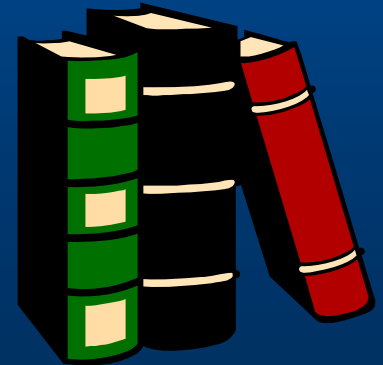


**THE
FIRE
CODE**

OFFICE OF THE FIRE MARSHAL
MINISTRY OF THE SOLICITOR GENERAL AND CORRECTIONAL SERVICES

Overview of Hotel Fire Safety Requirements in the Fire Code

Susan Clarke, P.Eng.
Office of the Fire Marshal



Greater Toronto Hotel Association -
January 10, 2012

Agenda

- Regulation History - Hotels
- Fire Code Overview (Parts 1 to 8)
 - Defined terms
 - Requirements for hotels
- Part 9 Retrofit
 - Principles of Life Safety
 - Application of Section 9.9 Hotels
 - Compliance with Part 9
- OFM Hotel Web Site

Regulatory History - Hotels

Pre-July 30, 1998

- Hotels were regulated by the Hotel Fire Safety Act (HFSA) and Regulation 640
- Ontario Fire Code (OFC) did not apply

Regulatory History - Hotels

July 30, 1998

- The OFC was amended to incorporate the HFSA and Regulation 640 by reference in Article 1.1.6.2.
- Remainder of the OFC still did not apply to hotels

Regulatory History - Hotels

May 3, 2006

- O. Reg. 144/06 was filed amending the OFC to consolidate fire safety requirements for hotels
 - revisions to Parts 1 to 6
 - new Part 9 retrofit requirements for hotels

O. Reg. 144/06

January 1, 2007

- O.Reg. 144/06 came into force
- Hotels are subject to the requirements of the Fire Code
- Many of the old HFSA and Regulation 640 requirements are similar to those contained in the Fire Code
- *New retrofit requirements to be phased in over a 5 year period*

Fire Code Table of Contents

Part 1 - Application and Definitions

Part 2 - Building and Occupant Fire Safety

Part 3 - Property Protection for Industrial and Commercial Occupancies

Part 4 - Flammable and Combustible Liquids

Part 5 - Hazardous Materials, Processes and Operations

Part 6 - Fire Protection Equipment

Part 7 - Inspection, Testing and Maintenance of Fire Emergency Systems in High Buildings

Part 8 - Demolition

Part 9 - Retrofit

Overview of Code Changes Specific to Hotels

- New defined terms (Part 1)
- New requirements (Parts 2 and 6)
- **Retrofit** requirements for existing hotels (new Section 9.9)
- **Compliance dates specific to hotel requirements** (Section 9.1)

Review of Some Defined Terms

Owner

- Any person, firm or corporation having control over any portion of the building or property under consideration and includes the persons in the building or property

Chief Fire Official

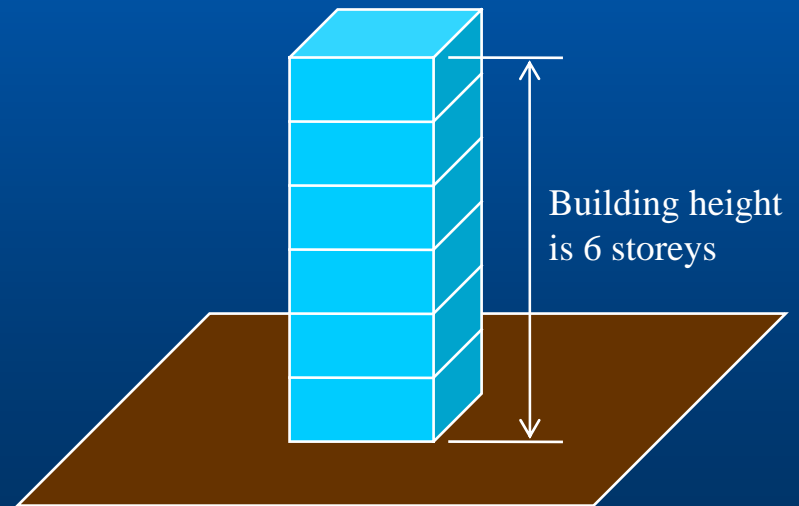
- Municipal Fire Chief or members of the fire department appointed by the Municipal Fire Chief, or
- Person appointed by the Fire Marshal under Subsection 1.1.8. of the Fire Code

Approved

- Approved by the Chief Fire Official (CFO)

Building Height

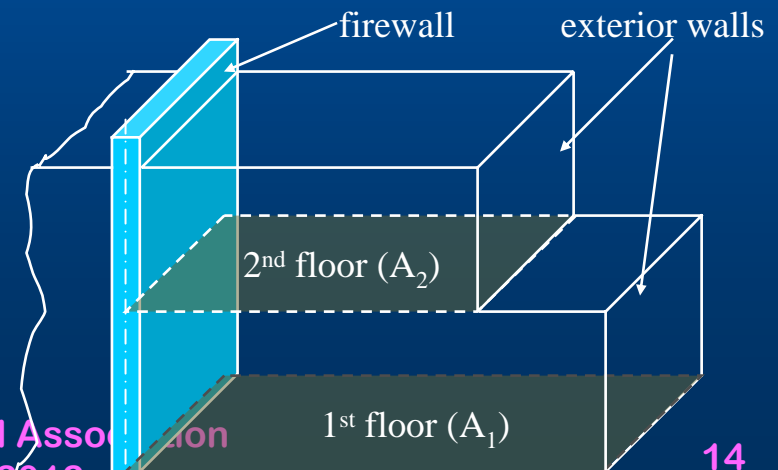
- The number of storeys between the roof and the floor of the first storey



Building Area

- The greatest horizontal area of a building above grade within outside surface of exterior walls (or within outside surface of exterior walls and the centreline of firewalls)

Building Area = A_1
(or A_2 if $A_2 > A_1$)

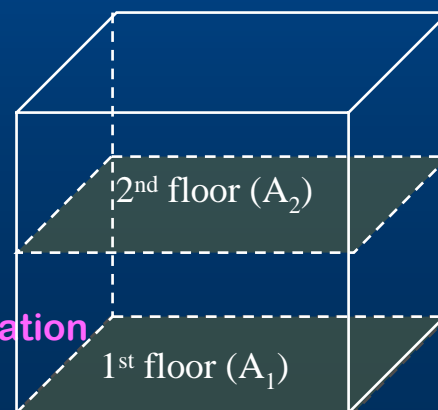


Total Area

- The total area of all floors above and below grade, including mezzanines and penthouses, measured between the inside surfaces of exterior walls or between the inside surfaces of exterior walls and the inside surfaces of firewalls

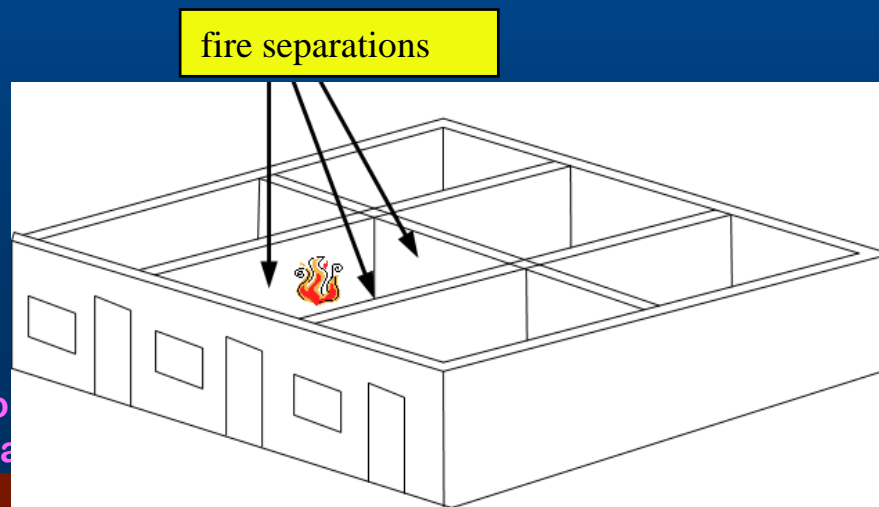
$$\text{Total area} = A_1 + A_2$$

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- January 10, 2012



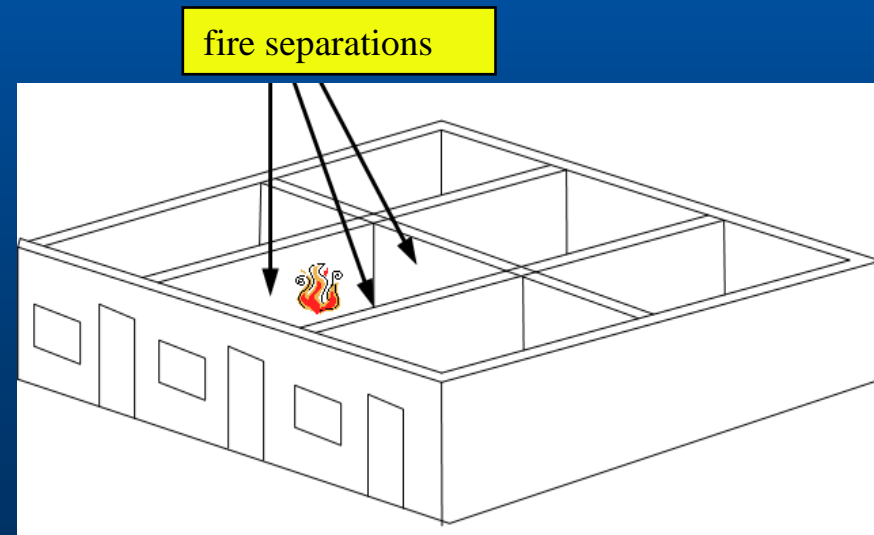
Fire Separation

- A construction assembly that acts as a barrier against the spread of fire, and may or may not have a fire-resistance rating or fire-protection rating



Fire-Resistance Rating

- The time in hours that a material or assembly will withstand the passage of flame and the transmission of heat



Closure

- A device or assembly for closing an opening in a fire separation



Fire-Protection Rating

- The time that a closure will withstand the passage of flame



Hotel

- Floor areas, a floor area or part of floor area containing 4 or more suites that provide sleeping accommodation for the travelling public or for recreational purposes



Hotel Establishment

- A building containing a hotel and all subsidiary occupancies that are operated in connection with the hotel and includes all connected or adjacent buildings that are operated in connection with the hotel



Water Toronto Hotel
- January 10, 20



Guest suite

- A single room or series of rooms of complementary use providing sleeping accommodation for the travelling public or for recreational purposes in a hotel establishment

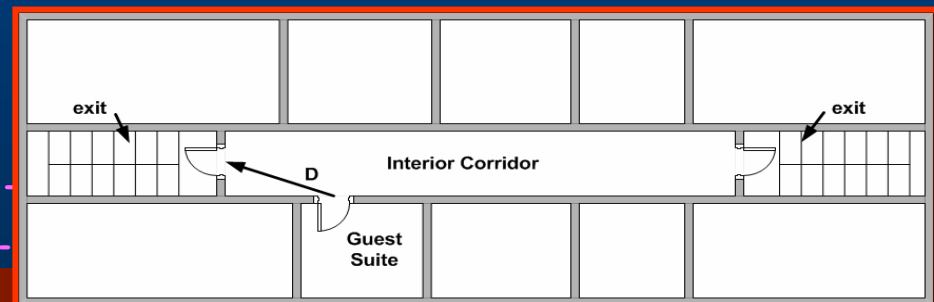


Greater Toronto Hotel
- January 10, 20

Travel Distance

- The distance from any point in a floor area to an exit measured along the path of exit travel
- When floor areas are subdivided into rooms used singly or into suites of rooms and served by public corridors or exterior passageways, the distance shall be measured from the door of the rooms or the suites to the nearest exit.

D = travel distance
to closest exit
Greater



The Fire Code Applies to Hotels (Examples: Parts 1 to 8)

1.1.5.3. Qualifications of Fire Alarm System Technicians

- Applies to persons conducting annual tests and inspections, or repairing or altering a fire alarm system
- Technicians must complete a fire alarm training program acceptable to Fire Marshal, i.e.
 - Canadian Fire Alarm Association (CFAA)
 - Electrical Contractors Association (ECAO)
- Technicians must be able to show proof of completion of training program (i.e. certificate or ID card)

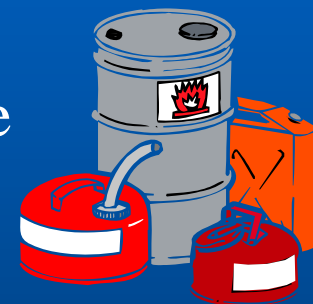


6.3.2.1. Owner's Responsibility

- **Owner** shall ensure that any person conducting annual tests, annual inspections, repairs or alterations to a fire alarm system has completed an acceptable fire alarm training program

Part 4 Flammable and Combustible Liquids

- Subsection 4.1.5.
 - general fire prevention and protection requirements wherever flammable liquids are used or stored
- Subsection 4.1.6.
 - spill control procedures
- Subsection 4.1.7
 - ventilation requirements
- Section 4.2
 - storage and handling requirements in various occupancies



Section 5.6 Compressed Gas Cylinders

- Cylinders of compressed gases must be properly handled and maintained
- Indoor storage of flammable compressed gas in cylinders must be stored
 - in proper room
 - in limited quantities

Hotel Specific Revisions to Existing Parts of Fire Code

•

2.4.1.2. Furniture in Corridors

Furniture is permitted in corridors serving **guest suites** if:

- Egress not obstructed, and
- Furniture is
 - noncombustible,
 - solid wood, or
 - approved by CFO



2.4.1.11. Receptacles

Waste containers in public washrooms and other public areas of **hotel establishments** shall be:

- Noncombustible with self-closing covers, or
- Approved



2.8.1.3. Fire Safety Planning

Employees in a **hotel establishment** shall be instructed on:

- Emergency procedures
- Use of fire fighting equipment



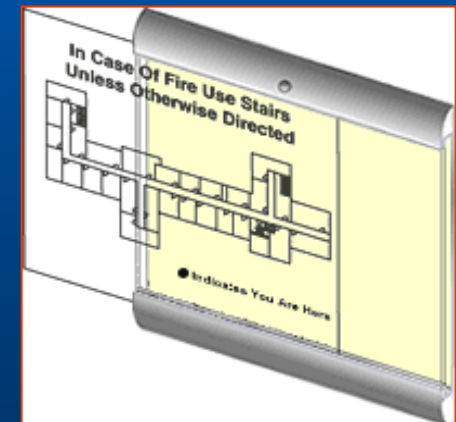
2.8.2.2. Fire Safety Planning

- Sufficient supervisory staff shall be available to carry out fire safety plan duties in **hotel establishments**
- Supervisory staff shall be on duty whenever the building is occupied, if building
 - is higher than 3 storeys, or
 - has a **total area** greater than 4000 m²



2.8.2.5. Fire Emergency Procedures

- Emergency procedures, location of exits and fire safety rules shall be posted on inside of each **guest suite** door
- Approved fire safety plan shall be posted in main reception area



2.8.3.2. Fire Drills

- **Hotel establishments** shall have fire drills for supervisory staff
 - every 12 months
 - every 3 months in a high-rise* building
- Fire drills shall be held for all employees every 12 months

*Note: High-rise building has floor containing residential occupancy more than 18 m above grade



6.3.3. Smoke Alarms

Requirement to maintain smoke alarms extends to smoke alarms in **guest suites**



6.4.1.5. Standpipe and Hose Systems

Standpipe and hose systems shall not be shutdown, disconnected, or otherwise impaired unless the CFO is notified in accordance with an approved schedule



6.4.3.7. Standpipe and Hose Systems

The flow and pressure for standpipe and hose systems shall be tested to verify water supply meets original design:

- Conducted annually
- At highest most remote hose valve or connection



6.5.2.2. Automatic Sprinkler System

Valves, including sprinkler water supplies, shall not be shutdown, disconnected, or otherwise impaired without notifying the CFO



6.6.3.6. Fire Pumps

Testing and inspections of fire pumps shall be done at least monthly in buildings containing a **hotel**



Reminder!

Parts 1 to 8 of the
Fire Code apply to
hotels!

Part 9 Retrofit

Purpose

To provide a minimum level of life safety in specified existing buildings

Principles of Life Safety

Life safety within buildings is provided through application of the following principles:

- Containment
- Means of egress
- Fire detection and alarm
- Fire suppression

Containment

- Structural integrity of buildings under fire conditions for a specified time
- Boundaries to limit fire growth and smoke spread
- Separation of different occupancies and tenancies from each other

Means of Egress

- Escape routes for occupants during a fire emergency
- Protected exits and access to exits
- Marking and illumination of exits and access to exits

Fire Detection and Alarm

- Automatic early fire detection
- Early warning to occupants of fire condition
- Supervisory staff notification
- Fire department notification

Fire Suppression

- Manual and automatic systems to control/extinguish fire
- Access for fire fighting

Retrofit Section 9.9 Hotels

Section 9.9. Contents

Subsections

- **9.9.1. Application**
- 9.9.2. Containment
- 9.9.3. Means of Egress
- 9.9.4. Fire Alarm and Detection
- 9.9.5. Suppression



Application of Section 9.9 Hotels

Section 9.9 applies to every
hotel establishment (exceptions
will be discussed)

Application of Section 9.9 Hotels

- Section 9.9 (Hotels) does not apply to buildings or parts thereof that satisfy the requirements of the Building Code as it read on or after July 1, 1993

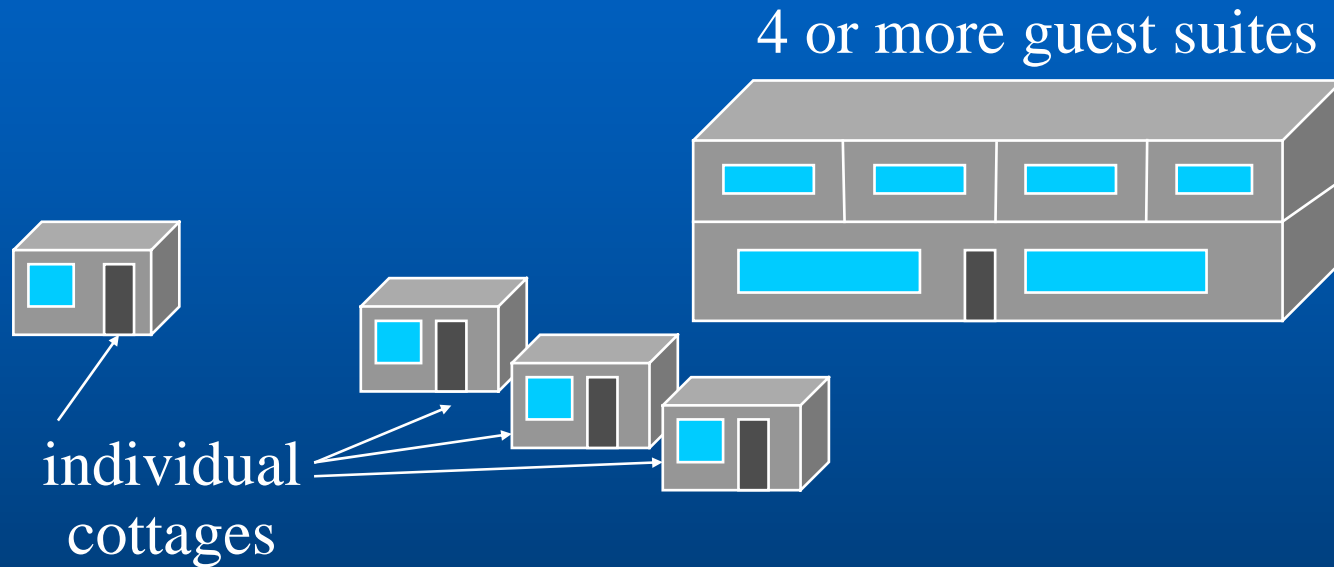
(See Article 9.1.2.2.)

Exemption

Section 9.9 does not apply to a hotel establishment where every building that contains a hotel is:

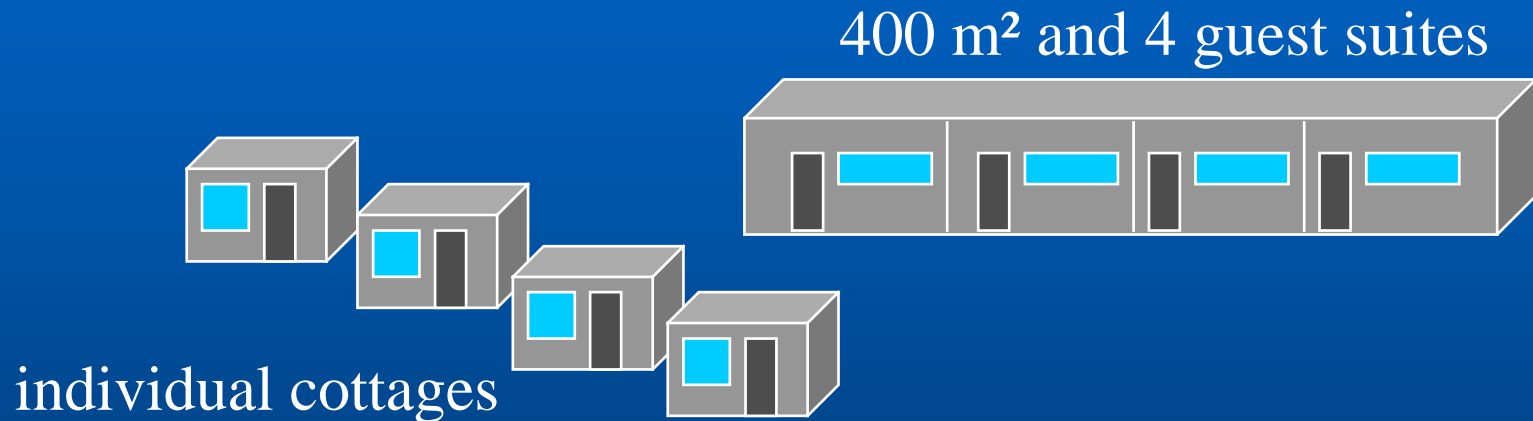
- one storey in building height, and
- not more than 300 m² in building area

Section 9.9 applies to all buildings since ...



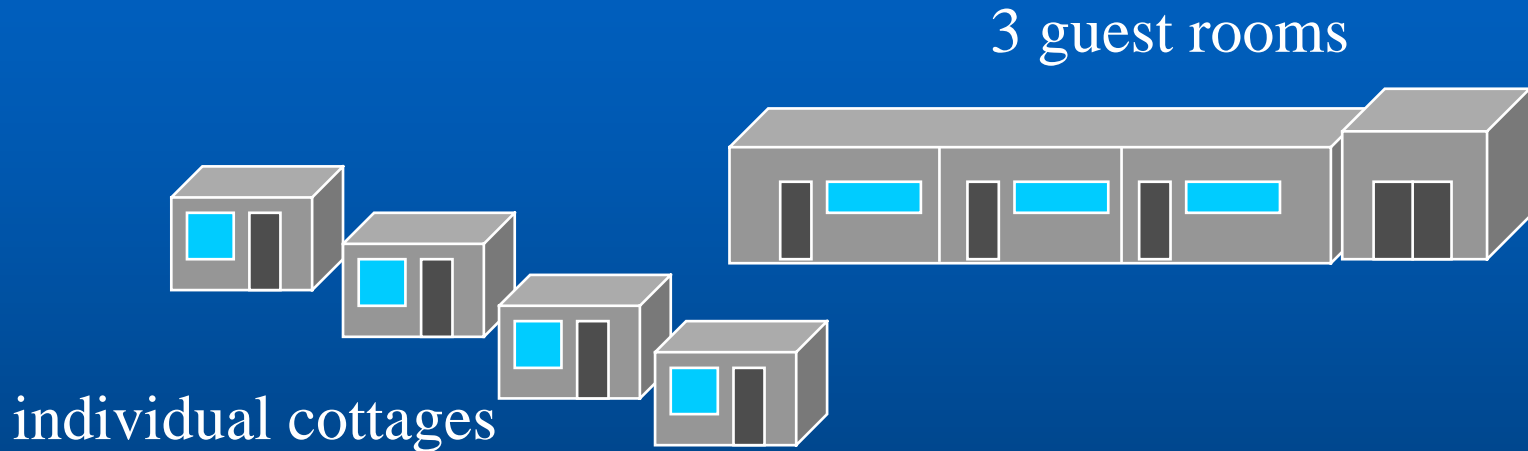
... at least one building has a minimum 4 guest suites and exceeds one storey

Section 9.9 applies to all buildings since ...



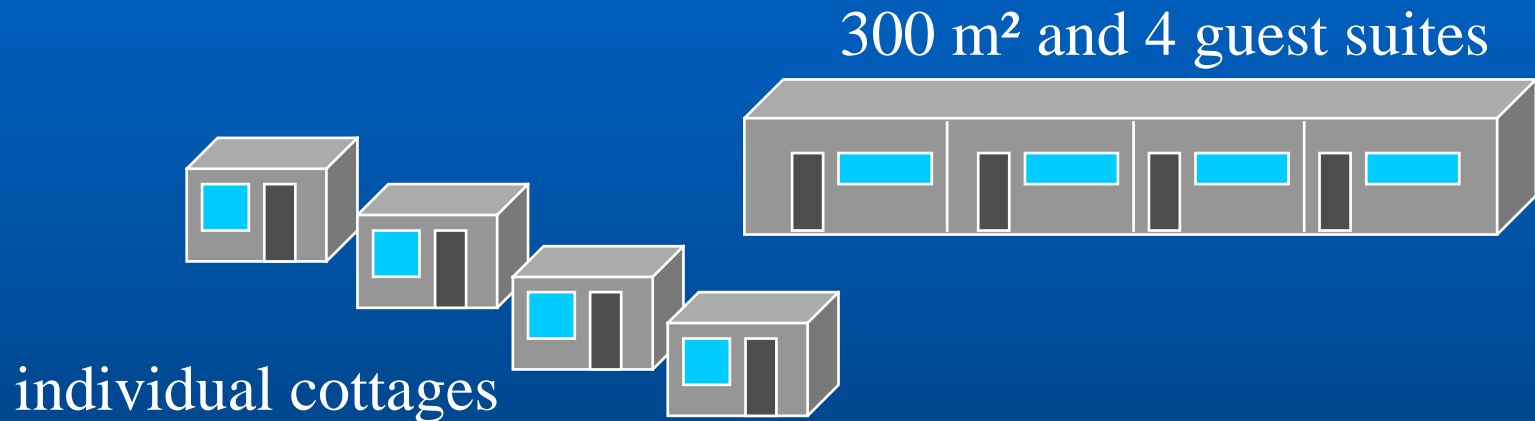
... at least one building has a minimum 4 suites and exceeds 300 m² in building area

Section 9.9 does not apply here ...



... as no building contains 4 or more suites (i.e. not a hotel)

Section 9.9 does not apply here ...



... as no building exceeds one storey or 300 m² in building area

(Note: facility still meets definition of a hotel establishment)

Section 9.9 Does Not Apply ...

- To any building, or part of building, regulated by Section 9.2, 9.3, 9.5 or 9.6 on December 31, 2006 provided the use of the building is unchanged since that date
- To a major occupancy in a hotel building that is not under the control of the hotel operator provided the life safety of hotel occupants is not affected

Some Examples of Excluded Buildings

Detached building such as:

- Staff house at a resort regulated by Section 9.3 or 9.5
- B & B regulated by Section 9.3

Example of major occupancy not under the control of the hotel owner



... regardless of the exceptions

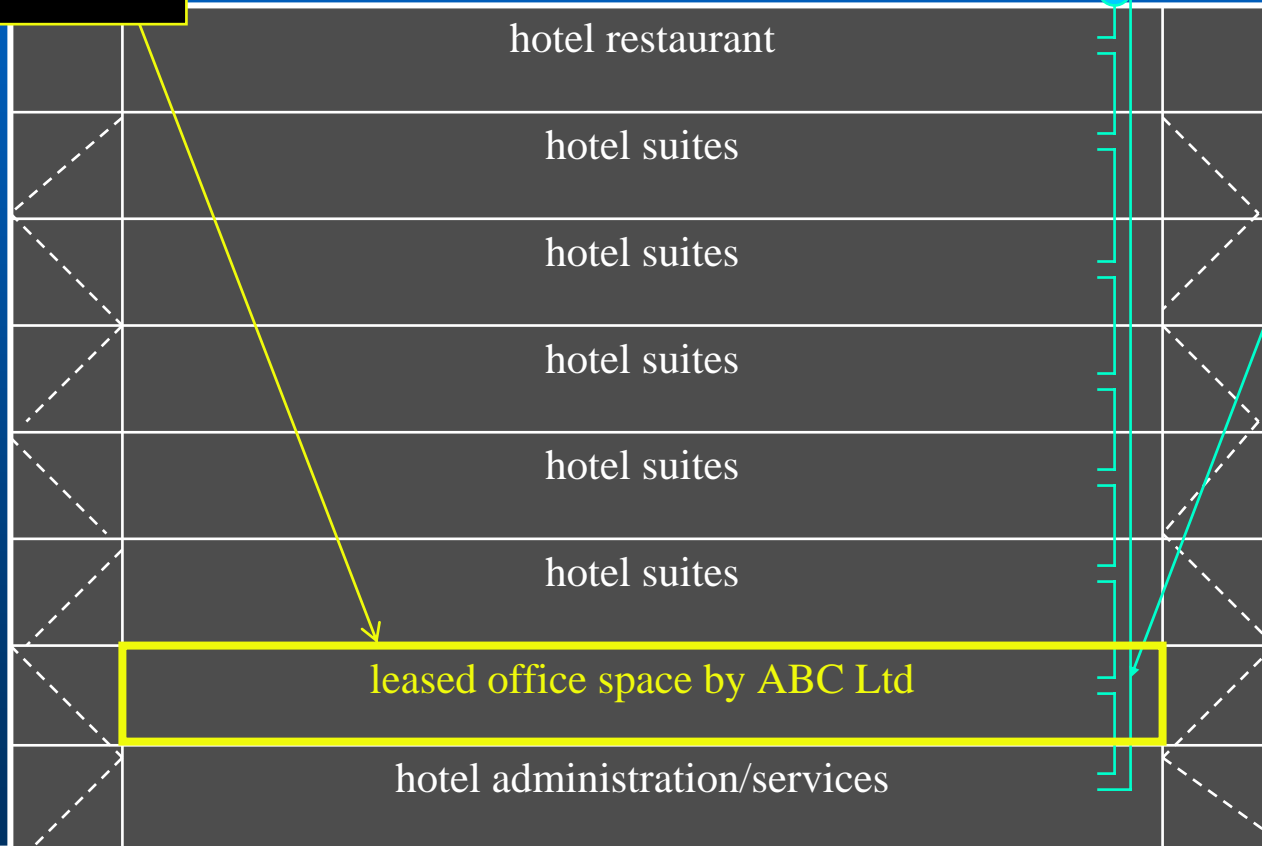
- Smoke alarms in guest suites,
- Major occupancy separations, and
- Smoke control measures

still apply to all hotel establishments!

Example of exception applied to major occupancy not under the control of the hotel owner

major occupancy
fire separations
are applicable

smoke control
measures are
applicable



Compliance with Part 9 Retrofit

•

Compliance Options

- **Acceptable Solutions** Division B
 - Prescriptive requirement, or
 - Approved alternative, or
 - Life Safety Study

Or

- **Alternative Solution** (Div A, Div B, Div C)

Acceptable Solutions Compliance – Part 9

- Compliance with Part 9 may be achieved by
 - satisfying requirements within a specified compliance period (as prescribed in Subsection 9.1.3.), or
 - implementing an approved **Life Safety Study** in accordance with Subsection 9.1.4.
- Part 9 does not apply to buildings or parts thereof that satisfy the requirements of the Building Code (Note: for hotels, this means the Building Code as it read on or after July 1, 1993)

Acceptable Solutions

9.1.4. Life Safety Study

- A proposal to the Chief Fire Official (CFO) that:
 - identifies items not meeting retrofit
 - describes how an acceptable level of life safety **can otherwise** be achieved
 - indicates a time schedule to implement the provisions (**note: no restrictions on compliance time**)
 - is prepared by an Architect or Engineer
- Must be approved by the CFO

[see Clause 9.1.2.3.(1)(b)]
Greater Toronto Hotel Association
- January 10, 2012

Acceptable Solutions

9.1.2.4. Alternative Compliance

- A requirement in Part 9 is deemed to be complied with where it is **approved** by the Chief Fire Official and will provide protection for life safety similar to the protection provided by the requirement

Compliance with Division B Article 1.2.2.1., Div. A

- Complying with **acceptable solutions**, or
- By using **alternative solutions** that
 - ✓ Achieve the level of performance req'd by applicable acceptable solution
 - ✓ Do not contravene any other provision of Division B
 - ✓ Have been approved and implemented
 - ✓ (SS 1.3.2., Division C)

Alternative Solutions Division C, SS 1.3.2.

- Must be submitted to Chief Fire Official for review and approval
- Supporting documentation (areas and level of performance)
- Additional check, inspection, test, maintenance or operational requirements, including commissioning
- Professional Engineer and/or Architect
- Maintain Records – on site

Jan. 1
2007Jan. 1
2008Jan. 1
2009Jan. 1
2010Jan. 1
2011Jan. 1
2012

O. Reg. effective date

Compliance Dates (Section 9.1.3.)

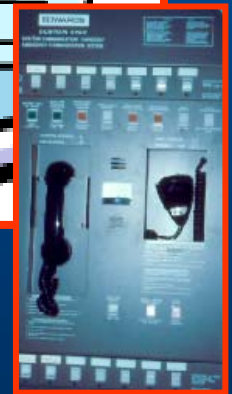
- Requirements in Section 9.9 came into force on Jan. 1, 2007 for all hotel establishments
- The requirements of Section 9.9 have a 5-year phased in compliance schedule for specific requirements as prescribed in Section 9.1.3.



All Hotels

Compliance by January 1, 2008:

- Prepare and retain an audit of existing building fire safety features including:
 - fire containment/control
 - fire detection
 - fire suppression
 - egress



See 9.1.3.1.(2)(a) IA

- January 10, 2012

9.9.1.2. Building Audit

The hotel owner must prepare and retain an audit of existing building fire safety features pertaining to:

- Fire Containment/Construction
- Fire Detection
- Fire Suppression
- Egress



Audit Guidelines

Two hotel Audit Guidelines developed by OFM:

- One is comprehensive for all hotel establishment buildings
- The other is a condensed version specific only to small one-storey buildings

Jan. 1
2007Jan. 1
2008July 1
2008Jan. 1
2009Jan. 1
2010Jan. 1
2011Jan. 1
2012

All Hotels

Compliance by July 1, 2008:

- Provide sufficient combustion air for fuel-fired appliance rooms
- Install smoke alarms in each guest suite



All Hotels

Compliance by January 1, 2010:

- Fire separate corridors serving guest suites
- Provide self-closing devices on interior guest suite entry doors

See 9.1.3.1.(2)(c) and (3) on

- January 10, 2012



All Hotels

Compliance by January 1, 2010:

- Sprinklers in linen and refuse chutes
- At least two exits on floor areas of buildings exceeding 2 storeys
- Minimum distance separating exits

See 9.1.3.1.(2)(c) and (4)(c)

- January 10, 2012



All Hotels

Compliance by January 1, 2010:

- Fire detectors at top of elevator shafts and exit stairs
- Sprinklers in lieu of required fire detectors

See 9.1.3.1.(2)(c) and (4)(c)

- January 10, 2012



All Hotels

Compliance by January 1, 2012:

- Rated fire separation between major occupancies
- Fire dampers in ducts at fire separations, except in existing noncombustible ducts

See 9.1.3.1.(2)(d) and (4)(d) n

- January 10, 2012



All Hotels

Compliance by January 1, 2012:

- Fire separation of vertical service spaces
- Smoke control measures in high buildings

See 9.1.3.1.(2)(d) and (4)(d) in

- January 10, 2012



All Hotels

Compliance by January 1, 2012:

- Restrictions on use of dead-end corridors
- Voice communication system in high buildings

See 9.1.3.1.(2)(d) and (4)(d) n

- January 10, 2012



All Hotels

Compliance by January 1, 2012:

- Access routes for fire fighting
- Firefighters' elevator
- Emergency power supply to be standardized

See 9.1.3.1.(2)(d) and (4)(d) in

- January 10, 2012



Additional Impact Items for Pre-Sept. 1, 1971 Hotels

Compliance by January 1, 2010:

- Separate hotel building from connected adjacent buildings
- Fire separate each guest suite from adjacent areas on same floor

See 9.1.3.1.(2)(c) and (4)(c)

- January 10, 2012



Pre-Sept. 1, 1971 Hotels (continued)

Compliance by January 1, 2010:

- Subdivide floor area with rated fire separation (for reduced minimum distance between exits)
- Limit maximum travel distance to an exit

See 9.1.3.1.(2)(c) and (4)(c)

- January 10, 2012



Pre-Sept. 1, 1971 Hotels (continued)

Compliance by January 1, 2010:

- Exit stairway to lead to a safe outside area
- Requirements for an exit through lobby
- Restrict use of exterior exit stairways and fire escapes above the 6th storey

See 9.1.3.1.(2)(c) and (4)(c)

- January 10, 2012



Pre-Sept. 1, 1971 Hotels (continued)

Compliance by January 1, 2012:

- Floor assemblies to be fire separations
- Fire-rate floor assemblies in buildings to various fire-resistance rating based on storeys

See 9.1.3.1.(2)(d) and (4)(d) in

- January 10, 2012



Pre-Sept. 1, 1971 Hotels (continued)

Compliance by January 1, 2012:

- Install smoke detectors in guest suite corridors in 4 storey combustible buildings
- Sprinkler combustible buildings if 5 storeys or over

See 9.1.3.1.(2)(d) and (4)(d) n

- January 10, 2012



Pre-Sept. 1, 1971 Hotels (continued)

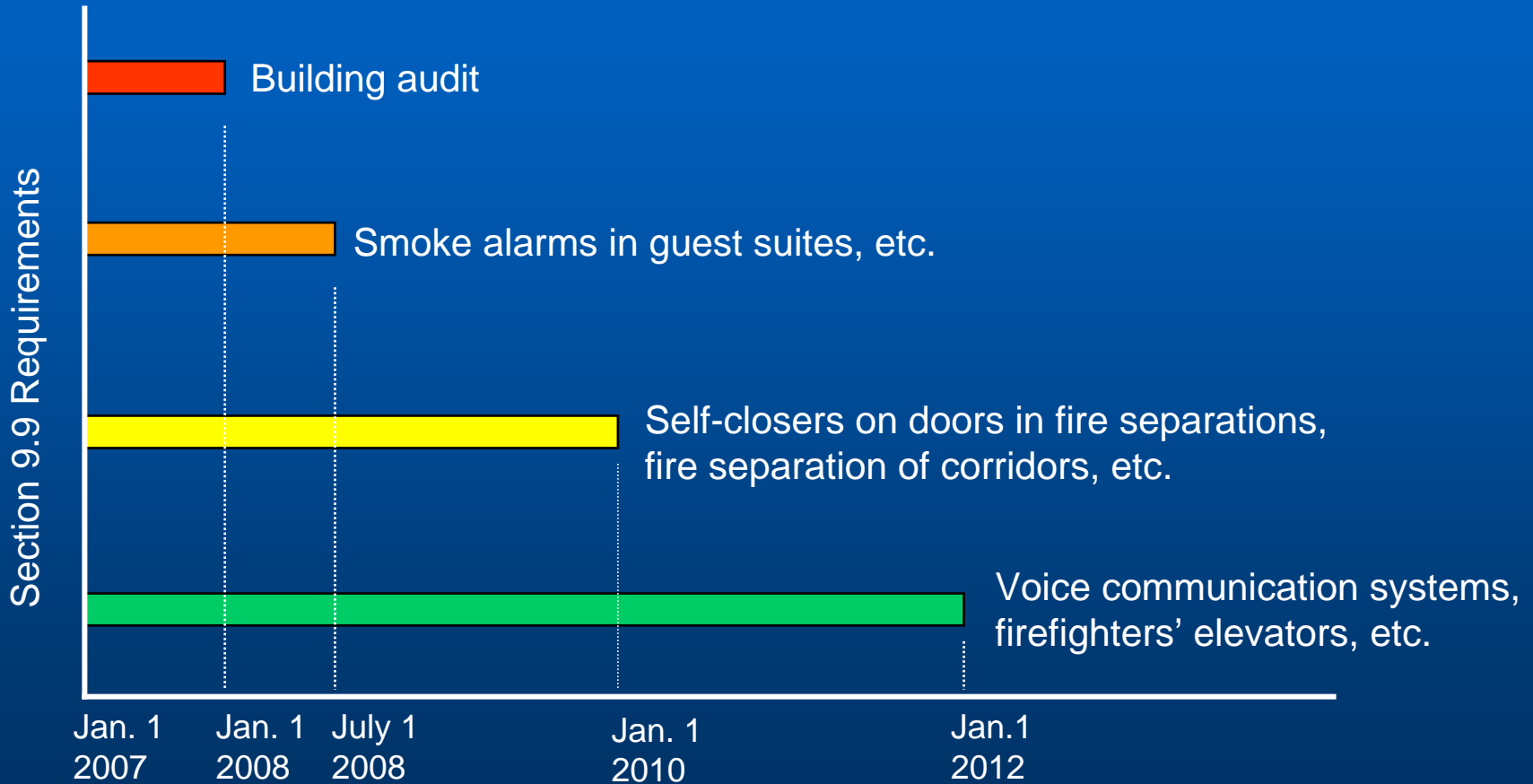
Compliance by January 1, 2012:

- Requirements for interconnected floor spaces
- Limits on lengths of dead-end corridors
- Standpipe and hose system in buildings over 3 storeys

See 9.1.3.1.(2)(d) and (4)(d) n

- January 10, 2012

Compliance Dates for Section 9.9 (some examples)



↑
Fire Code applies to hotels – many requirements in Section 9.9 came into force

Existing

- For purposes of Section 9.9, the term **existing** means in existence on January 1, 2007
- Applies to systems, materials and construction (i.e. walls and floors)

Note: Does not limit the application of Section 9.9 to buildings in existence on this date

1994 Building Code

- Where the Building Code is referenced in Section 9.9, it means the 1994 edition of the Building Code

OFM Website for Hotel Owners

See at:

[http://www.ofm.gov.on.ca/english/Legislation/
Hotel/Default.asp](http://www.ofm.gov.on.ca/english/Legislation/Hotel/Default.asp)

Provides:

- Link to the Fire Code on E-Laws
- “A Road Map” to the Fire Code, which includes
 - an explanation of the Fire Code
 - brief description of contents of the Fire Code and how they are applicable to hotels
 - Some definitions in the Fire Code

s, questions & answers and to access other

lable for purchase from Publications Ontario.
al hazards. To order this publication:

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test in Ottawa



Ontario Fire Code

This section provides a link to the Fire Code, and a brief overview of its contents.

Important Information

This section provides links to bulletins, questions and answers, and other important information.

Compliance Schedule

This section provides an overview of the 5-year implementation schedule for Section 9.9 Hotel retrofit requirements in the Fire Code.

Information Sessions

The OFM is available to deliver Information sessions to hotel industry associations and the fire service. This section describes the programs and provides a schedule of Information Sessions.

OFM Contact

OFM staff are available to answer questions on the Fire Code and general hotel fire safety either by telephone or a web query through this link.

Announcements

Effective January 1, 2007 hotels are subject to full compliance with the Fire Code.

Accesses:

- Communiques related to hotels
- Q and A's related to hotels, i.e.
 - Am I a hotel?
 - Does the fire Code apply to my hotel?
 - Etc.

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Accesses:

- Graph showing examples of 9.9 requirement compliance times
- 4 Tables showing detailed compliance times of 9.9 requirements

...s & answers and to access other

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... To order this publication:

... visit the Government bookstore at 880 Bay Street in Toronto, or at 110 Laurier Avenue West in Ottawa

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.....[Questions and Answers](#) (e.g. Am I a hotel?)

Questions & answers and to access other

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[sp](#)

Ottawa

Accesses Information Sessions, which includes :

- Two types of sessions (Overview or Comprehensive)
- Booking sessions
- Scheduled information sessions

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Announcements

- Effective January 1, 2007 hotels are subject to full compliance with the Fire Code[Questions and Answers](#) (e.g. Am I a hotel?)
- Click on the "buttons" below for more information on compliance deadlines, information sessions, questions & answers and to access other tools to assist you in complying with the Fire Code
- Copies of a special printing "Hotel Fire Safety Requirements in the Ontario Fire Code" are available for purchase from Publications Ontario. Please note that this publication omits Parts 3, 4 and 5 of the Fire Code, which address industrial hazards. To order this publication:

Accesses OFM Contact Information on

- telephone queries
- web queries (includes electronic form)

[ult.asp](#)

in Ottawa

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Additional Tools

- Explanatory Notes
 - provides explanation or additional information on various Section 9.9 Articles
- Hotel Building Audit Guidelines
- Self-Guided Tour
 - modules covering hotel requirements in the Fire Code

Questions?

... thank you!