

## **Fire Safety (Buildings) Bill**

### **Information requested by the Bills Committee at its meeting on 12.10.2001 (Part 1)**

*To consider specifying in the Bill or in practice guidelines the circumstances under which owners or occupiers might be exempted from complying with certain fire safety requirements stipulated in the Bill.*

The Bill has laid down the fire safety measures that the enforcement authorities may specify in the fire safety directions to be issued to owners and occupiers. The requirements are only basic or minimum ones extracted from the relevant Codes of Practice. See Schedules 1-3 to the Bill. The enforcement authorities have to exercise discretion in determining what relaxations or even exemptions may be granted in the light of the particular circumstances of a case. This arrangement follows that stipulated in the Fire Safety (Commercial Premises) Ordinance.

2. We consider that it would not be appropriate or practical to detail and exhaust all the circumstances under which owners/occupiers might be exempted, as discretion can only be exercised in each case on its own merits. Furthermore the description of the circumstances may be technical in nature and unsuitable for specification in the Bill. Such an approach may also lack flexibility and the Bill may need to be amended from time to time to deal with any new circumstances.

3. On the other hand, we consider that it would be feasible for the Fire Services Department (FSD) and the Buildings Department (BD) to draw up circular letters and guidance notes respectively to keep members of public, professionals and parties alike posted of the guidelines that they are following in their enforcement and exercise of discretion. Such guidelines can also be kept contemporary by necessary updating in the light of implementation experience gained and new circumstances arising.

Draft circular letters and guidance notes that the enforcement authorities are considering are attached in **Annex I** for Members' reference.

*To provide the basis for arriving at the decision that the provision of any automatic sprinkler system in the non-domestic parts of a composite building might be waived if the total floor area did not exceed 230m<sup>2</sup>.*

4. The requirement of sprinkler system in commercial premises was discussed between the FSD and the building industry/professional groups when efforts were made to revise the Code of Practice for Minimum Fire Services Installations and Equipment (1987) in 1988. A proposal of “a starting point of 230m<sup>2</sup> to be allowed as exempted area in sites, exceeding which the provision of the sprinkler system would be required” was agreed by parties. Relevant considerations include the following –

i. Fire safety standard prevailing

The water requirement for fire hydrant/hose reel installation depends on the floor area factor. The minimum requirement is 2000 gallons to cover an area not exceeding 2500 ft<sup>2</sup>. On conversion to metric equivalents, the floor area factor is 230m<sup>2</sup>. Adopting the same floor area factor for sprinkler installation would be in line with the prevailing fire safety standards.

ii. Protection by other prescriptive FSI

Within an area of 230m<sup>2</sup>, the occupants can quickly spot any outbreak of fire. They can make use of the extinguishers and/or hose reel to put out the fire in the incipient stage.

iii. Technical constraints in installation work

The fitting of water storage tank, main stop valve and its ancillary plumbing system may not be practicable in small areas. Taking into account fire safety and value of premises, the 230m<sup>2</sup> threshold is considered optimal.

iv. Fire load

The combustible content with anticipated fire load within a compartment with floor area not exceeding 230m<sup>2</sup> is not too significant.

v. Fire fighting tactics

The fire within such a compartment could adequately be dealt with by FSD with the application of 1 or 2 fire fighting jets.

***To consider specifying in the Bill that the commencement date of the Bill would be subject to the approval of the Legislative Council.***

5. Under its clause 1(2), the Bill will come into operation on a day to be appointed by the Secretary for Security by notice published in the Gazette (“the commencement notice”).

6. The commencement notice is subsidiary legislation which is already subject to approval of the Legislative Council through the “negative vetting procedure” under s.34 of the Interpretation and General Clauses Ordinance (Cap.1). In other words, the Legislative Council retains the final power in determining when the Ordinance will commence after enactment. If LegCo is not satisfied with the commencement date put forward by the Administration, it may by resolution bring forward or postpone the commencement date or simply repeal the commencement notice.

7. In practice, before S for S appoints the commencement date, the Administration may keep LegCo (through the Panel on Security) posted of the plan as appropriate and consider its views. In summary,

sufficient legal and administrative safeguards are in place to ensure LegCo's views on the commencement date will be respected.

***To consider setting up a committee under each of the 18 District Councils to handle disputes or complaints from owners arising from complying with the new fire safety requirements.***

8. Under section 61 of the District Councils Ordinance (Cap.547), the functions of a District Council are to advise the Government on a number of district-related issues and to undertake environmental improvements, community activities and the promotion of recreational and cultural activities within respective districts. Given the advisory role of District Councils, the Administration considers it not appropriate to get District Councils directly involved in handling disputes or complaints relating to compliance with the law.

9. On the other hand, an independent advisory committee comprising professionals from the building industry, academics and representatives of relevant professional bodies may be set up under clause 5(10) of the Bill to ensure fair and practical consideration of any alternative fire safety measures as may be proposed by owners. The proposed composition and terms of reference of this advisory committee is provided at **Annex II** for Members' reference. We believe that such an advisory committee would be effective in resolving specific disputes which apparently require technical knowledge and professional judgment.

10. Nevertheless, FSD and BD always welcome suggestions regarding building fire safety and are happy to discuss general issues and specific cases with owners/occupiers direct. Owners may also feel free to approach District Councilors regarding enforcement issues and District Councilors are welcome to approach FSD and BD to discuss specific cases. FSD and BD will continue to work with District Councils to promote fire safety. Their officers are happy to attend the District Council/District Fire Safety Committee meetings to answer queries with regard to implementation of the Bill.

Security Bureau  
October 2001

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FIRE SAFETY COMMAND**  
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Hong Kong

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圖文傳真 Fax : (852)  
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Date :

To : Authorized Persons  
Registered FSI Contractors  
Registered Ventilation Contractors  
Registered Life & Escalator Contractors  
Fire Insurance Association of HK  
The Association of Registered FSI  
Contractors of Hong Kong  
Structural Division, HKIE  
Power Companies

The HK & China Gas Co.  
The Lift & Escalator Contractors Association  
Hong Kong Telecom Company Ltd.  
Hong Kong Construction Association  
Director of Architectural Services  
Director of Buildings  
Director of Housing  
Petroleum Companies

Dear Sirs,

**FSD Circular Letter No. XX/XX  
Fire Service Installations and Equipment  
required under the  
Fire Safety (Buildings) Ordinance**

The Fire Safety (Buildings) Ordinance 20xx (hereinafter referred to as the Ordinance) has come into operation on xx.xx.20xx. The purpose of the Ordinance is to provide better protection from the risk of fire for occupants and users of, and visitors to, certain composite buildings and domestic buildings.

Taking into account of the fact that many of those are old buildings and there may be spatial or structural constraints in these buildings, relaxation on some of the requirements of the Fire Service Installations and Equipment will be considered on a case to case basis. The general principles of relaxation are appended below:

A) Non-domestic Portion of Composite Building (Overall Building Height Not Exceeding 6 Storeys)

● Automatic Sprinkler System

- Will not be required if the aggregate area of the non-domestic floors does not exceed 230m<sup>2</sup>.
- Should there be structural or spatial constraints for retrofitting a standard sprinkler system, an improvised sprinkler system with a direct town's main water connection (applicable for non-domestic portion with no more than 4 storeys) or a connection from the existing fire hydrant/hose reel system may be considered acceptable.
- Sprinkler water tank of a reduced capacity will be considered.

(Note – For an improvised sprinkler system, the system alarm shall be connected to the Fire Services Communication Centre of Fire Services Department by direct telephone line.)

● Fire Hydrant System

- Will not be required if direct vehicular access to the major face of the building is available.

● Hose Reel System

- Consideration may be given to accepting hose reels of reduced length should there be spatial or structural constraints, or other difficulties in providing a standard hose reel system to buildings; or
- Fire extinguishers may be acceptable in place of a hose reel system if substantial difficulties are further encountered in providing such improvised hose reels.

- Emergency Lighting

- Will not be required for separately occupied area/room which is less than 8m<sup>2</sup> large for accommodating limited number of habitual staff and located adjacent to exit routes with emergency lighting.

B) Non-domestic Portion of Composite Building (Overall Building Height More than 6 Storeys)

- Automatic Sprinkler System

- Will not be required if the aggregate area of the non-domestic floors does not exceed 230m<sup>2</sup>.
- Should there be structural or spatial constraints for retrofitting a standard sprinkler system, an improvised sprinkler system with a direct town's main water connection (applicable for non-domestic portion with no more than 4 storeys) or a connection from the existing fire hydrant/hose reel system may be considered acceptable.
- Sprinkler water tank of a reduced capacity will be considered.

(Note – For an improvised sprinkler system, the system alarm shall be connected to the Fire Services Communication Centre of Fire Services Department by direct telephone line.)

- Hose Reel System

- Consideration may be given to accepting hose reels of reduced length should there be spatial or structural constraints, or other difficulties in providing a standard hose reel system to buildings.



- Emergency Lighting
  - Will not be required for separately occupied area/room which is less than 8m<sup>2</sup> large for accommodating limited number of habitual staff and located adjacent to exit routes with emergency lighting.

C) Domestic Building or Domestic Portion of Composite Building (Overall Building Height Not Exceeding 6 Storeys)

- Fire Hydrant System
  - Will not be required if direct vehicular access to the major face of the building is available.
- Hose Reel System
  - Consideration may be given to accepting hose reels of reduced length should there be spatial or structural constraints, or other difficulties in providing a standard hose reel system to buildings; or
  - Fire extinguishers may be acceptable in place of a hose reel system if substantial difficulties are further encountered in providing such improvised hose reels.

(D) Domestic Building or Domestic Portion of Composite Building (Overall Building Height More Than 6 Storeys)

- Hose Reel System
  - Consideration may be given to accepting hose reels of reduced length should there be spatial or structural constraints, or other difficulties in providing a standard hose reel system to buildings.

This Department will continue to adopt a flexible and pragmatic approach in handling cases where owners encounter practical difficulties in complying with the new fire safety standards. Should you have any question on this Circular Letter, please contact the Senior Divisional Officer of the Building Improvement and Support Division at 2170 9500.

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for Director of Fire Services

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**Guidance notes to owners/occupiers**

**Construction Works Required under the  
Fire Safety (Buildings) Ordinance**

The Fire Safety (Buildings) Ordinance 20.... (hereinafter referred to as the Ordinance) has come into operation on .....20..... The purpose of the Ordinance is to provide better protection from the risk of fire for occupants and users of, and visitors to, certain composite buildings and domestic buildings.

Taking into account of the fact that many of those are old buildings and there may be spatial or structural constraints in these buildings, relaxation on some of the requirements of Fire Safety Construction will be considered on a case by case basis. The general principles of relaxation are appended below:-

**A) Non-domestic part of composite building**

- Staircase width and number.
  - Take into account any other unprotected staircases.
  - Where applicable, consider accepting actual number of population instead of the figures laid down in the Code of Practice.
  - Consider accepting slightly less overall width or headroom.
- Protection of exit routes.
  - Where smoke lobby cannot be provided due to spatial constraint, protection of the means of escape may be achieved by fire rated doors.
  - Consider accepting provision of interchange between two required staircases at roof or at certain storey intervals only, instead of at every storey.

- Consider accepting electrical wiring to be enclosed in metal conduit or ducting in lieu of fire resisting construction.
- Fire doors.
  - Consider accepting existing 50 mm (two inch) thick solid hardwood self-closing door in good condition.
- Fireman's lift.
  - Where there is structural or spatial restraint, upon agreement of Fire Services Department, consider accepting relaxation of dimensional and rated load improvement on existing fireman's lift.
- Prevention of fire spread to adjoining buildings.
  - Consider accepting existing steel window frame which is in good condition.
  - Consider accepting wired glass without insulating property if it is not within 3m of any other opening.
  - Consider allowing 10% of windows to be of openable design in a position not within 3m of any other opening.
  - External wall return of 1-hour fire resistance may be relaxed due to site constraint.
- Fire resisting separation.
  - The 4-hour fire resistance separation between a basement and the storey above may be relaxed to a 2-hour one due to spatial constraint or genuine hardship.
- Smoke vents.

- Consider accepting smoke vents of a smaller size or in less number due to spatial constraint or genuine hardship.

## **B) Domestic part of a composite building or domestic building**

- Protection of staircases.
  - Consider accepting existing steel window frame which is in good condition.
  - Consider accepting wired glass without insulating properties if it is not within 3m of any other opening.
  - Consider allowing 10% of windows to be of openable design in a position not within 3m of any other opening.
  - Consider accepting electrical wiring to be enclosed in metal conduit or ducting in lieu of fire resisting construction.
- Exit routes at ground floor.
  - Inadequacy in width of the exit from upper floors merging with ground floor exit may be tolerated due to spatial constraint on a case by case basis.
- Fire doors.
  - Consider accepting existing 50 mm (two inch) thick solid hardwood self-closing door in good condition.

This Department will continue to adopt a flexible and pragmatic approach in handling cases where owners encounter practical difficulties in complying with the new fire safety

standards. Should you have any question on this guidance notes, please contact the Senior Building Surveyor of the Fire Safety Section at tel.....

**Buildings Department**

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## **Guidance notes to owners/occupiers**

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  - Consider accepting existing 50 mm (two inch) thick solid hardwood self-closing door in good condition.
  
- Fireman's lift.
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  - External wall return of 1-hour fire resistance may be relaxed due to site constraint.
  
- Fire resisting separation.
  - The 4-hour fire resistance separation between a basement and the storey above may be relaxed to a 2-hour one due to spatial constraint or genuine hardship.
  
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**Buildings Department**

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**Information Paper on the Proposed Advisory Committee  
under the Fire Safety (Buildings) Bill**

**1. Terms of Reference**

To advise the Director of Fire Services and Director of Buildings on the following:

- technical issues regarding the building fire safety upgrading works;
- costing issues with due reference to prevailing market rate;
- alternative fire safety measures either proposed by the owners themselves or the Committee; and
- minimum level of building fire safety upgrading works to meet the mandatory requirements.

**2. Composition**

Chairperson : Chief Fire Officer (Fire Safety)

Official Members : Two representatives from Fire Services Department  
- Building Improvement & Support Division  
- Fire Services Installation Task Force

A representative from Buildings Department  
- Fire Safety Section

Non-official Members : A representative from the Hong Kong Institution of Engineers, Building Services Division

A representative from the Association of Registered Fire Services Installation Contractors of Hong Kong

Secretary : Executive Officer (Fire Safety)