



**SCDF**  
The Life Saving Force  
*... for a safer Singapore*

**SINGAPORE CIVIL DEFENCE FORCE**



**Your Ref** :

**Our Ref:** CD/04/05/01/01

**Date** : 3 Mar 2025

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 FIRE CODE 2023 – 3<sup>rd</sup> BATCH OF AMENDMENTS**

SCDF would like to issue the 3<sup>rd</sup> batch of amendments to the Code of Practice for Fire Precautions in Buildings 2023 (Fire Code 2023). The amendments, which were deliberated and accepted by the Fire Code Review Committee are attached as Annex A of this circular.

2. Amendments stipulated in Annex A shall take effect from the date specified therein. Qualified Persons who wish to comply with the requirements in this Circular for any proposed plans of fire safety works for new buildings or existing buildings to be submitted during the 6-month grace period (i.e., 3 Mar 2025 to 3 Sep 2025) can do so and are not required to apply for waivers. Such plans that are submitted to SCDF for approval on or after the effective date shall be subject to the amendments made to the Fire Code.

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



## **SCDF – A member of the Home Team**

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4. For general queries, you may contact Mr Randy Tan at DID: 68481461 or Mr Tan Yi Yang at DID: 68481734. However, for specific queries relating to edits for:

- a. 1-hour fire separation for roof-mounted PV installations, please contact MAJ Muhammad Izwan Bin Ibrahim/ MAJ Daven Tan at 68481413/ 68481408, or email: Muhd\_Izwan\_IBRAHIM@scdf.gov.sg/ Daven\_TAN@scdf.gov.sg.
- b. Hose reel exemption for open-sided sheds for M&E plants/ equipment, and open-sided sheds for PG III field training usages, please contact CPT Lim Hoong Ta at 68481403, or email: LIM\_Hoong\_Ta@scdf.gov.sg.
- c. Liquefied Petroleum Gas (LPG) cylinder installation, please contact Ms Koh Wen Xi at 68481428, or email: KOH\_WEN\_XI@scdf.gov.sg.

Yours faithfully

(transmitted via email)

LTC Tan Chung Yee  
for Commissioner  
Singapore Civil Defence Force

Distribution list

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Fire Code Review Committee

S/N	Amendment Date	Effective Date	Clause Status	Clause Before Amendment	Clause After Amendment
1	3 Mar 2025	3 Sep 2025	Relaxation/ Revised	<p>2.3.9e. Vision panel</p> <p>The fire door to an exit staircase and smoke-free/ fire lift lobby shall be constructed to incorporate a vision panel. The vision panel shall have a clear view size of 100mm (w) x 600mm (h). The vision panel shall have the requisite fire resistance rating and shall not turn opaque when subject to heat. The bottom edge of the vision panel shall be located at 900mm above the finished floor level. The provision of vision panel shall not apply to fire doors of residential apartment or maisonette units.</p>	<p>2.3.9e. Vision panel</p> <p>The fire door to an exit staircase and/ or smoke-free/ fire lift lobby shall be constructed to incorporate a vision panel. The vision panel shall have a clear view size of 100mm (w) x 600mm (h). The vision panel shall have the requisite fire resistance rating and shall not turn opaque when subject to heat. The bottom edge of the vision panel shall be located at 900mm above the finished floor level. The provision of vision panel shall not apply to fire doors of residential apartment or maisonette units <b>and public accommodation units (see <a href="#">Table 1.4A</a>)</b>.</p>
2	3 Mar 2025	3 Sep 2025	Relaxation/ Revised	<p>6.2.8a.(3) Exemption</p> <p>(a) ...</p> <p>(b) ...</p> <p>(c) Other standalone buildings as follows:</p> <p>(i) ...</p> <p>(ii) ...</p> <p>(iii) ...</p> <p>(iv) ...</p> <p>(v) ...</p> <p>(vi) ...</p> <p>(vii) ...</p> <p>(viii) ...</p>	<p>6.2.8a.(3) Exemption</p> <p>(a) ...</p> <p>(b) ...</p> <p>(c) Other standalone buildings as follows:</p> <p>(i) ...</p> <p>(ii) ...</p> <p>(iii) ...</p> <p>(iv) ...</p> <p>(v) ...</p> <p>(vi) ...</p> <p>(vii) ...</p> <p>(viii) ...</p>

					<p>(ix) Open-sided sheds for M&amp;E plants/ equipment with AFA not exceeding 20m<sup>2</sup> and openings that constitute not less than 80% of the perimeter wall area (measured along the roof eaves).</p> <p>(x) Open-sided sheds for PG III field training usages without any storage, with AFA not exceeding 300m<sup>2</sup> and openings that constitute not less than 80% of the perimeter wall area (measured along the roof eaves).</p>
3	3 Mar 2025	3 Mar 2025	Clarification/ Revised	<p>6.6.6c. For buildings which do not require standby generating plants, and for buildings with standby generating plants but without automatic fire alarm or sprinkler system</p> <p>(1) .....</p> <p>(2) Smoke/ heat detectors shall be provided at all lift lobbies such that all lifts serving the same lobby shall be brought to the designated floor or alternate designated floor upon activation of the detectors. For buildings without a fire alarm system, the smoke/ heat detectors shall form part of the lift system and shall be connected to the lift control panel to home the lift under normal power upon activation.</p>	<p>6.6.6c. For buildings which do not require standby generating plants, and for buildings with standby generating plants but without automatic fire alarm or sprinkler system</p> <p>(1) .....</p> <p>(2) Smoke/ heat detectors shall be provided at all lift lobbies such that all lifts serving the same lobby shall be brought to the designated floor or alternate designated floor upon activation of the detectors. <del>For buildings without a fire alarm system,</del> The smoke/ heat detectors shall form part of the lift system and shall be connected to the lift control panel to home the lift under normal power upon activation.</p>

4	3 Mar 2025	3 Mar 2025	Relaxation/ Revised	<p>7.4.1a. An engineered smoke control system as specified in <i>Cl.7.4.5</i> shall be provided where:</p> <p>(1) .....</p> <p>(2) .....</p> <p>(3) the total aggregate floor area of all basement storeys exceeds 2000m<sup>2</sup>, except in any of the following situations:</p> <p>(a) Where the basement or a portion of the basement is used as a car park, the car park shall comply with the requirements of <i>Cl.7.4.3</i>, provided it is compartmented from the rest of the basement.</p> <p>(b) Where a plant/ equipment room with floor area not exceeding 250m<sup>2</sup> is compartmented from rest of the basement, two doors remotely located from each other for better reach in firefighting operations shall be provided. The provision of a single door opening for this room is permitted provided the most remote part of the room is less than 8m from the door, and the equipment found inside this room, does not obstruct the throw of a water jet from a firefighting hose.</p>	<p>7.4.1a. An engineered smoke control system as specified in <i>Cl.7.4.5</i> shall be provided where:</p> <p>(1) .....</p> <p>(2) .....</p> <p>(3) the total aggregate floor area of all basement storeys exceeds 2000m<sup>2</sup>, except in any of the following situations:</p> <p>(a) Where the basement or a portion of the basement is used as a car park, the car park shall comply with the requirements of <b>smoke purging system in accordance with <i>Cl.7.4.3</i></b>, provided it is compartmented from the rest of the basement.</p> <p>(b) Where a plant/ equipment room with floor area not exceeding 250m<sup>2</sup> is compartmented from rest of the basement, two doors remotely located from each other for better reach in firefighting operations shall be provided. The provision of a single door opening for this room is permitted provided the most remote part of the room is less than 8m from the door, and the equipment found inside this room, does not obstruct the throw of a water jet from a firefighting hose.</p>
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				<p>(c) Where a plant/ equipment room with floor area exceeds 250m<sup>2</sup> but not 2000m<sup>2</sup>, and for which smoke vents in accordance with <i>Cl.7.4.2</i> or smoke purging system of at least 9 air changes per hour are provided.</p> <p>(d) Where a service area comprising storerooms or workshops (restricted to staff only) which are compartmented, which are provided with smoke venting in accordance with <i>Cl.7.4.2</i>, or a smoke purging system of at least 9 air changes per hour in lieu of an engineered smoke control system. An automatic fire alarm/ extinguishing system in accordance with <i>Table 6.4A</i> shall be provided where required.</p>	<p>(c) Where a plant/ equipment room with floor area exceeds 250m<sup>2</sup> but not <b>exceeding</b> 2000m<sup>2</sup>, <b>is and for which provided with</b> smoke vents in accordance with <i>Cl.7.4.2</i> or smoke purging system <b>in accordance with <i>Cl.7.4.3</i></b>. <del>of at least 9 air changes per hour are provided.</del></p> <p>(d) Where a <b>compartmented</b> service area comprising storerooms or workshops (restricted to staff only) <del>which are compartmented, which are</del> <b>is</b> provided with smoke <b>vent venting</b> in accordance with <i>Cl.7.4.2</i>, or a smoke purging system <b>in accordance with <i>Cl.7.4.3</i></b>. <del>of at least 9 air changes per hour in lieu of an engineered smoke control system. An automatic fire alarm/ extinguishing system in accordance with <i>Table 6.4A</i> shall be provided where required.</del></p> <p>(e) <b>Where the basement of a residential development is used as a car park, one office intended for ancillary use is permitted in the car park. The office shall be provided with smoke purging system in accordance with <i>Cl.7.4.3</i> and compartmented from</b></p>
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					the rest of the basement. The office floor area shall not exceed 40m <sup>2</sup> .
5	3 Mar 2025	3 Sep 2025	Relaxation/ Revised	9.2.1a.(8) Travel distance  (a) .....  (b) .....	9.2.1a.(8) Travel distance  (a) .....  (b) .....  (c) Travel distance for open-to-sky roof garden  For habitable roof garden that is fully open-to-sky and provided with at least 2 exits, the travel distance can be based on the requirement for sprinkler-protected buildings as specified in <u>Table 2.2A</u> .
6	3 Mar 2025	3 Mar 2025	Clarification/ Revised	9.8.1b. Structural fire precautions  (1) Vehicle parking area  Fire compartmentation shall be provided between a vehicle parking area (PG VIII) and other areas, except for ancillary washrooms and other rooms stated in footnote (4) of <u>Table 6.4A</u> , the fire compartment walls and floors shall have at least 1-hr fire resistance rating.  Exceptions:	9.8.1b. Structural fire precautions  (1) Vehicle parking area  Fire compartmentation shall be provided between a vehicle parking area (PG VIII) and other areas, except for ancillary washrooms and other rooms stated in footnote (4) of <u>Table 6.4A</u> . The fire compartment walls and floors shall have at least 1-hr fire resistance rating.  Exceptions:

				<p>(a) For a sprinkler-protected factory, compartmentation between the vehicle parking areas and the factory is not required, provided the vehicle parking area and adjacent driveway are provided with an engineered smoke control system.</p> <p>(b) For a sprinkler-protected warehouse, thermal insulation of the fire-rated shutters between the vehicle parking area and the warehouse is not required, provided the vehicle parking/ loading and unloading area and adjacent driveway are provided with an engineered smoke control system.</p>	<p>(a) For a sprinkler-protected factory, compartmentation between the vehicle parking areas and the factory is not required, provided the vehicle parking area/ <b>loading and unloading bay</b> and adjacent driveway are provided with an engineered smoke control system.</p> <p>(b) For a sprinkler-protected warehouse, thermal insulation of the fire-rated shutters between the vehicle parking area and the warehouse is not required, provided the vehicle parking/ loading and unloading area and adjacent driveway are provided with an engineered smoke control system.</p>
7	3 Mar 2025	3 Sep 2025	<b>Clarification/ Revised</b>	<p>10.1.1a. This section stipulates the fire safety requirements for the commercial, industrial and residential premises with eating outlets, eating places, canteens, restaurants and other eateries which use LPG for cooking purposes. It is also intended for industrial applications involving hot works.</p>	<p>10.1.1a. This section stipulates the fire safety requirements for the commercial, industrial and residential premises with eating outlets, eating places, canteens, restaurants and other eateries which use LPG for cooking purposes. <b>Usage of LPG systems that is not specifically covered in this Code (for e.g., non-manifold LPG systems in places of public resort for the purpose of social cooking events such as barbeques) is not allowed.</b> It is also intended for <b>commercial and</b> industrial applications</p>



					such as involving hot works, mass food production etc.
8	3 Mar 2025	3 Sep 2025	Clarification/ Revised	10.1.1b. All LPG cylinder installations shall be located outdoors and on the ground levels for all commercial and industrial buildings. Locating LPG cylinders indoor is normally not permitted, unless otherwise approved by the SCDF under special circumstances (See <i>Annex 10.1B</i> ).	10.1.1b. All LPG cylinder installations shall be located outdoors and on the ground levels for all commercial and industrial buildings. Locating LPG cylinders indoors is normally not permitted, unless otherwise approved by the SCDF under special circumstances (See <i>Annex 10.1B</i> ). shall comply to the requirements of <i>Cl.10.1.4</i> .
9	3 Mar 2025	3 Sep 2025	Relaxation/ Revised	10.2.1 Roof-mounted PV installations  d. Design and installation criteria  (4) Storages or services located below PV arrays excluding those stated under <i>Cl.10.2.1b.(1)(b)</i> , shall be separated from the PV arrays as follows:  (a) For sprinkler-protected space below arrays, a non-combustible separation shall be provided.  (b) For sprinkler-protected space below arrays, if the PV modules comply with <i>Cl.10.2.2b.</i> , no separation is required.  (c) For non-sprinkler-protected space below arrays, a 1-hr fire-rated separation shall be provided.	10.2.1 Roof-mounted PV installations  d. Design and installation criteria  (4) Storages or services located below PV arrays excluding those stated under <i>Cl.10.2.1b.(1)(b)</i> , shall be separated from the PV arrays as follows:  (a) For sprinkler-protected space below arrays, a non-combustible separation shall be provided.  (b) For sprinkler-protected space below arrays, if the PV modules comply with <i>Cl.10.2.2b.</i> , no separation is required.  (c) For non-sprinkler-protected space below arrays, a 1-hr fire-rated separation shall be provided.

				<p>(d) For non-sprinkler-protected space below arrays, if the PV modules comply with <i>Cl.10.2.2b.</i>, a non-combustible separation shall be provided.</p> <p>(5) PV modules, wirings, switchboard assemblies and other equipment shall not cover any ventilation system on the roof (e.g., smoke control/ extraction systems or air well).</p> <p>(See <i>Diagram 10.2.1.d.</i>)</p>	<p>Exception:</p> <p>A non-combustible separation can be used in lieu of 1-hr fire-rated separation for the following:</p> <ul style="list-style-type: none"> <li>(i) PV installation on roof of PG VI except high hazard occupancy stated in <i>Cl.1.4.68</i>, with a minimum height of 4m measured between the vehicle access level/ highest habitable floor and the average roof level, or</li> <li>(ii) PV installation on roof of PG VIII, except high hazard occupancy stated in <i>Cl.1.4.68</i>, with a minimum height of 8m measured between the vehicle access level/ highest habitable floor level and the average roof level, or</li> <li>(iii) Buildings, except high hazard occupancy stated in <i>Cl.1.4.68</i>, shall be protected with an automatic fire alarm system compliant with <i>SS 645</i>, and the PV modules shall be installed at least 200mm above the finished roof level, or</li> </ul>
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					<p>(iv) PV modules shall comply with <i>Cl.10.2.1c.</i> with its outer layers constructed of glass or non-combustible material, and shall be installed at least 200mm above the finished roof level of buildings, except high hazard occupancy stated in <i>Cl.1.4.68</i>, or</p> <p>(v) PV modules comply with <i>Cl.10.2.2b.</i></p> <p><del>(d) For non-sprinkler protected space below arrays, if the PV modules comply with <i>Cl.10.2.2b.</i>, a non-combustible separation shall be provided.</del></p> <p>(5) PV modules, wirings, switchboard assemblies and other equipment shall not cover and have a minimum horizontal clearance of 500mm from any ventilation system on the roof (e.g., smoke control/ extraction systems or air well) and skylight.</p> <p>(See <i>Diagram 10.2.1.d.</i>)</p>
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10	3 Mar 2025	3 Sep 2025	Relaxation/ Revised	<p>Existing <u>Table 1.4B</u></p> <table border="1"> <thead> <tr> <th colspan="3">TABLE 1.4B: OCCUPANCY LOAD FACTORS</th> </tr> <tr> <th>FUNCTIONAL SPACES</th> <th>OCCUPANCY LOAD FACTOR (m<sup>2</sup>/person)</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td>Classroom</td> <td>1.5</td> <td></td> </tr> <tr> <td>Computer classroom</td> <td>1.5</td> <td></td> </tr> </tbody> </table>	TABLE 1.4B: OCCUPANCY LOAD FACTORS			FUNCTIONAL SPACES	OCCUPANCY LOAD FACTOR (m <sup>2</sup> /person)	REMARKS	Classroom	1.5		Computer classroom	1.5		<p>See affected portion of <u>Table 1.4B</u></p> <table border="1"> <thead> <tr> <th colspan="3">TABLE 1.4B: OCCUPANCY LOAD FACTORS</th> </tr> <tr> <th>FUNCTIONAL SPACES</th> <th>OCCUPANCY LOAD FACTOR (m<sup>2</sup>/person)</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td>Classroom</td> <td>1.5</td> <td></td> </tr> <tr> <td><i>computer classroom</i></td> <td>1.5</td> <td></td> </tr> <tr> <td><i>nursery classroom for children under 7 years of age</i></td> <td>1.5</td> <td>or higher OL factor as required by the authority having jurisdiction</td> </tr> <tr> <td><i>others</i></td> <td>1.5</td> <td></td> </tr> </tbody> </table>	TABLE 1.4B: OCCUPANCY LOAD FACTORS			FUNCTIONAL SPACES	OCCUPANCY LOAD FACTOR (m <sup>2</sup> /person)	REMARKS	Classroom	1.5		<i>computer classroom</i>	1.5		<i>nursery classroom for children under 7 years of age</i>	1.5	or higher OL factor as required by the authority having jurisdiction	<i>others</i>	1.5	
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