# Revision of Emergency Lighting Systems in Club House

# Introduction

- In 2021, fire safety requirements for emergency lighting systems in licensed/registered premises have been revised to Requirements for Emergency Lighting Systems with Central Power Supply [PPA/104 (5th Revision)] and Requirements for Self-contained Luminaires Emergency Lighting Systems [PPA/104(A) (5th Revision)], as stated in FSD Circular Letter No. 5/2021 dated 25.5.2021.
- The two revised sets of F.S. requirements will be imposed on licensed/registered premises for all submissions of applications received by respective licensing authority with effect from 1.6.2022.

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Standard Licensing Requirements for Certificate of Compliance for Club Premises

- In the wake of the above revision, Standard Licensing Requirements for Certificate of Compliance for Club Premises has therefore been updated to align it with the revised fire safety requirements for emergency lighting systems in licensed/registered premises.
- The salient points of the updates will be introduced now.



	Items	Applicable
1.11	Where the premises are partitioned into cubicles/rooms for use by members/guests, every such cubicle/room shall be provided with a fire alarm bell connected to the main system.	
1.12	The club management shall comply with the additional requirements for Self- contained Luminaries Emergency Lighting System at Appendix IIA.	
1.13	If Polyurethane (PU) foam filled mattresses and upholstered furniture are used in the club, they shall meet the flammability standards as specified in British Standard BS 7177: 1996 and BS 7176: 1995 (or their latest editions) for use in medium hazard premises/building or standards acceptable to the Director of Fire Services. (See Appendix IIB).	
1.14	It is noted that sprinkler system has been provided in your club under application. In this connection, you are required to ensure that all parts of the premises are adequately protected by the system after renovation work.	
1.15	Visual alarm signals in addition to audio warning device shall be provided to the entire premises. The design of which shall be in accordance with the Codes of Practice for Minimum Fire Service Installations & Equipment to	



# The old version

**Appendix IIA** 

PPA/104(A) (4<sup>th</sup> Revision)

# Requirements for Self Contained Luminaires Emergency Lighting Systems

#### A. Definition

- 1. Luminaire means an apparatus which distributes, filters and transforms the light given by a lamp or lamps and which includes all the items necessary for fixing and protecting these lamps and for connecting them to the supply circuit.
- 2. Self-contained emergency lighting luminaire means a luminaire providing maintained or non-maintained emergency lighting in which all the elements, such as battery, the lamp, the control unit and the test and monitoring facilities, where provided, are contained within the luminaire or adjacent to it (that is, within 1 metre).

### B. Specification

3. Emergency lighting luminaires shall comply with the non-flammability (resistance to flame and ignition) provisions specified in BS EN 60598-2-22:1999 and external parts shall also be subjected to the 850 °C glowing/hot wire test; any burning parts should self-extinguish within 30 seconds.



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#### FIRE SERVICES DEPARTMENT

#### LICENSING AND CERTIFICATION COMMAND

5/F, Fire Services Headquarters Building No. 1 Hong Chong Road, Tsim Sha Tsui East Kowloon, Hong Kong

25 May 2021

To: Recipients of FSD Circular Letters

Dear Sir/Madam,

#### FSD Circular Letter No. 5/2021

# Fire Safety Requirements for Emergency Lighting Systems in Licensed/Registered Premises

This Circular Letter serves to announce two revised sets of fire safety requirements for emergency lighting systems with central power supply and self-contained luminaires emergency lighting systems, i.e. Requirements for Emergency Lighting Systems with Central Power Supply [PPA/104 (5<sup>th</sup> Revision)] and Requirements for Self-contained Luminaires Emergency Lighting Systems [PPA/104(A) (5<sup>th</sup> Revision)], which are to be imposed by this Department on various licensed/registered premises such as food premises, cinemas / theatres, places of public entertainment, child care centres, non-designed schools, massage establishments, etc. Meanwhile, the FSD Circular Letter No. 1/2006 is hereby superseded by this Circular Letter.

Since the promulgation of FSD Circular Letter No. 1/2006, two sets of fire safety requirements for emergency lighting systems to be used in licensed/registered premises, viz. PPA/104 (4<sup>th</sup> Revision) and PPA/104(A) (4<sup>th</sup> Revision), have been released for observance by the concerned trades and practitioners for years. With a view to keeping the fire safety requirements in pace with technological advancement and to enhancing the fire safety standards in licensed/registered premises, a Sub-working Group of Fire Safety Standard

4<sup>th</sup> Revision → 5<sup>th</sup> Revision (1/2006) (5/2021)



https://www.hkfsd.gov.hk/eng/fire\_protection/notices/circular.html



Apart from updating of relevant requirements with reference to the current international/national standards, main areas of revision are as follows:

- (a) Minimum fire resisting cable requirements for Fire Service Installations as specified in FSD Circular Letter No. 2/2017;
- (b) Routine inspection and test for emergency lighting systems conforming to relevant requirements of BS EN 50172 : 2004;
- (c) Provision of escape lighting in facility which is part of an escape route [applicable to PPA/104 (5<sup>th</sup> Revision) only];
- (d) Performance verification for emergency lighting systems [applicable to PPA/104 (5<sup>th</sup> Revision) only]; and
- (e) Minimum period of 2-hour (rated duration) specified for self-contained luminaires emergency lighting systems [applicable to PPA/104(A) (5<sup>th</sup> Revision) only]



#### 4th Revision

1. The Emergency Lighting Systems shall comply with British Standard 5266-1:1999 and BS EN 1838:1999 except that exit sign shall comply with Section 5.10 of the Code of Practice for Minimum Fire Service Installations and Equipment.

### 5<sup>th</sup> Revision

Luminaire means an apparatus which distributes, filters and transforms the light given by a lamp
or lamps and which includes all the items necessary for fixing and protecting these lamps and
for connecting them to the central supply circuit. It shall conform to the requirements of BS
5266-1: 2016 and BS EN 1838: 2013 urless otherwise specified below.



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Apart from updating of relevant requirements with reference to the current international/national standards, main areas of revision are as follows:

- (a) Minimum fire resisting cable requirements for Fire Service Installations as specified in FSD Circular Letter No. 2/2017;
- (b) Routine inspection and test for emergency lighting systems conforming to relevant requirements of BS EN 50172: 2004;
- (c) Provision of escape lighting in facility which is part of an escape route [applicable to PPA/104 (5th Revision) only];
- (d) Performance verification for emergency lighting systems [applicable to PPA/104 (5<sup>th</sup> Revision) only]; and
- (e) Minimum period of 2-hour (rated duration) specified for self-contained luminaires emergency lighting systems [applicable to PPA/104(A) (5<sup>th</sup> Revision) only]







## FIRE SERVICES DEPARTMENT LICENSING AND CERTIFICATION COMMAND

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21 September 2017

To: Recipients of FSD Circular Letters

Dear Sir/Madam,

#### FSD Circular Letter No. 2/2017

#### Minimum Fire Resisting Cable Requirements for Fire Service Installations

This Circular Letter announces the revised minimum fire resisting cable requirements for Fire Service Installations (FSI) which supersede relevant requirements stipulated in the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment, April 2012 (FSI Codes) and relevant FSD Circular Letters.

With a view to keeping fire safety requirements in pace with technological advances in the FSI industry, the Fire Services Department has established a working group under the Fire Safety Standard Advisory Group to review the minimum fire resisting cable requirements for FSI. After a comprehensive research and consultation with key stakeholders, the revised requirements have been formulated and appended in the Appendix I for observance. To this effect, FSD Circular Letter No. 1/2003 and the following cable requirements will be superseded or amended:

#### A. Requirements to be superseded

Item	FSI	Details
1	Sprinkler	(a) Paragraph 5.15 of Part V of FSI Codes (LPC Rules for
	system	Automatic Sprinkler Installations incorporating BS EN
		12845); and



## B. Specification

- Emergency lighting luminaires shall be compliant with the glow wire test as stated in sub-clause 13.3.2 of IEC 60598-1 but at a temperature of 850°C.
- 4. All power cables extended outside the enclosure of a self-contained emergency lighting luminaire, other than the wiring connecting the luminaire to normal supply shall conform to:
  - (a) BS EN 50200: 2015 (PH60) and Annex E of BS EN 50200: 2015 (a duration of survival time of 30 minutes) and one of the following standards:
    - (i) BS EN 60702-1: 2002 + A1: 2015 & BS EN 60702-2: 2002 + A1: 2015
    - (ii) BS 7629-1: 2015 (Cat. Standard 60)
    - (iii)BS 7846: 2015 (Cat. F2 for cables of overall diameter not exceeding 20mm); or
  - (b) BS 6387: 2013 Cat. CWZ.

Remark: The use of fire resisting cables may be exempted under the relevant conditions stipulated in FSD Circular Letter No. 2/2017 - Minimum Fire Resisting Cable Requirements for Fire Service Installations.



https://www.hkfsd.gov.hk/eng/fire\_protection/notices/circular.html



Apart from updating of relevant requirements with reference to the current international/national standards, main areas of revision are as follows:

- (a) Minimum fire resisting cable requirements for Fire Service Installations as specified in FSD Circular Letter No. 2/2017;
- (b) Routine inspection and test for emergency lighting systems conforming to relevant requirements of BS EN 50172 : 2004;
- (c) Provision of escape lighting in facility which is part of an escape route [applicable to PPA/104 (5th Revision) only];
- (d) Performance verification for emergency lighting systems [applicable to PPA/104 (5<sup>th</sup> Revision) only]; and
- (e) Minimum period of 2-hour (rated duration) specified for self-contained luminaires emergency lighting systems [applicable to PPA/104(A) (5<sup>th</sup> Revision) only]



### 5<sup>th</sup> Revision

- 14. Periodic tests shall be carried out to each luminaire according to the following procedures:
  - (a) Once every month a functional test in accordance with BS EN 50172:2004 not longer than 10% of rated duration should be carried out
  - (b) Once twelve-month a full rated duration test should be carried out and result should be entered in a register.
  - (c) The luminaire should be functioning properly to maintain the stipulated lighting level and the normal power supply should be restored after the test.
  - (d) If automatic testing devices are used, Paragraphs C.14 (a) to C.14 (c) above should be complied with.



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- (b) Routine inspection and test for emergency lighting systems conforming to relevant requirements of BS EN 50172: 2004;
- (c) Provision of escape lighting in facility which is part of an escape route [applicable to PPA/104 (5<sup>th</sup> Revision) only];
- (d) Performance verification for emergency lighting systems [applicable to PPA/104 (5th Revision) only]; and
- (e) Minimum period of 2-hour (rated duration) specified for self-contained luminaires emergency lighting systems [applicable to PPA/104(A) (5<sup>th</sup> Revision) only]



### 5<sup>th</sup> Revision

20. Facilities exceeding 8m² gross floor area and facilities of less than 8m² without borrowed light shall be provided with escape lighting complying as if they were part of an escape route. For clarity, escape route means a route forming part of the means of escape from a point in a building to a final exit. Borrowed light means the light obtained from an adjacent reliable source such as emergency lighting luminaires, exit signs and directional signs that is available at all material times. Escape lighting means part of emergency lighting which is provided to ensure the escape route is illuminated at all material times.



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Apart from updating of relevant requirements with reference to the current international/national standards, main areas of revision are as follows:

- (a) Minimum fire resisting cable requirements for Fire Service Installations as specified in FSD Circular Letter No. 2/2017;
- (b) Routine inspection and test for emergency lighting systems conforming to relevant requirements of BS EN 50172 : 2004;
- (c) Provision of escape lighting in facility which is part of an escape route [applicable to PPA/104 (5th Revision) only];
- (d) Performance verification for emergency lighting systems [applicable to PPA/104 (5<sup>th</sup> Revision) only]; and
- (e) Minimum period of 2-hour (rated duration) specified for self-contained luminaires emergency lighting systems [applicable to PPA/104(A) (5<sup>th</sup> Revision) only]



## 5<sup>th</sup> Revision

24. Performance as stipulated in paragraphs B.7, B.8 and B.13 above shall be verified by a Registered Fire Service Installation Contractor / Works Specialist / Works Agent by means of manufacturer's specifications/certificates/calculations and testing & commissioning conducted on site.



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- (a) Minimum fire resisting cable requirements for Fire Service Installations as specified in FSD Circular Letter No. 2/2017;
- (b) Routine inspection and test for emergency lighting systems conforming to relevant requirements of BS EN 50172 : 2004;
- (c) Provision of escape lighting in facility which is part of an escape route [applicable to PPA/104 (5<sup>th</sup> Revision) only];
- (d) Performance verification for emergency lighting systems [applicable to PPA/104 (5<sup>th</sup> Revision) only]; and
- (e) Minimum period of 2-hour (rated duration) specified for self-contained luminaires emergency lighting systems [applicable to PPA/104(A) (5<sup>th</sup> Revision) only]



### 4th Revision

 The self-contained luminaires emergency lighting systems shall be capable of maintaining the stipulated lighting levels for a period of not less than one hour (rated duration).

## 5<sup>th</sup>/Revision

6. The self-contained luminaires emergency lighting system shall be capable of maintaining the stipulated lighting levels for a minimum period of 2 hours (rated duration).



# Revision of Emergency Lighting Systems in Club House

# Reminder

- For clarification of Fire Safety Requirements for Emergency Lighting Systems, Fire Services Department (FSD) is the only legitimate authority to be consulted.
- The two revised sets of requirements, viz. PPA/104(5th Revision) and PPA/104(A) (5th Revision) can be downloaded from the FSD's official website:

https://www.hkfsd.gov.hk/eng/fire\_protection/notices/circular.html

