

Fire Safety Standards Advisory Group (FSSAG)
Matter Discussed in the 63rd FSSAG Meeting held on 1 September 2020

1. *Review of the Requirements for Emergency Lighting*

- ***Routine Inspection & Tests for Self-contained Emergency lighting System***
- ***Review of PPA 104 (Issued under cover of FSD Circular Letter No. 1/2006)***

The draft 5th Revision of PPA(104) and PPA(104A) had been updated with incorporating SWG members' comment given in June 2020. Copy of the latest draft together with FSD's response had been circulated to all FSSAG members on 31.8.2020 for comment.

It had been concluded that if no further comment on the draft 5th Revision of PPA(104) and PPA(104A) had been received, the department would prepare the Circular Letter according to the finding and recommendation of the SWG.

No comment received from FSSAG members on the review tables for local application of BS 5266-1:2016 and BS EN 1838:2013 with updated Inspection, Testing and Maintenance requirements of emergency lighting for centralised battery system and self-contained type emergency lighting. The review tables of Standard for local application would be revamped according to proposed format as that for "Technical Guidance for LPC Sprinkler rules 2015 incorporating BS EN 12845" and the draft "Technical Guidance for application of BS 5266-1:2016 and BS EN 1838 : 2013 for Emergency Lighting System in Hong Kong" would be distributed to members for comment after the meeting.

The Technical Guidance was like a summary book which was a new format introduced by FSD for facilitating readers to follow the standard and requirement of a subject matter easily. The new format was firstly introduced in the 12845 SWG which was welcomed and supported by members of the SWG. Members discussed the issue and expressed strong support of using Technical Guidance.

2. *Enhancement on Application Procedure for Approval/Acceptance of Fire Service Installations and Equipment (FSI) and other Products*

The facilitation measures of application procedure for approval/acceptance of FSI and other Products, FSD Circular Letter No. 3/2020 had been promulgated on 15.7.2020. Apart from the "Guidance for Application for Approval of Portable Equipment / Acceptance of Fire Service Installations and Equipment and Fire Safety Products", newly designed "Application Form for Approval of Portable Equipment / Acceptance of FSI and other products" and revised "Fire

Service Installations - Equipment List”, measures including pre-vetting mechanism and adjustment of acceptance/approval validity period were also introduced. Such measures regarding acceptance / approval of FSI and Fire Safety Products would be put into effect from 1.1.2021. The aforesaid facilitation measures were also introduced in ‘FSD Connects’ vide Webinar on 17.7.2020 with relevant contents uploaded in FSD’s website.

In the liaison meeting between FSICA and FSD which was held on 24.8.2020, the trade expressed their concerns about the acceptance criteria of Pressure Reducing Valve (PRV) of FH/HR and Sprinkler System which had been highlighted in the revised “Fire Service Installations - Equipment List”. To ensure the safety and compatibility of PRV, the meeting agreed that PRV should be tested to corresponding international/national standard(s) before use. During the meeting, it was suggested that “PRV” should comply with BS EN 1567:1999 or equivalent standard(s) which was the standard adopted by WSD for approval. In case BS EN 1567:1999 was not applicable to the subject PRV, other applicable standard(s) should be adopted instead, such as GB/T 12244-2006 and UL 1468 subject to the acceptance of FSD.

For “PRV” which had been approved by WSD, FSD would take it as supplementary information ONLY and separate application should be submitted to FSD for vetting.

Some FSICA members’ concern on the validity of the FSI equipment, especially those without validity date. It was reiterated that for FSI equipment approved by FSD before 1.1.2021, the validity date would generally follow the one stated in the FSD’s acceptance letter issued for the product. For individual FSI equipment approved by FSD before 1.1.2021 without validity date, such equipment could be recognized as valid as long as the product still met the standard and requirement at that point in time.

3. *Implementation of BS 5839: 2017 “Fire Detection and Fire Alarm Systems for Buildings – Part 1: Code of Practice for Design, Installation, Commissioning and Maintenance of Systems in Non-domestic Premises”*

The lists of amendment for the review of BS 5839-1:2017 would be revamped according to proposed format as that the *Technical Guidance for LPC Sprinkler rules 2015 incorporating BS EN 12845*. The draft Technical Guidance for BS 5839-1:2017 would be distributed to members for comment after the meeting. Members’ comment on the checklist for Fire detection and Fire Alarm System was received on 8.6.2020. The draft was being finalized and would be distributed to members for comments together with the draft Technical Guidance.

4. *Review on LPC Sprinkler Rules 2015 incorporating BS EN 12845*

The *Technical Guidance on Application of LPC Rules for Automatic Sprinkler Installations 2015 incorporating BS EN 12845 in Hong Kong* had been developed based on the review result from SWG meeting. The draft of the Technical Guidance had been circulated and discussed with SWG members on 21 August 2020. The Circular Letter concerned was under preparation and would be issued soon.

It had been summed up that the *Technical Guidance on Application of LPC Rules for Automatic Sprinkler Installations 2015 incorporating BS EN 12845 in Hong Kong* would be circulated to FSSAG members for perusal after the meeting. Members' comments should be forwarded to FSD. It was expected that the Circular Letter together with the Technical Guidance would be issued in the near future.

5. *Automatic Operated Total Flooding Systems complying with NFPA Standard 2001*

The revised proposals from FSICA were received and he further elaborated FSD's latest views on respective issue for discussion of members:

(i) Enclosure integrity requirement

- New Clean agent gas suppression system installed in new/existing development

In view that there was no physical constraint to the proper conduction of the enclosure integrity test according to Annex C of NFPA 2001:2018 for new system installation looking for acceptance inspection by FSD, the submission of a test report justifying the compliance of the enclosure with the standard in the stage of FSI/501 and FSI/501A was considered reasonable and workable.

After exchanging views amongst members on the professional party suitable for endorsing the test report with declaration, it was agreed that the project Authorised Person should undertake the related responsibility.

The Authorised Person should also declare that no work affecting the enclosure integrity was carried out after the completion of the test.

- Annual inspection on clean agent gas suppression system

Since existing clean agent gas suppression system installed according to NFPA 2001:2015 or before, enclosure integrity test was not essentially required and conducted at the time of acceptance inspection. Annual maintenance for those

systems should follow the current practice and enclosure integrity test and report were not required when FS 251 was submitted to FSD.

However, for systems installed according to NPFA 2001:2018, annual maintenance by FSIC should include the enclosure integrity with test report justifying the compliance of the system with the requirements of the standard appended to FS 251, or right after A&A works to the enclosure was done with a view to closely following the requirements of the standard.

After members' active discussions on the pros and cons of the practice and the workability, members were invited to collect views from the parties they were presenting before next meeting for analysis and integration.

(ii) Egress time study

A letter from the project Authorised Person confirming the development design in compliance with the Means of Escape stipulated in the Code of Practice for Fire Safety in Buildings (2011), or evacuation time calculation in fire engineering report accepted by the Buildings Department should be submitted when submitting FSI/501.

(iii) Integrate building fire alarm system to serve as a clean agent suppression system releasing control panel

Individual release control panel for respective system was commonly adopted in local building contracting. To integrate the system actuation function into the FS control panel listed for system release for overall system integrity and reliability was not necessary.

The standard did not mandatorily limit the use of FS control panel listed for system release for such operation. Hence there should be free hand for the Authorised Person and consultant to deliberate the most suitable system arrangement to suit the client's need. The system status and alarm signs of the system should be clearly indicated in the FS control panel in case of system actuation by individual release control panel.

In order to ease the project proponent and Authorised Person and FSIC preparing their FSI/501 and FSI/501A, the Document Checklist due to (i) and (ii) above would be updated accordingly in the coming FSD Circular Letter. Members' comments on the aforesaid issues should be forwarded to FSD for consideration and consolidation. Meanwhile, FSD would prepare a Circular Letter in these aspects.

6. *Inspection, Maintenance, Modification and Repair of Fire Service Installations and Equipment with Moving Parts*

After the implementation of the AI checklists for FH/HR system and Supply Tank, the drafting of AI Checklist for sprinkler system was in progress. Consultations with the trade were conducted and valuable comments were received. In this regard, Members' comments, if any, should be forwarded to FSD for consideration. The draft checklist was being finalized.

7. *FSI Provisions for Automated Parking Facility (APF)*

Information Paper had been issued to relevant departments to invite comments and views. Further development on the FSI provisions for APF would be reported in next meeting.

8. *Testing of Long-Throw Sprinkler System*

No further enquiry from members had been received, this item was suggested to be deleted. Members agreed to delete this item in the next meeting.

9. *Handling of Long Outstanding FSI Acceptance Inspection Cases*

Re-inspection arrangement through written request from project AP to FSD had been better coordinated. This item could be deleted. Members agreed to delete this item in the next meeting.

10. *Demarcation and Extent of Fire Resistant Cables for FSI and interfacing with other Building Services Installations (FSICA)*

Members were briefed of the issue. In this regard, FSICA had prepared two diagrams for Members' perusal and discussion.

Members discussed the issue in detail. Due to the complexity of the issue, it was concluded that the issue would be further discussed in the BS 5839-1:2017 Sub-working Group Meeting.

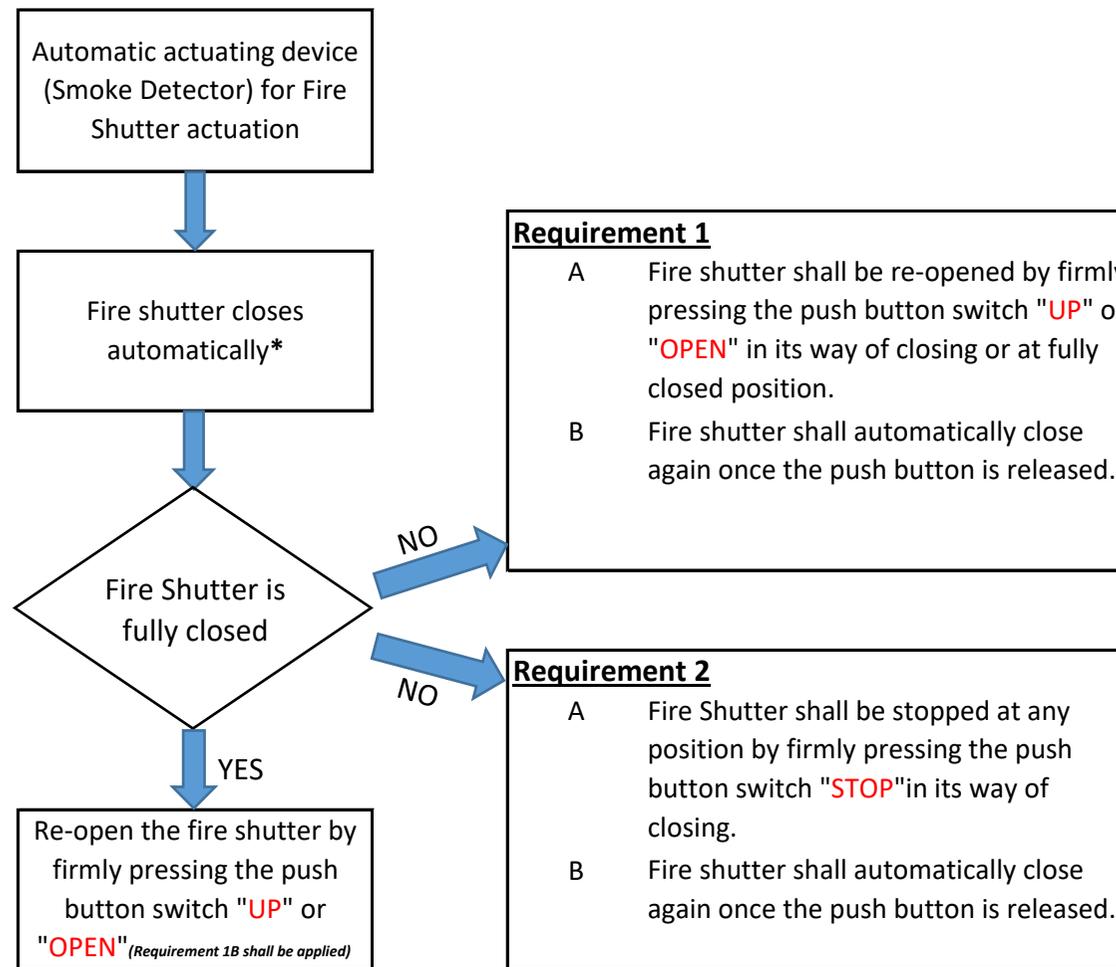
11. Operation Procedure of Fire Shutter (All Types) under Fire Alarm Mode (Appendix 2a) (FSICA)

The operation procedures depicted in Appendix 2a for the sake of arriving a commonly agreed procedures for operating fire shutters by manual control on both sides of the shutters in acceptance inspection.

A revised Appendix 2a with clear operation procedures with statutory requirements added. Members after checking the revised Appendix 2a agreed to the principle for adoption and FSD would further refine the flow chart for appending to the Minutes of this meeting. (The refined flow chart is appended as [**Appendix 2a** (final version)]).

OPERATION PROCEDURE OF FIRE SHUTTER (ALL TYPES) UNDER FIRE ALARM MODE

Appendix 2a
(Final version)



Remarks :

- 1 Push button switch "UP" is for vertical type shutters.
- 2 Push button switch "OPEN" is for lateral and horizontal type shutters.
- 3 Under the fire alarm mode, fire shutter shall be always automatically re-closed when it is fully opened until the fire signal is totally reset.
- 4 For any horizontal travelling fire shutter over 12m in width, if the above procedures cannot be adopted, project-based approval shall be sought from FSD for alternative.
- 5 Actuation of any automatic actuating device (Smoke Detector) for fire shutter(s) forming compartment shall operate all fire shutters for that fire compartment openings. (Refer to minute of FSSAG Meeting No. 56)

- * a. Vertical fire shutter for opening of height $\leq 2.5\text{m}$, the descending time shall not be faster than 8 s, and that the bottom rail of the shutter shall reach the mid-height in not less than $\frac{1}{2}$ the total descending time of the shutter.
- b. Vertical fire shutter for opening of height $> 2.5\text{m}$, the descending time shall be within 15 s to 60 s.
- c. Horizontal fire shutter shall be able to close off the opening within 60 s at travelling speed $\leq 0.2\text{ m/s}$, or the safety limit specified by the equipment manufacturer.