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消防处通函第1/2009号
建筑物的火警侦测与火警警报系统准则

本通函旨在公布采用已予修订的英国标准BS 5839-1:2002 + A2:2008 - 建筑物的火警侦测与火警警报系统 - 第1部分：系统设计、安装、完工测试与维修守则。

英国标准BS 5839-1: 2002年版本公布后，消防安全标准咨询小组随即研究在本港采用该新版本是否切实可行。经过充分讨论并广泛咨询业界和各有关方面后，该小组已完成有关的研究工作，并建议在本地采用该英国标准BS 5839-1:2002 + A2:2008，但须根据随函夹附的表一至表三(只有英文版本)作出修订。本人现批签有关建议。

新标准将由二零零九年九月一日起生效，适用于所有本处初次收到的楼宇图则。此外，现行《最低限度之消防装置及设备守则》所引述的英国标准BS 5839:第1部分:1988将于稍后修改。

本通函取代消防处通函第1/2002号。

消防处处长

(黎文轩

代行)

连附件

二零零九年七月十六日

Recommendations of the Working Group
for Fire Safety Standards Advisory Group

Except those named in the following lists, all clauses (except commentary clauses*) stipulated in BS 5839 – 1: 2002 + A2:2008 (including Notes and Recommendations) are to be followed:-

- List One : Clauses not to be applied
- List Two : Clauses to be replaced by modified conditions
- List Three : Clauses to be taken as reference only

Abbreviations:

The following abbreviations shall be used in this document.

BS	- BS 5839 – 1 : 2002 + A2:2008 – Fire detection and fire alarm systems for buildings – Part 1: Code of practice for system design, installation, commissioning and maintenance
EECoP	- Code of Practice for the Electricity (Wiring) Regulations issued by the Electrical and Mechanical Services Department
FRC Code	- Code of Practice for Fire Resisting Construction, 1996 issued by the Buildings Department
FSCC	- Fire Services Communication Centre
FSCoP	- Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment issued by the Hong Kong Fire Services Department
FSD	- Hong Kong Fire Services Department
MOA Code	- Code of Practice for the Provision of Means of Access for Firefighting and Rescue, 2004 issued by the Buildings Department
MOE Code	- Code of Practice for the Provision of Means of Escape in Case of Fire, 1996 issued by the Buildings Department

Definition:

The following definitions are to be used in this document.

List One	: Clauses not to be applied
List Two	: Clauses to be replaced by modified conditions
List Three	: Clauses to be taken as reference only (Note that these clauses may be applied provided that there are no conflicts with other regulations of Hong Kong)

* Remarks:

The clauses of BS 5839 – 1: 2002 + A2:2008 are arranged into two parts, namely commentary and recommendations. Only the requirements as stipulated in the recommendations (including Notes) need to be followed for compliance with BS 5839 – 1: 2002 + A2:2008. The commentary only serves as an explanatory background to the recommendations, especially if the recommendations might appear to be arbitrary.

List One: Clauses not to be applied

List One : Clauses not to be applied
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Reason
1.1	Forward 5 th to 9 th Paragraphs (page v)	<p>In England, Wales and North Ireland, to existing buildings.</p> <p>In England, Scotland and Wales, in Northern Ireland.</p> <p>Various other legislation, including licensing legislation, local Acts, housing legislation and alarm systems.</p> <p>Although this standard makes recommendations for the provision of fire detection and alarm systems in a wide variety of premises, reference to particular types of premises in Annex A does not necessarily mean that all such premises will be required by law to have such systems installed. In by a competent person.</p> <p>The fire authority will advise legislation is advisable.</p>	The provision of fire detection and alarm systems in Hong Kong shall follow local regulations and FSCoP.
1.2	Clause 1 Para. 9 (page 1)	Recommendations for fire detection and alarm systems in electronic data processing installations and similar critical electronic equipment rooms are given in BS 6266, which provides recommendations over and above those given in this part of BS 5839.	To follow the local requirements of FSCoP.
1.3	Clause 1 Para. 10 (page 1)	Recommendations for fire detection and alarm systems in hospitals are given in the NHS Estates publication HTM 05-03 Part B82 (in England and Wales) or SHTM 82 (in Scotland).	To follow the local requirements of FSCoP.
1.4	Clause 8.2 (page 18, 19)	Entire Clause 8.2 – Recommendations	The provision of fire detection and alarm systems in Hong Kong shall follow local regulations and FSCoP. Classification of systems into 'L1, L2...P1, P2 etc. is not to be adopted in Hong Kong.
1.5	Clause 12.2.2 k) Note 6 (page 24)	The figures of 4 000m ² and 500 members of the public are arbitrary, as a variation from the recommendations of this standard.	To eliminate possible grey area in the execution of this standard.
1.6	Figure 2 (page 27)	Figure 2 - Examples of search distances in open area [see 13.2.3b]	The MOE and MOA Codes should be followed.
1.7	Clause 16.2.2 (page 35)	Entire Clause 16.2.2 – Recommendations applicable to Category P Systems	To follow local requirement. There is no such classification.

List One : Clauses not to be applied
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Reason
1.8	Clause 16.2.3 (page 35)	Entire Clause 16.2.3 – Recommendations applicable to hospitals and residential care premises	To follow the modified requirements in Clause 16.2.1
1.9	Figure 4 (page 35)	Figure 4 - Sound pressure levels [see 16.2.1a]	To align with the current local practice as stipulated in item 2.19 of FSD Circular Letter No. 1/2002.
1.10	Clause 20.2 d) (page 41)	Distribution of manual call points should be such that no one need travel more than 45 m (except where 20.2e) applies) to reach the nearest manual call point, If, at the design stage, the final layout of the premises is unknown, the maximum straight line distance between any point in the building and the nearest manual call point should not exceed 30 m (except where 20.2e) applies); after final fit out of the premises, the limit of 45 m should still then apply. NOTE 3 to many premises.	To follow local practice.
1.11	Clause 20.2 e) (page 41)	The figures of 45 m and 30 m of highly flammable liquids or flammable gases).	Location of manual call points shall follow the amended Clause 20.2 c) to suit local practice.
1.12	Clause 20.2 f) (page 41)	Where specific equipment or activities NOTE 4 In both examples given above..... Should comply with the requirement of BS EN 54-11.	To follow local requirement.
1.13	Clause 20.2 h) Note 6 (page 42)	The figure of 1.4 m is arbitrary, but reflects long established custom and practice. A minor difference (e.g. less than 200 mm) in mounting height Recorded as a variation.	To follow local requirement.
1.14	Clause 20.2 i) Note 7 (page 42)	Guidance in support of national building regulations so that they are accessible for disabled people.	To follow local requirement.
1.15	Figure 5 (page 42)	Figure 5 – Manual call points on escape routes [see 20.2c]	To eliminate any possible ambiguity in requirements.
1.16	Clause 25.4 Para. (e)(3) (Page 67)	For a Category P system in which either of the following apply, the capacity should be sufficient to maintain the system in operation for at least 24 h, ,if required, the previously agreed service provider immediately on receipt of a fault indication from the premises.	To suit local practice
1.17	Clause 25.4 Para. (e)(4) (Page 68)	For all other Category P systems, the capacity should be sufficient to maintain the system in operation for at least 24 h longer than the maximum period for which the premises are likely to be unoccupied or for 72 h in total, power supply fault signals should also be automatically transmitted to the alarm receiving centre, for immediate notification of a keyholder.	To suit local practice
1.18	Clause 27.2 (Page 76, 77)	Entire Clause 27.2 – Recommendations	Radio-linked systems are not applicable locally.

List One : Clauses not to be applied
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Reason
1.19	Clause 36.2 l) Note 1 (page 98)	Further guidance is given in BS 6651:1999, in particular in Clause 19 and A.2 of that standard.	To follow local requirements.
1.20	Clause 39.2 c)25) (page 102)	In radio-linked systems, radio signal strengths are adequate throughout all areas of the protected premises to ensure reliable operation of the system;	Radio-linked system is not used locally.
1.21	Clause 39.2 d) (page 103)	Unless already undertaken and documented by the installer, theshould be carried out at commissioning, these tests should be carried out and the results recorded.	Practice not to be adopted locally.
1.22	Clause 40.2 a) (page 103)	Certificates for design, installation and commissioning of the system (see Clause 41)	Practice not to be adopted locally.
1.23	Clause 40.2 e) and f) (page 104)	A record of any agreed variations from the original (e.g. insulation resistance test records or commissioning records).	Practice not to be adopted locally.
1.24	Clause 41.2 (page 105)	Entire Clause 41.2 – Recommendations	Practice not to be adopted locally.
1.25	Clause 42.2 (page 105, 106)	Entire Clause 42.2 – Recommendations	Practice not to be adopted locally.
1.26	Clause 43.2 (page 107)	Entire Clause 43.2 – Recommendations	Practice not to be adopted locally.
1.27	Clause 45.3 m) (page 111)	Radio systems of all types should be serviced in accordance with the recommendations of the manufacturer.	Radio-linked system is not applicable locally
1.28	Clause 45.4 (m) (page 113)	Radio signal strengths in radio-linked systems to which Clause 27 applies should be checked for adequacy.	Radio-linked system is not applicable locally
1.29	Annex A (page 119, 120)	Whole of Annex A – Choice of appropriate category of fire detection and alarm system	To suit local practice
1.30	Annex G (page 128 - 135)	Whole of Annex G – Model certificate	To suit local practice

List Two : Clauses to be replaced by modified conditions

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.1	Clause 1 Para. 1 (page 1)	This part of BS 5839 provides recommendations for the planning, design, installation, commissioning and maintenance of fire detection and fire alarm systems in and around buildings, other than dwelling. It does not recommend whether or not a fire alarm system should be installed in any given premises. Recommendations for fire detection and alarm systems in dwellings are given in BS 5839-6.	This part of BS 5839 provides recommendations for the planning, design, installation, commissioning and maintenance of fire detection and fire alarm systems in and around buildings. It does not recommend whether or not a fire alarm system should be installed in any given premises.	To follow local requirements of FSCoP.
2.2	Clause 1 Para. 6 (page 1)	This part of BS 5839 does not cover the systems combining fire alarm functions with other non-fire related functions. Recommendations for such integrated systems are given in DD CLC/TS 50398.	This part of BS 5839 does not cover the systems combining fire alarm functions with other non-fire related functions.	DD CLC/TS 50398 is not practiced locally.
2.3	Clause 1 Last Paragraph (page 1)	This part of BS 5839 applies to extensions and alterations to existing systems, at least in respect of the design, installation, commissioning and certification of the new work, albeit that the extended or altered system might not, overall, comply with the recommendations of this standard.	This part of BS 5839 applies to extensions and alterations to existing systems, unless such extension and alteration do not involve major alterations and additions to the building in excess of 50% by volume.	To follow the same spirit as that stipulated in Part VI of FSD Circular Letter No. 4/96.
2.4	Clause 3.2 (page 3)	alarm receiving centre ARC	alarm receiving centre ARC Approved service provider's Computerized Fire Alarm Transmission System or approved manned centre.	To follow local situation.
2.5	Clause 3.22 (page 5)	Fire-resisting construction Construction that is able to.....criteria given in the relevant parts of BS 476.	Fire-resisting construction Construction that is able to.....criteria given under the relevant Building Regulations.	To tie in with local regulations.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.6	Clause 3.35 (page 6)	maximum alarm load maximum load imposed on a fire alarm system power supply under fire conditions, comprising the power required for simultaneous operation of all fire alarm devices.....for transmission of fire signals to an alarm receiving centre (if facility for this provided)	maximum alarm load maximum load imposed on a fire alarm system power supply under fire conditions, comprising the power required for simultaneous operation of the general alarms (external alarm bell adjacent to the main entrance(s) and main control panel) and all fire alarm devices in the two alarmed areas requiring the largest power consumption, fire signals from an automatic fire detector and a manual call point in the building, any power drawn by other systems and equipment in the alarm condition and any power required for transmission of fire signals to an ARC where provided.	To clarify the calculation for the maximum alarm load.
2.7	Clause 3.64	–	Clause 3.64 Fire Service Access Point Fire service access point is a place of a building/development designated for the access of fire service according to Clause 9.1 of the MOA Code.	To add the definition for “Fire service access point” as Clause 3.64.
2.8	Clause 3.65	–	Clause 3.65 Place of Ultimate Safety Place of ultimate safety is a place of a building/development provided according to Clauses 8.2 and 8.3 of the MOE Code.	To add the definition for “Place of Ultimate Safety” as Clause 3.65.
2.9	Clause 4 Paragraph 4.2 (page 10)	The following recommendations are ----- of enforcing authorities and insurers.	The need for a fire alarm system shall be as specified in the FSCoP.	To follow local requirements of FSCoP.
2.10	Clause 9.2 b) (page 19)	If no part of BS 7273 is applicable, any special requirements for system design should be identified in the purchase specification or design proposals.	If no part of BS 7273 is applicable, any special requirements for system design should be agreed with FSD.	To suit local requirement.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.11	Clause 10.2 a) (page 20)	Any system (or part of a system) protecting an area, or with cable passing..... should comply with the requirements of BS EN 60079-14.	Any system (or part of a system) protecting an area, or with cable passing..... should comply with the requirements of BS EN 60079-14 or other standards accepted by FSD.	To allow more flexibility by adopting other standards in addition to the quoted BS EN standard.
2.12	Clause 10.2 b) (page 20)	Any system (or part of a system) protecting an area, or with cable passing..... should comply with the requirements of BS EN 50281-1-2.	Any system (or part of a system) protecting an area, or with cable passing..... should comply with the requirements of BS EN 50281-1-2 or other standards accepted by FSD.	To allow more flexibility by adopting other standards in addition to the quoted BS EN standard.
2.13	Clause 12.2.1 Para. 1 (page 22)	The following recommendations are applicable.	The following recommendations are applicable unless otherwise agreed by FSD. NOTE: If the control and indicating equipment has been listed by a product certification body recognised by FSD as detailed in FSD Circular Letter No. 1/2007, the requirements of the standard under which the equipment is listed should be followed.	To suit the local practice.
2.14	Clause 12.2.1 b) 4) (page 23)	reduction of the battery voltage to less than the voltagea fault warning shall be given (within 30 min. of occurrence).	reduction of the battery voltage to less than the voltage specified in BS EN 54-4 or other international standard acceptable to FSD at which a fault warning shall be given (within 30 min of occurrence).	To suit local requirement.
2.15	Clause 12.2.2 Para. 1 (page 23)	The following recommendations are applicable.	The following recommendations are applicable unless otherwise agreed by FSD. NOTE: If the control and indicating equipment has been listed by a product certification body recognised by FSD as detailed in FSD Circular Letter No. 1/2007, the requirements of the standard under which the equipment is listed should be followed.	To suit the local practice.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.16	Clause 12.2.2 a) (page 23)	A fault on one circuit containing manual call points, fire detectors or.....should not affect any other circuit.	A fault on one circuit containing manual call points, fire detectors or alarm devices, or a combination of them, should not affect any other circuit. NOTE For conventional system, a fault in one zone circuit should not affect other zone circuit(s), if any. For addressable system, a fault in one loop circuit should not affect other loop circuit(s), if any.	To clarify the requirement.
2.17	Clause 12.2.2 c) (page 23)	A single short circuit or open circuit fault on an automatic fire detector circuit should neither disable protection within an area of more than 2 000m ² , nor on more than one floor of a building plus maximum of five devices (automatic detection, manual call points, sounders or a combination of these) on the floor immediately above and five devices on the floor immediately below that floor.	A single short circuit or open circuit fault on an automatic fire detector circuit should neither disable protection within an aggregate floor area of more than 2 000m ² (calculated on those portions of the premises installed with fire detectors), nor on more than one floor of a building plus a maximum of five devices (automatic detection, manual call points, sounders or a combination of these) on the floor immediately above and five devices on the floor immediately below that floor.	To clarify the calculation method of 2 000m ² .
2.18	Clause 12.2.2 e) (page 23)	For software controlled512 detectorsBS EN 54-2 should be achieved.	For software controlled512 detectors BS EN 54-2 should be achieved. NOTE: If the control and indicating equipment has been listed by a product certification body recognised by FSD as detailed in FSD Circular Letter No. 1/2007, the requirements of the standard under which the equipment is listed should be followed.	To suit the local practice.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.19	Clause 12.2.2 f) 2) (page 23)	during the design stage, consideration should be given to the possibility of malicious removal of detectors. If malicious removal is considered likely, detectors of a type that can be removed only by the use of special tool or special technique should be used. Note 3 A special tool in this context is a tool not likely to be carried by a member of the general public. Slot-headed screw would not be acceptable, since various articles can be used as screwdrivers.	any removal of detector from the system shall trigger both the audio and visual fault alarm signals at the control and indicating equipment (CIE).	To avoid having detectors removed maliciously.
2.20	Clause 12.2.2 j) Note 5 (page 24)	The sounder that continues to operate will normally comprise one of the general alarm sounders in the area in which the control and indicating equipment is housed. In a building without phased evacuation, the alarm sounder will give an “Evacuate” signal until silenced. In a building with multi-phase evacuation, the sounder may give an “Evacuate” signal or “Alert” signal until silenced, according to the location(s) from which the fire alarm signal originates and the phase of the evacuation at the time in question.	The sounder that continues to operate will normally comprise one of the general alarm sounders in the area in which the control and indicating equipment is housed. The zoning on the sounder operation of the manual and automatic fire detection system shall comply with those requirements as stipulated in FSD Circular Letter No. 4/96 Part VIII.	The current requirements for the sounding of alarms shall be adopted.
2.21	Clause 12.2.2 k) (page 24)	either i) greater than 4 000 m ² in areas; or ii) designed to accommodate more than 500 members of the public	greater than 4 000 m ² in areas in a single compartment calculated on those portions of the premises installed with fire detectors.	To clarify the calculation method of 4 000m ² . Use of number of people is not practical.
2.22	Clause 12.2.2 m) (page 24)	Where a power supply unit or a standby battery(ies) are housed in a separate enclosure from the control and indicating equipment, any cable between that enclosure and the CIE should be suitably protected against overcurrent in accordance with BS 7671.	Where a power supply unit or a standby battery(ies) are housed in a separate enclosure from the control and indicating equipment, any cable between that enclosure and the CIE should be suitably protected against overcurrent in accordance with EECOP.	Local regulations shall be followed.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.23	Clause 13.2.1 a) (page 26)	If manual call points are located on the landings of an enclosed stairway [see 20.2c], the manual call point on each level, other than a final exit level from the stairway, should be incorporated within the zone that serves the adjacent accommodation on that level. A manual call point located within the stairwell at a final exit to open air may be incorporated within the detection zone serving the stairwell [see 13.2.3c].	The manual call points located within the stairwells at the final exits to open air on G/F or place of ultimate safety should be incorporated within the detection zone of the level /zone adjoining that final exit; i.e., the manual call point at final exit of staircase at ground floor level or place of ultimate safety shall be incorporated into the detection zone of ground floor or the level of the place of ultimate safety [see 13.2.3c].	To clarify the arrangement for the manual call points located at the final exits to open air.
2.24	Clause 13.2.1 b), c) (page 26)	b) If the total floor area of the building is greater than 300 m ² , each zone should be restricted to a single storey. c) If the total floor area of the building is less than 300 m ² , a zone may cover more than a single storey.	b) If the total floor area of the building is greater than 300 m ² calculated on those portions of the premises installed with fire detectors, each zone should be restricted to a single storey. c) If the total floor area of the building is less than 300 m ² calculated on those portions of the premises installed with fire detectors, a zone may cover more than a single storey.	To clarify the calculation method of 300 m ² .
2.25	Clause 13.2.1 d) (page 26)	For voids above or below the constitute a single fire compartment.	For voids above or below the constitute a single fire compartment. The meaning of compartment shall be as defined in the FRC Code	To clarify the definition of fire compartment.
2.26	13.2.2 (page 26)	The floor area of a single zone not exceed 10 000 m ² in area.	The zoning of manual call points (break glass units) shall be at least one zone per floor.	To suit the local practice.
2.27	Clause 13.2.3 a) (page 26)	The floor area of a single zone should not exceed 2 000 m ² .”	The floor area of a single zone should not exceed 2 000 m ² calculated on those portions of the premises installed with fire detectors.	To clarify the calculation method of 2 000 m ² .

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.28	Clause 13.2.3 b) (page 26)	The search distance (the distance that has to be travelled by anyone responding to a fire alarm signal after entry to the zone in order for the location of the fire to be determined visually, see 3.50) should not exceed 60m.”.....point of entry to the zone, should be considered (see Figure 2).	The search distance, i.e., the distance that has to be travelled by a searcher inside the zone in order to determine visually the position of the fire, should not exceed 30 m. Remote indicator lamps outside doors, etc., may be helpful, especially if doors are likely to be locked. By making an area easier to search, the use of remote indicator lamps may reduce the need for a large number of small zones.	The MOE and MOA Codes shall be followed.
2.29	Clause 13.2.4 b) (page 27)	1) clear addressable text display of the location of, at least, the first detector to respond to a fire is available at the control and indicating equipment, without manual intervention; and 2) the display, if necessary in conjunction with other information on, or adjacent to, the control and indicating equipment, would enable fire-fighters, unfamiliar with the building, to proceed to the location of the fire.	1) clear addressable text display of the location in either English or Chinese of, at least, the first detector to respond to a fire is available at the control and indicating equipment, without manual intervention; and 2) the display, in conjunction with layout plans should be provided adjacent to the control and indicating equipment for enabling fire-fighters, unfamiliar with the building, to proceed to the location of the fire.	To enhance the presentation and indication of fire location and facilitate searching by fire-fighters.
2.30	Clause 13.2.5 (page 27)	Any remote indicators should be clearly labeled to indicate their function. They should be sited and or labeled in such as way as to assist in determining the location of the detectors they serve.	Remote indicating lamps should be provided for detectors in inaccessible area such as ceiling void or floor void if the recommendations in 13.2.4 b) 1) & 2) are not provided. The remote indicating lamp plates should be clearly labelled with the engraved words “Fire 火警” and the location of detectors they serve should be represented by graphic symbol. Details of the wording and graphic symbols are shown in Appendix I to this List.	To comply with the local requirement for remote indicator labelling and clarify the requirement for the provision of remote indicator.
2.31	Clause 14.2 c) (page 28)	A common signal should be used throughout all alarm zones to convey the need for evacuation, and a (different) common signal should be used throughout all alarm zones for any alert signal that can be given by the system.	A common signal should be used throughout all alarm zones to convey the need for evacuation.	To suit local practice.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.32	Clause 14.2 e) (page 28)	The user or purchaser should ensure that, where appropriate, the configuration of alarm zones is approved by the relevant enforcing authority or authorities.	The configuration of alarm zone shall comply with the requirement as stipulated in FSD Circular Letter No. 4/96 Part VIII.	To suit local requirement.
2.33	Clause 15.2 (page 31)	The following recommendations are applicable. a)The user should ensure l) Power supplies for any facility used for the transmission of fire alarm signals to an alarm receiving centre should comply with the recommendation of Clause 25.	A direct line connection shall be provided to the Computerized Fire Alarm Transmission System (CFATS) of an authorized service provider or an approved manned centre.	To suit requirements as stipulated in FSCoP.
2.34	Clause 16.2.1 (page 33)	Recommendations applicable to Category M and L systems (other than in hospital and residential care premises)	Recommendations applicable to all type of premises.	To follow local requirement. Fire alarm systems are not classified into categories in Hong Kong.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.35	Clause 16.2.1 a) 1), a) 2), a) 3) and a) 4) (page 33)	1) generally, throughout all accessible areas of the buildingNOTE 9 It will often be necessary..... on operation of the fire alarm system.	1) a minimum sound level of either 60 dB(A) or 5 dB(A) above any noise likely to persist for a period longer than 30s, whichever is the greater for domestic building or either 65 dB(A) or 5 dB(A) above any noise likely to persist for a period longer than 30s, whichever is the greater for other type of building. The location of all sound measurement shall be taken at three metres from the inside of the main entrance door with <i>all windows fully opened in the flat/unit</i> and all doors shut at (a) all flats for domestic building, (b) all rooms for institutional/hotel buildings and (c) all rooms/premises for other types of building The sound pressure level requirement does not apply to all required staircases as defined in the FRC Code and the associated protected lobbies which lead only to such staircases. 2) not greater than 120 dB(A) at any normally accessible point.	In line with the amendment for the 1988 edition of this BS.
2.36	Clause 16.2.1 d) NOTE 11 (page 33)	Where the sound pressure level of the music is likely to be between 60 dB(A) and 80 dB(A), the recommendation of 16.2.1a) 2) applies.	Where the sound pressure level of the music is likely to be between 60 dB(A) and 80 dB(A), the recommendation of 16.2.1a) 1) applies.	In line with the amendment for 16.2.1 a).
2.37	Clause 16.2.1 f) (page 34)	In large sites with many buildings, or in the case the need of, or benefit from, their provision. The sounder(s) and/or Visual alarm device(s) should be clearly marked with the words “FIRE ALARM”.	External fire alarm sounders should be provided at the building entrance or the “Fire Service Access Point” and control and indicating equipment. The sounder should be clearly marked with the words “FIRE ALARM” “火警”.	To suit local requirement.

List Two : Clauses to be replaced by modified conditions
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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.38	Clause 16.2.1 h) (page 34)	Alarm signals should not silence automatically (i.e. after a pre-determined time period), other than in the circumstances below: 1) any external fire alarm condition occurs. 2) Where radio-linked.....the system specification; 3) In a two.....with the recommendation of 19.2.3d).	Alarm signals should not silence automatically.	To suit local requirement.
2.39	Clause 16.2.1 i) (page 34)	The system should incorporate at least two fire alarm sounders, even if the recommended sound pressure levels could be achieved with one sounder. At least one sounder should be provided in each fire compartment.	The system should incorporate at least two fire alarm sounders, even if the recommended sound pressure levels could be achieved with one sounder. At least one sounder should be provided in each fire compartment. NOTE: The meaning of compartment shall be as defined in Clause 5 of the FRC Code.	To clarify the definition of fire compartment.
2.40	Clause 17.2 (page 36)	The following recommendations are applicable. a) Visual alarm signals should be..... under normal circumstances. b) Visual Lighting levels. c) The visual.....per minute. d) The visual..... in the premises. e) The intensity.....due to glare. f) Visual alarmsheight of 2.1 m.	The requirement of visual alarm signals shall follow FSCoP and FSD Circular Letter No.4/2001.	To follow local requirement.
2.41	Clause 18.2.1 a) (page37)	Visual alarm signals provided for people with impaired hearing.....should be monitored and protected against fire accordingly.	The requirement of visual alarm signals shall follow FSCoP and FSD Circular Letter No. 4/2001.	To follow local requirement.
2.42	Clause 19.2.1a) (page 40)	Where a staged alarm system is proposed, there should be early consultation with all relevant enforcing authorities.	Where a staged alarm system is proposed, approval from FSD should be sought.	To suit local requirement.
2.43	Clause 20.2 a) (page 41)	The method of operation of all manual call points in a system should be that of type A as specified in BS EN54-11. All call points should be identical unless there is a special reason for differentiation.	The method of operation of all manual call points in a system should be that of type A as specified in BS EN54-11.	It may not be practical to provide identical call points for the entire premise/building.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.44	Clause 20.2b) Note 2 (page 41)	BS EN 54-2 permits a delay of up to 10 s, in ..., subject to the agreement of the relevant enforcing authority and the recording of the delay as a variation on the completion certificate.	BS EN 54-2 permits a delay of up to 10 s, in ..., subject to the agreement of the relevant enforcing authority. (see also Clause 24.2e)	To suit local practice.
2.45	Clause 20.2 c) (Page 41)	Manual call points should be located on escape routes and , in particular, at all storey exits and all exits to open air (whether or not the exits are specifically designated as fire exits).....a manual call point several floors below that on which a fire is located, resulting in evacuation of inappropriate areas.	Manual call points should be located at each hose reel point and, in particular, adjacent to all storey exits (or the entrance lobby in lieu if such lobby leads only to the storey exits) within a distance of not more than 2.0 m and adjacent to all staircase exits to open air on G/F or place of ultimate safety. Manual call points should not be located on stairway landings (other than at staircase exits to open air on G/F or place of ultimate safety), as persons traveling along the stairway might operate a manual call point several floors from that on which a fire is located, resulting in evacuation of inappropriate areas. For exit opening 12 m in width or more, two manual call points shall be provided before such exit (or before the entrance lobby in lieu if such lobby leads only to the exit) and within a distance of 2 m from each end of the opening.	To align with current requirements.
2.46	Clause 20.2 h) (page 42)	Manual call points should be fixed at a height of 1.4 m above finished floor level, at easily accessible, well-illuminated and conspicuous positions free from potential obstruction. They should be sited A lower mounting height is acceptable in circumstances where there is a high likelihood that the first person to raise an alarm of fire will be a wheelchair user.	Manual call points should be fixed at a height of 0.9-1.2 m above finished floor level, at easily accessible, well-illuminated and conspicuous positions free from potential obstruction.	To align with the current practice.
2.47	Clause 20.2 i) (page 42)	Manual call points may be flush mounted in location where they will be seen readily but where they will be viewed from side by no less than 15 mm.	Manual call points should be surface mounted or semi-recessed mounted as per manufacturer's design.	To provide a clear requirement and to suit the manufacturer's design on semi-recessed type manual call points.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.48	Clause 21.1.8 (page 47)	Clause 21.1.8 Recommendations (<i>Clause numbering only</i>)	Clause 21.2 Recommendations	To align with the numbering system in other parts of the BS.
2.49	Clause 21.1.8 a) (page 47)	The type(s) of fire detector used in a system should provide adequate protection of occupants, property or both, as appropriate to the Category of system, while minimizing.....	The type(s) of fire detector used in a system should provide adequate protection of premises, while minimizing.....	To suit local requirement.
2.50	Clause 21.1.8 b) (page 47)	b) Heat detectors may be used in any area, other than the following: 1) areas of a Category P system in which 2) escape routes in Category L systems (but heat detectors.....	b) Heat detectors may be used in any area, other than the following: 1) areas in which 2) escape routes (but heat detectors.....	To suit local requirement.
2.51	Clause 21.1.8 d) (page 47)	In Category L systems, smoke detectors installed within corridors and stairways that form.....	Smoke detectors installed within corridors and stairways that form.....	To suit local requirement.
2.52	Clause 21.1.8 g) (page 48)	Carbon monoxide fire detectors may be used to protect any of the following areas: 1) 2) rooms opening onto escape routes in a Category L3 system, Note 7 3) all escape routes within Category L3 or L4 systems, provided carbon monoxide..... should be sought from the manufacturer;	Carbon monoxide fire detectors may be used to protect any of the following areas: 1) 2) rooms opening onto escape routes Note 7 3) all escape routes provided carbon monoxide..... should be sought from the manufacturer;	To suit local requirement.
2.53	Clause 22.2 a) (page 50)	Fire detectors should be provided in accordance with the recommendations of 8.2	Fire detectors should be provided in accordance with the requirement of FSCoP / approved building plans.	To suit local requirement.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.54	Clause 22.2 c) (page 50)	Other than in Category L4, L5 and P2 system, if any flue-like structure, open stairway, shaft for a lift,, a fire detector should be sited at the top of the shaft or.within approximately 1.5 m of the penetration.	If any flue-like structure, open stairway, shaft for a lift,, a fire detector should be sited at the top of the shaft or.within approximately 1.5 m of the penetration. For lift machine room located directly above the lift shaft with opening in between for suspension wire, fire detector installed inside the machine room could substitute the fire detector required at the top of lift shaft.	To suit local requirement and local practice.
2.55	Clause 22.2 c), NOTE 1 (page 50)	The need for fire detectors in these positions should be considered at the design stage of Category L5 and P2 systems.	The need for fire detectors in these positions should be considered at the design stage.	To suit local requirement.
2.56	Clause 22.2 c), NOTE 2 (page 50)	For any of the above flue-like structures a fire detector within 1.5 m is required only in the areas protected by the category of system in question.	For any of the above flue-like structures a fire detector within 1.5 m is required only in the areas protected by fire detection system.	To suit local requirement.
2.57	Clause 22.2 d) (page 50)	If the system Category is such that automatic fire detection should be provided in any area that contains a horizontal void of 800mm or more in height, automatic fire detection should also be provided in the void. Voids less than 800mm in height need not be protected, unless either: 1) the void is such that extensive spread of fire or smoke, particularly between rooms and compartments, can take place before detection; or 2) on the basis of a fire risk assessment, the fire risk in the void is such as to warrant protection of the void. NOTE 3 In Category P systems, It is common practice to Guidance on protection of electronic data processing installations is given in BS 6266. NOTE 4)..... NOTE 5)....unlikely.	For any area requiring an automatic fire detection system that contains a horizontal void of 800 mm or more in height, automatic fire detection should also be provided in the void. Voids less than 800 mm in height need not be protected, unless either: 1) the void is such that extensive spread of fire or smoke, particularly between rooms and compartments, can take place before detection; or 2) on the basis of a fire risk assessment, the fire risk in the void is such as to warrant protection of the void. NOTE 3 It is common practice to Guidance on protection of electronic data processing installations is given in BS 6266.	To suit local requirement and align with the agreement reached in reviewing the 1988 edition of this BS.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.58	Clause 22.3 d) (page 51)	Other than within rooms in a Category L3 systems (see 22.3e)) or in voids (see 22.3f)) or where a horizontal ceiling comprises a series of small cells (see 22.3k)), fire detectors should be sited on ceilings, such that	Other than in voids (see 22.3f)) or where a horizontal ceiling comprises a series of small cells (see 22.3k)), fire detectors should be sited on ceilings, such that	To suit local requirement.
2.59	Clause 22.3 e) (page 51)	Detectors within rooms that open onto escape routes in a Category L3 system should either be sited in accordance with	Detectors within rooms that open onto escape routes should either be sited in accordance with	To suit local requirement.
2.60	Clause 22.3 f) (page 51)	In unventilated voids not greater than 1.5m in depth, and any consequent servicing recommendation.	In unventilated voids (non-perforated void) greater than 1.5m in depth, and any consequent servicing recommendation.	To eliminate possible ambiguity.
2.61	Clause 22.3 g) (page 51)	Heat and smoke detectors should not be mounted within 500 mm of any walls, are greater than 250 mm in depth. (This recommendation does not apply to detectors within rooms opening into escape routes in a Category L3 system).	Heat and smoke detectors should not be mounted within 500 mm of any walls, are greater than 250 mm in depth. (This recommendation does not apply to detectors within rooms opening into escape routes).	To suit local requirement.
2.62	Clause 22.3 j) (page 51)	NOTE 8 Within horizontal voids, beams or obstructions that are deeper than 10%..... should be treated as walls that sub-divide the void.	NOTE 8 Within horizontal voids, beams or obstructions that are deeper than 10% of the height between the structural floor and structural ceiling regardless of whether the void is above the ceiling or below the floor, should be treated as walls that sub-divide the void.	To adopt a practical approach to suit the local site conditions.
2.63	Clause 22.3 n) (page 52)	Detector siting should be such that a clear space of 500 mm is maintained below each detector (see Figure 12).	Detector siting should be such that a clear space of 500 mm is maintained below each detector (see Figure 12). NOTE 1: This requirement is not applicable for ceiling and floor voids. NOTE 2: If an area has no horizontal dimension greater than one metre, this recommendation is not applicable.	For practical reasons and to align with Clause 22.3 g) Note 6.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.64	New Clause 22.3 o)	—	<p>Intermediate Horizontal Surfaces (such as ducts, loading platforms, and storage racks)-</p> <p>Protection shall be provided under intermediate horizontal surfaces such as ducts, loading platforms, and storage racks in excess of 3.5 m in width and whose undersurface is in excess of 800 mm above the floor.</p> <p>Where the distance from the underside of the intermediate surface to the ceiling is less than 800 mm, the underside of the intermediate surface may be considered as the ceiling and does not require detectors above the intermediate surface.</p> <p>If the side of the duct or structure is in excess of 800 mm from the wall or other ducts or structures, detectors shall be provided at the highest accessible point on the ceiling.</p>	In the absence of recommendation on siting of the heat and smoke detectors under intermediate horizontal surfaces in the BS, relevant Clauses in Australian Standard AS 1670.1-2004 are to be adopted as a supplement.
2.65	Clause 22.9 (page 59)	<p>The following recommendations are applicable to heat, smoke and combustion gas detectors.</p> <p>a) Other than in 22.9b), heat, smoke and the limits in column 2 of Table 3.</p> <p>b) In the case of Category P systems, where the attendance..... Does not exceed the limits in column 2 of Table 4.</p> <p>NOTE The fire brigade response time ought to be the subject of consultation. See Clause 6</p>	<p>The following recommendations are applicable to heat, smoke and combustion gas detectors.</p> <p>Heat, smoke andthe limits in column 2 of Table 3.</p>	To suit local requirements which generally follow the “protection of life” principle.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.66	Clause 23.2.1 a) (page 62)	Indicating equipment, in conjunction with suitable manual control facilities, should be sited at an appropriate location, there should also be consultation with the fire service regarding the possible need for repeat control and/or indicating equipment.	Indicating equipment, in conjunction with suitable manual control facilities, should be sited at the fire control centre or at the main entrance of the building for building without fire control centre. Where there are multiple entrances to a complex building, repeat control and / or indicating equipment might be required as stipulated in the approved building plans.	To suit local requirement.
2.67	Clause 23.2.1 f) (page 62)	In Category L and Category P systems, the area(s) in which any control and indicating equipment (s), power supply (or supplies) for the should be protected by automatic fire detection unless: 1) 2) the area is continuously manned in the case of Category P systems, or continuously manned when the building is occupied by any person in the case of Category L Systems.	The area(s) in which any control and indicating equipment (s), power supply (or supplies) for the should be protected in accordance with the requirements of FSCoP or the approved building plans.	To suit local requirement.
2.68	Clause 24.2 b) (page 64)	The communications link between sub-panels should be monitored in accordance with the recommendation of 12.2.1 for wired networks and 27.2b)6) for radio networks.	The communications link between sub-panels should be monitored in accordance with the recommendation of 12.2.1.	To suit local requirement.
2.69	Clause 24.2 d) (page 64)	In networked systems in which the communications link forms a critical signal path and comprises one or more cables, the cable installation should comply with the recommendations of 26.2, except that standard fire resisting cables (see 26.2 and Figure 14a) and Figure 14b))..... or short circuit on the loop.	In networked systems in which the communications link forms a critical signal path and comprises one or more cables, the cable installation should comply with the recommendations of 26.2.	To suit local requirement.
2.70	Clause 25.2 NOTE 1 (page 66)	The supply should be regarded as an integral part of the fire alarm system, particular for the purpose of certification of the system (see Clause 41), regardless of whether the.....provided by the organization responsible for installation of the fire alarm system.	The supply should be regarded as an integral part of the fire alarm system regardless of whether the.....provided by the organization responsible for installation of the fire alarm system.	To suit local practice.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.71	Clause 25.2 a) (page 66) Where the user requires to isolate the building during closed hours, a separate supply should be provided for the fire alarm system that should not normally be isolated during closed hours. The design of the power supply should be such that even when the main power supply to non-fire service installations in the premises is switched off, it will not cause failure of the power supply to fire service installations during the period of isolation.	To suit local practice.
2.72	Clause 25.2 d) (page 66)	Subject to compliance with 25.2 a), 25.2 b), 25.2 c) and BS 7671, the number of isolating devices between the incoming power supply to the building and the fire alarm system power unit should be kept to the minimum practicable.	Subject to compliance with 25.2 a), 25.2 b), 25.2 c) and the EECOP, the number of isolating devices between the incoming power supply to the building and the fire alarm system power unit should be kept to the minimum practicable.	To suit local practice.
2.73	Clause 25.2f) (page 66)	<p>Every isolator and protective device that can isolate the supply to the fire alarm system, other than the main isolator for the building, should be labelled either:</p> <p>“FIRE ALARM”, in the case of a protective device that serves only the fire alarm circuit, but incorporates no switch;</p> <p>“FIRE ALARM. DO NOT SWITCH OFF”, in the case of a switch (whether incorporating a protective device or not) that serves only the fire alarm circuit;</p> <p>“WARNING. THIS SWITCH ALSO CONTROLS THE SUPPLY TO THE FIRE ALARM SYSTEM”, in the case of any switch that disconnects the mains supply to both the fire alarm system and to other circuits.</p> <p>NOTE 3 Labels should be clear and in durable fade resistant material.</p>	<p>Every isolator and protective device that can isolate the supply to the fire alarm system, other than the main isolator for the building, should be labelled either :</p> <p>(i) “FIRE ALARM” “火警警報”, in the case of a protective device that serves only the fire alarm circuit, but incorporates no switch;</p> <p>(ii) “FIRE ALARM. DO NOT SWITCH OFF” “火警警報. 切勿切斷電源”, in the case of a switch (whether incorporating a protective device or not) that serves only the fire alarm circuit.</p> <p>(iii) “WARNING. THIS SWITCH ALSO CONTROLS THE SUPPLY TO THE FIRE ALARM SYSTEM” “警告. 此電掣同時控制火警警報系統電源”, in the case of any switch that disconnects the mains supply to both the fire alarm system and to other circuits.</p> <p>All labels shall be engraved in white letter/character with a red background. The height of all the English and Chinese wordings shall not be less than 10 mm and 15 mm respectively.</p>	To suit local practice.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.74	Clause 25.2 h) (page 66)	The circuit supplying the fire alarm system should not be protected by a residual current device unless this is necessary to comply with the requirements of BS 7671.	The circuit supplying the fire alarm system should not be protected by a residual current device unless this is necessary to comply with the requirements of the EECOP.	To suit local practice.
2.75	Clause 25.2 New Para. (j)	-	j) Power supply to the fire alarm and detection system shall be obtained from power supply company and backed up by an automatically connected battery-powered standby supply in case of mains failure.	New clause added to suit local requirement
2.76	Clause 25.4 e) 1) (page 67)	For a Category M or Category L system, the capacity should be sufficient to maintain the system in operation for at least 24 h,	For occupied premises, the capacity of the standby battery should be sufficient to maintain the system in operation for at least 24 h,	To suit local practice, this clause shall apply to occupied premises.
		NOTE 1 If the premises are likely to be unoccupied for longer than the duration of the standby battery capacity at any time, and there is a facility for transmission of fire signals to an alarm receiving centre, it would be of benefit to transmit power supply fault signals to the alarm receiving centre, for notification of the user.	NOTE 1 For unoccupied premises, the capacity of the standby battery should be sufficient to maintain the system in operation for at least 24 h longer than the maximum period for which the premises are likely to be unoccupied or for 72 h in total, whichever is the less, after which sufficient capacity should remain to operate all fire alarm devices for at least 30 min. If the building is likely to be unoccupied for more than the duration of the standby battery capacity at any time, power supply fault signals should also be automatically transmitted to an alarm receiving centre, for immediate notification of the user, owner, occupier or the keyholder.	To state the mandatory requirements on standby battery and transmission of battery fault signals for unoccupied premises.
2.77	Clause 25.4 e) 2) (page 67)	For a Category M or Category L system in a building with an automatically started standby generator that serves the fire alarm system,	In a building with an automatically started standby generator that serves the fire alarm system,	To suit local practice.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.78	Clause 26.2 b) (page 70)	<p>Cables used for all parts of the critical signal paths (see 3.13), for the extra low voltage supply from an external power supply unit and for the final circuit providing low voltage mains supply to the system, should comply with the recommendations of 26.2d) or 26.2e) and comprise one of the following:</p> <ol style="list-style-type: none"> 1) mineral insulated copper sheathed cables, with an overall polymeric covering, conforming to BS EN 60702-1, with terminations conforming to BS EN 60702-2; 2) cables that conform to BS 7629; 3) cables that conform to BS 7846; 4) cables rated at 300/500V (or greater) that provide the same degree of safety to that afforded by compliance with BS 7629. <p>NOTE 1 The fire resistance requirements of 1) to 4) above need not be applied because these requirements are covered by the standards referred to in d) and e) following.</p>	<p>Cables used for all parts of the critical signal paths (see 3.13), for the extra low voltage supply from an external power supply unit and for the final circuit providing low voltage mains supply to the system or power supply to the fire alarm sounders, should comply with the recommendations of 26.2d) or 26.2e) and comprise one of the following:</p> <ol style="list-style-type: none"> 1) mineral insulated copper sheathed cables, with an overall polymeric covering, conforming to BS EN 60702-1, with terminations conforming to BS EN 60702-2; 2) cables that conform to BS 7629; 3) cables that conform to BS 7846; 4) cables rated at 300/500V (or greater) that provide the same degree of safety to that afforded by compliance with BS 7629. 5) subject to the assessment and acceptance of FSD, fire resisting cables complying with other international standards could also be used. <p>Cables under the conditions mentioned in the Remarks section of Appendix 6 of the 2005 FSCoP may be exempted from the above minimum requirements.</p> <p>NOTE 1 The requirements of 1) to 4) above need not be applied because these requirements are covered by the standards referred to in d) and e) following.</p>	<p>To suit local practice, fire resisting power supply cables for fire alarm sounders shall be used.</p> <p>To allow more flexibility by adopting other international standards in addition to the quoted BS standards.</p> <p>To suit local requirements and add conditions as stipulated in the FSCoP .</p>

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.79	Clause 26.2 c) Para. 1 (page 70)	Cable systems used for all parts of the critical signal paths, and for the low voltage mains supply to the system, should adequately resist the effects of fire. For most fire alarm systems, standard fire resisting cables [see 26.2d)] should be considered to provide sufficient resistance to the effects of fire, with appropriate methods of support and jointing [see 26.2g)].	Cable systems used for all parts of the critical signal paths, and for the low voltage mains supply to the system, should adequately resist the effects of fire. For most fire alarm systems, standard fire resisting cables [see 26.2d)] or fire resisting cables complying with other international standards and subject to assessment and acceptance of FSD should be considered to provide sufficient resistance to the effects of fire, with appropriate methods of support and jointing [see 26.2g)]. (Cables under the conditions mentioned in the Remarks section of Appendix 6 of the 2005 FSCoP may be exempted from this requirement)”	To allow more flexibility by adopting other international standards in addition to the quoted BS standards. To suit local requirements and add conditions as stipulated in the FSCoP for exemption on use of fire resisting cables.
2.80	Clause 26.2 c) Para. 2 (page 70)	For fire alarm systems for applications as listed below, cable systems comprising “enhanced” fire resisting cables [see 26.2(e)], with appropriate methods of support and jointing should generally be used [see 26.2(g)]:	For fire alarm systems for applications as listed below, cable systems comprising “enhanced” fire resisting cables [see 26.2(e)] or fire resisting cables complying with other international standards and subject to assessment and acceptance of FSD, with appropriate methods of support and jointing should generally be used [see 26.2(g)] (Cables under the conditions mentioned in the Remarks section of Appendix 6 of the 2005 FSCoP may be exempted from this requirement):	To allow more flexibility by adopting other international standards in addition to the quoted BS standards. To suit local requirements and add conditions as stipulated in the FSCoP for exemption on use of fire resisting cables.
2.81	Clause 26.2 c) Para. 2(1) (page 70)	in unsprinklered buildings (or parts of buildings) in which the fire strategy involves evacuation of occupants in four or more phases;	in unsprinklered buildings (or parts of buildings other than areas exempted by the LPC Rules for Automatic Sprinkler Installations as shown on approved building plans) [except those buildings (or parts of buildings) which are protected by automatic fixed installation using water or other than water], in which the fire strategy involves evacuation of occupants in four or more phases;	To suit local practice, other types of automatic fixed installation could be provided in lieu of sprinkler protection.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.82	Clause 26.2 c) Para. 2(2) (page 70)	in unsprinklered buildings of greater than 30 m in height;	in unsprinklered buildings [except those buildings (or parts of buildings) which are protected by automatic fixed installation using water or other than water] of greater than 30 m in height;	To suit local practice, other types of automatic fixed installation could be provided in lieu of sprinkler protection.
2.83	Clause 26.2 c) Para. 2(3) (page 70)	in unsprinklered premises and sites in which a fire in one area could affect cables of critical signal paths, and certain large industrial sites;	in unsprinklered premises and sites [except those buildings (or parts of buildings) which are protected by automatic fixed installation using water or other than water] in which a fire in one area could affect cables of critical signal paths, and certain large industrial sites;	To suit local practice, other types of automatic fixed installation could be provided in lieu of sprinkler protection.
2.84	Clause 26.2 c) Note 6 (Page 71)	NOTE 6 For the purpose of 26.2 (c), a building should be regarded as sprinklered only if an automatic sprinkler installation complying with the recommendations of BS 5306-2 is provided.....for life safety installations need not be applied.	NOTE 6 For the purpose of 26.2 (c), a building should be regarded as sprinklered only if an automatic sprinkler installation complying with the recommendations of the Loss Prevention Council Rules for Automatic Sprinkler Installations incorporating BS EN 12845 or other international standards acceptable to FSD are provided.	To suit local practice and to allow more flexibility by adopting other international standards in addition to the quoted BS standards.
2.85	Clause 26.2 d) (page 71)	Standard fire resisting cables should meet the PH 30 classification when tested in accordance with BS EN 50200 and additionally the 30 min survival time when tested in accordance with Annex E of that standard.	Standard fire resisting cables should meet the PH 30 classification when tested in accordance with BS EN 50200 and additionally the 30 min survival time when tested in accordance with Annex E of that standard or BS 8434-1. Subject to the assessment and acceptance of FSD, fire resisting cables complying with other international standards could also be used.	BS 8434-1:2003 had been incorporated into the Annex E of BS EN 50200:2006. To allow more flexibility by adopting other international standards in addition to the quoted BS standards.
2.86	Clause 26.2 e) (page 71)	Enhanced fire resisting cables should meet the PH 120 classification when tested in accordance with BS EN 50200 and the 120 min survival time when tested in accordance with BS 8434-2.	Enhanced fire resisting cables should meet the PH 120 classification when tested in accordance with BS EN 50200 and the 120 min survival time when tested in accordance with BS 8434-2. Subject to the assessment and acceptance of FSD, fire resisting cables complying with other international standards could also be used.	To allow more flexibility by adopting other international standards in addition to the quoted BS standards.

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List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.87	Clause 26.2 g) (Page 71) All joints, other than those within system components, should be enclosed within junction boxes, labelled with the words “FIRE ALARM” to avoid confusion with other services. All joints, other than those within system components, should be enclosed within junction boxes, labelled with the words “FIRE ALARM” “火警警報” to avoid confusion with other services. All labels shall be engraved in white letter/character with a red background. The height of all the English and Chinese wordings shall not be less than 10 mm and 15 mm respectively.	To suit local practice
2.88	Clause 26.2 h) (page 71)	Except in particularly arduous conditions, mineral insulated copper sheathed cables conforming to BS EN 60702 and steel wire armoured cables conforming to BS 7846 may be used throughout all parts of the system without additional mechanical protection.	Except in particularly arduous conditions, mineral insulated copper sheathed cables conforming to BS EN 60702 and steel wire armoured cables conforming to BS 7846 or fire resisting cables complying with other international standards and acceptable to FSD may be used throughout all parts of the system without additional mechanical protection.	To allow more flexibility by adopting other international standards in addition to the quoted BS standards.
2.89	Clause 26.2 i) (page 71)	Where conduit is used to satisfy the recommendations of 26.2h), the conduit should conform to the relevant part of BS EN 50086. Any non-metallic trunking used in the system should conform to BS 4678-4.	Where conduit is used to satisfy the recommendations of 26.2h), the conduit should conform to the relevant part of BS EN 50086. Any non-metallic trunking used in the system should conform to BS 4678-4. Subject to the assessment and acceptance of FSD, conduit and non-metallic trunking complying with other international standards could also be used.	To allow more flexibility by adopting other international standards in addition to the quoted BS standards.
2.90	Clause 26.2 o) (page 72)	“All fire alarm cables should be of a single, common colour that is not used for cables of general electrical services in the building, to enable these cables to be distinguished from those of other circuits. NOTE 13 The colour red is preferred.	The colour of fire alarm cables should be limited to not more than two sets of common colours. NOTE 13 One of the colours should preferably be red.	To allow more flexibility by relaxing the limitation on colour choices.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.91	Clause 28.2 a) (page 78)	Fire alarm systems should be so designed and installed that they do not cause, and are not unduly susceptible to, electromagnetic interference, in accordance with the Electromagnetic Compatibility Regulations 1992 (as amended to date), which implement the EMC Directive 89/336/EEC (as amended).	Fire alarm systems should be so designed and installed that they do not cause, and are not unduly susceptible to, electromagnetic interference.	Foreign regulations should not be applied locally.
2.92	Clause 28.2 b) (page 78)	In order to comply with the Regulations, there should be compliance with, at least, the following recommendations, although these might not, alone, be sufficient to ensure compliance: 1) 2) 3) 4) any cable specifications stipulated by the manufacturer as important for the compliance with the requirements of the EMC Directive should be adhered to. However, cables not compliant with the recommendations of this standard should only be used with the prior agreement of all interested parties and should be recorded as a variation;	In order to ensure Electromagnetic Compatibility (EMC) requirements, there should be compliance with, at least, the following recommendations, although these might not, alone, be sufficient to ensure compliance: 1) 2) 3) 4) any cable specifications stipulated by the manufacturer as important for the EMC compliance should be adhered to;	Foreign regulations should not be applied locally.
2.93	Clause 29.2 a) (page 81)	The system design should be such as to satisfy the relevant requirements of BS 7671. In particular, CPCs should be adequately rated.	The system design should be such as to satisfy the relevant requirements of the EECOP. In particular, CPCs should be adequately rated.	To suit local practice.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.94	Clause 29.2 d) 1) (page 81)	All relevant power supplies for the fire detection and alarm system should conform to BS EN 54-4 and incorporate safety isolating transformers conforming to BS EN 61558. The transformer, the power supply.	All relevant power supplies for the fire detection and alarm system should conform to BS EN 54-4 or other international standards acceptable to FSD and incorporate safety isolating transformers conforming to BS EN 61558 or other international standards acceptable to FSD. The battery charger shall either comply with relevant clauses of BS EN 54-4 or other international standards acceptable to FSD or be designed and rated so that : (i) the battery can be charged automatically; (ii) a battery discharged to its final voltage can be recharged to at least 80% of its rated capacity within 24 hours and to its rated capacity within another 48 hours; (iii) the charging characteristics are within the battery manufacturer's specifications for the range of battery temperatures reached with the ambient temperature (i.e. outside the standby power source enclosure) from –5°C to +40 °C. (iv) except for currents associated with battery monitoring, the battery shall not discharge through the charger when the charging voltage is below the battery voltage (v) the power supply equipment is capable of recognizing and signaling the fault after loss of the battery charger, within 30 min of the occurrence, except when the charger is switched off or limited or interrupted when the power supply equipment is delivering a current greater than the rated maximum output voltage. The transformer, the power supply.....	To allow more flexibility by adopting other international standards in addition to the quoted BS standards.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.95	Clause 37.2 a) (page 98)	The entire system should conform to the requirements of BS 7671. In general.....this standard should take precedence.	The entire system should conform to the requirements of EECOP. In general.....the EECOP should take precedence.	To follow local requirements.
2.96	37.2 g) (page 99)	Where new conduit, trunking or tray is installed, its capacity should be in accordance with the recommendations given in BS 7671.	Where new conduit, trunking or tray is installed, its capacity should be in accordance with the recommendations of EECOP.	To follow local requirements.
2.97	Clause 38.2 c) (page 99)	Earth continuity and, for mains supply circuits, earth fault loop impedance, should be tested to ensure compliance with BS 7671.	Earth continuity and, for mains supply circuits, earth fault loop impedance, should be tested to ensure compliance with EECOP.	To follow local requirements.
2.98	Clause 44.2 Heading (page 109)	44.2 Recommendations for weekly testing by the user	44.2 Recommendations for attention by the user	Testing shall be done by the registered fire service installation contractor.
2.99	Clause 44.2 a) (page 109)	Every week a manual call point should be operated..... all fire alarm sounder circuits operate correctly at the time of this test. NOTE 1 It is essential that, and immediately after, the weekly test to ensure that unwanted alarms..... at the alarm receiving centre. NOTE 2 The user needs battery powered devices are being tested, e.g. within radio-linked fire alarm systems.	A manual call point should be operated all fire alarm sounder circuits operate correctly at the time of this test. NOTE 1 It is essential that, and immediately after, the test to ensure that unwanted alarms at the alarm receiving centre. NOTE 2 The user needs battery powered devices are being tested.	Frequency of attention shall be determined by the user to suit the premises characteristics; and radio-linked fire alarm systems are not adopted locally.
2.100	Clause 44.2 b) (page 109)	The weekly test should be carried out at approximately the same time each week: instructions to occupants should then be that they should report any instance of poor audibility in the order they would occur at the time of a fire (i.e. "Alert" and then "Evacuate").	Instructions to occupants should be that they should report any instance of poor audibility..... in the order they would occur at the time of a fire (i.e. "Alert" and then "Evacuate").	Frequency of attention shall be determined by the user to suit the premises characteristics.
2.101	Clause 44.2 c) (page 109)	In premises in which the fire alarm system is normally tested, additional test(s) should be carried out at least once a month to ensurewith the fire alarm signal(s).	In premises in which the fire alarm system is normally tested, additional test(s) should be carried out to ensure with the fire alarm signal(s).	Frequency of attention shall be determined by the user to suit the premises characteristics.

List Two : Clauses to be replaced by modified conditions
BS 5839 – 1 : 2002+A2:2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Replaced by	Reason
2.102	Clause 44.2 d) (page 109)	A different manual call point should be of the manual call point used should be recorded in the system log book [see 40.2d)].	A different manual call point should be used at the time of every test, so that all manual call points in the building are tested in rotation over a prolonged period. There is no maximum limit for this period. The result of the test and the identity of the manual call point used should be recorded in the system log book [see 40.2d)].	Frequency of attention shall be determined by the user to suit the premises characteristics.
2.103	Clause 44.2 e) (page 109)	The duration for which any fire alarm signal..... at the time of the weekly test by the user the prolonged operation of the fire alarm devices.	The duration for which any fire alarm signal at the time of the test by the user the prolonged operation of the fire alarm devices.	Frequency of attention shall be determined by the user to suit the premises characteristics.
2.104	Clause 44.2 f) (page 109)	Voice alarm systems should be tested weekly in accordance with the recommendations of BS 5839-8.	Voice alarm systems should be tested in accordance with the recommendations of BS 5839-8.	Frequency of attention shall be determined by the user to suit the premises characteristics
2.105	Clause 45.3 Para. 2 (page 110)	The recommendations in this clause should be carried out considered that the system is no longer compliant with this part of BS 5839.	The fire detection and fire alarm systems shall be maintained in efficient working order at all times and shall be inspected by a registered fire service installation contractor at least once every 12 months.	To suit local practice.
2.106	Clause 45.3 o) (page 111)	On completion of the work, any outstanding defects should be reported to the responsible person, the system log book [see 40.2d)] should be completed and a servicing certificate should be issued (see Annex G).	On completion of the work, any outstanding defects should be reported to the Director of Fire Services and the owner/occupier, the system log book [see 40.2d)] should be completed and a Certificate of Fire Service Installations and Equipment (Form FS251) should be issued.	To suit local regulation.
2.107	Clause 45.4 Last Para. (page 113)	On completion of the work, any outstanding defects should be reported to the responsible person and a record of the inspection and test should be made on the servicing certificate.	On completion of the work, any outstanding defects should be reported to the Director of Fire Services and the owner/occupier, the system log book [see 40.2d)] should be completed and a Certificate of Fire Service Installations and Equipment (Form FS251) should be issued.	To suit local regulation.
2.108	Clause 46.4.2 g) (page 116)	On commissioning of the work and completion of the tests,ensure it is made available with the system documentation (see Clause 40).	On commissioning of the work and completion of the tests, a Certificate of Fire Service Installations and Equipment (Form FS251) should be issued.	To suit local regulation.

General Specification of Remote Indicating Lamp Plates

Specifications

1. The colours for the plate, the graphic pattern and the wording should be suitably chosen so as to provide luminous contrast for the purpose of clear identification at a distance.
2. The indicating lamp should be red in colour.
3. The height of English letters and Chinese characters should not be less than 10 mm and 15 mm respectively or should follow the latest specifications issued by the Director of Fire Services from time to time.
4. The designs of remote indicating lamp plates for detectors in respective locations, i.e. floor voids, ceiling voids and lockable rooms, should follow the relevant graphic pattern illustrated below:-
 - (a) Figure 1 – For Detectors inside Floor Voids
 - (b) Figure 2 – For Detectors inside Ceiling Voids
 - (c) Figure 3 – For Detector inside Lockable Rooms

Indicating Lamp (Red)

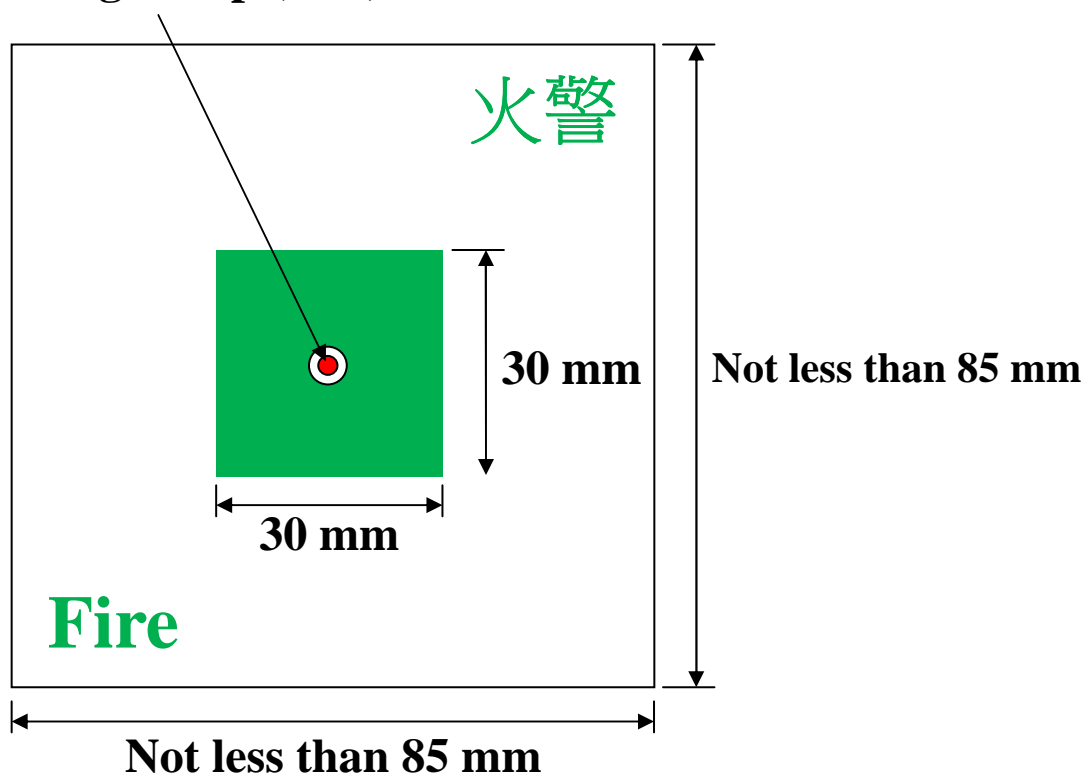


Figure 1 – For Detectors inside Floor Voids

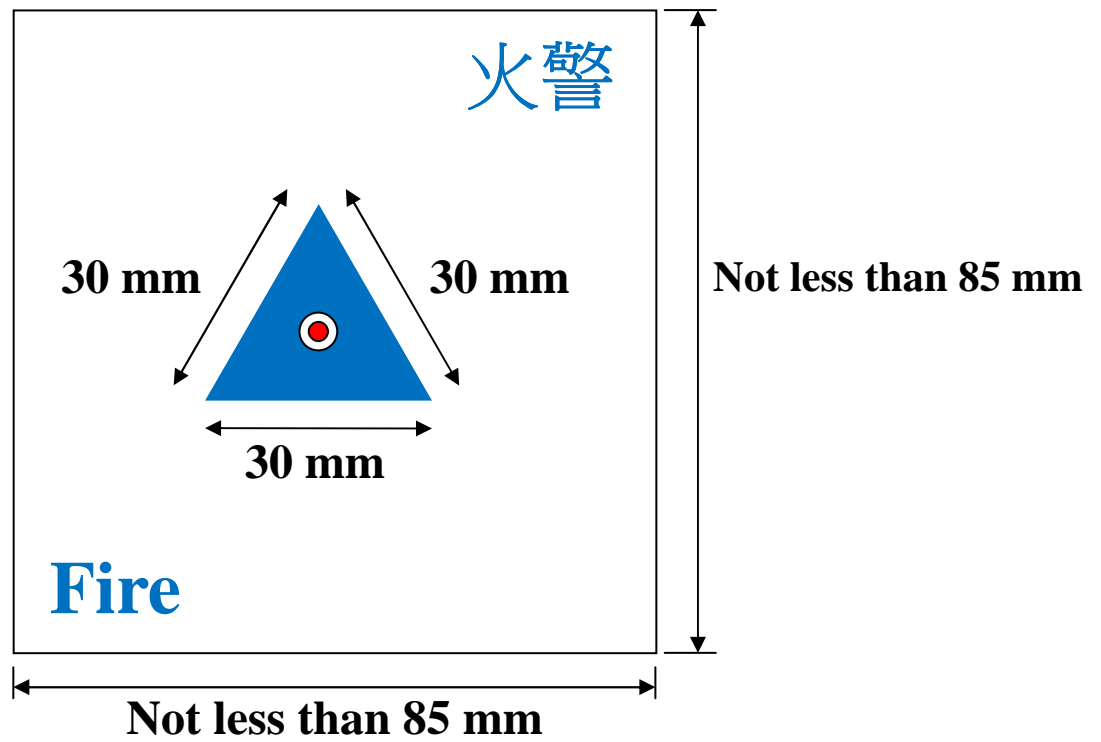


Figure 2 – For Detectors inside Ceiling Voids

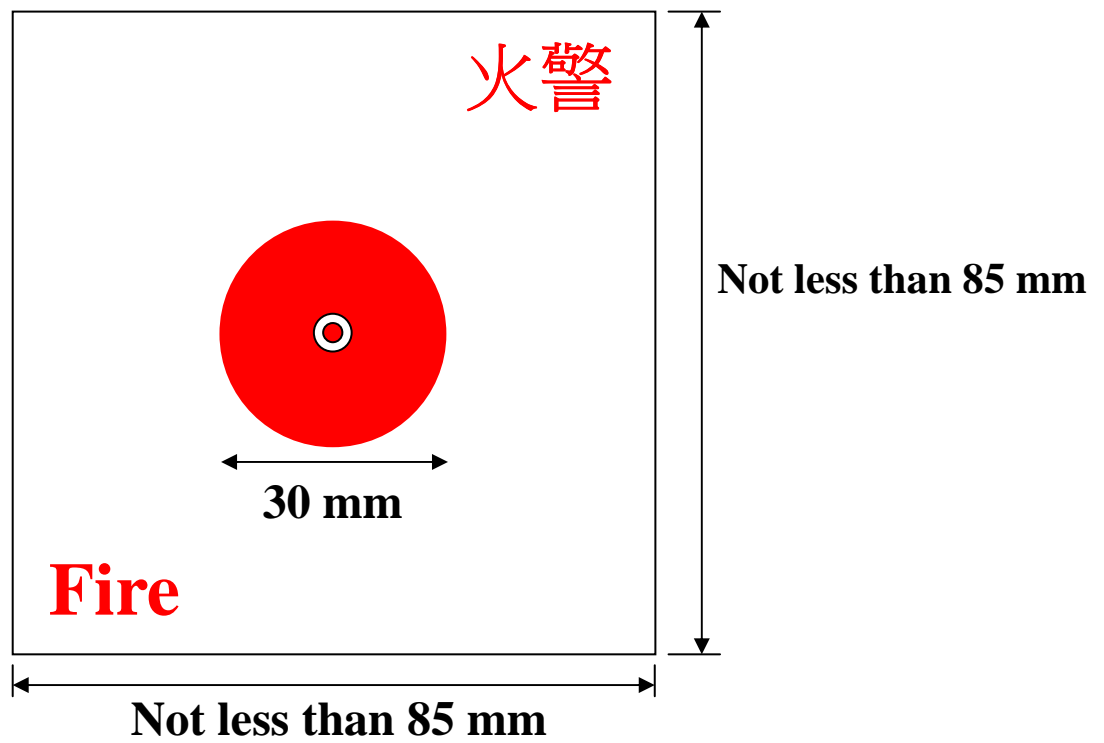


Figure 3 – For Detector inside Lockable Rooms

List Three: Clauses to be taken as reference only

List Three : Clauses to be taken as reference only
BS 5839 – 1 : 2002 + A2 : 2008

List-Item	BS Clause/Paragraph/ Table/Page	Context	Reason
3.1	Clause 2 (page 1)	Entire Clause 2 – Normative references	Informative material for reference only.
3.2	Clause 5.2 (page 12)	Entire Clause 5.2 – Recommendations	This Clause shall be taken as reference for good practice only.
3.3	Clause 6.2 (page 13)	Entire Clause 6.2 - Recommendations	This Clause shall be taken as reference for good practice only.
3.4	Clause 7.2 (page 15)	Entire Clause 7.2 – Recommendations	This Clause shall be taken as reference for good practice only.
3.5	Clause 9.2 c) (page 20)	c) If operation of the fire alarm system.....should comply with BS EN 54-2.	Procedures and requirements for maintenance.
3.6	Clause 11.2 (page 20)	Entire Clause 11.2 - Recommendations	Standards for system components taken as reference only.
3.7	Clause 16.2.1 d) Note 10 (page 33)	In premises with two (or more) stage alarm systems, consideration should be given to whether the music should be muted at the “Alert” or the “Evacuate” stage.	Phased evacuation is subject to the approval of BD/FSD.
3.8	Clause 16.2.1 j) (page 34)	If audible alarms comprise speech messages generated by a voice alarm system, the relevant recommendations of BS 5839-8 should be followed in respect of message content, sound pressure levels and speech intelligibility. If voice sounders (see 3.63) are used, reference should be made to Annex E of BS 5839-8: 1998, as well as complying with the recommendations of this standard.	For reference when voice alarm system is used in lieu of or in conjunction with alarm sounders.
3.9	Clause 18.2.1 b) – d) (page 37)	b) Tactile alarm devices provided for people ----- greater than 3 m in length. c) The intensity of output of tactile ----- to attract attention. d) Advice should be sought from OFCOM ----- using radio signals.	Local Design Manual: Barrier Free Access shall be the governing guide.
3.10	Clause 18.2.2 (page 37)	Entire Clause 18.2.2 – Portable alarm devices	Local Design Manual: Barrier Free Access shall be the governing guide.
3.11	Clause 19.2.2 (page 40)	Entire Clause 19.2.2 – Recommendations applicable to staff alarms	Staff alarm is generally not allowed locally.
3.12	Clause 19.2.3 (page 40)	Entire Clause 19.2.3 – Recommendations applicable to audible “Alert” signals	Alert signal alarm is generally not allowed locally.
3.13	Clause 30.2 (page 83)	Entire Clause 30.2 – Recommendations	To suit local requirement.
3.14	Clause 31.2 (page 85)	Entire Clause 31.2 – Recommendations	To suit local requirement.

List Three : Clauses to be taken as reference only
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List-Item	BS Clause/Paragraph/ Table/Page	Context	Reason
3.15	Clause 32.2 (page 86)	Entire Clause 32.2 – Recommendations	To suit local requirement.
3.16	Clause 34.2 (page 88)	b) any relevant design information regarding.....accordance with the recommendations of Clause 40.	To suit local requirement.
3.17	Clause 35.2.3 h) (page 90)	h) Many aspirating fire detection systems can operate at a level of sensitivity much should be used.	To suit local requirement.
3.18	Clause 35.2.4 (page 92)	Entire Clause 35.2.4 – Recommendations for selection of alarm type	To suit local requirement.
3.19	Clause 35.2.6 (page 92)	Entire Clause 35.2.6 – Recommendations for performance monitoring of newly commissioned systems	To suit local requirement.
3.20	Clause 35.2.7.2 (page 94)	Entire Clause 35.2.7.2 Recommendations	To suit local requirement.
3.21	Clause 35.2.7.3 b) (page 95)	Tender documents for contractand of the precautions to be adopted when working.	Not mandatory requirements.
3.22	Clause 35.2.7.3(c) (page 95)	Where temporary work involving the generation ofshould ensure that proper reinstatement of the protection occurs.	To suit local requirement.
3.23	Clause 35.2.7.3 f) (page 95)	All false alarms should be properly31.2 and Clause 48].	Not mandatory requirements.
3.24	Clause 35.2.7.4 (page 95)	Entire Clause 35.2.7.4 – Recommendations for service and maintenance	To suit local requirement.
3.25	Clause 36.2 a) – c) (page 97)	a) The responsibilities associated with of the installation work. b) The installer of 6.2c). c) The installerof 7.2b).	Not mandatory requirements.
3.26	Clause 36.2 i) (page 98)	Where an installer identifies any circumstances that might.....purchaser or user should be informed accordingly [see also 7.2(b)].	Not mandatory requirements.
3.27	Clause 36.2 m) & n), Note 2 & Note 3 (page 98)	m) The installer should complybe the responsibility of others. n) On completion of his works,, signed by a competent person. Note 2 Under BS 7671, the installer, solely in respect of the mains supply. Note 3 A designer might accept responsibility.....certificate issued by the installer (see Clause 41).	Not mandatory requirements.
3.28	Clause 39.2 c) 28) (page 102)	All relevant documentation (see Clause 40) has been provided to the user or purchaser.	Not mandatory requirements.
3.29	Clause 39.2 f) (page 103)	On completion of the commissioning, a certificate signed by a competent person in accordance with model given in G.3 should be issued.	Not mandatory requirements.

List Three : Clauses to be taken as reference only
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List-Item	BS Clause/Paragraph/ Table/Page	Context	Reason
3.30	Clause 40.2 b) – d) (page 103)	An adequate operation and maintenance manual for the system; thisA model format for a log book is given in Annex F;	Not mandatory requirements.
3.31	Clause 46.2 (page 113)	Entire Clause 46.2 - Recommendations for special inspection on appointment of a new servicing organization	Not mandatory requirements.
3.32	Clause 47.2 (page 117)	Entire Clause 47.2 – Recommendations	Not mandatory requirements.
3.33	Clause 47.3 (page 118)	Entire Clause 47.3 - Action in the event of pre-alarms	Not mandatory requirements.
3.34	Clause 48.2 Note (page 118)	A model format for a log book is contained in Annex F.	Not mandatory requirements.
3.35	Annex B (page 120)	Entire Annex B – Typical noise levels in buildings	Foreign data can only be used as reference.
3.36	Annex C (page 122)	Entire Annex C – Control and transmission equipment for tactile alarm devices provided for people with impaired hearing systems	Not mandatory requirements.
3.37	Annex E (page 125)	Entire Annex E – Schematic for design against false alarms	Not mandatory requirements.
3.38	Annex F (page 126)	Entire Annex F – Model format for system log book	Not mandatory requirements.