

**General Specification for Fire Service Installation
in Government Buildings
of the Hong Kong Special Administrative Region
2012 Edition**

The 2012 edition of the General Specification for Fire Service Installation in Government Buildings of the Hong Kong Special Administrative Region comprises updates and revisions to the 2007 edition.

The date and details for full implementation of the new General Specification for Fire Service Installation in Government Buildings of the Hong Kong Special Administrative Region 2012 edition will be announced in due course. Before the aforementioned date, the General Specification for Fire Service Installation in Government Buildings of the Hong Kong Special Administrative Region 2007 edition (Incorporating Corrigendum No. GSFS01) will still be the Contractual Document for the captioned installation. The new 2012 edition may be viewed on the ArchSD Homepage in preparation for its full implementation.

**MAJOR CHANGES IN THE GENERAL SPECIFICATION FOR
FIRE SERVICE INSTALLATION IN GOVERNMENT BUILDINGS OF
THE HONG KONG SPECIAL ADMINISTRATION REGION– 2012 EDITION**

Old Ref. No.	New Ref. No.	Major Changes
The changes in the Corrigendum No. GSFS01 for the General Specification for Fire Service Installation in Government Building of the Hong Kong Special Administrative Region 2007 Edition are incorporated into the 2012 Edition.		
<p>General revision on the following terminologies:</p> <p>(a) Change “Installation” or “fire service installation” or “fire service installations” to “the Installations”.</p> <p>(b) Change “Works” to “Installations”.</p> <p>(c) Change “Contractor” to “FS Contractor”.</p> <p>(d) Change “CAP 409” to “the Engineers Registration Ordinance (Cap. 409)”.</p> <p>(e) Change “other contractors and sub-contractors” to “other contractors and sub-contractors of the Building Contractor”.</p> <p>(f) Change “the representatives of the Architect” or “Architect’s representatives” to “Architect’s Representatives”.</p>		
TABLE OF CONTENTS		
-	A4.2.7	Add “A4.2.7 Checking Drawings of Other Trades”.
-	A5.1.15	Add “A5.1.15 Equipment Deviation”.
B3.22	B3.22	Change “B3.22 Pre-Action System” to “B3.22 Pre-Action Installation”.
-	B11.1.13	Add a new paragraph titled as “Automatic Control Devices” in sub-section B11.1-Emergency Lighting.
PART A – SCOPE AND GENERAL REQUIREMENTS		

Old Ref. No.	New Ref. No.	Major Changes
SECTION A1 – SCOPE OF SPECIFICATION		
A1.3	A1.3	(a) Change “In this General Specification, the following words or expressions shall have the meanings assigned to them except when the context otherwise requires: -“to “In this General Specification, all words and expressions shall have the meaning as assigned to them under the Conditions unless otherwise provided herein. The following words or expressions shall have the meanings assigned to them except when the context otherwise requires: -“.
A1.3.1	A1.3.1	(a) Replaced the terms and definitions of “Contract” and “Contractor” by “Conditions”. (b) Add the terms and definitions of “Electrical General Specification”, “A/C General Specification”, “Lift General Specification”, “FS Contractor”, “Installations”, “Particular Specification” and “Proprietary brand name materials or products”. (c) Modified the definitions of “Architect”, “Building Contractor” and “Tender”.
A1.3.2	A1.3.2	(a) Add abbreviation of “ArchSD”. (b) Redefine the abbreviations of “EMSD”, “FSD” and “WSD” by adding the term “the Government” for consistency with other GS. (c) Delete abbreviation of “HKSAR”. (d) Change “BS 7671:2001” to “BS 7671:2008”.

Old Ref. No.	New Ref. No.	Major Changes
A1.5	A1.5	<p>(a) Change “Where design is specified, all design shall be checked and endorsed by a Registered Professional Engineer in Hong Kong under CAP. 409 in approved disciplines (or person having equivalent approved professional qualification) specialised and experienced in fire service installation design employed by the Contractor and approved by the Architect.” to “Where design is specified, all design shall be checked and endorsed by a Registered Professional Engineer (RPE) in Hong Kong under the Engineers Registration Ordinance (Cap. 409) in Fire, Building Services, Mechanical or Electrical discipline (or person having equivalent approved professional qualification) with proof of experience of at least 3 years in relevant Fire Service Installation design works. The professional qualifications and experience of this Registered Professional Engineer shall be accepted and approved by the Architect.”.</p> <p>(b) Change “Where approval is not obtained, the design shall be checked and endorsed by a Registered Professional Engineer in Hong Kong under CAP. 409 in approved disciplines (or person having equivalent approved professional qualification).” to “Where approval is not obtained, the design shall be checked and endorsed by a Registered Professional Engineer with the same professional qualifications, experience and approval requirements mentioned in the above paragraph.”.</p>
A1.6	A1.6	Change “For fire service equipment listed in FSD Circular Letter No. 1/2007 and 4/1998 requiring FSD’s approval” to “For fire service equipment listed in FSD Circular Letter No. 1/2007 requiring FSD’s approval ... ”.
SECTION A2 – STATUTORY OBLIGATIONS AND OTHER REGULATIONS		
A2.1	A2.1	(a) Change “The fire service installation shall comply with the following: -” to “The Fire Service Installations shall conform in all respects with the followings: -”.

Old Ref. No.	New Ref. No.	Major Changes
A2.1.1	A2.1.1	<ul style="list-style-type: none"> (a) Change “Statutory Obligation” to “All Enactments and Regulations, in particular, the FS Contractor’s attention is drawn to the followings:”. (b) Add “(a) Lifts and Escalators (Safety) Ordinance (Cap. 327), and other subsidiary legislation made under the Ordinance;”. (c) Change “Chapter” to “Cap.”. (d) Change “Air Pollution Ordinance, Chapter 311,” to “Air Pollution Control Ordinance (Cap. 311),”. (e) Change “Ozone Layer Protection, Chapter 403,” to “Ozone Layer Protection Ordinance (Cap. 403),”. (f) Change “Public Health and Municipal Service Ordinance, Chapter 132, Provision of Municipal Service (Reorganisation) Ordinance, Chapter 552,” to “Public Health and Municipal Services Ordinance (Cap. 132), Provision of Municipal Services (Reorganisation) Ordinance (Cap. 552),”. (g) Add “(u) Karaoke Establishments Ordinance (Cap. 573), and other subsidiary legislation made under the Ordinances;”.

Old Ref. No.	New Ref. No.	Major Changes
A2.1.2	A2.1.2	<ul style="list-style-type: none"> (a) Add “(a) Code of Practice on the Design and Construction of Lifts and Escalators issued by the EMSD;”. (b) Change “Electrical and Mechanical Services Department, the Government of the HKSAR” to “EMSD”. (c) Change “Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment published by Fire Services Department, the Government of the HKSAR (hereinafter referred as FSDCoP);” to “Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment published by the FSD;”. (d) At item (f), redefine the collective term as “Modified BS 5839-1”. (e) Replace item (g) & (h), Code of Practice for Energy Efficiency of Electrical and Air Conditioning Installations issued by the Electrical & Mechanical Services Department, the Government of the HKSAR by “(h) Code of Practice for Energy Efficiency of Building Services Installations in Buildings issued by the EMSD and all the subsequent amendments”. (f) Change “Architectural Services Department” or “Architectural Services Department, the HKSAR” to “ArchSD”. (g) Change “Water Supplies Department, The HKSAR” to “WSD”.

Old Ref. No.	New Ref. No.	Major Changes
A2.1.3	A2.1.3	(a) Change “Chapter” to “Cap.”. (b) Public Health and Municipal Service Ordinance, Chapter 132, Provision of Municipal Service (Reorganisation) Ordinance, Chapter 552, Laws of the Hong Kong Special Administrative Region;” to “Public Health and Municipal Services Ordinance (Cap. 132), Provision of Municipal Services (Reorganisation) Ordinance (Cap. 552), and other subsidiary legislation made under the Ordinances;”. (c) Change “Construction Site (Safety) Regulations; and” to “Construction Sites (Safety) Regulations, Factories and Industrial Undertakings Ordinance (Cap. 59); and”. (d) Change “(e) Construction Site Safety Manual issued by the Environment, Transport and Works Bureau, the Government of the HKSAR.” to “(e) Construction Site Safety Manual issued by the Works Branch of the Development Bureau, the Government of the HKSAR.”.
A2.1.4	A2.1.4	Change “ quoted in this General Specification including all subsequent amendments, revisions, and standards superseding the standards listed herein which are current at the closing date of the tender of the Contract, unless otherwise specified or unless the latest amendments are not allowed or approved by the relevant authorities under the statutory regulations.” to “ quoted in this General Specification including all subsequent amendments, revisions, and standards superseding the standards listed herein which are published before the date of first tender invitation for the Contract or the Nominated Sub-contract (as appropriate) unless otherwise specified or unless the latest amendments are not allowed or approved by the relevant authorities under the statutory regulations.”.
A2.2	A2.2	Change “ in case of ambiguities or discrepancies the same shall be explained by the Architect who shall issue to the Contractor instructions clarifying such ambiguities or discrepancies.” to “ in case of ambiguities or discrepancies the same shall be dealt with in accordance with the Conditions.”.
SECTION A3 – EXECUTION OF INSTALLATIONS		

Old Ref. No.	New Ref. No.	Major Changes
A3.2(e)	A3.2(e)	Change “ RFSI and RFSP not carried by the Contractor for ” to ““ RFSI and RFSP not carried out by the FS Contractor for ””.
A3.3	A3.3	<p>(a) Change “ as a result of the Contractor’s failure to comply with the above requirements are recovered by the Employer from the FS Contractor.” to “ as a result of the FS Contractor’s failure to comply with the above requirements are recoverable by the Employer from the FS Contractor as a debt under the Contract or via the Building Contractor as if it is a debt liable to the Building Contractor under the Sub-contract as appropriate.”.</p> <p>(b) Change “ the Contractor shall bear the full cost of such works including but not limited to any unnecessary or incorrect cutting-away and making-good, and shall reimburse the Employer for all cost incurred in this connection.” to “ the FS Contractor shall bear the full cost of such works including but not limited to any unnecessary or incorrect cutting-away and making-good, and all cost incurred in this connection are recoverable by the Employer from the FS Contractor as a debt under the Contract or via the Building Contractor as if it is a debt liable to the Building Contractor under the Sub-contract as appropriate.”.</p> <p>(c) Change “ all losses suffered in this connection by the Employer in having such works re-executed and rectified shall be recoverable by the Employer from the Contractor.” to “ all losses suffered in this connection by the Employer in having such works re-executed and rectified shall be recoverable by the Employer from the FS Contractor as a debt under the Contract or via the Building Contractor as if it is a debt liable to the Building Contractor under the Sub-contract as appropriate.”.</p>
SECTION A4 – DRAWINGS AND MANUALS		
A4.2.2	A4.2.2	Update “ISO 5457:1999” to “ISO:5457:1999/Amd 1:2010 and other subsequent amendments/additional requirements”.
A4.2.3	A4.2.3	Add “(a) Symbols and notations same as and compatible with the Drawings’ standard and content;”.

Old Ref. No.	New Ref. No.	Major Changes
A4.2.6	A4.2.6	<p>(a) Change “4 sets of the preliminary installation drawings shall be submitted to the Architect who will then check, endorse and return 2 sets to the Contractor for onward submission to the FSD for perusal. Installations can only be commenced upon receipt of a set of drawings chopped/recorded by the FSD and written approval from the Architect. 4 sets of all such approved drawings and 3 sets of electronic copies in CD-ROM shall then be submitted to the Architect. If there are changes in the course of installation, the Contractor shall submit the updated installation drawings which shall reflect the as-built installation to the FSD for perusal prior to the FSD inspection.” to “4 sets of the as-fitted installation drawings (2sets of the installation drawings shall be coloured) shall be submitted to the Architect who will then check, endorse and return 2 sets (1 set shall be coloured) to the FS Contractor for onward submission to the FSD for inspection and compliance checking. 4 sets of all such as-fitted drawings and 3 sets of electronic copies in CD-ROM shall then be submitted to the Architect. If there are further changes in the course of installation, the FS Contractor shall submit the updated installation drawings which shall reflect the as-built installation to the FSD for perusal prior to the FSD inspection and compliance checking.”.</p> <p>(b) Change “The Contractor shall also keep on Site one set of updated approved installation drawings available for inspection by the Architect at all times. The drawings shall be marked up with any modifications made” to “The FS Contractor shall also keep on Site one set of updated as-fitted installation drawings submitted to FSD and this set of drawings shall be available for inspection by the Architect at all times. The drawings shall be marked up with any further modifications made”.</p>

Old Ref. No.	New Ref. No.	Major Changes
-	A4.2.7	<p>Add the following new Clause:</p> <p>“A4.2.7 Checking Drawings of Other Trades</p> <p>The FS Contractor shall follow the design intent of the Drawings in planning and carrying out the work and shall cross check with other trades in order to verify the line, level, space and sequence in which the Installations is to be installed.</p> <p>If directed by the Architect, the FS Contractor shall, without extra charge, make reasonable adjustments to the proposed installation drawing layouts as are necessary to prevent conflicts with the work of other trades or for the proper sequence of and execution of Works. Where such modifications are of a nature and of such unforeseen complexity that they involve unreasonably extra work not covered by the Contract, they may be covered by variation order to be issued by the Architect wherever such a requirement is justified.”.</p>
A4.3.1	A4.3.1	<p>(a) Change “ of as-built drawings within 28 days of the issuance of the certification of completion to the Architect for checking.” to “ of as-built drawings within 28 days of the issuance of the certification of completion in accordance with the Contract to the Architect for checking.”.</p> <p>(b) Change “Unless otherwise specified, the final approved as-built drawings shall be in one set of hard copy and 3 sets of electronic copies.” to “Unless otherwise specified, the final approved as-built drawings shall be in 3 sets of hard copy and 3 sets of electronic copies.”.</p> <p>(c) “The detailed requirements and the media of as-built drawings set out in the Preliminaries of the Bills of Quantities or the Specification Preliminaries shall be followed as appropriate.” to “The detailed requirements and the media of as-built drawings set out in the Contract shall be followed as appropriate.”.</p>

Old Ref. No.	New Ref. No.	Major Changes
A4.3.2	A4.3.2	Change “As-built drawings shall only be of standard sizes of A0, A1 or B1 size as stipulated in ISO 5457:1999.” to “As-built drawings shall only be of standard sizes of A0, A1 or B1 size as stipulated in ISO 5457:1999/Amd 1:2010, and other subsequent amendments/additional requirements.”.
A4.4.3(a)	A4.4.3(a)	Change “.... contract commencement date, substantial completion date and end date of Maintenance Period.” to “ contract commencement date, substantial completion date and expiry date of Maintenance Period.”.
A4.7	A4.7	Change “... shall be checked and endorsed by a Registered Professional Engineer in Hong Kong under CAP. 409 in approved disciplines (or person having equivalent approved professional qualification) specialised and experienced in fire service installation employed by the Contractor and approved by the Architect before submission.”. to “... shall be checked and endorsed by a Registered Professional Engineer in Hong Kong under the Engineers Registration Ordinance (Cap. 409) in Fire, Building Services, Mechanical or Electrical discipline (or person having equivalent approved professional qualification) with proof of experience of at least 3 years in relevant Fire Service Installation design works. The professional qualifications and experience of this Registered Professional Engineer shall be accepted and approved by the Architect.”.
SECTION A5 – GENERAL REQUIREMENTS OF THE INSTALLATIONS		
A5.1.1	A5.1.1	<p>(a) Change “ and/or codes of practice issued by the relevant recognised international institutes, standard bodies and authorities and as specified in the Specification.” to “ and/or codes of practice issued by the relevant recognised international institutes, standard bodies and authorities and as specified in this General Specification which are published before the date of first tender invitation for the Contract or the Nominated Sub-contract as appropriate.”.</p> <p>(b) Add “When material or equipment complying with other standards that are not specified in this General Specification, the FS Contractor shall satisfy the Architect that the quality of the material and equipment offered is equal to or better than that specified in this General Specification.”.</p>

Old Ref. No.	New Ref. No.	Major Changes
A5.1.7	A5.1.7	Update IEC 61000-4-34:2005 to IEC 61000-4-34:2007+A1:2009.
-	A5.1.15	Add a new Clause on “A5.1.15 Equipment Deviations”.
PART B – FIRE SERVICE INSTALLATION		
SECTION B1 – PIPEWORK, VALVES AND FITTINGS		
B1.1	B1.1	<p>(a) Add “Fittings shall be to BS EN 10241: 2000 or BS EN 10242: 1995 and the pressure rating of the fittings shall be greater than the system working pressure.” to the end of the 4th paragraph.</p> <p>(b) Change “For operation at working pressure above 1600 kPa, pipes above 150 mm diameter shall be at least carbon steel of ERW320 to BS EN 10216-1:2002 and BS EN 10217-1:2002 or better materials ” to “For operation at working pressure above 1600 kPa, pipes above 150 mm diameter shall be at least carbon steel of grade P195TR1 to BS EN 10216-1:2002 and BS EN 10217-1:2002 or better materials ”.</p>
B1.3	B1.3	<p>(a) If not specified in the Particular Specification, for pipe diameter greater than or equal to 80mm, ductile iron pipes and fittings in item (b) above shall be used.</p> <p>(b) The routing and details of all the underground piping shall be submitted to the Architect for approval.</p>
SECTION B2 – HYDRANT AND HOSE REEL SYSTEM		
B2.2	B2.2	At item (d), update BS 336:1989 to BS 336:2010.

Old Ref. No.	New Ref. No.	Major Changes
B2.5	B2.5	Change “A hose guide complete with nylon or similar runners shall be supplied and installed adjacent to fixed type hose reels to enable the free run out of the hose in any direction as required.” to “A hose guide complete with nylon or similar runners shall be supplied and installed adjacent to fixed type hose reels to enable the free run out of the hose in any direction.”.
B2.7	B2.7	Update BS 1042-1.4:1992 to BS EN ISO 5167-1:2003 and PD ISO/TR 9464:2008.
SECTION B3 – AUTOMATIC SPRINKLER SYSTEM		
B3.8	B3.8	Change “.. in open position to the WSD Specification shall be fitted to the sprinkler installation at a point between the town mains connection and the sprinkler inlet.” to “ in open position to the WSD Specification shall be fitted next/adjacent to the sprinkler inlet.”.
B3.16	B3.16	<p>(a) Change “Automatic changeover shall be supplied and installed such that the standby pump shall be put into operation, after a preset time lag, ” to “Automatic changeover shall be supplied and installed such that the standby pump shall be put into operation, after the trunk mains pressure falls to 60% of the system pressure, ”.</p> <p>(b) Change “The sprinkler pump shall be set to operate when the system pressure has fallen by 200 kPa or dropped to a value less than 80% of the pressure attained” to “The duty sprinkler pump shall be set to operate when the system pressure has fallen by 200 kPa or dropped to a value less than 80% of the pressure attained ... ”.</p>

Old Ref. No.	New Ref. No.	Major Changes
B3.22	B3.22	(a) Re-define the two types of pre-action system in accordance with Clause 11.4 of LPC Rules for Automatic Sprinkler Installations incorporating BS EN 12845: 2003. Type A shall be used for pre-action installation unless otherwise specified. (b) The maximum area controlled by a single wet alarm valve is clarified. (c) The requirement for sprinkler system with more than one pre-action sprinkler installations is added. (d) The fire detection system to activate the pre-action installation is refined. (e) Correct wordings of “Type 1 or Type 2” to “Type A or Type B”. (f) Change “BS 5839-1” to “Modified BS 5839-1”.
B3.23	B3.23	Change “BS 5839-1” to “Modified BS 5839-1”.
SECTION B4 – TANKS AND PUMPS		
B4.5	B4.5	Update BS EN 1092-3: 2004 to BS EN 1092-3:2003.
B4.8	B4.8	Update BS EN 60034-1: 2006 to BS EN 60034:1-2010.
B4.10	B4.10	Update BS EN 60947-4-1: 2001 to BS EN 60947-4-1: 2010.
B4.12	B4.12	Change “..... shall comply with Code of Practice for Energy Efficiency of Electrical Installation issued by Electrical and Mechanical Services Department and all subsequent amendments,” to “ shall comply with the Code of Practice for Energy Efficiency of Building Services Installations in Buildings issued by Electrical and Mechanical Services Department and all subsequent amendments, ”.
SECTION B5 – GASEOUS EXTINGUISHING SYSTEM		

Old Ref. No.	New Ref. No.	Major Changes
B5.1 B5.2 B5.7 B5.8 B5.13	B5.1 B5.2 B5.7 B5.8 B5.13	Update NFPA 2001:2008 to NFPA 2001:2012.
SECTION B6 – MANUAL AND AUTOMATIC FIRE ALARM SYSTEM		
B6.3 B6.4 B6.7 B6.11 & B6.13	B6.3 B6.4 B6.7 B6.11 & B6.13	Change “BS 5839-1” to “Modified BS 5839-1”.
SECTION B7 – AUDIO/VISUAL ADVISORY SYSTEM		
B7.2	B7.2	Change “The system shall also comply with the General Specification for Electrical Installation” to “The system shall also comply with the Electrical General Specification”.
B7.3	B7.3	Update BS 5266-1:2005 to BS 5266-1:2011.
SECTION B8 – FIRE ALARM CONTROL SYSTEM		

Old Ref. No.	New Ref. No.	Major Changes
B8.1	B8.1	(a) Change “Where time related system, transmission delay unit and/or similar features are needed, ” to “Where time related system, transmission delay unit and/or similar features are needed for the fire detection system.”. (b) Change “Time related system shall be provided to automatic fire alarm system unless otherwise specified.” to “Where specified, time related system shall be provided to automatic fire alarm system with alarm signals for fire detection system.”.
B8.3 B8.5	B8.3 B8.5	Change “BS 5839-1” to “Modified BS 5839-1”.
SECTION B9 – ELECTRICAL INSTALLATION		
B9.1	B9.1	The following paragraph is added: “Where control panels, electrical switches or isolators are installed in an environment with high humidity such as plant rooms or control rooms without the provision of air-conditioning or have a risk of condensation, in order to prevent the condensation seeping into the panels, switches or isolators, a space or gap of 10mm shall be provided between the wall and the back side of such equipment.”.
B9.3	B9.3	(a) Update EN 50160: 2007 to EN 50160: 2010. (b) Update IEC 61000-4-34: 2005 to IEC 61000-4-34: 2007+A1:2009
B9.5	B9.5	Change “BS 5839-1” to “Modified BS 5839-1”.
B9.8	B9.8	Change “BS 5839-1” to “Modified BS 5839-1”.

Old Ref. No.	New Ref. No.	Major Changes
B9.9	B9.9	(a) At item (b), update BS EN 50200 to BS EN 50200: 2006. (b) At item (e), update BS EN 7846: 2000 to BS 7846: 2009. (c) Change “BASEC (British Approval Services for Electrical Cables)” to “BASEC (British Approvals Service for Electrical Cables)”. (d) Update BS EN 60332-2-2 to BS EN 60332-2-2: 2004. (e) Update “BS EN 50266-2-1 TO 2-5: 2001” to “BS EN 60332-3-21 to 3-25: 2009”. (f) Update BS 5266-1:2005 to BS 5266-1:2011.
B9.12	B9.12	Update BS EN 50200: 2002 to BS EN 50200: 2006.
B9.14	B9.14	Change “Code of Practice for Energy Efficiency of Lighting Installation issued by Electrical and Mechanical Services Department, 2007 Edition, and all subsequent amendments prior to the date of tender return,” to “Code of Practice for Energy Efficiency of Building Services Installations in Buildings issued by Electrical and Mechanical Services Department and all subsequent amendments prior to the date of tender return,”.
SECTION B10 – PORTABLE HAND-OPERATED APPROVED APPLIANCES		
B10.1	B10.1	Change “Portable hand-operated approved appliance located outdoor shall be installed inside a cabinet to the approval of the FSD and the Architect.” to “Portable hand-operated approved appliance located outdoor shall be installed inside a cabinet to the approval of the Architect.”.
SECTION B11 – EMERGENCY LIGHTING, EXIT SIGN AND EMERGENCY GENERATOR		
B11.1.1	B11.1.1	Update BS 5266-1:2005 to BS 5266-1:2011.
B11.1.3	B11.1.3	(a) Update IEC 60073 to IEC 60073: 2002. (b) Update BS 5266-1:2005 to BS 5266-1:2011.

Old Ref. No.	New Ref. No.	Major Changes
B11.1.4	B11.1.4	(a) Change BS 5839-1: 2002 to Modified BS 5839-1. (b) Update BS 5266-1:2005 to BS 5266-1:2011.
B11.1.6	B11.1.6	(a) Change BS 5839-1 to Modified BS 5839-1. (b) Update IEC 60742 to BS EN 61558-1: 2005+A1: 2009.
B11.1.8	B11.1.8	Update BS 5266-1:2005 to BS 5266-1:2011.
-	B11.1.13	<p>The following paragraph is added:</p> <p>“B11.1.13 Automatic Control Devices</p> <p>When an emergency lighting installation is controlled by automatic control device(s) or the like, such as automatic dimming and/or automatic on/off by photo cell and/or motion sensor etc., such automatic control devices and circuit shall be designed and constructed to ensure that they shall not interrupt or affect in any manner the normal operation of and the power supply to any of the emergency lighting.</p> <p>The automatic control device shall be fail-safe, but in no way affect the operation of the emergency lighting under normal or emergency power supply conditions, when the device fails.</p> <p>The automatic control device and circuit shall comply with relevant requirements of the General Electrical Specification.</p> <p>When the automatic control device and/or circuit is/are integrated with the emergency lighting luminaire, it/they shall comply with relevant requirements of BS EN 60598-2-22: 1998+A2: 2008.”</p>

Old Ref. No.	New Ref. No.	Major Changes
B11.2	B11.2	(a) Update BS EN 60598-2-22:1999 to BS EN 60598-2-22: 1998+A2: 2008. (b) Update BS EN 60598-2-22:1990+A2: 2008 to BS EN 60598-2-22: 1998+A2: 2008. (c) Update BS 5266-1:2005 to BS 5266-1:2011.
SECTION B12 – MECHANICAL, SPECIAL AND RELATED FIRE SERVICE INSTALLATIONS		
B12.1	B12.1	(a) Change “All works for the mechanical ventilation system, smoke extraction system and pressurization of staircases system in the buildings shall be carried out by a contractor registered both with the FSD and with the Buildings Department complying with the statutory regulations.” To “The FS Contractor shall employ a contractor in the List Approved Suppliers of Materials and Specialist Contractors for Public Works in the Category of Air-conditioning Installation to carry works for the mechanical ventilation system, smoke extraction system and pressurization of staircases system in the buildings and this contractor shall also be a Registered Fire Service Installation Contractor of relevant Classes registered with the FSD. The name of this contractor shall be submitted to the Architect for approval prior to his employment.” (b) Change “The Contractor shall employ a Registered Professional Engineer in Hong Kong under CAP 409 in fire, building services, mechanical or electrical discipline (or equivalent approved professional qualification) ” to “The FS Contractor shall employ a Registered Professional Engineer in Hong Kong under the Engineers Registration Ordinance (Cap. 409) in Fire, Building Services, Mechanical or Electrical discipline (or equivalent approved professional qualification)” (c) Change “The Contractor shall also collect information from relevant installation parties and include mechanical fire service installation by others in submissions such as Form 314 to the FSD prior to the installation.” to “The FS Contractor shall also collect information from relevant installation parties and include mechanical Fire Service Installation by others in the submissions such as Form 314 and 501 to the FSD prior to the commencement and completion of all the installation works.”

Old Ref. No.	New Ref. No.	Major Changes
B12.3	B12.3	(a) Add “The pressurization of staircases system shall comply with the followings: -” before Item (a). (b) At item (e), update BS EN 60439-1: 1999 to BS EN 61439-1: 2009 and BS EN 61439-2: 2009
B12.4(c)	B12.4(c)	Change “ supply system is used to serve several compartments where motorized fire and smoke dampers to the approval of the FSD may be required. Also, motorized fire and smoke dampers to the approval of the FSD shall be required ” to “ supply system is used to serve several compartments where motorized fire and smoke dampers complying with FSD’s requirements may be required. Also, motorized fire and smoke dampers complying with FSD’s requirements shall be required ”.
B12.4(d)	B12.4(d)	(a) Update BS EN 60439-1: 1999 to BS EN 61439-1: 2009 and BS EN 61439-2: 2009. (b) Add “Cables shall be fire resistant type and shall comply with FSD’s requirements.” at the end of paragraph.
B12.6	B12.6	Change “The engineer employed shall be a Registered Professional Engineer in Hong Kong under CAP 409 in fire, building services, mechanical or electrical discipline (or equivalent approved professional qualification)..... ” to “The engineer employed shall be a Registered Professional Engineer in Hong Kong under the Engineers Registration Ordinance (Cap. 409) in Fire, Building Services, Mechanical or Electrical discipline (or equivalent approved professional qualification)..... ”.
SECTION B13 – MISCELLANEOUS		

Old Ref. No.	New Ref. No.	Major Changes
B13.1	B13.1	<ul style="list-style-type: none"> (a) Change “Labels and notices shall be fixed by screws.” to “Labels and notices shall be fixed by brass or stainless steel screws.”. (b) Change “The labels shall be suspended from brass or stainless steel chain loops over the relevant pipe.” To “The labels shall be suspended from brass or stainless steel chain or stainless steel wire loops over the relevant pipe.”. (c) Change “All major fire service equipment and components such as pumps and motors, flow switches, alarm valves, expansion joints, pipes and fittings etc.” to “All major fire service equipment and components such as air compressor, pumps and motors, flow switches, alarm valves, expansion joints etc.”. (d) Change “Instructions for oiling and/or greasing of all fans, motors etc. shall be attached to the relevant greasing or oiling points.” to “Instructions for oiling and/or greasing of all fans, motors etc. shall be attached or located near to the relevant greasing or oiling points.”. (e) Change “ fire alarm system shall be properly labeled to the approval of the FSD.” to “ fire alarm system shall be properly labeled to the requirements of relevant system design standards and to the approval of the Architect and the FSD.”. (f) A paragraph in the submission and approval of the label schedule is added in the 2nd last Para.
B13.3	B13.3	<ul style="list-style-type: none"> (a) Change “Paint all surfaces including cable trunking/conduit, panel, box, ” to “Paint all surfaces including cable trunking/tray/conduit, panel, box, ”. (b) Change “Galvanised pipework concealed in false ceiling or galvanised duct not normally accessible and/or seen need not be painted ” to “Galvanised pipework or air duct concealed in false ceiling or not normally accessible and/or seen need not be painted ”
PART C – PERFORMANCE BASED FIRE ENGINEERING		
SECTION 1 – PERFORMANCE BASED FIRE ENGINEERING		

Old Ref. No.	New Ref. No.	Major Changes
C1.1	C1.1	Change “The professional engineer(s) responsible for the PBFE shall be a Registered Professional Engineer in Hong Kong under CAP 409 in fire, building services, mechanical or electrical discipline (or other equivalent approved professional qualifications) with proof of experience of at least 3 years in relevant fire service installation design and studies..... ” to “The professional engineer(s) responsible for the PBFE shall be a Registered Professional Engineer in Hong Kong under the Engineers Registration Ordinance (Cap. 409) in Fire, Building Services, Mechanical or Electrical discipline (or other equivalent approved professional qualifications) with proof of experience of at least 3 years in relevant Fire Service Installation design and fire safety engineering studies..... ”.
C1.5	C1.5	Change “The independent checking engineer shall be a Registered Professional Engineer in Hong Kong under CAP 409 in fire, building services, mechanical or electrical discipline (or other equivalent approved professional qualifications) with proof of experience of at least 3 years in relevant fire service installation design and studies..... ” to “The independent checking engineer shall be a Registered Professional Engineer in Hong Kong under the Engineers Registration Ordinance (Cap. 409) in Fire, Building Services, Mechanical or Electrical discipline (or other equivalent approved professional qualifications) with proof of experience of at least 3 years in relevant Fire Service Installation design and fire safety engineering studies ”.

Old Ref. No.	New Ref. No.	Major Changes
C1.7	C1.7	<p>(a) Change “The Contractor shall not use PBFE as the tool primarily to reduce the building and/or fire service provisions in the prescriptive fire codes, building codes, standards and regulations ” change to “The FS Contractor or the Building Contractor shall not use the PBFE studies as the tool primarily to reduce the building and/or fire service provisions in the prescriptive fire codes, building codes, standards and regulations ”.</p> <p>(b) Change “The Contractor shall not use the PBFE as the tool solely to delete any requirement in the prescriptive fire/building codes and regulations unless ” to “The FS Contractor or the Building Contractor shall not use the PBFE studies as the tool solely to delete any requirement in the prescriptive fire/building codes and regulations unless ”.</p> <p>(c) Change “Use of the PBFE to prove the building is still fire safe ” to “Use of the PBFE studies to prove the building is still fire safe ”.</p> <p>(d) Add “(b) Human behaviour and responses when a fire occurs;” to the minimum criteria to be considered in the PBFE assessment.</p>
PART D – INSPECTION, TESTING AND COMMISSIONING		
SECTION 1 – INSPECTION, COMMISSIONING AND ACCEPTANCE TEST		
D1.1.2	D1.1.2	Change “The CEIC shall be a Registered Professional Engineer in Hong Kong under CAP 409 in fire, building services, mechanical or electrical discipline (or other equivalent approved professional qualifications)..... ” to “The CEIC shall be a Registered Professional Engineer in Hong Kong under the Engineers Registration Ordinance (Cap. 409) in fire, building services, mechanical or electrical discipline (or other equivalent approved professional qualifications)..... ”.

Old Ref. No.	New Ref. No.	Major Changes
D1.3	D1.3	Change “Water systems and circuits shall be tested hydraulically to a minimum pressure of 1000 kPa or 1.5 times the working pressure whichever is higher applied at the highest point of the system and held for a period of not less than 15 min without leaks appearing.” to “Water systems and circuits shall be tested hydraulically to a minimum pressure of 1000 kPa or 1.5 times the working pressure whichever is the higher applied at the highest point of the system, and held for a period of not less than 15 min or the required period as stipulated in the relevant system design standards or FSD Circular Letters whichever is the higher, without leaks appearing.”.
D1.6	D1.6	Update BS 5266-1:2005 to BS 5266-1:2011.
PART E – INSPECTION, ATTENDANCE, OPERATION, MAINTENANCE, REPAIR AND FINAL TESTING		
SECTION I		
E1.9 E1.10	E1.9 E1.10	Update BS 5266-1:2005 to BS 5266-1:2011.