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**Our Ref** : CD/FSSD/12/02/03/01

**Date** : 1 Mar 2016

Registrar, Board of Architects  
Registrar, Professional Engineers Board  
President, Singapore Institute of Architects  
President, Institution of Engineers, Singapore  
President, Association of Consulting Engineers, Singapore

Dear Sir/Mdm

**MANAGING FIRE SAFETY IN THE USE OF HOARDINGS AND SAFETY NETS IN EXISTING BUILDINGS UNDERGOING ADDITION & ALTERATION WORKS**

Although hoardings are temporary structures, their erection may give rise to fire safety concerns especially those involving existing buildings that are still being occupied. These concerns include the obstruction to means of escape or fire-fighting facilities and blocking of ventilation openings for effective smoke dispersal. Other violations observed were the isolation of fire protection system in areas not affected by addition & alteration (A&A) works. The use of combustible netting for worksite safety also poses fire safety concerns as any fire involving it may result in vertical fire spread at the façade of the building.

2. To address the potential fire and life safety risks posed, SCDF has formulated a set of fire safety requirements (see attached FSR14:2016) for the building and construction industry in consultation with Building and Construction Authority (BCA), Ministry of Manpower (MOM) and Singapore Contractors Association Ltd (SCAL). These requirements shall take effect from 1 Sep 2016.

3. Please convey the contents of this circular to members of your Institution/Association/Board. The circular is also available in CORENET-e-Info: <http://www.corenet.gov.sg/einfo>



**SCDF – A member of the Home Team**

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4. For any inquiry or clarification, please contact MAJ Koh Swee Lian at DID: 68481456 or email address koh\_swee\_lian@scdf.gov.sg.

Yours faithfully,

(transmitted via e-mail)

MAJ Tan Chung Yee  
Fire Safety and Shelter Department  
for Commissioner  
Singapore Civil Defence Force

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**SINGAPORE CIVIL DEFENCE FORCE**

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**MANAGING FIRE SAFETY IN THE USE OF  
HOARDINGS AND SAFETY NETS IN  
EXISTING BUILDINGS UNDERGOING  
ADDITION & ALTERATION WORKS**

**FSR 14 : 2016**

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**Effective Date: 1 Sep 2016**

*Issued by :*

**Fire Safety & Shelter Department**

**(Total 6 pages )**

## **FSR 14 : 2016**

# **MANAGING FIRE SAFETY IN THE USE OF HOARDINGS AND SAFETY NETS IN EXISTING BUILDINGS UNDERGOING ADDITION & ALTERATION WORKS**

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## **1 SCOPE**

This set of fire safety requirements (FSR 14 : 2016) shall be applicable to the use of hoardings and safety nets in existing buildings undergoing addition and alteration (A&A) works.

## **2 GENERAL**

2.1 This FSR shall be read in conjunction with the prevailing Code of Practice for Fire Precautions in Buildings (or Fire Code), in particular Clause 3.2.9 and Clause 3.15.15 of the Fire Code.

2.2 This FSR shall take precedence over similar requirements (if any) stipulated in the prevailing Fire Code.

## **3 FIRE SAFETY REQUIREMENTS**

### **3.1 Fire Safety Requirements for Hoardings**

#### **3.1.1 Means of escape**

- a) Hoarding erected within building
  - i) Shall be constructed of non-combustible material. A minimum of 1.2m wide corridor shall be provided leading to the exit(s). The hoardings shall not obstruct the escape path of occupants within the building.
  - ii) Alternate means of escape shall be provided outside the hoarded area if the exit(s) is obstructed due to the erection of the hoarding. Travel distance shall be in accordance with the distance stipulated in the Fire Code.
- b) Hoardings erected at the external of building
  - i) Shall be constructed of non-combustible material and a minimum 1.2m wide foot path shall be maintained for pedestrians. The hoardings shall

not obstruct the discharge route of occupants exiting at the 1<sup>st</sup> storey units and from the exit staircase(s).

- ii) Shall not obstruct smoke dispersal and means of escape of nearby buildings. Where the close proximity of the partitions may affect the smoke dispersion and escape of occupants from the nearby building, the partitions shall be located at least 1.2m away from the building (see Annex A for illustration).

## **3.2 Fire Protection and Fire Fighting Provisions**

### **3.2.1 Hoardings erected within building :**

- a) For A&A works involving sprinkler/automatic alarm system, the systems covering these areas not under A&A works shall remain active. For areas not involved in A&A works but detector/sprinkler heads are being isolated due to same zone/control valve, the management shall arrange for additional surveillance checks so as to be alerted of fire at its incipient stage.
- b) Whenever possible, new systems shall be installed first before deactivating the existing systems so as to minimise the duration of no sprinkler/automatic alarm protection to the areas affected by A&A works.
- c) The sprinkler/automatic alarm system shall resume its operation again immediately at the end of the day wherever feasible.
- d) Within the hoarded area(s), 50kg fire extinguisher(s) in trolley shall be provided near the hoarding exit access door. Each fire extinguisher shall not cover more than 20m.
- e) Fire extinguishers and hosereels outside the hoarded area(s) shall be made available.

3.2.2 Hoardings erected at the external of building shall not obstruct public/private hydrant and fire engine accessway/access road.

## **3.3 Fire Safety Requirements for Safety Nets**

3.3.1 Safety nets shall not obstruct the ventilation opening to rooms/areas where smoke ventilation is required by the Fire Code such as exit staircase, fire-fighting lobby, smoke-stop lobby, flammable stores, kitchen with open flame cooking, car parks, etc.

3.3.2 No hot work and activities which generate sparks such as welding, cutting and grinding shall be permitted within 3m from the safety net as sparks from these works may ignite the net. If unavoidable, these works shall be isolated/shielded from the safety nets by a non-combustible shielding material to prevent sparks from igniting the nets.

## **4 SUBMISSION OF PLANS OF FIRE SAFETY WORKS**

### **4.1 Submission of plans**

4.1.1 There is no plan submission required on the use of hoarding. However, a copy of QP-endorsed hoarding plans shall be kept by the building management either at the Fire Command Centre or security guard room (if there is no FCC) only if the hoardings affect the following:

- a) means of escape,
- b) fire protection system (e.g. sprinkler/detector points),
- c) fire-fighting system (e.g. dry/wet riser, hosereel & fire extinguisher),
- d) means of access to carry out fire-fighting operation, (e.g. fire-fighting lifts)
- e) hydrants and fire accessway/access road

4.1.2 There is no plan submission required on the use of safety nets on the external façade of a building. However, compliance under paragraph 3.3 of this circular is required

## **5. ROLES OF BUILDING MANAGEMENT / QP**

5.1 The building management or QP is to ensure a copy of QP-endorsed hoarding plans is kept at the FCC or security guard room (if there is no FCC) at all times if the hoardings affect the areas mentioned in the preceding paragraph 4.1.1 (a)-(e). If there is no FCC or security guard room, these QP-endorsed hoarding plans shall be kept at the information counter.

5.2 The building management or QP is required to notify all the tenants/occupants of the locations of alternate means of escape 2 weeks prior to carrying out the hoarding and renovation works.

5.3 The building management or QP is required to inform the nearest SCDF fire station of any hoarding works that affect the following fire-fighting facilities:

- a) fire hydrants
- b) fire engine accessway/access road
- c) fire-fighting lift
- d) exit staircase and
- e) dry/wet riser

These affected fire-fighting facilities would have to be clearly shown on the plans to be submitted to the relevant fire station. The QP shall also highlight alternative or nearest fire-fighting facilities that can be accessed by the fire station responding personnel.

Note: While the building management or QP can undertake the above tasks, the building management or building owner (if there is no building management), shall still be responsible to ensure their compliance.

For buildings without building management, the QP shall forward a copy of the hoarding plans to the building owner and assist with the above tasks on behalf of the building owner. Thereafter, the building owner shall ensure compliance with paragraph 5.1.

**Photographs of hoarding obstructing means of escape and openings for smoke dispersal**

1. Hoarding obstructing means of escape: Occupants are unable to discharge directly to the exterior



Figure 1



Figure 2



2. Hoarding obstructing openings for smoke dispersal



Figure 3



Figure 4