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Fire Safety & Emergency Management: The Way Forward

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"Upgrading of Fire Protection in Old Buildings - Hong Kong's Experience"

Principal Legislation for Fire Safety

- Buildings Ordinance (Cap. 123)
  - Authority: Buildings Department (BD)
  - Passive fire protection

- Fire Services Ordinance (Cap. 95)
  - Authority: Fire Services Department (FSD)
  - Active fire protection

New Legislation

- 1997 & 2002
- BD & FSD empowered to issue fire safety directions

Events Leading to the Enactment of Fire Safety Upgrading Ordinances

- 10th January 1994
- 12 members of the staff were killed and 1 injured



Events Leading to the Enactment of Fire Safety Upgrading Ordinances

- Hong Kong Government introduced the Fire Safety (Commercial Premises) Bill in 1995

  – improving fire safety in banks & similar commercial premises with a relatively high customer population density and frequent turnover of customers on the premises

Events Leading to the Enactment of Fire Safety Upgrading Ordinances

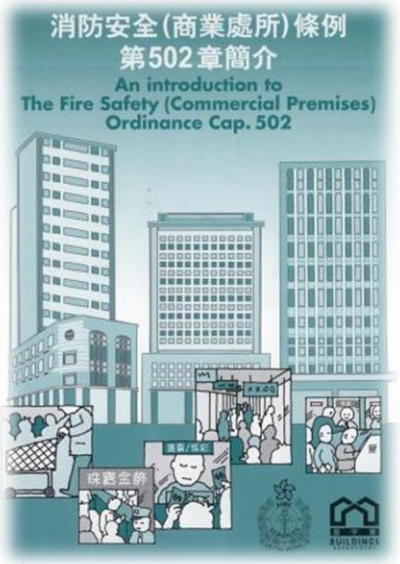
- Tragic Garley Building fire
- 20th November 1996
- Raged for 21 hours
- Claiming 40 lives and injuring 81 people





The Fire safety (Commercial Premises) Ordinance (FS(CP)O)

- Enacted & Brought into Operation in May 1997
- Prescribed Commercial Premises (PCP)
  - total floor area exceeding 230m^2
  - Businesses include
    - Banks
    - off-course betting centres
    - jewellery or goldsmith shops
    - supermarkets, departmental stores
    - shopping arcades



The Fire safety (Commercial Premises) Ordinance (FS(CP)O)

- Additional FSIs



Automatic Sprinkler system





Automatic cut-off device for a mechanical ventilating system



Emergency lighting system



Manual fire alarm



Portable fire extinguishers

The Fire safety (Commercial Premises) Ordinance (FS(CP)O)

- Additional Fire Safety Construction Requirements
  - adequate means of escape from the premises or building in the event of fire
  - adequate means of access for fire fighting & rescue
  - provision of measures (such as fire resisting doors) to inhibit the spread of fire and to ensure the integrity of the structure

The Fire safety (Commercial Premises) Ordinance (FS(CP)O)

- Widespread public concern about the fire safety of old commercial buildings without automatic sprinkler protection

- Coverage of the FS(CP)O should be extended to cover all old commercial buildings irrespective of their size and use

The Fire safety (Commercial Premises) (Amendment) Ordinance (FS(CP)O)

- Brought into operation in June 1998
- Specified Commercial Buildings (SCB)
  - Pre-1987 commercial buildings used for the purposes of office, business, trade or any entertainment
- First priority was to deal with the some 400 commercial buildings built before March 1973

Provision of Sprinklers For Commercial Buildings

- Before 1973, Not a Mandatory Requirement
- 1973 – 1987 :

  Mandatory Requirement for Commercial Buildings exceeding 30 m or more than 10 storeys
- Mandatory Requirement for Commercial Buildings with floor area exceeding 230 square metres

Tragic Fires in Early 1998

- 6 January 1998 - a Composite Building in North Point – 2 Death & 57 Injured

- 4 February 1998 – a Composite Building in Kwun Tong – 4 Deaths & 9 Injured

Full-scale Territory-wide Building Survey (early 1998)

- FSD assessed the fire safety conditions of some 27,000 existing buildings





Full-scale Territory-wide Building Survey (early 1998)

- Result:
  - fire safety conditions in only 11% of composite buildings were satisfactory
- Sample survey of 1,200 buildings conducted by Buildings Department
  - Result: 80% of the composite buildings had serious deficiencies in their exit routes

Fire Safety (Buildings) Ordinance (FS(B)O)

- Enacted in July 2002
- Target Composite Buildings (TCB) & Target Domestic Buildings (TDB)
  - Pre-1987 composite & domestic buildings
  - Required to upgrade FSI & the fire safety construction in their buildings to meet the present-day standards

Fire Safety (Buildings) Ordinance (FS(B)O)

- Target Composite Buildings (TCB)
  - Non-domestic portion
    - modelled on those stipulated in the FS(CP)O
  - Domestic portion
    - only the most essential fire safety improvement items are required

Fire Safety (Buildings) Ordinance (FS(B)O) - Concerns

- Genuine & practical difficulties for old buildings to comply with the statutory fire safety measures
    - Flexible and pragmatic approach to be adopted

- Cost of upgrading
    - Amendments to the Building Management Ordinance to allow Owners' Corporations (OC) to borrow from various loan schemes available

Implementation of the Fire Safety Upgrading Ordinances

- As at 30 June 2013, there were:
  - 3,035 Prescribed Commercial Premises (PCP)
  - 1,783 Specified Commercial Buildings (SCB)
  - about 9,000 Target Composite Buildings (TCB)
  - about 3,000 Target Domestic Buildings (TDB)

Implementation of the Fire Safety Upgrading Ordinances

- ***Prescribed Commercial Premises (PCP)***

Phase 1 *(from May 1997)*	PCP in buildings without sprinkler system (mostly built before 1973)
Phase 2 *(from January 2001)*	PCP in buildings with occupation permits issued before 1980
Phase 3 *(from March 2005)*	PCP in buildings with occupation permits issued between 1980 and 1990
Phase 4 *(from September 2009)*	PCP in buildings with occupation permits issued after 1990

Implementation of the Fire Safety Upgrading Ordinances

- ***Specified Commercial Buildings (SCB)***

Phase 1 *(from June 1998)*	SCB constructed or with building plans first submitted before March 1973
Phase 2 *(from October 2001)*	SCB constructed or with building plans first submitted between March 1973 and March 1987

Implementation of the Fire Safety Upgrading Ordinances

- ***Target Composite Buildings (TCB) & Target Domestic Buildings (TDB)***

Phase 1 *(from July 2007)*	Target Composite Buildings constructed or with building plans first submitted before March 1987
Phase 2 - *(Tentatively from January 2016)*	Target Domestic Buildings constructed or with building plans first submitted before March 1987

Enforcement Mechanism of FS(CP)O & FS(B)O

- An owner/occupier who, without reasonable excuses, fails to comply with the fire safety directions issued by the BD or FSD is guilty of an offence

Enforcement Mechanism

- Penalty for failure to comply with a fire safety direction and a court order

Non-compliance	Fine	Further daily fine	Imprisonment
Fire Safety Direction	HK$25,000	HK$2,500	-
Compliance Order	HK$50,000	HK$5,00	-
Use Restriction Order/ Prohibition Order	HK$250,000	HK$25,000	3 years

Enforcement Mechanism

- Under the FS(B)O, the BD & FSD are powered to register in the Land Registry a fire safety compliance order or a prohibition order against building or such parts of it to which the order relates
- Incentive for a building owner to comply with outstanding order so as to maintain the value of his property

Flexible & Pragmatic Approach

- Extension of time
- Relaxation or exemption of some requirements





Financial and Other Assistance

- Financial
  - Building Safety Loan Scheme administered by the BD
  - Loans and grants provided by other organizations
- Building management
  - Home Affairs Department offering proactive efforts to encourage, advise and assist owners to form Owners Corporations (OC)

Implementation Progress – Prescribed Commercial Premises (PCP)

- From 1997 to June 2013

	Buildings Department (BD)	Fire Services Department (FSD)
Inspected (total)	2,269 (75%) (Total: 3,035)	
Direction issued	3,093	13,873
Compliance rate (in terms of direction issued)	58%	88%
Compliance rate (in terms of PCP)	61%	82%

Implementation Progress – Specified Commercial Buildings (SCB)

- From 1998 to June 2013

	Buildings Department (BD)	Fire Services Department (FSD)
Inspected (total)	1,573 (88%) (Total: 1,783)	
Direction issued	27,734	66,029
Compliance rate (in terms of direction issued)	74%	90%
Compliance rate (in terms of SCB)	41%	68%

Implementation Progress – Target Composite Buildings (TCB)

- From 2007 to June 2013

	Buildings Department (BD)	Fire Services Department (FSD)
Inspected (total)	6,461 (72%) (Total: 9,000)	
Direction issued	35,547	83,936
Compliance rate (in terms of direction issued)	16%	27%
Compliance rate (in terms of TCB)	2.3%	1.3%

Implementation Progress – Direction issued under the FS(CP)O & FS(B)O

- As at 30th June 2013

Total no. of Directions issued	230,212
Total no. of Directions complied with	122,411 (53%)
Total no. of Directions outstanding or with Compliance period not yet expired	107,801 (47%)

Observations

- PCP & SCB
  - Compliance rate: less than satisfactory
- TCB
  - Low compliance rate
- Implementation of the fire safety improvement programs for TCB is generally more difficult
- Need for OC to be formed in time to coordinate the required improvement

Common difficulties encountered by owners, occupiers & contractors

- High costs of upgrading works
- Difficulties in coordinating owners/occupiers
- Frequent changes of occupiers
- Spatial/structural constraints
- The long process of actual upgrading works

Building Safety Loan Scheme

- BD & FSD

  Review the effectiveness of the scheme in assisting owners to meet their fire safety improvement works and assess if the Government needs to provide more assistance to owners

Upgrading Works – Time Consuming

- Much time required
  - Liaising with different owners
  - Appointment of authorized persons
  - Selection of contractors through tendering
  - Removal of unauthorized structures
  - Retrofitting FSI

Enforcement Authorities

- Carrying out statutory duties in an efficient manner
  - E.g. promptly issuing directions after inspections of the target buildings/premises
- Acting in a pragmatic and flexible manner
  - assisting them to form OC
  - offering technical advice & alternatives as and when required
  - providing financial assistance if they so require
- Taking effective enforcement action including prosecutions as a last resort to compel compliance in warranted cases

Conclusion

- Upgrading Fire Safety Provisions in Old Buildings
  - Extremely Lengthy process
  - Require a very long time and enormous effort on the parts of the enforcement authorities and the owners/occupiers
  - Owners/occupiers have to invest a lot in the improvement works

Conclusion

- Crucial factors
  - Carefully-designed improvement programme
  - Early assistance to owners in the formation of OC
  - Provide some sort of loan scheme or financial arrangement
  - Adoption of a reasonable, flexible and pragmatic approach by the authorities in enforcement
  - Enforcement authorities should readily offer assistance to owners/ occupiers and provide them with advice & support
  - Prosecution actions as last resort
  - Regular review

Thank You!