

Your Ref :

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

Date : 15 December 2015

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

AMENDMENTS TO THE FIRE CODE 2013 – PROVISION OF ROOF ACCESS & RELATED CHANGES

Currently, the Fire Code requires every storey of a building to be provided with at least two independent exit staircases in accordance with Clause 2.2.11. Although this requirement is also applicable to the roof level, there were queries on this provision from the building industry.

2. In view of the above and anticipation of increasing usage on the roof, the Fire Code Review Committee has reviewed the definition for habitable floor under Clause 1.2.36 of the Fire Code (see Annex A). It was decided that a single exit staircase from the roof level is permitted if the roof level is qualified as a non-habitable floor. In addition, Clause 2.2.11 has been amended to require an additional cat or ship ladder if the one-way travel distance from the most remote point of the roof to the exit cannot be met.

3. For existing buildings which are carrying out the installation of M&E and/or telecommunication plants/equipment etc. (see revised Clause 1.2.36) on the roof level where the provision of single exit staircase is not feasible, a portable sturdy ladder to the roof access is required. SCDF needs this ladder to pitch against the hatch opening to facilitate its operations on the roof. Notwithstanding the above, where the travel distance on the roof cannot be complied with, an additional cat or ship ladder shall be provided.

4. Please refer to Annex A for amendments made to the Fire Code. All amendments are shown in italics.



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5. Please convey the contents of this circular to members of your Board / Institution / Association. The amendments shall be applicable to all plans submitted to SCDF for approval on or after 16 June 2016. This circular is also available in CORENET-e-Info: <http://www.corenet.gov.sg/einfo>. For any clarification, please contact: Mr Randy Tan at DID: 68481461 or Email: Randy_Tan@scdf.gov.sg.

Yours faithfully,

(transmitted via e-mail)

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

cc

CEO, BCA
CEO, URA
CEO, HDB
CEO, JTC
CE, LTA
CE, SPRING Singapore
President, REDAS
President, IFE
President, SISV
President, FSMAS
President, SCAL
Honorary Secretary, SPM
SCDF Fire Safety Standing Committee
Fire Code Review Committee



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AMENDMENTS TO THE FIRE CODE

Existing Clause	Revised/New Clause
<p><u>Clause 1.2.36 Habitable floor</u></p> <p>A floor or part thereof, including roof level, regardless whether it is opened to sky or not, designated to be used for any purpose/activity other than housing lift motors, fire pumps, water supply pumps, cooling towers and water tanks. Such purpose/activity shall include terrace, garden and playground and other M & E plants.</p>	<p><u>Clause 1.2.36 Habitable floor</u></p> <p><i>All floors in a building including roof level shall be considered as habitable floors. The roof level can be taken as non-habitable if it is not used for any purpose/activity other than housing M&E and/or telecommunication plants/equipment e.g. lift motors, fire pumps, generator, fire hosereel pumps, water supply pumps, cooling towers, solar photovoltaic panels, supply/exhaust fans with associated ductwork, air-con condensing units, television antenna, satellite dish and public warning sirens, etc.</i></p>
<p><u>Clause 2.2.11 Number of exit staircases or exits per storey</u></p> <p>There shall be at least two independent exit staircases or other exits from every storey of a building, unless otherwise permitted under other subsequent provisions of the code.</p>	<p><u>Clause 2.2.11 Number of exit staircases or exits per storey</u></p> <p>There shall be at least two independent exit staircases or other exits from every storey of a building, unless otherwise permitted under other subsequent provisions of the code. <i>For non-habitable roof, at least one exit staircase shall be provided. Where the area of non-habitable roof is large and one-way travel distance to the exit cannot be met, an additional cat ladder or ship ladder adequately separated in accordance with Cl.1.2.60 and leading to the circulation area of the floor below shall be provided. All access hatches, if provided, shall be readily accessible from the roof. Access hatch opening shall have a minimum clear width of 1000mm in diameter. The travel distances can be based on that for sprinkler protected building for roof areas which are open to the sky.</i></p>

Existing Clause	Revised/New Clause
Nil	<p><u><i>New Clause 6.1.4</i></u> <i>Where the roof level is a non-habitable floor as defined as under Cl.1.2.36, fire extinguishers shall be provided to cover the M&E plants/equipment.</i></p>
Nil	<p><u><i>New Clause 6.2.8(f)</i></u> <i>Where the roof level is a non-habitable floor as defined under Cl.1.2.36, fire hoses shall be provided to cover the M&E plants/equipment.</i></p>
Nil	<p><u><i>New Clause 6.3.9 Exemption of automatic fire alarm protection</i></u></p> <p><i>The following areas are exempted from automatic fire alarm protection in an automatic fire alarm building:</i></p> <p><i>(i) Areas which are covered with trellises, louvres or perforated panels having 50% or more evenly distributed effective free openings;</i></p> <p><i>(ii) External open-sided linkways not exceeding 5m in width measured from eave to eave, provided there is no commercial activities or storage within these areas.</i></p>

Existing Clause	Revised/New Clause
<p><u>Clause 6.4.1 (e) Exemption of sprinkler protection</u></p> <p>With the exception of industrial buildings, such as factories (Purpose Group VI), warehouses and storage depots (Purpose Group VIII), the following areas are exempted from sprinkler protection in a sprinklered building:</p> <ul style="list-style-type: none"> <li>(i) Canopies/Car porches <ul style="list-style-type: none"> <li>(1) Such areas are used solely for the purpose of passengers pick-up and drop-off point; and <li>(2) There shall be no commercial activities or storage within these areas; and <li>(3) Cut-off sprinklers and fire rated wall are not required to be provided to separate the sprinklered and non-sprinklered areas. <li>(ii) External corridors not exceeding 4m in width, provided there is no commercial activities or storage within these areas. <li>(iii) Atrium ceilings which exceed the height of 12m, measured from the finished floor level of the atrium floor to the ceilings of the atrium roof or to the level of half the vertical height of the ceilings of the atrium roof in the case of irregular roof profile. In lieu of the provision of sprinklers, approved effective detectors (e.g. smoke, infra-red, etc) shall be installed in accordance with the approved standards and there shall be no commercial activities or storage within the floor spaces below the atrium roofs. 	<p><u>Clause 6.4.1 (e) Exemption of sprinkler protection</u></p> <p>With the exception of industrial buildings, such as factories (Purpose Group VI), warehouses and storage depots (Purpose Group VIII), the following areas are exempted from sprinkler protection in a sprinklered building:</p> <ul style="list-style-type: none"> <li>(i) Canopies/Car porches <ul style="list-style-type: none"> <li>(1) Such areas are used solely for the purpose of passengers pick-up and drop-off; and <li>(2) There shall be no commercial activities or storage within these areas; and <li>(3) Cut-off sprinklers and fire rated wall are not required to be provided to separate the sprinklered and non-sprinklered areas. <li>(ii) External corridors not exceeding 4m in width, provided there is no commercial activities or storage within these areas. <li>(iii) Atrium ceilings which exceed the height of 12m, measured from the finished floor level of the atrium floor to the ceilings of the atrium roof or to the level of half the vertical height of the ceilings of the atrium roof in the case of irregular roof profile. In lieu of the provision of sprinklers, approved detectors (e.g. smoke, infra-red, etc) shall be installed in accordance with the approved standards and there shall be no commercial activities or storage within the floor spaces below the atrium roofs.

(iv) External open-sided linkways not exceeding 5m in width, provided there is no commercial activities or storage within these areas.

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(v) Areas which are covered with trellises, louvres or perforated panels having 50% or more evenly distributed effective free openings (applicable to all purpose groups).