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## FIRE SERVICES DEPARTMENT FIRE SAFETY COMMAND

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31st July 2020

To: Recipients of FSD Circular Letters

Dear Sirs/Madams,

## FSD Circular Letter No. 4/2020 Additional Fire Safety Requirements for Car Parking Facilities installed with Electric Vehicle Charging Facilities

This Circular Letter serves to announce the additional fire safety requirements for car parking facilities, installed with electric vehicle (EV) charging facilities to the Code of Practice for Minimum Fire Service Installations and Equipment, 2012 (FSI Code).

- 2. Due to the increasing trend on popularity of EVs and related fire incidents worldwide, FSD has taken the initiative to conduct a study on the potential fire hazard in connection with EVs, especially during battery charging of EVs. Having considered that the car parking facilities, where EV charging facilities are installed, may have inherent risks to both the general public and firefighters, additional fire safety requirements for those car parking facilities installed with EV charging facilities have to be imposed as follows:
  - (a) Fire detection system with heat or multi-sensor detecting type, shall be provided as follows (except those provided with sprinkler system):
    - i. For those with a total floor area not exceeding 230m<sup>2</sup>, the entire car parking facilities shall be covered by the fire detection system.
    - ii. For those with a total floor area exceeding 230m<sup>2</sup>, the areas installed with EV charging facilities shall be covered by the fire detection system.
    - iii. The fire detection system shall be installed in accordance with British Standard 5839: Part 1 or other standards acceptable to the Director of Fire Services and linked to the fire alarm system.

- iv. A direct line connection to the Fire Services Communications Centre is not required if the car parking facilities are situated in domestic buildings where the provision of direct line connection is not mandatorily required.
- (b) A dry powder or carbon dioxide type fire extinguisher shall be provided at each hose reel point.
- (c) Fireman's emergency switch shall be provided at vehicle entrance(s), fire control centre or other locations as considered acceptable by the Director of Fire Services. Details of the switch are provided in the Appendix.
- 3. The requirements as stipulated in paragraph 2 above shall not be applicable to the car parking facility of a single-family domestic building up to and including three storeys in height, except a car parking facility situated in basement.
- 4. The additional requirements will take effect from 1 September 2020 for all initial building plan submissions. Building plans submitted before 1 September 2020 and all existing buildings planned with the EV charging facilities are advised to enhance the fire safety provisions as stated in the foregoing paragraph for the sake of fire safety. For those recent submissions, you are encouraged to voluntarily incorporate the additional requirements for EV charging facilities in your amendment submissions.
- 5. For enquiries, please contact our Senior Divisional Officer (New Projects) at 3971 4600.

Yours faithfully,

CHUI Man-leung)

for Director of Fire Services

Encl.

## Requirements for the Fireman's Emergency Switch

- 1. A fireman's emergency switch conforming EMSD's Code of Practice shall be provided to cut off the power supply of **all** EV charging facilities within the car parking facilities.
- 2. The switch shall be situated in a conspicuous position, yet out of reach of the public in general. Thus, switch(es) provided at vehicle entrance(s) shall be positioned no more than 3m but not less than 2.5 from ground level. Where more than one fireman's emergency switch is installed on any one building, such switches shall be clearly marked to distinguish one from another.
- 3. In case the switch is installed at a location other than the vehicle entrance, notice plate(s) shall be provided at conspicuous location(s) of vehicle entrance(s) acceptable to the Director of Fire Services to indicate the location of fireman's emergency switch.
- 4. The 'ON' and 'OFF' position of the fireman's emergency switch shall be conventional (i.e. push upward 'OFF'; push downward 'ON') and clearly indicated by lettering legible to a person standing on the ground at the intended site.
- 5. The switch is to be affixed on a board approximately 300 mm long by 250 mm wide, which is painted white and edged with a 50 mm red border. The inscription 'EV CHARGING FACILITIES FIREMAN'S SWITCH' in English is to be painted on the top and '電動車充電設施 消防員開關掣' in Chinese at the bottom of the board in black. The switch is to be positioned in the middle of the board.