating residential care facilities have been recognized for many years. The issue is becoming even more urgent because of demographic changes and the diverging efforts by provinces and territories to find a solution. Work was undertaken to begin to coordinate the national codes and the regulatory needs of the provinces and territories. This proposed change is one of a series that was developed to address the issue.

Technical – new classification not recognized

The proposed changes to address residential care facilities include changes to the name for care and detention occupancies and the identification of a new classification for care occupancies. A relaxation in the requirements for sprinkler systems (i.e. NFPA 13R) is provided for the smaller care occupancies of up to three storeys in building height.

Justification - Explanation

General

The Task Group determined it was appropriate to develop a new Group B Div 3 classification. The approach taken was to review the provisions throughout the NBC and NFC related to Groups B-2, B-1 and C and modify, as they deemed appropriate based on the inherent risk to reflect the newly introduced B-3. During this process the TG also considered what other jurisdictions had developed related to care occupancies.

Technical

Sentence (2)

For buildings of care occupancy not more than 3 storeys in building height, the proposed change would apply the same exception as that permitted for Group C, residential occupancies, where the building is not more than 4 storeys in building height. This recognizes that the level of hazard and required level of protection are between those of B2 and C occupancies and that, for smaller buildings of B3 occupancy, the additional protection provided by the more stringent height limitation and other requirements in Part 3 allow for some leniency in sprinkler system requirements.

Sentence (7)

The proposed change to delete Sentence (7) reflects the fact that NFPA standard already calls up fast and quick response sprinklers and this provision is therefore redundant.

Cost implications

It is not possible to identify definitive cost implications of the changes proposed to recognize the new B3, care, occupancy. Cost implications, whether increases or decreases, will depend on how individual authorities having jurisdiction are currently applying the Code's requirements to these occupancies.

Where compliance with B2 provisions is currently being required, application of proposed B3 provisions are intended, on the whole, to reduce cost. In the cases where compliance with Group C is currently being required, applying the Group B Div 3 care occupancy may increase cost.

Where B2 requirements are currently being applied, this proposed change would permit the installation of a less expensive sprinkler system in low-rise care facilities.

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Enforcement implications

Can be enforced within existing regulatory infrastructure.

Who is affected

Designers, builders, developers, regulatory officials, community service organizations.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION

Provision: 3.2.5.13.(2)

Analysis: Unchanged from 2008

Attributions

Objective

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION

Provision: 3.2.5.13.(3)

Analysis:

Attributions

[F02,F81,F82-OS1.2]

Objective

OS1 Fire Safety

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION

Provision: 3.2.5.13.(3)

Analysis:

Attributions

[F02,F81,F82-OP1.2]

Objective

OP1 Fire Protection of the Building

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION

Provision: 3.2.5.13.(7)

Analysis: Deleted

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