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Please quote our ref. no. in all future correspondences

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

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14 Jan 2010

Registrar, Board of Architects (BOA)
Registrar, Professional Engineers Board (PEB)
President, Singapore Institute of Architects (SIA)
President, Institution of Engineers, Singapore (IES)
President, Association of Consulting Engineers, Singapore (ACES)

Dear Sir/Madam,

RESPONSIBILITIES OF REGISTERED INSPECTORS (RIs) FOR ARCHITECTURAL (ARCH) & MECHANICAL & ELECTRICAL (M&E)

Some RIs (Arch) and RIs (M&E) have highlighted that the existing scope of responsibilities under Part I and Part II to First Schedule of the Fire Safety (Registered Inspectors) Regulations 1994 could be made more defined for clearer delineation of responsibility between the RIs of the two disciplines. This will further facilitate in knowing their areas of responsibilities and minimize any grey areas on the respective scope of fire works to be inspected by RI (Arch) and RI (M&E).

2 A study group has since been formed to examine and review the scope of fire safety works to be inspected by appropriate registered inspectors. On 20 July 2009 and subsequent meetings, the revised scope of duties of respective RIs was presented and accepted by the FSSD Standing Committee. See Annex A for the revised versions of Part I & II.

3 The Committee also discussed on some related issues that are reflected in Annex B, which serves to clarify some possible areas of doubts.

4 We seek your assistance to convey the contents of this circular to your members. The circular is also made available for viewing in CORENET-einfo:<http://www.corenet.gov.sg/einfo> and SCDF internet website – <http://www.scdf.gov.sg>.

5 For enquiry or clarification, please contact MAJ Winson Cheung at DID 68481433.



ISO 9001 : 2000 Cert.No. : 2146

A PROUD MEMBER OF THE HOME TEAM



Yours faithfully,

(Transmitted thru' e-mail)

Poon Keng Soon
Secretary, FSSD Standing Committee
for Commissioner
Singapore Civil Defence Force

cc

All members of FSSD Standing Committee

President, REDAS

President, IFE

President, SISV

CEO, BCA

CEO, URA

CEO, HDB

CEO, PSA

CEO, JTC

CE, LTA

CE, TUV SUD PSB – (Attn: Ms Tan Chiew Wan / Mr Lau Keong Ong)

CE, SPRING Singapore – (Attn: Mr Kenneth Lim)

SCOPE OF FIRE SAFETY WORKS TO BE INSPECTED BY APPROPRIATE REGISTERED INSPECTORS

A registered inspector who —

(a) is an architect registered under the Architects Act (Cap. 12) or a professional engineer in the civil or structural engineering discipline registered under the Professional Engineers Act (Cap. 253) shall inspect and, unless otherwise provided, test the fire safety works listed in Part I;

(b) is a professional engineer in the mechanical or electrical engineering discipline registered under the Professional Engineers Act shall inspect and test the fire safety works listed in Part II;

(c) is a fire safety engineer and either an architect registered under the Architects Act or a professional engineer in the civil or structural engineering discipline registered under the Professional Engineers Act shall inspect and, unless otherwise provided, test the fire safety works listed in Part I and that part of the fire safety works using the alternative solution;

(d) is a fire safety engineer and a professional engineer in the mechanical or electrical engineering discipline registered under the Professional Engineers Act shall inspect and test the fire safety works listed in Part II and that part of the fire safety works using the alternative solution.

PART I (RI Architectural)

■ **Means of Escape**

- Determination of exit requirements**
- Means of escape requirements**
- Exit signs and directional signs**
- Provision of exit lightings, emergency lightings (self-contained light fittings only), and low level photo luminescent signs**

■ **Structural Fire Precautions:**

- Compartment walls and floors**
- Elements of structure**
- External walls**
- Separating walls**
- Protected shafts and lift shafts**
- Protection of openings**
- Exit staircases**
- Concealed spaces**
- Fire stopping**
- Restriction of flame spread**
- Roofs**
- Materials for construction**

- **Site planning and external fire fighting provisions:**
 - Provision for external access to building for fire fighting and accessibility of site to fire fighting appliances
 - Access to buildings with rising mains
 - Hydrants

- **Fire Fighting Systems (Provisions Only):**
 - Automatic and manual fire alarm systems
 - Dry and wet rising main systems
 - Emergency power supply
 - Fire lifts
 - Fixed automatic fire extinguishing systems
 - Hosereels (include testing for direct Public Utilities Board supply)
 - Mechanical ventilation
 - Natural ventilation openings
 - Sprinkler installations
 - Smoke control systems

- **Other Provisions:**
 - Emergency voice communication systems
 - Fire Command Centre
 - Portable Fire Extinguishers

- **Pressurized or non-pressurised storage cylinders, tanks and cylinders with manifold system (testing not required)**

- **Any other requirement specified by the Fire Code.**

- **Any other requirement specified by other accepted Codes of Practice that have been adopted for the project.**

- **Any other endorsements made on the approved building plans.**

PART II (RI Mechanical & Electrical)

- **Means of Escape – Exit lightings, emergency lightings and low level photo luminescent signs**
- **Site planning and external fire fighting provision - Private hydrants (testing only)**
- **Fire Fighting Systems (Verification & Testing):**
 - Automatic and manual fire alarm systems**
 - Dry and wet rising main systems**
 - Emergency power supply**
 - Emergency voice communication systems**
 - Fire lifts**
 - Fixed automatic fire extinguishing systems**
 - Hosereels (pump feed)**
 - Integrated fire fighting and protection systems testing under both fire alarm activation and power failure condition**
 - Sprinkler installations**
- **Mechanical ventilation and smoke control systems**
 - Mechanical ventilation/air-conditioning systems, including dampers and fire resisting construction of ductworks**
 - Pressurisation systems**
 - Smoke control systems (both mechanical and venting systems)**
- **Other Provisions:**
 - Emergency voice communication systems**
- **Pressurized or non-pressurised storage cylinders, tanks and cylinders with manifold systems (testing only)**
- **Any other requirement specified by the Fire Code.**
- **Any other requirement specified by other accepted Codes of Practice that have been adopted for the project.**
- **Any other endorsements made on the approved building plans.**

**FSSD STANDING COMMITTEE 4/2009 HELD ON 20 JULY 2009 &
SUBSEQUENT MEETINGS'S DECISIONS ON IDENTIFIED GREY AREAS
UNDER THE SCOPE OF RESPONSIBILITIES FOR RI (ARCH) AND RI
(M&E)**

The Provision Of The Fire Alarm System:

RI (Arch) will ensure the provision by checking that the manual call-point is provided in accordance with the Fire Code. RI (M&E) will then conduct the system testing to detect any missing components and any non-compliances of the fire alarm system. For the case of a show flat, where there is no fire protection and mechanical ventilation plans involve, the QP (Arch) making the fire safety plan submission is to make clear that he is covering the M&E portion. Given the understanding that QP (Arch) is undertaking the M&E portion, this means that QP (Arch) is overseeing that the M&E portion is of compliance to the relevant Codes of Practices. Similarly, the RI (Arch) inspecting the project will see that both Architectural and M&E aspects are in compliance to the relevant Codes of Practices.

The Provision Of The Emergency Lighting:

RI (Arch) will check on the provision of the emergency lighting while the RI (M&E) will verify the conformance of the system details, which include the final performance, adequate siting, spacing, luminous level and testing of the associated components. In the case of self contained emergency lighting, the RI (Arch) may conduct the testing; ie that is no need to engage the RI (M&E).

The Provision Of The Wet Riser System:

For wet riser system, the RI (Arch) shall see that the wet riser is provided for in accordance to the Fire Code. RI (Arch) shall also check on the sufficient area of wet riser's coverage and appropriate location of breeching inlets, risers and landing valves. The RI (M&E) will check and verify for full compliance with the Fire Code and the relevant Code of Practice and to conduct test for the entire system.

The Provision Of The Dry Riser And Hosereel:

For dry riser, the RI (A) will check on detailed components and features of the system to see that dry riser is provided in accordance to Fire Code. The RI (M&E) will carry out the testing for dry riser.

For hosereel, RI (A) will check on the adequate area of coverage, carry out testing of hose reel if it is direct from PUB as stated under Part 1 of first schedule. The RI (M&E) will carry out the testing of hose reels if they are pump fed.

The Provision Of The Staircase Pressurization:

RI (Arch) shall see that staircase pressurisation systems are provided by way of that the inlet grilles are present at site, proper MV shafts are provided. RI (M&E) will carry out the testing of the entire system. During the testing, RI (M&E) will check for full compliance of the detailed components and compliance with relevant codes of practice.

The Provision Of The LPG Manifold System:

RI (A) shall check on the location of manifold system, safety distance from any ignition source, compliance of openings to the installation to comply with the LPG guidelines under the Fire Code. RI (M&E) will check for full compliance of the system and its components. During the testing, RI (M&E) will detect missing components and non-compliance items of the system such as location of vaporizers, leakages, conditions of pipings etc.