

Submit a comment

Proposed Change 1998

Code Reference(s):	NBC20 Div.A 2.2.1.1.(1) (first printing) NFC20 Div.A 2.2.1.1.(1) (first printing)
Subject:	Other
Title:	Introduction of New OS Safety Sub-Objective for Firefighter Safety
Description:	This proposed change adds a new sub-objective OS6 Firefighter Safety that clarifies which existing requirements are intended to address firefighter safety by distinguishing firefighters from the "persons" in the definition of sub-objective OS1 Fire Safety.
Related Code Change Request(s):	CCR 1857

This change could potentially affect the following topic areas:

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| <input checked="" type="checkbox"/> Division A | <input type="checkbox"/> Division B |
| <input type="checkbox"/> Division C | <input type="checkbox"/> Design and Construction |
| <input type="checkbox"/> Building operations | <input type="checkbox"/> Housing |
| <input type="checkbox"/> Small Buildings | <input type="checkbox"/> Large Buildings |
| <input type="checkbox"/> Fire Protection | <input type="checkbox"/> Occupant safety in use |
| <input type="checkbox"/> Accessibility | <input type="checkbox"/> Structural Requirements |
| <input type="checkbox"/> Building Envelope | <input type="checkbox"/> Energy Efficiency |
| <input type="checkbox"/> Heating, Ventilating and Air Conditioning | <input type="checkbox"/> Plumbing |
| | <input type="checkbox"/> Construction and Demolition Sites |

Problem

The 2020 editions of the National Building Code of Canada (NBC) and National Fire Code of Canada (NFC) clarify, through an explanatory Note to the objectives, that in the definition of (sub-)objective OS1, Fire Safety, the term "person" refers to any individual in or adjacent to the building or facility, including emergency responders, including firefighters, when performing their duties. The explanatory Note also states that "certain technical requirements in the National Model Codes are intended to address the safety of emergency responders, including firefighters, when performing their duties."

A code change request (CCR) was submitted by NRC in response to the federal mandate letter dated December 16, 2021 (<https://www.pm.gc.ca/en/mandate-letters/2021/12/16/minister-innovation-science-and-industry-mandate-letter>). The CCR provided an analysis on the intents and attributions (objectives and functional statements) of the existing Code requirements in the 2020 editions of the NBC and NFC to ascertain which requirements address the safety of emergency responders. The CCR analysis reveals that acceptable solutions with a documented intent to address the safety of emergency responders when performing their duties are only identifiable through the intent statements. There are 80 intent statements for requirements in the 2020 edition of the NBC, and 180 in the NFC, that refer to limiting the probability of harm to emergency responders.

The existing explanatory Note clarifies that “person” in sub-objective OS1 includes emergency responders, including firefighters, when performing their duties. The absence of an objective in the Codes for firefighter safety can lead to inconsistent Code development. When developing changes to the Code, the technical committees must consider the impact of the proposed changes relative to the attributed Code objectives. For example, proposed changes to a Sentence in the Code that has the OS1 sub-objective attributed to it would have an impact analysis that considers the impact of the proposed change on the safety of occupants, but consideration of the impact on firefighter safety has not been consistently included in these impact analyses even when the intent statements clearly show that firefighter safety is a consideration. By adding a specific objective for firefighter safety, future Code development would include impact analyses that consider the impact on all attributed objectives.

In addition, compliance with the Code is achieved by adhering to the acceptable solutions in Division B, or using alternative solutions that will achieve at least the minimum level of performance required by Division B in the areas defined by the objectives and functional statements attributed to the acceptable solution. An explanatory Note about Code compliance using an alternative solution highlights that, while intent statements clarify what undesirable results provisions are trying to prevent, the intent statements are not a legal component of the Code and are only advisory in nature. Correspondingly, intent statements are not included within the body of the Code, they are published separately as supplemental guidance.

The intent to address the safety of firefighters while performing their duties is not identifiable through the attribution of objectives and functional statements within the body of the Code because the term “person” used to describe the applicability of the OS1 Fire Safety sub-objective includes firefighters performing their duties and individuals (i.e., non-firefighters) and these two types of “persons” have different risk profiles. As a result, without reading the intent statements, a Code user would not understand the full breadth of the acceptable solution and the intended negative outcomes being mitigated. Specifically, not clearly identifying which provisions within the body of the Code address the safety of firefighters while performing their duties could result in that portion of the objective not being considered in the development or assessment of an alternative solution. Differing assessments of the attributions to be satisfied for alternative solutions could lead to different performance levels across jurisdictions or incomplete alternative solutions.

One example of a possible inconsistency in the consideration of firefighter safety could be through alternative solutions to NBC Sentence 3.4.4.1.(1), which requires a minimum fire-resistance rating for fire separations between exits and the rest of the building. The intent statements for Sentence (1) are as follows:

Intent 1:

To limit the probability that fire will spread into an exit, which could lead to delays in the evacuation or movement of persons to a safe place, which could lead to harm to persons.

Intent 2:

To limit the probability that fire will spread into an exit, which could lead to emergency responders being delayed in gaining access to floor areas, which could lead to delays or ineffectiveness in fire emergency response operations, which could lead to:

- delays in the evacuation or movement of persons to a safe place, which could lead to harm to persons including emergency responders, and
- the spread of fire to other parts of the building, which could lead to harm to persons.

The intent statements describe the need for a fire-resistance rating for the fire separation to allow enough time for occupants to evacuate the building, but the requirement for a fire-resistance rating also serves the purpose of allowing enough time for firefighters to safely perform their response operations. Alternative solutions for fire-resistance ratings for exits in some cases consider the time needed to safely perform firefighter operations, but in other cases alternative solutions only consider the evacuation of occupants. This inconsistency could be resolved by clarifying the objective of firefighter safety in the Codes.

Justification

In late 1990s, when the National Model Codes were transitioning to the objective-based structure, the Canadian Commission on Building and Fire Codes (CCBFC), Standing Committee on Fire Safety and Occupancy (SC-FSO), and Task Group (TG) on Implementation discussed potentially including firefighter safety as an objective or sub-objective.

An analysis was conducted of the requirements at that time, and the following was noted:

- “none of the requirements attributed to this objective [i.e., safety of emergency responders] is attributed uniquely to it,”
- “many of them are general fire safety provisions in Part 3 and Part 8 that ... contribute to the safety of emergency responders as well as that of the general building occupants,” and
- “perhaps in many of these cases, ‘safety of emergency responders’ could have been treated as an ‘other benefit’ rather than as a root objective of these code provisions.”

When analyzing Part 9 provisions, it was also noted that “none of the requirements attributed to this objective [i.e., safety of emergency responders] is found in Part 9”, the rationale being that “in Part 9 buildings, firefighters should not count on the unit of fire origin to be a safe place for them to operate.”

The SC-FSO noted that “the reason it had never isolated [safety of emergency responders] as a lone objective was because of an earlier decision to always include property protection whenever [safety of emergency responders] was an objective. The role of emergency responders [would] be identified in either intent or additional benefit statements as appropriate.” The TG on Implementation recommended that the facilitation role of emergency responders be “captured in the intent statement; falling under a prime objective of safety and/or property protection as applicable” rather than using a separate objective. The CCBFC concurred with the TG's recommendation.

Since the introduction of the objective-based Codes in 2005, Code development has inconsistently attributed firefighter safety in the NBC and NFC, and this inconsistency is driving the need for a unique objective for firefighter safety. In addition to clarifying the objectives for firefighter safety, there is additional work needed to correct any existing inconsistencies in the Codes. While this proposed change intends to clarify the objective, it does not propose any changes to the objective attributions that would correct any inconsistencies. This technical work will be captured in a separate proposed change once more informed by ongoing research.

One example of a potential inconsistency in the consideration of firefighter safety is the difference between NBC Sentence 3.2.5.5.(1) and NFC Sentence 3.3.3.3.(1). NBC Sentence 3.2.5.5.(1), location of access routes in the NBC, uses the rationale that access routes must be placed in a specific location to reduce the risk of emergency responders being harmed due to excessive radiation exposure. NFC Sentence 3.3.3.3.(1), rubber tires, uses the same rationale as the previous example that access routes must be placed in a specific location, but in this example the objective is to limit damage to the building only without the OS objective. In this example, occupant and emergency responder safety is not a consideration in the intent statement. One could logically question why these two examples do not share the same objectives and intents given that the hazard (exposure to radiant heat) is the same.

The explanatory Note to the OS1 Fire Safety sub-objective, published in the NBC 2020 and the NFC 2020, explained that the NBC and NFC explicitly consider the safety of emergency responders, including firefighters, while performing their duties. This proposed change builds on that clarification and takes a step further by creating a new OS6 sub-objective. Separating firefighters performing their duties from “other persons” (including building occupants, other emergency responders, and firefighters not performing fire-related search and rescue, suppression or fire protection activities) through the creation of a new sub-objective would facilitate easy and clear identification of the requirements intended to address the safety of other emergency responders within the existing OS1 Safety sub-objective and the safety of firefighters within the proposed OS6 Firefighter Safety sub-objective. The attribution of the proposed OS6 Firefighter Safety sub-objective is intended to apply to search and rescue, and suppression activities, as well as other fire protection activities mentioned in the Codes to ensure firefighter safety is clearly and consistently addressed during Code development and by alternative solutions.

Future Code development would also benefit from the proposed OS6 Firefighter Safety sub-objective as future provisions would have separate objectives to clearly distinguish between the safety of persons and the safety of firefighters. Future proposed changes will need to be assessed by the relevant committee to determine if they are intended to encompass, in addition to OS1 occupant safety, firefighter safety in relation to the specific risks identified in the proposed OS6 sub-objective.

The work to address firefighter safety in the Codes is being undertaken as follows:

- Approval of the new OS6 sub-objective during the 2025 Code cycle: this work is being addressed by this proposed change.
- A research project underway to analyze the existing requirements, attributions and intent statements of the NBC and NFC in order to inform technical discussions to validate the attribution of the proposed OS6 sub-objective.

EXISTING PROVISION

NBC20 Div.A 2.2.1.1.(1) (first printing)

2.2.1.1. Objectives

- 1) The objectives of this Code are as follows (see Note A-2.2.1.1.(1)):

OS Safety

An objective of this Code is to limit the probability that, as a result of the design, construction or demolition of the *building*, a person in or adjacent to the *building* will be exposed to an unacceptable risk of injury.

OS1 Fire Safety

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person in or adjacent to the *building* will be exposed to an unacceptable risk of injury due to fire. The risks of injury due to fire addressed in this Code are those caused by—

OS1.1 - fire or explosion occurring

OS1.2 - fire or explosion impacting areas beyond its point of origin

OS1.3 - collapse of physical elements due to a fire or explosion

OS1.4 - fire safety systems failing to function as expected

OS1.5 - persons being delayed in or impeded from moving to a safe place during a fire emergency

OS2 Structural Safety

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person in or

adjacent to the *building* will be exposed to an unacceptable risk of injury due to structural failure. The risks of injury due to structural failure addressed in this Code are those caused by—

- OS2.1** - loads bearing on the *building* elements that exceed their *loadbearing capacity*
- OS2.2** - loads bearing on the *building* that exceed the *loadbearing* properties of the supporting medium
- OS2.3** - damage to or deterioration of *building* elements
- OS2.4** - vibration or deflection of *building* elements
- OS2.5** - instability of the *building* or part thereof
- OS2.6** - collapse of the *excavation*

OS3 Safety in Use

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person in or adjacent to the *building* will be exposed to an unacceptable risk of injury due to hazards. The risks of injury due to hazards addressed in this Code are those caused by—

- OS3.1** - tripping, slipping, falling, contact, drowning or collision
- OS3.2** - contact with hot surfaces or substances
- OS3.3** - contact with energized equipment
- OS3.4** - exposure to hazardous substances
- OS3.5** - exposure to high levels of sound from fire alarm systems
- OS3.6** - persons becoming trapped in confined spaces
- OS3.7** - persons being delayed in or impeded from moving to a safe place during an emergency (see Appendix A)

OS4 Resistance to Unwanted Entry

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person in the *building* will be exposed to an unacceptable risk of injury due to the *building's* low level of resistance to unwanted entry (see Sentence 2.1.1.2.(2) for application limitation). The risks of injury due to unwanted entry addressed in this Code are those caused by—

- OS4.1** - intruders being able to force their way through locked doors or windows
- OS4.2** - occupants being unable to identify potential intruders as such

OS5 Safety at Construction and Demolition Sites

An objective of this Code is to limit the probability that, as a result of the construction or demolition of the *building*, the public

adjacent to a construction or demolition site will be exposed to an unacceptable risk of injury due to hazards. The risks of injury due to construction and demolition hazards addressed in this Code are those caused by—

OS5.1 - objects projected onto *public ways*

OS5.2 - vehicular accidents on *public ways*

OS5.3 - damage to or obstruction of *public ways*

OS5.4 - water accumulated in *excavations*

OS5.5 - entry into the site

OS5.6 - exposure to hazardous substances and activities

OS5.7 - loads bearing on a covered way that exceed its *loadbearing* capacity

OS5.8 - collapse of the *excavation*

OS5.9 - persons being delayed in or impeded from moving to a safe place during an emergency (see Appendix A)

OH Health

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person will be exposed to an unacceptable risk of illness.

OH1 Indoor Conditions

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person in the *building* will be exposed to an unacceptable risk of illness due to indoor conditions. The risks of illness due to indoor conditions addressed in this Code are those caused by—

OH1.1 - inadequate indoor air quality

OH1.2 - inadequate thermal comfort

OH1.3 - contact with moisture

OH2 Sanitation

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person in the *building* will be exposed to an unacceptable risk of illness due to unsanitary conditions. The risks of illness due to unsanitary conditions addressed in this Code are those caused by—

OH2.1 - exposure to human or domestic waste

OH2.2 - consumption of contaminated water

OH2.3 - inadequate facilities for personal hygiene

OH2.4 - contact with contaminated surfaces

OH2.5 - contact with vermin and insects

OH3 Noise Protection

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person in the *building* will be exposed to an unacceptable risk of illness due to high levels of sound originating in adjacent spaces in the *building* (see Sentence 2.1.1.2.(3) for application limitation). The risks of illness due to high levels of sound addressed in this Code are those caused by—

OH3.1 - exposure to airborne sound transmitted through assemblies separating *dwelling units* from adjacent spaces in the *building*

OH4 Vibration and Deflection Limitation

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person in the *building* will be exposed to an unacceptable risk of illness due to high levels of vibration or deflection of *building* elements.

OH5 Hazardous Substances Containment

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, the public will be exposed to an unacceptable risk of illness due to the release of hazardous substances from the *building* (see Sentence 2.1.1.2.(4) for application limitation).

OA Accessibility

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person with a physical or sensory limitation will be unacceptably impeded from accessing or using the *building* or its facilities (see Sentence 2.1.1.2.(5) for application limitations).

OA1 Barrier-Free Path of Travel

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person with a physical or sensory limitation will be unacceptably impeded from accessing the *building* or circulating within it (see Sentence 2.1.1.2.(5) for application limitations).

OA2 Barrier-Free Facilities

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, a person with a physical or sensory limitation will be unacceptably impeded from using the *building's* facilities (see Sentence 2.1.1.2.(5) for application limitations).

OP Fire and Structural Protection of Buildings

An objective of this Code is to limit the probability that, as a result of the design, construction or demolition of the *building*, the *building* or adjacent *buildings* will be exposed to an unacceptable risk of damage due to fire or structural insufficiency, or the *building* or part thereof will be exposed to an unacceptable risk of loss of use also due to structural insufficiency.

OP1 Fire Protection of the Building

An objective of this Code is to limit the probability that, as a result of its design or construction, the *building* will be exposed to an unacceptable risk of damage due to fire. The risks of damage due to fire addressed in this Code are those caused by—

OP1.1 - fire or explosion occurring

OP1.2 - fire or explosion impacting areas beyond its point of origin

OP1.3 - collapse of physical elements due to a fire or explosion

OP1.4 - fire safety systems failing to function as expected

OP2 Structural Sufficiency of the Building

An objective of this Code is to limit the probability that, as a result of its design or construction, the *building* or part thereof will be exposed to an unacceptable risk of damage or loss of use due to structural failure or lack of structural serviceability. The risks of damage and of loss of use due to structural failure or lack of structural serviceability addressed in this Code are those caused by—

OP2.1 - loads bearing on the *building* elements that exceed their *loadbearing* capacity

OP2.2 - loads bearing on the *building* that exceed the *loadbearing* properties of the supporting medium

OP2.3 - damage to or deterioration of *building* elements

OP2.4 - vibration or deflection of *building* elements

OP2.5 - instability of the *building* or part thereof

OP2.6 - instability or movement of the supporting medium

OP3 Protection of Adjacent Buildings from Fire

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, adjacent *buildings* will be exposed to an unacceptable risk of damage due to fire. The risks of damage to adjacent *buildings* due to fire addressed in this Code are those caused by—

OP3.1 - fire or explosion impacting areas beyond the *building* of origin

OP4 Protection of Adjacent Buildings from Structural Damage

An objective of this Code is to limit the probability that, as a result of the design, construction or demolition of the *building*, adjacent *buildings* will be exposed to an unacceptable risk of structural damage. The risks of structural damage to adjacent *buildings* addressed in this Code are those caused by—

OP4.1 - settlement of the medium supporting adjacent *buildings*

OP4.2 - collapse of the *building* or portion thereof onto adjacent *buildings*

OP4.3 - impact of the *building* on adjacent *buildings*

OP4.4 - collapse of the *excavation*

OE Environment

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, the environment will be affected in an unacceptable manner.

OE1 Resources

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, resources will be used in a manner that will have an unacceptable effect on the environment. The risks of unacceptable effect on the environment due to use of resources addressed in this Code are those caused by –

OE1.1 - excessive use of energy

Note A-2.2.1.1.(1) Objectives.

Listing of objectives

Any gaps in the numbering sequence of the objectives are due to the fact that there is a master list of objectives covering the four principal National Code Documents—the National Building Code, the National Fire Code, the National Plumbing Code and the National Energy Code for Buildings—but not all objectives are pertinent to all Codes.

The building

Where the term “the building” is used in the wording of the objectives, it refers to the building for which compliance with the National Building Code is being assessed.

Emergency

The term “emergency”—in the context of safety in buildings—is often equated to the term “fire emergency;” however, the wording of objectives OS3.7 and OS5.9 makes it clear that the Code addresses any type of emergency that would require the rapid evacuation of the building, such as a bomb threat or the presence of intruders.

Fire Safety

In the definition of Objective OS1, Fire Safety, the term “person” refers to any

individual in or adjacent to the building, including the occupants, the public, and emergency responders including firefighters when performing their duties.

Certain technical requirements in the National Model Codes are intended to address the safety of emergency responders, including firefighters, when performing their duties.

NFC20 Div.A 2.2.1.1.(1) (first printing)

2.2.1.1. Objectives

- 1) The objectives of this Code are as follows (see Note A-2.2.1.1.(1)):

OS Safety

An objective of this Code is to limit the probability that, as a result of specific circumstances related to the *building* or facility, a person in or adjacent to the *building* or facility will be exposed to an unacceptable risk of injury.

OS1 Fire Safety

An objective of this Code is to limit the probability that, as a result of

- a. activities related to the construction, use or demolition of the *building* or facility,
- b. the condition of specific elements of the *building* or facility,
- c. the design or construction of specific elements of the facility related to certain hazards, or
- d. inadequate built-in protection measures for the current or intended use of the *building*,

a person in or adjacent to the *building* or facility will be exposed to an unacceptable risk of injury due to fire. The risks of injury due to fire addressed in this Code are those caused by—

OS1.1 - fire or explosion occurring

OS1.2 - fire or explosion impacting areas beyond its point of origin

OS1.3 - collapse of physical elements due to a fire or explosion

OS1.4 - fire safety systems failing to function as expected

OS1.5 - persons being delayed in or impeded from moving to a safe place during a fire emergency

OS3 Safety in Use

An objective of this Code is to limit the probability that, as a result of

- a. activities related to the construction, use or demolition of the *building* or facility,
- b. the condition of specific elements of the *building* or facility,
- c. the design or construction of specific elements of the

facility related to certain hazards, or

- d. inadequate built-in protection measures for the current or intended use of the *building*,

a person in or adjacent to the *building* or facility will be exposed to an unacceptable risk of injury due to hazards. The risks of injury due to hazards addressed in this Code are those caused by—

OS3.1 - tripping, slipping, falling, contact, drowning or collision

OS3.2 - contact with hot surfaces or substances

OS3.3 - contact with energized equipment

OS3.4 - exposure to hazardous substances

OS3.7 - persons being delayed in or impeded from moving to a safe place during an emergency (see Note A-2.2.1.1.(1))

OH Health

An objective of this Code is to limit the probability that, as a result of specific circumstances related to the *building* or facility, a person will be exposed to an unacceptable risk of illness.

OH5 Hazardous Substances Containment

An objective of this Code is to limit the probability that, as a result of

- a. activities related to the construction, use or demolition of the *building* or facility,
- b. the condition of specific elements of the *building* or facility,
- c. the design or construction of specific elements of the facility related to certain hazards, or
- d. inadequate built-in protection measures for the current or intended use of the *building*,

the public will be exposed to an unacceptable risk of illness due to the release of hazardous substances from the *building* or facility.

OP Fire Protection of Buildings and Facilities

An objective of this Code is to limit the probability that, as a result of specific circumstances related to the *building* or facility, the *building* or facility will be exposed to an unacceptable risk of damage due to fire.

OP1 Fire Protection of the Building or Facility

An objective of this Code is to limit the probability that, as a result of

- a. activities related to the construction, use or demolition of the *building* or facility,
- b. the condition of specific elements of the *building* or

facility,

- c. the design or construction of specific elements of the facility related to certain hazards, or
- d. inadequate built-in protection measures for the current or intended use of the *building*,

the *building* or facility will be exposed to an unacceptable risk of damage due to fire. The risks of damage due to fire addressed in this Code are those caused by—

OP1.1 - fire or explosion occurring

OP1.2 - fire or explosion impacting areas beyond its point of origin

OP1.3 - collapse of physical elements due to a fire or explosion

OP1.4 - fire safety systems failing to function as expected

OP3 Protection of Adjacent Buildings or Facilities from Fire

An objective of this Code is to limit the probability that, as a result of

- a. activities related to the construction, use or demolition of the *building* or facility,
- b. the condition of specific elements of the *building* or facility,
- c. the design or construction of specific elements of the facility related to certain hazards, or
- d. inadequate built-in protection measures for the current or intended use of the *building*,

adjacent *buildings* or facilities will be exposed to an unacceptable risk of damage due to fire. The risks of damage to adjacent *buildings* and facilities due to fire addressed in this Code are those caused by—

OP3.1 - fire or explosion impacting areas beyond the *building* or facility of origin

Note A-2.2.1.1.(1) Objectives.

Listing of objectives

Any gaps in the numbering sequence of the objectives are due to the fact that there is a master list of objectives covering the four principal National Code Documents—the National Building Code, the National Energy Code for Buildings, the National Fire Code and the National Plumbing Code—but not all objectives are pertinent to all Codes.

The building or facility

Where the term “the building or facility” is used in the wording of the objectives, it refers to the building or facility for which compliance with the National Fire Code is being assessed.

Emergency

The term “emergency”—in the context of safety in buildings or facilities—is often

equated to the term “fire emergency;” however, the wording of objective OS3.7 makes it clear that the Code addresses any type of emergency that would require the rapid evacuation of the building or facility, such as a bomb threat or the presence of intruders.

Fire Safety

In the definition of Objective OS1, Fire Safety, the term “person” refers to any individual in or adjacent to the building or facility, including the occupants, the public, and emergency responders including firefighters when performing their duties.

Certain technical requirements in the National Model Codes are intended to address the safety of emergency responders, including firefighters, when performing their duties.

PROPOSED CHANGE

NBC20 Div.A 2.2.1.1.(1) (first printing)

[2.2.1.1.] 2.2.1.1. Objectives

[1] 1) The objectives of this Code are as follows (see Note A-2.2.1.1.(1)):

OS Safety

An objective of this Code is to limit the probability that, as a result of the design, construction or demolition of the *building*, a person in or adjacent to the *building* will be exposed to an unacceptable risk of injury.

OS6 Firefighter Safety

An objective of this Code is to limit the probability that, as a result of the design or construction of the *building*, firefighters in or adjacent to the *building* will be exposed to an unacceptable risk of injury due to fire while performing their duties. The risks of injury due to fire addressed in this Code are those caused by—

OS6.1 - fire or explosion occurring

OS6.2 - fire or explosion impacting areas beyond its point of origin

OS6.3 - collapse of physical elements due to a fire or explosion

OS6.4 - fire safety systems failing to function as expected

OS6.5 - firefighters being delayed in or impeded from moving to a safe place during a fire emergency

Note A-2.2.1.1.(1) Objectives.

Fire Safety

In the definition of Objective OS1, Fire Safety, the term “person” refers to any individual in or adjacent to the building, with the exception of firefighters when performing their duties. (See Objective OS6, Firefighter Safety.)

"Person" includes esing the occupants, the public, and emergency responders other than including firefighters when performing their duties.

~~Certain t~~ Technical requirements ~~in the National Model Codes are~~ intended to address the safety of ~~emergency responders, including~~ firefighters, when performing their duties are attributed Objective OS6, Firefighter Safety.

NFC20 Div.A 2.2.1.1.(1) (first printing)

[2.2.1.1.] 2.2.1.1. Objectives

[1] 1) The objectives of this Code are as follows (see Note A-2.2.1.1.(1)):

OS Safety

An objective of this Code is to limit the probability that, as a result of specific circumstances related to the *building* or facility, a person in or adjacent to the *building* or facility will be exposed to an unacceptable risk of injury.

OS6 Firefighter Safety

An objective of this Code is to limit the probability that, as a result of

- a. activities related to the construction, use or demolition of the *building* or facility
- b. the condition of specific elements of the *building* or facility,
- c. the design or construction of specific elements of the facility related to certain hazards, or
- d. inadequate built-in protection measures for the current or intended use of the *building*, a firefighter in or adjacent to the *building* or facility will be exposed to an unacceptable risk of injury due to fire while performing their duties. The risk of injury due to fire addressed in this Code are those caused by—

OS6.1 - fire or explosion occurring

OS6.2 - fire or explosion impacting areas beyond its point of origin

OS6.3 - collapse of physical elements due to a fire or explosion

OS6.4 - fire safety systems failing to function as expected

OS6.5 - firefighters being delayed in or impeded from moving to a safe place during a fire emergency

Note A-2.2.1.1.(1) Objectives.

Fire Safety

In the definition of Objective OS1, Fire Safety, the term "person" refers to any individual in or adjacent to the building or facility, with the exception of firefighters when performing their duties. (See Objective OS6, Firefighter

Safety.) "Person" includesing the occupants, the public, and emergency responders other thanincluding firefighters when performing their duties.

~~Certain t~~Technical requirements ~~in the National Model Codes are~~ intended to address the safety of ~~emergency responders, including~~ firefighters, when performing their duties are attributed Objective OS6, Firefighter Safety.

Impact analysis

The addition of an OS6 Firefighter Safety sub-objective is not expected to entail any costs as it only clarifies what is already intended by the 2020 editions of the NBC and NFC. This proposed change has no impact on the existing acceptable solutions in Division B of the NBC and NFC. The proposed change does not introduce any new technical requirement related to firefighter safety in the Codes, nor does it attribute any existing requirement to the new OS6 sub-objective.

The benefit of separating OS6 Firefighter Safety from OS1 Fire Safety is that it would allow Code development efforts to more explicitly consider the attribution of firefighter safety in the development of acceptable solutions within the body of the Code.

Enforcement implications

Identifying the OS6 Firefighter Safety sub-objective would ensure consistent development and consideration of alternative solutions in the future by designers and authorities having jurisdiction by aligning the attributions with the intent statements.

This proposed change could be enforced by the infrastructure available to enforce the Codes without an increase in resources as this proposed change only reorganizes Code content. This proposed change does not introduce new technical content.

This proposed change to clarify firefighter safety in the NBC and NFC is intended to complement provincial and territorial Acts and regulations that are already in place to address the safety of firefighters.

Who is affected

Authorities having jurisdiction and designers will have a clear, common, basis for developing and reviewing proposed alternative solutions to satisfy fire safety requirements.

Firefighter organizations will be able to identify Code provisions intended to address firefighter safety while performing their duties allowing them to engage more effectively with the Code development system.

The separation of firefighter safety from other persons will help technical committees developing fire safety requirements explicitly consider which fire safety objective(s) should apply taking into account that different risk profiles may necessitate different solutions.