

# SCOPE

- Overview Of Fire Safety Management System In Singapore
- Breakout Groups Discussions

# OVERVIEW OF FIRE SAFETY MANAGEMENT SYSTEM

## Regulatory processes of a building cover

- 🌐 **Approval of plans**
- 🕊 **Temporary Fire Permit / Fire Safety Certificate (TFP/FSC)**
- 🌐 **Fire Certificate (FC)**
- 🕊 **Fire Safety Manager (FSM)**
- 🌐 **Fire Safety Enforcement**
- 🌐 **Fire Safety Permits & Clearances**



# APPROVAL OF PLANS OF FIRE SAFETY WORKS

- 🌐 Owner engages registered architect / professional engineer as the designated Qualified Person (QP)
- 🌐 QP prepares plans according to fire code and fire safety regulations
- 🌐 QP certifies plans as fully complying to fire code and submits plans to FSSD
- 🌐 FSSD approves plans within 2 days
- 🌐 Quick approval under Self Regulation Scheme

# APPROVAL OF PLANS OF FIRE SAFETY WORKS (cont'd)

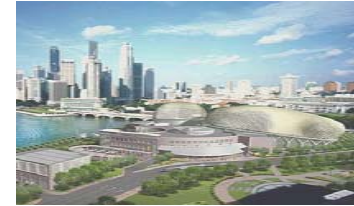
- 🌐 **“Code of Practice for Fire Precautions in Buildings” also called the Fire Code**
- 🌐 **Updated every few years since the 1st edition came out in 1974**
- 🌐 **Current 2007 edition is the 6th edition**

# APPROVAL OF PLANS OF FIRE SAFETY WORKS (cont'd)

## During construction of building :

- 🌐 Contractor to build according to approved plans under the supervision of the Qualified Person (QP)
- ❖ Contractor to comply with certain fire safety requirements at site
- 📌 Temporary buildings to comply with temporary guidelines governing the temporary structures
  - ▶ site offices
  - ▶ workers' quarters
  - ▶ stores

# TEMPORARY FIRE PERMIT / FIRE SAFETY CERTIFICATE



**When construction is completed :**

- 🔧 Owner engages Registered Inspector (RI) to inspect fire safety works in the building**
- RI issues inspection certificate indicating whether is a full compliance or with items of non-compliance**
- 🌐 Owner uses this certificate to apply for Temporary Fire Permit (TFP) / Fire Safety Certificate (FSC)**
- 🔧 FSSD issues TFP or FSC and owner applies for occupation licence from BCA**

# TEMPORARY FIRE PERMIT / FIRE SAFETY CERTIFICATE (cont'd)

**Fire Safety Certificate is issued for**

 **Full compliance**

**Temporary Fire Permit is issued for**

 **Minor non-compliances**

 **No adverse fire safety implication to occupants**

 **Rectifiable after building is occupied**



FC  
Residential ?

## FIRE CERTIFICATE

- ◀ **Owner or occupier of a public or industrial building to apply and obtain a Fire Certificate (FC)**
- ◀ **Public building with occupant load greater than 200 persons or**
- ◀ **Any industrial building with occupant load of 1000 persons, has floor area/site area of 5000 sqm or exceeds 24m in habitable height or high risk premises**
- ◀ **Owner are to engage a registered professional engineer to check, test and certify fire protection system**
- ◀ **This FC has to be renewed annually**

# **OVERVIEW (4)**

# **FIRE SAFETY MANAGER**

- 🌐 **Fire Safety Manager (FSM) Scheme launched in 1994**
- 🌐 **Requires owners of designated public or industrial building to appoint FSMs to manage the standard of fire safety**
- 🌐 **The key duty of FSM is to assist the owner to ensure fire safety**
- 🌐 **Building owner is still overall responsible to ensure that the fire safety requirements are observed during the occupancy stage**



# FIRE SAFETY ENFORCEMENT

🌐 Inspections by FSSD and SCDF ground units

🌐 Inspections are either scheduled, or ad-hoc from public complaints

🌐 Singapore has its share of fire hazards contribute to fire spread



# FIRE SAFETY ENFORCEMENT (cont'd)

## Common Fire Hazards

- 🌐 **Obstructed means of escape**
- 🌐 **Indiscriminate dumping of combustible wastes, carton boxes**
- 🌐 **Locked exits, non-service of fire extinguishers, faulty exit signs, faulty hosereel nozzle etc**



## FIRE SAFETY ENFORCEMENT (cont'd)

### Enforcement Actions

- 🌐 **Serving of Fire Hazard Abatement Notice (FHAN)**
- 🌐 **Notice of Composition (NOC) - 1st fine**
- 🌐 **Notice of Composition (NOC) - 2nd larger fine**
- 🌐 **Court prosecution**

### Public Education

- 🌐 **PAD conducts public education and publicity**



# FIRE SAFETY ENFORCEMENT (cont'd)



## Enforcement Coverage

- 🌐 **Extends to**
  - 🌐 **Construction sites to ensure fire safe working and living environment for construction workers**
  - 🌐 **Inspection blitzes during festive periods to check on overcrowding and obstruction to means of escape, eg**
    - 🚧 **New Year**
    - 🚧 **Chinese New Year**
    - 🚧 **Christmas**

## FIRE SAFETY PERMITS & CLEARANCES

**SCDF regulates certain activities directly or indirectly on those with fire safety implications :**

**🌐 Examples on direct regulating:**

- 🌐 **pyrotechnic display in hall**
- 🌐 **exhibition in building foyer**

**🌐 Examples on indirect regulating:**

- 🌐 **public entertainment e.g. discotheque**



# FIRE SAFETY MANAGEMENT SCHEMES

 **Self Regulation Scheme (SR Scheme)**

 **Registered Inspector Scheme (RI Scheme)**

 **Fire Safety Manager Scheme (FSM Scheme)**

**END**

**BREAKOUT GROUPS'**

**DISCUSSIONS**

# Groupings

(80 Participants Per Room x 4 Rooms)

-Groups of 10 for 8 groups

Gp 1 and 5 – case study 1

Gp 2 and 6 – case study 2

Gp 3 and 7 – questions 1 to 3

Gp 4 and 8 – questions 4 to 6

# BREAKOUT GROUPS DISCUSSIONS

## **Q1 Approval of plans**

**Building owner is making renovations to few units and asks FSM for advice ?**

**Please enlighten owner.**

## **Q2 Temporary Fire Permit / Fire Safety Certificate (TFP/FSC)**

**What is TFP/FSC? What happens if I occupy the premises without a TFP/FSC ?**

## **Q3 Fire Certificate (FC)**

**What is FC and what is FSM's involvement for FC application?**

# BREAKOUT GROUPS DISCUSSIONS

## Q4 Fire Safety Manager (FSM)

**Briefly list some problems encountered while discharging FSMs' duties and share suggestions to address these problems.**

## Q5 Fire Safety Enforcement

**FSM has reported some fire safety violations contributed by the tenants to owner. However, the owner refuses to rectify as he does want to lose his tenants. If you were the FSM, what can you do? Please discuss**

## Q6 Fire Safety Permits & Clearances

**Under what circumstances does building owner needs to apply for Temporary Permit from SCDF**

# BREAKOUT GROUPS CASE 1

## Scenario- xxx Premises

- Fire occurred in one of the enclosed exit staircases located in the carpark.
- As the AHU is located nearby, some smoke had propagated through the air handling system and get into the common areas in the shopping mall

# Scenario

- Some smoke had accumulated in several retail units on 4<sup>th</sup> and 5<sup>th</sup> floor and some affected tenants have self-evacuated.
- EVC announcement for total evacuation was made but lower floors' tenants / patrons continue their activities.

# Action Taken

- Upon detection of fire, the in-house FF team was activated for investigation. There was a small fire with intense smoke detected
- Upon assessing the situation, FSM instructed FCC to make evacuation announcement
- Some fire wardens from lower floors who are tenants themselves are busy with customers and did not carry out their fire warden roles
- Some customers refused to leave while others requested to go to the fire floor to remove their vehicles from the affected zone in the carpark.
- Most of the customers who evacuated used the escalators instead of the escape staircases directed by some of the fire wardens. As a result, bottlenecks situation found at the escalators.

# Question

- Public complained that FSM is not discharging his role and of the view that shoppers' lives at risk.
- PI examine and comment on this case to see what actions could have been done to manage the situation better?

# **BREAKOUT GROUPS CASE 2**

**In Feb 2009, SCDF received feedback concerning upper floor corridor of a shopping complex has been used to display antique items for sale. The atrium was used to hold food fair with LPG cylinders to heat up food. The events have caused obstructions to the escape passageway/corridor as well.**

**A small fire took place at the premises and was put out by the in-house fire fighting team. Investigation revealed that the management has not obtained approval to use the place for such activities. The owner claimed that he is not aware of the fire safety requirements and FSM did not advise him on this.**

**If you are the FSM of this premises, how will you handle the above issue?**