GENERAL INTRODUCTION TO THE SUBMISSION OF FSI DRAWINGS UNDER CAP. 636

消防處
Fire Services Department

CHOI Chun-hung Engr(BI)3

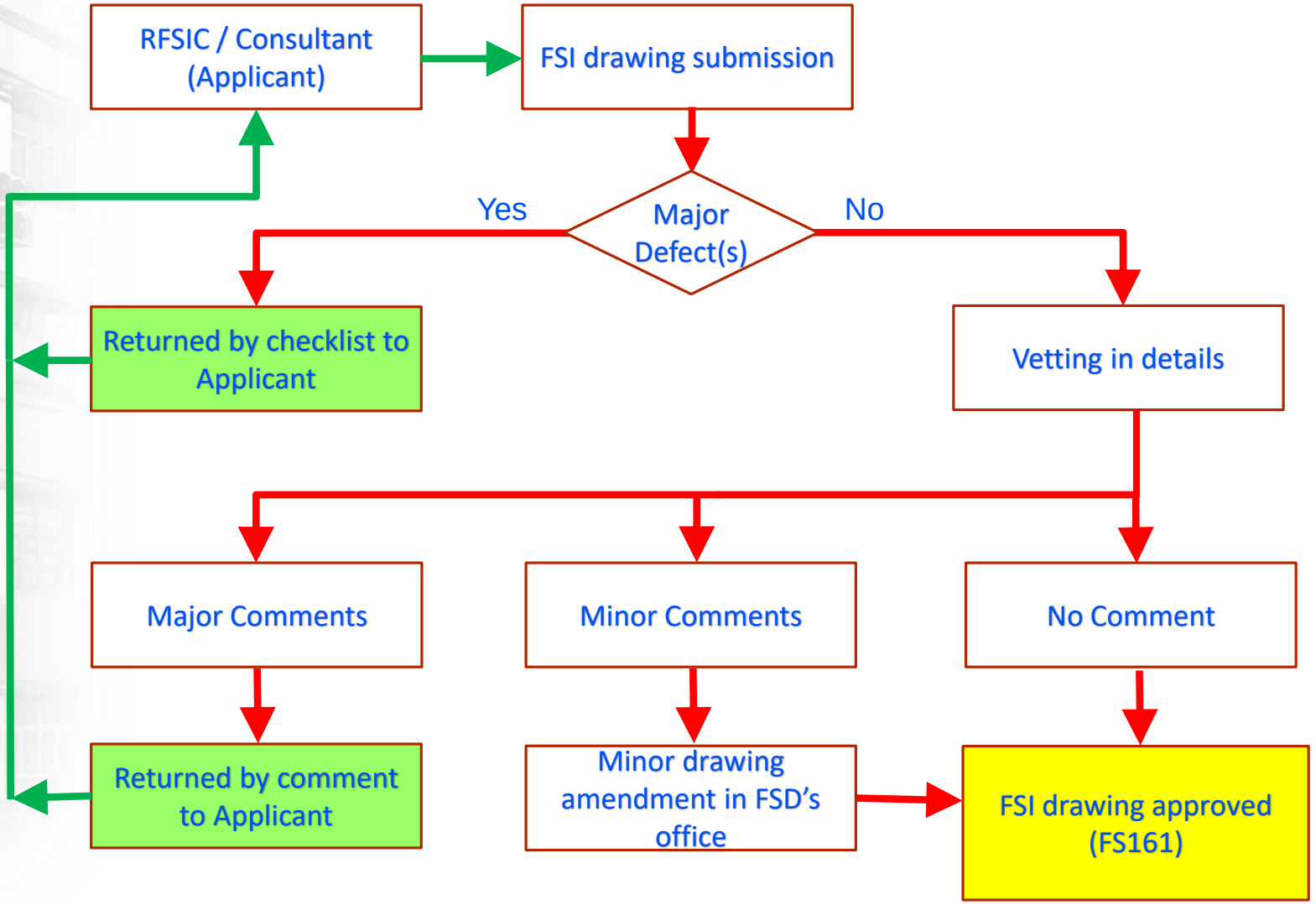
Contents

1. Processing of FSI/314D FSI drawings submission

2. Observations on FSI/314D submission

3. Fire Service Installations Requirements prescribed in the Ordinance

1. Processing of FSI/314D FSI drawings submission



1. Processing of FSI/314D FSI drawings submission (cont'd)

General Checking

A. Form FSI/314D -

- ☆ **Updated/Correct form;**
- ☆ Complete with **accurate information;**
- ☆ Duly **signed** with **company chop;**

B. Supporting document -

- ☆ **Nomination/authorization letter**(s) from employer(s);
- ☆ **Consent letter**(s) from involved privately owned areas (if applicable);
- ☆ **Updated approved General Building Plan** (GBP); or
- ☆ **Letter** of A&A plans submission **to Buildings Department** (BD);
- ☆ **Confirmation letter from WSD** showing the location & size of connection point from water town main, water pressure available, single or double-end fed supply and etc.

1. Processing of FSI/314D FSI drawings submission (cont'd)

General Checking

C. FSI drawing -

- ☆ **3 sets** submitted FSI drawings with **2 sets in colour;**
- ☆ **Scale** of FSI **layout plans;**
- ☆ The status (**new and existing**) of FS installations;
- ☆ The drawing quality (e.g. **size of font/symbol**, **colour contrast** between text/symbols and the drawings, readability/legibility of drawing content, piping arrangement of FS installation, etc.);
- ☆ **Compliance** with the requirements of **Fire Safety Direction** (**FSDn**);
- ☆ **Compliance** with the relevant **BS Standard** and **FSD circular letters**;
- ☆ **Feasibility/Accuracy** and completeness of proposed **FS system**(s)

2. Observations on FSI/314D submission (cont'd)

A. Form FSI/314D -

☒ **Incorrect form** used (FSI/314B & FSI/314C);

Form FSI/314D can be download from FSD's website

Home > Contact Us > Downloadable Forms

Fire Service Installation Contractor (FSIC)

Item	File
Application for Change of Particulars - Fire Services Department Fire Service Installation Contractor (FSIC) (PDF form for electronic submission only) (Note 1)	
Application for Registration as Class 1 and/or Class 2 Fire Service Installation Contractor (FS250A) (Note 1)	
Application for Registration as Class 3 Fire Service Installation Contractor (FS250B) (Note 1)	
Fire Service Installation Schematic Drawings / As-fitted Layout Drawings (FSI/314) (Note 1)	
Fire Service Installation Plans (FSI/314A) (Note 1)	
Fire Service Installation Plans for Prescribed Commercial Premises / Specified Commercial Buildings (FSI/314B) (Note 1)	
Fire Service Installation Plans for Composite Building / Domestic Building (FSI/314C) (Note 1)	
Fire Service Installation Plans for Industrial Building (FSI/314D)	
Consent Form for FSI314 Smoke Control Systems	
Application for Inspection and Testing of Fire Service Installations and Equipment	

2. Observations on FSI/314D submission (cont'd)

Fire Safety (Industrial Buildings) Ordinance (Chapter 636)

(Section 5)

Fire Safety Direction

Our Ref. No. : (15) in FP 63/XXXX
Direction No. : FSD/IB/XXXX/0006/2021

To Owner of 5/F,
Y Y Industrial Building,
Nos. 50–52 Castle Peak Road,
Kowloon

1. TAKE NOTICE that the building at Nos. 50–52 Castle Peak Road, Kowloon is an industrial building within the meaning of Section 3(2) of the Fire Safety (Industrial Buildings) Ordinance (the Ordinance). Pursuant to Section 5(2) of the Ordinance, the Director of Fire Services hereby direct you, as the owner of

5/F, Y Y Industrial Building,
Nos. 50–52 Castle Peak Road, Kowloon

, to provide or improve therein the fire service installations and equipment specified in the attached IB/101b before 9 July 2022.

Form FSI/314D

FSI/314D

To: Director of Fire Services

(Attn: Building Improvement Division 3)

FSDnNo: .....

Fire Service Installation Plans for Industrial Building at

_____

_____

_____

This is to certify that the details and specifications of all installations shown on the attached fire service installation plans are as prescribed by the Fire Services Department under the Fire Safety (Industrial Buildings) Ordinance and in accordance with the relevant Rules and Codes of Practices, as may be applicable, e.g. :-

* Rules of Loss Prevention Council for Automatic Sprinkler Installation (BS EN 12845/BS 5306: Pt.2)

~~* Fire Offices' Committee for Automatic Sprinkler Installation (29th Edition)~~

* Code of Practice for Minimum Fire Service Installations and Equipment, Fire Services Department
  - ☐ Fire Alarm System
  - ☐ Fire Detection System
  - ☑ Fire Hydrant and Hose Reel System
  - ☐ Secondary Power Supply
  - ☐ Automatic Cut-off Device for Mechanical Ventilating System
  - ☑ Exit signs and directional signs
  - ☐ Others _____

Signed .....
ABC Company PTE LTD
_____
(*Full Name of FSI Contractor / Cons

Date 1/9/2023

*To be deleted as appropriate

☆ **Correct address of the premises/ building and Direction No.**

☆ **Scope of work**

☆ **Duly signed with company chop**

2. Observations on FSI/314D submission (cont'd)

Good practice

Form FSI/314D submit with covering letter specifying the contents of submission including the drawings and supporting documents (if any), etc.

2. Observations on FSI/314D submission (cont'd)

Fire Safety (Industrial Buildings) Ordinance (Chapter 636)

(Section 5)

Fire Safety Direction

Our Ref. No. : (15) in FP 63/XXXX
Direction No. : FSD/IB/XXXX/0006/2021

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5/F, Y Y Industrial Building,
Nos. 50–52 Castle Peak Road, Kowloon

, to provide or improve therein the fire service installations and equipment specified in the attached IB/101b before 9 July 2022.

Authorization Letter

About (Address) : 5/F, YY Industrial Building, Nos.50-52 Castle Peak Road, Kowloon
FSD / Ref : (15) in FP 63 / (XXXX)
Direction No. : FSD/IB/XXXX/0006/2021

Dear Sir / Madam,

~~*I (Authorized Person) /~~ *We (Incorporated Owners) Tiger John Bro Company Ltd.

hereby nominate ~~*Name of Consultants:~~ _____

*Name of RFSIC: ABC Company PTE LTD

on behalf of the above building to comply with the Fire Safety Direction and coordinate the following matters:	
Application for the Extension of Time to the Fire Safety Direction to Fire Services Department	☐
Submission of Fire Service Installations plans (FSI/314D) to Fire Services Department	☑
Commencement of FS improvement works within ... building boundary	☐
To allow fire service installations and e... inside individual units (Non-Domestic portion)of the buil... to b... integrated with those fire service installations and equi... in ... parts of the building	☐
To raise any enquiry to Fi... ices Department	☐

Sample

~~*Name of Authorized Person~~ _____

~~*Signature of Authorized Person~~ _____

*Name of the responsible person of I.O./Owner CHAN Siu-ming

*Signature of the responsible person of I.O./Owner _____

Date 10/3/2023

*Chop of I.O.

TIGER JOHN BRO NON PROFIT SEAL 2017 HOUSTON TEXAS

*請刪去不適用者

2. Observations on FSI/314D submission (cont'd)

* ~~I/We,~~ CHAN Siu-ming (*~~incorporated owners~~/ owner / ~~owner's representative / occupier / occupier's representative of the above premises),~~ hereby have no objection to install FS pipe route (*Type of Fire Services Installations (FSIs)) at the 5/F., YY Industrial Bldg., Nos. 50-52 Castle Peak Road, Kowloon (@Location of FSIs) in accordance with the FSI plans submitted under the cover of FSI/314 D~~ate~~ 20/2/2023.

Sample

Signature/Chop :

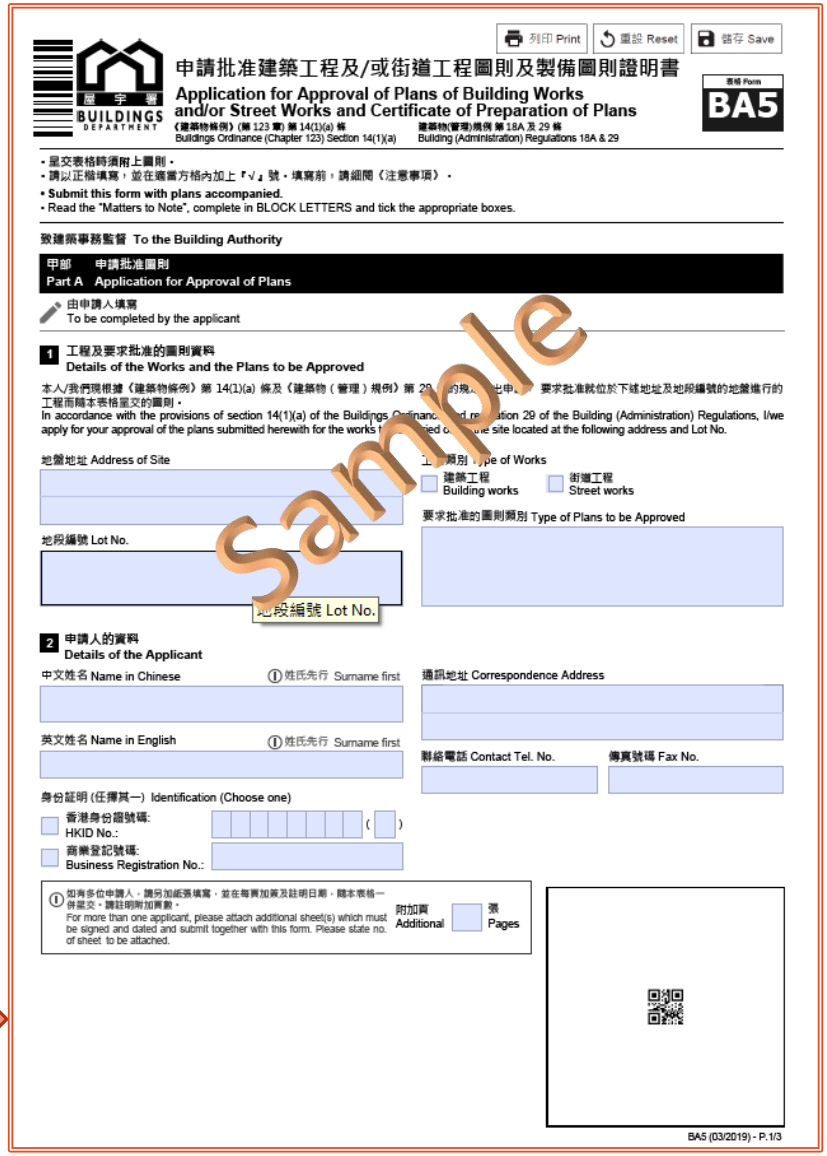
Tiger John Bro Company Ltd.

Tel. : 9867 5432 Date : 10/2/2023

Consent Letter
(e.g. to allow work within private premises, etc.)

2. Observations on FSI/314D submission (cont'd)

A&A plans submitted to BD
(e.g. additional of plant room/water tank, etc.



列印 Print | 重設 Reset | 儲存 Save

屋宇署 BUILDINGS DEPARTMENT

申請批准建築工程及/或街道工程圖則及製備圖則證明書
Application for Approval of Plans of Building Works and/or Street Works and Certificate of Preparation of Plans

《建築物條例》(第 123 章) 第 14(1)(a) 條 Buildings Ordinance (Chapter 123) Section 14(1)(a)
《建築物(管理)規例》第 18A 及 29 條 Building (Administration) Regulations 18A & 29

表格 Form BA5

- 星交表格時須附上圖則。
- 請以正楷填寫，並在適當方格內加上「√」號。填寫前，請細閱《注意事項》。
- **Submit this form with plans accompanied.**
- Read the "Matters to Note", complete in BLOCK LETTERS and tick the appropriate boxes.

致建築事務監督 To the Building Authority

甲部 申請批准圖則
Part A Application for Approval of Plans

由申請人填寫
To be completed by the applicant

1 工程及要求批准的圖則資料
Details of the Works and the Plans to be Approved

本人/我們現根據《建築物條例》第 14(1)(a) 條及《建築物(管理)規例》第 29 條的規定，就下述地址及地段編號的地盤進行的工程而隨本表格呈交的圖則。
In accordance with the provisions of section 14(1)(a) of the Buildings Ordinance and regulation 29 of the Building (Administration) Regulations, I/we apply for your approval of the plans submitted herewith for the works to be carried out on the site located at the following address and Lot No.

地盤地址 Address of Site

工程類別 Type of Works
☐ 建築工程 Building works ☐ 街道工程 Street works

地段編號 Lot No.

要求批准的圖則類別 Type of Plans to be Approved

Sample

地段編號 Lot No.

2 申請人的資料
Details of the Applicant

中文姓名 Name in Chinese ⓘ 姓氏先行 Surname first

通訊地址 Correspondence Address

英文姓名 Name in English ⓘ 姓氏先行 Surname first

聯絡電話 Contact Tel. No.

傳真號碼 Fax No.

身份証明 (任擇其一) Identification (Choose one)
☐ 香港身份證號碼: HKID No.: ( )
☐ 商業登記號碼: Business Registration No.:

ⓘ 如有多位申請人，請另加紙張填寫，並在每頁加簽及註明日期，隨本表格一併呈交。請註明附加頁數。
For more than one applicant, please attach additional sheet(s) which must be signed and dated and submit together with this form. Please state no. of sheet to be attached.

附加頁 Additional ☐ 張 Pages

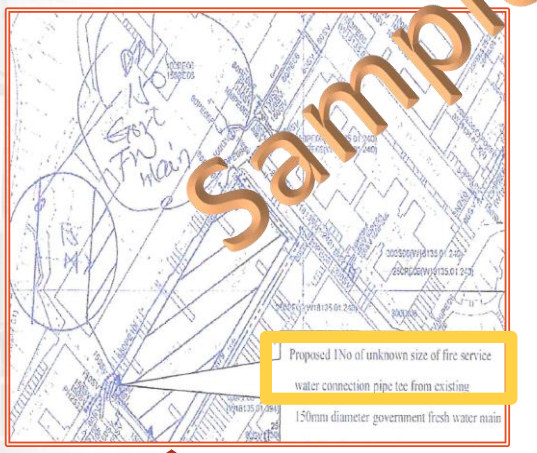
BA5 (03/2019) - P.1/3

2. Observations on FSI/314D submission (cont'd)

Water pressure available

Single or double-end fed

Location & size of connection point



Letter from WSD

水務署
Water Supplies Department
香港灣仔告士打道七號入境事務大樓43樓
43/F, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong

電子郵遞 e-mail wsdinfo@wsd.gov.hk
電話 Telephone 2824 5000
檔號 Reference
圖文傳真 Facsimile 2802 73

有限公司
OCK 1
ROAD
ACTORY ESTATE
N, KOWLOON

客戶諮詢編號：

先生 / 女士：

可行性 供水

香港 廈

有關 貴公司於二零一七年九月七日來函（函件編號：001）本署一事，本署原則上並不反對敷設一段駁喉至上址作消防用途。該區的最低水壓約爲300千帕斯卡 而該水管由兩端入水，其供水在制水期間會受制水影響。供水的來源是雅賓利食水配水庫，其最高蓄水位爲主水平基準對上116.479米。請注意，你的樓宇的消防供水最高靜水水壓，可按該配水庫的最高蓄水位作出估計，但日後供水來源如有改變，該水壓亦會隨之改變。爲此，現建議你依據最低水壓進行水管設計。再者，本署不能保證供水不會中斷。現附上標明現有水管位置的圖則乙份，以供參考。

請留意，二零零八年四月一日起，在新設或現有供應區的新發展項目上，又或在現有供應區的重建項目上，向水務監督第 次遞交水管工程計劃，最低剩餘水壓降低至200千帕斯卡。但爲使所有現存大廈和按現行水壓而設計的（消防用）臨時花灑系統有充足的供水，我們都會繼續維持最少有300千帕斯卡的剩餘水壓，除了在供應區的盡頭外。

請先向消防處遞交建議的消防供水系統詳情及垂直水管路線圖，待該處審核和同意後，才交由本署批核。此外，亦請盡快通知本署所需的消防供水駁喉尺寸。

在設計上，凡使用政府總水管供水的消防裝置，均須與建築物內其他供水系統完全分開。

請注意，若有關系統可由第二水源供水，則兩水源之間須有空氣分隔裝置，以免出現第二水源污染政府總水管供水的情況。又請注意，消防供水系統的製造商/設計者，須負責確保該系統符合有關消防處對流量及水壓的規定。

.../ 2

2. Observations on FSI/314D submission (cont'd)

Hydraulic calculation

TOTAL EQUIV. PIPE LENGTH FROM SPRINKLER CONTROL VALVE TO DESIGN POINT 'B' ON 9/F (TABLE 37 OF LPC RULES)

DESCRIPTION	QUANTITY	UNIT	EQUIV. LENGTH OF PIPE FITTING	TOTAL EQUIV. LENGTH (m)
150mm DIA. SPR. PIPE (MEDIUM GRADE)	17.00	(m)	1.00	17.00
150 mm DIA. SCREWED ELBOW (90°)	3	NOS.	4.30	12.90
150 mm DIA. SCREWED TEE	2	NOS.	8.61	17.22
TOTAL EQUIV. LENGTH FOR 150mm DIA. =				47.12

DESCRIPTION	QUANTITY	UNIT	EQUIV. LENGTH OF PIPE FITTING	TOTAL EQUIV. LENGTH (m)
100mm DIA. SPR. PIPE (MEDIUM GRADE)	70.00	(m)	1.00	70.00
100 mm DIA. SCREWED ELBOW (90°)	4	NOS.	3.04	12.16
100 mm DIA. SCREWED TEE	2	NOS.	6.10	12.20
TOTAL EQUIV. LENGTH FOR 100mm DIA. =				94.36

PRESSURE LOSS PER UNIT LENGTH OF PIPE FOR DESIGN FLOW RATES IN ORDINARY-HAZARD INSTALLATIONS (TABLE 59 OF LPC RULES)

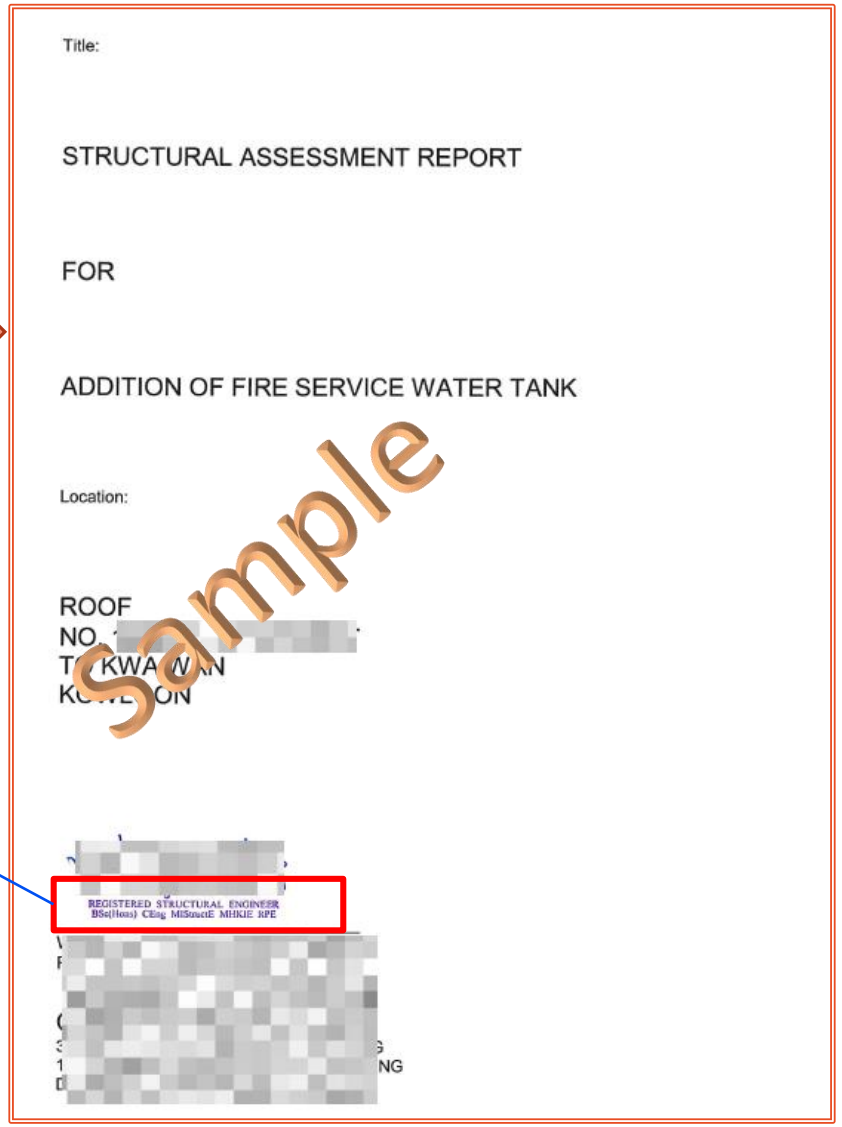
PIPE NORMAL BORE BS 1387 MEDIUM (mm)	PRESSURE LOSS PER UNIT LENGTH (mbar/m)
150	0.65
100	4.4

THE TOTAL FRICTION LOSS FROM SPRINKLER CONTROL VALVE TO DESIGN POINT 'B' ON 9/F

= (47.12 X 0.65) + (94.36 X 4.4)
= 30.63 + 415.18
= 445.81 mbar < 500 mbar

2. Observations on FSI/314D submission (cont'd)

SAR



REGISTERED STRUCTURAL ENGINEER
BSc(Hons) CEng MIStructE MHKIE RPE

2. Observations on FSI/314D submission (cont'd)

C. FSI drawing -

- ☒ **3 sets** of FSI drawings without **2 sets in colour**;
- ☒ **Scale of FSI layout plans** are not printed to an S.I. metric ratio of **not less** than **1:100**;
- ☒ Size of **font/symbol** is too **small**;

2. Observations on FSI/314D submission (cont'd)

As stipulated in FSD CL no. 4/96

(v) Minimum character height :-

		Drawing size	
(A)	dimensions & all other characters	A0	3.5mm
		A1, A2, A3 and A4	2.5mm
(B)	number & title	A0, A1, A2, A3 and A4	7.0mm

3.6 Annotation of Fire Service Installation Plans

3.6.1 All Installations

(a) Plans and layouts shall be drawn to a ratio of not less than 1 : 100. In case of very extensive buildings, plans drawn to a ratio 1 : 200 may be accepted.

(b) All partition walls, party walls, and elements of construction shall be clearly identified and distinct from the pipings and/or equipment of the installation.

(c) If the names of the manufacturer of any equipment are shown on the drawings, relevant approval reference for such equipment shall also be included.

(d) All pipe sizes shall be identified by colours as listed hereunder, those sizes beyond this range shall be suitably indicated by numerals.

Pipe size	Colour code
20 mm	orange
25 mm	green
32 mm	red
38/40 mm	purple
50 mm	yellow
65 mm	light blue
80 mm	dark green
100 mm	light brown
150 mm	brown
200 mm	dark blue

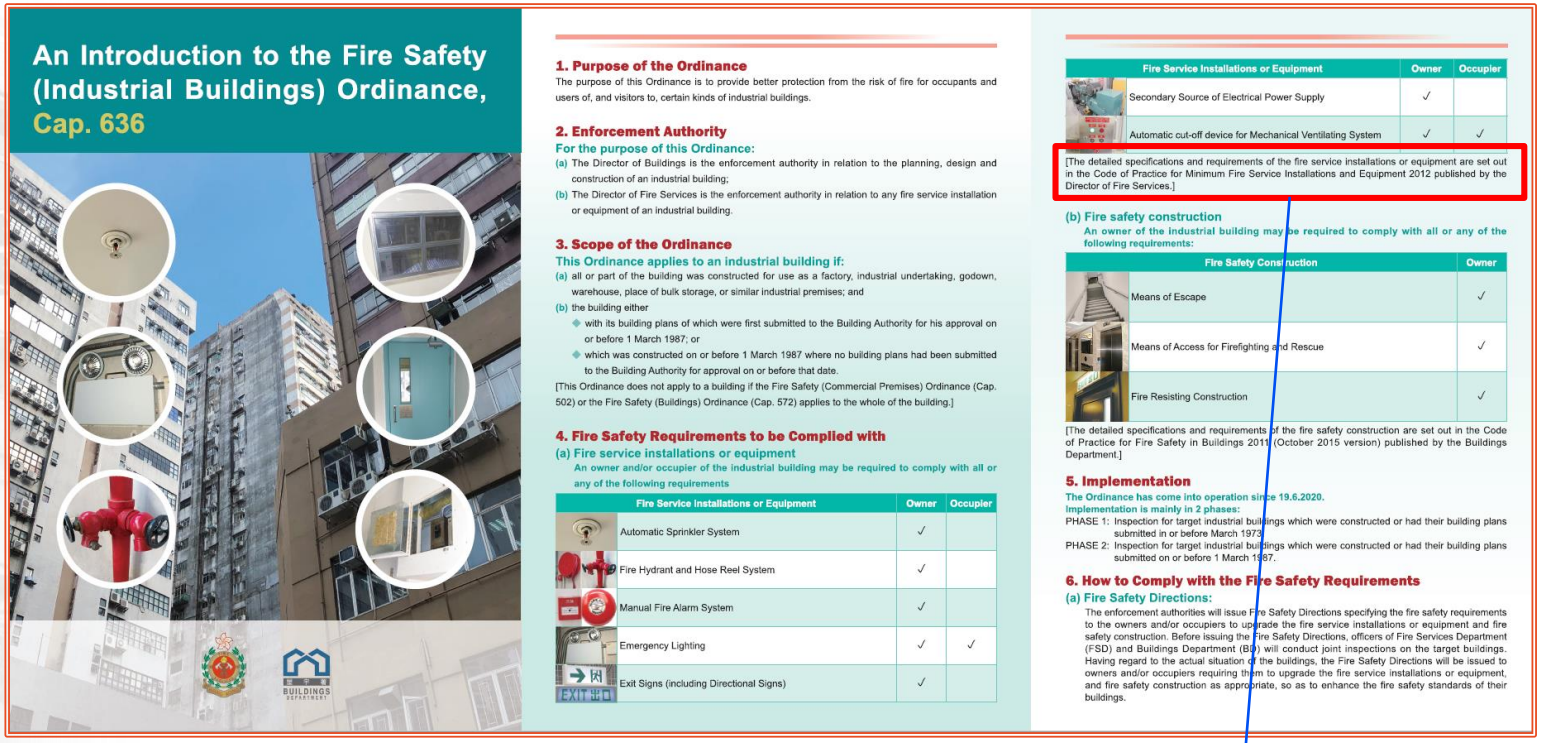
The plan will incorporate a legend to show the size of the pipes and the colour used.

2. Observations on FSI/314D submission (cont'd)

C. FSI drawing -

- ☒ **Overlapping** of information in FSI drawings;
- ☒ **Existing** FS installations not showed in **hidden line**;
- ☒ **Low contrast** between text/symbols and the drawing;
- ☒ The provision of FS installation shown on **schematic diagrams** are **not tally** with that shown on FS **layout plans**;
- ☒ Fire safety improvement works are provided in accordance with the **COP 1994** version;

2. Observations on FSI/314D submission (cont'd)



An Introduction to the Fire Safety (Industrial Buildings) Ordinance, Cap. 636

1. Purpose of the Ordinance

The purpose of this Ordinance is to provide better protection from the risk of fire for occupants and users of, and visitors to, certain kinds of industrial buildings.

2. Enforcement Authority

For the purpose of this Ordinance:

(a) The Director of Buildings is the enforcement authority in relation to the planning, design and construction of an industrial building;

(b) The Director of Fire Services is the enforcement authority in relation to any fire service installation or equipment of an industrial building.

3. Scope of the Ordinance

This Ordinance applies to an industrial building if:

(a) all or part of the building was constructed for use as a factory, industrial undertaking, godown, warehouse, place of bulk storage, or similar industrial premises; and

(b) the building either

- with its building plans of which were first submitted to the Building Authority for his approval on or before 1 March 1987; or
- which was constructed on or before 1 March 1987 where no building plans had been submitted to the Building Authority for approval on or before that date.

[This Ordinance does not apply to a building if the Fire Safety (Commercial Premises) Ordinance (Cap. 502) or the Fire Safety (Buildings) Ordinance (Cap. 572) applies to the whole of the building.]

4. Fire Safety Requirements to be Complied with

(a) Fire service installations or equipment

An owner and/or occupier of the industrial building may be required to comply with all or any of the following requirements

Fire Service Installations or Equipment	Owner	Occupier
Automatic Sprinkler System	✓	
Fire Hydrant and Hose Reel System	✓	
Manual Fire Alarm System	✓	
Emergency Lighting	✓	✓
Exit Signs (including Directional Signs)	✓	
Secondary Source of Electrical Power Supply	✓	
Automatic cut-off device for Mechanical Ventilating System	✓	✓

[The detailed specifications and requirements of the fire service installations or equipment are set out in the Code of Practice for Minimum Fire Service Installations and Equipment 2012 published by the Director of Fire Services.]

(b) Fire safety construction

An owner of the industrial building may be required to comply with all or any of the following requirements:

Fire Safety Construction	Owner
Means of Escape	✓
Means of Access for Firefighting and Rescue	✓
Fire Resisting Construction	✓

[The detailed specifications and requirements of the fire safety construction are set out in the Code of Practice for Fire Safety in Buildings 2011 (October 2015 version) published by the Buildings Department.]

5. Implementation

The Ordinance has come into operation since 19.6.2020.

Implementation is mainly in 2 phases:

PHASE 1: Inspection for target industrial buildings which were constructed or had their building plans submitted in or before March 1973

PHASE 2: Inspection for target industrial buildings which were constructed or had their building plans submitted on or before 1 March 1987.

6. How to Comply with the Fire Safety Requirements

(a) Fire Safety Directions:

The enforcement authorities will issue Fire Safety Directions specifying the fire safety requirements to the owners and/or occupiers to upgrade the fire service installations or equipment and fire safety construction. Before issuing the Fire Safety Directions, officers of Fire Services Department (FSD) and Buildings Department (BD) will conduct joint inspections on the target buildings. Having regard to the actual situation of the buildings, the Fire Safety Directions will be issued to owners and/or occupiers requiring them to upgrade the fire service installations or equipment, and fire safety construction as appropriate, so as to enhance the fire safety standards of their buildings.

[The detailed specifications and requirements of the fire service installations or equipment are set out in the Code of Practice for Minimum Fire Service Installations and Equipment 2012 published by the Director of Fire Services.]

2. Observations on FSI/314D submission (cont'd)

Fire Safety (Industrial Buildings) Ordinance (Chapter 636)
消防安全(工業建築物)條例 (第636章)

Fire Service Installations and Equipment Requirements
for
Common Areas of Industrial Buildings

工業建築物的公用範圍的消防裝置及設備規定

1. An automatic sprinkler installation in accordance with para. 5.24 of the Code of Practice for Minimum Fire Service Installations and Equipment 2012 shall be provided for the common areas of the entire building including staircases, common corridors and toilet and shall be integrated with all sprinkler systems in individual units of the building.

   須為整幢建築物的公用範圍，包括樓梯間、公用走廊、公用大堂及廁所裝設符合《2012年最低限度之消防裝置及設備守則》第 5.24 段規定的自動花灑裝置。該系統須與該建築物內個別單元內的花灑系統結成一個整體。

FSDn

Appendix (b) - Improvement Items Required for the Existing Fire Hydrant/Hose Reel System

附錄 (b) - 現有消防栓/喉轆系統所須的改善項目

1. To improve the existing fire hydrant / hose reel system in accordance with para. 5.14 of the Code of Practice for Minimum Fire Service Installations and Equipment 2012.

   須改善現有的消防栓/喉轆系統至符合《2012 年最低限度之消防裝置及設備守則》第 5.14 段規定。

2. Observations on FSI/314D submission (cont'd)

C. FSI drawing -

- ☒ **Incomplete information** on FS system(s) including FS water supply pipe route from town mains to FS water tank, etc.;
- ☒ Proposed piping arrangement is **not a functional FS system;**
- ☒ **Improvised sprinkler system** is applicable for Ordinary Hazard Group I **(OH1) only** for Automatic Sprinkler Installations, Industrial Buildings under **Cap. 636** is classified as **OH3**;

2. Observations on FSI/314D submission (cont'd)

Specification for Improvised Sprinkler System
Supplied Directly from Town' s Main/Existing Water Tank

The sources of water supply for retro-fitting of the system will be accepted in order of the following preference/order :

A. Connection from Existing FH/HR System (if available)

B. Direct Town' s Main Connection

The general specifications for improvised sprinkler systems are consolidated as below :

1.	The submission of design details shall be forwarded to the Director of Water Supplies for consideration with endorsement from Fire Services Department.	A & B
2.	The sprinkler installation shall be designed to conform to the Rules of the Loss Prevention Council, U.K., wherever applicable.	A & B
3.	The flow and pressure performance together with the sprinkler pipe-works shall be provided in accordance with provisions of Ordinary Hazard Group I in the above-mentioned Rules for Automatic Sprinkler Installations.	A & B
4.	The size of range and distribution pipework shall be designed in accordance with the above-mentioned Rules for Automatic Sprinkler Installations. (This Department does not preclude the use of larger pipes in the pipework system).	A & B

As stipulated in FSD CL no. 4/96

2. Observations on FSI/314D submission (cont'd)

☒ **Pump flow rate and pump head** of fixed fire pumps for Industrial Building are **not correctly designed**;

(d) FIXED FIRE PUMP

The fixed fire pump shall preferably be electrically driven. Where the motive power for the pump is not electricity, alternative means for starting the pump manually in addition to manual fire alarm call points, shall be provided adjacent to the pump together with starting instructions prominently displayed. Once started, the fixed fire pump must run continuously until stopped manually at the pump control panel installed near the pump. In addition, a lock-off button may be installed adjacent to each pump. Whenever the fire pump has been stopped by means of the lock-off button, a status signal shall be indicated on the pump control panel and a common fault signal shall be repeated to main fire control panel until resume of the button.

The fixed fire pumps shall be capable to provide adequate flow in the case of:—

(1) Industrial/godown buildings, for

any 3 hydrant outlets (i.e. each with a flow of 450 l/min at a running pressure of not less than 350 kPa) operating simultaneously with an aggregate flow of not less than 1350 l/min.

(2) Buildings other than industrial/godown buildings, for

any 2 hydrant outlets (i.e. each with a flow of 450 l/min at a running pressure of not less than 350 kPa) operating simultaneously with an aggregate flow of not less than 900 l/min.

The pressure at any fire hydrant outlet shall in no case exceed 850 kPa. The running pressure at any hydrant outlet when delivering 450 l/min shall be not less than 350 kPa.

COP 2012

2. Observations on FSI/314D submission (cont'd)

Good practice

Go through the "Checklist for Major Defects of FSI Drawings Submission under Cap. 636" before FSI/314D FSI drawing Submission

2. Observations on FSI/314D submission (cont'd)

Checklist for FSI Drawings Submission can be download from FSD's website

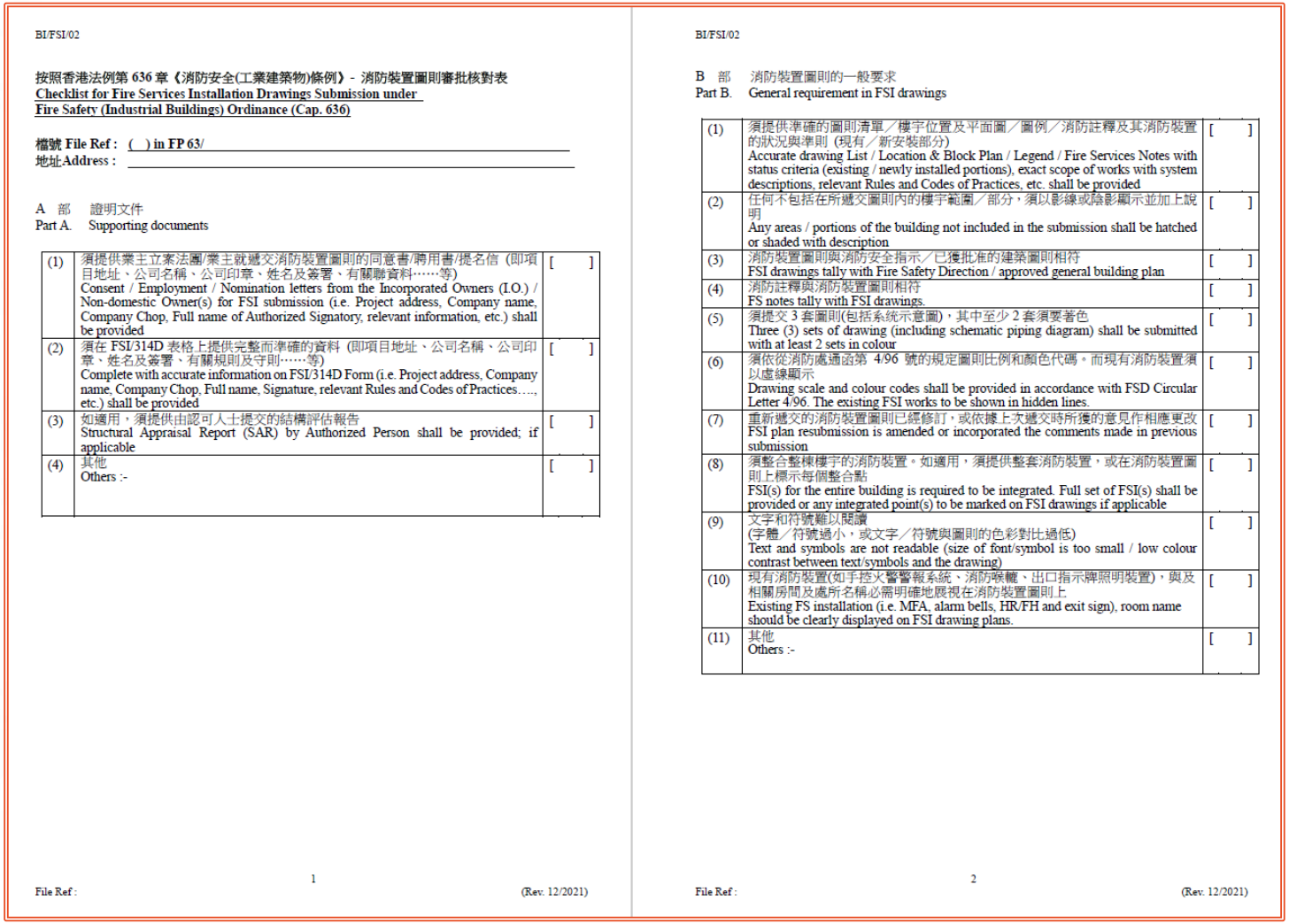
Home > Fire Protection > Fire Safety in industrial building

Fire Safety in industrial building

Item	File
Cap. 636, Fire Safety (Industrial Buildings) Ordinance (Cap. 636)	
An Introduction to the Fire Safety (Industrial Buildings) Ordinance (Cap. 636)	
Fire Safety (Industrial Buildings) Ordinance (Cap. 636) - Issuance / Compliance status of FS Directions	
Checklist for Fire Services Installation Drawings Submission under Fire Safety (Industrial Buildings) Ordinance (Cap. 636)	
Standard Form for Application for Inspection and Testing of Fire Service Installations and Equipment (BI/RC Form) [Industrial Buildings]	
A Short Guide for Compliance with Fire Safety Directions issued by the Fire Services Department under Cap. 636 Fire Safety (Industrial Buildings) Ordinance	
Cap. 636 Fire Safety (Industrial Buildings) Ordinance promotional video	
Powerpoint for the introduction and implementation under Cap. 636 Fire Safety (Industrial Buildings) Ordinance	

2. Observations on FSI/314D submission (cont'd)

Checklist for Major Defects



BI/FSI/02

按照香港法例第 636 章《消防安全(工業建築物)條例》- 消防裝置圖則審批核對表
Checklist for Fire Services Installation Drawings Submission under Fire Safety (Industrial Buildings) Ordinance (Cap. 636)

檔號 File Ref : **( ) in FP 63/**
地址Address :

A 部 證明文件
Part A. Supporting documents

(1)	須提供業主立案法團/業主就遞交消防裝置圖則的同意書/聘用書/提名信 (即項目地址、公司名稱、公司印章、姓名及簽署、有關聯資料……等) Consent / Employment / Nomination letters from the Incorporated Owners (I.O.) / Non-domestic Owner(s) for FSI submission (i.e. Project address, Company name, Company Chop, Full name of Authorized Signatory, relevant information, etc.) shall be provided	[ ]
(2)	須在 FSI/314D 表格上提供完整而準確的資料 (即項目地址、公司名稱、公司印章、姓名及簽署、有關規則及守則……等) Complete with accurate information on FSI/314D Form (i.e. Project address, Company name, Company Chop, Full name, Signature, relevant Rules and Codes of Practices…., etc.) shall be provided	[ ]
(3)	如適用，須提供由認可人士提交的結構評估報告 Structural Appraisal Report (SAR) by Authorized Person shall be provided; if applicable	[ ]
(4)	其他 Others :-	[ ]

File Ref : 1 (Rev. 12/2021)

BI/FSI/02

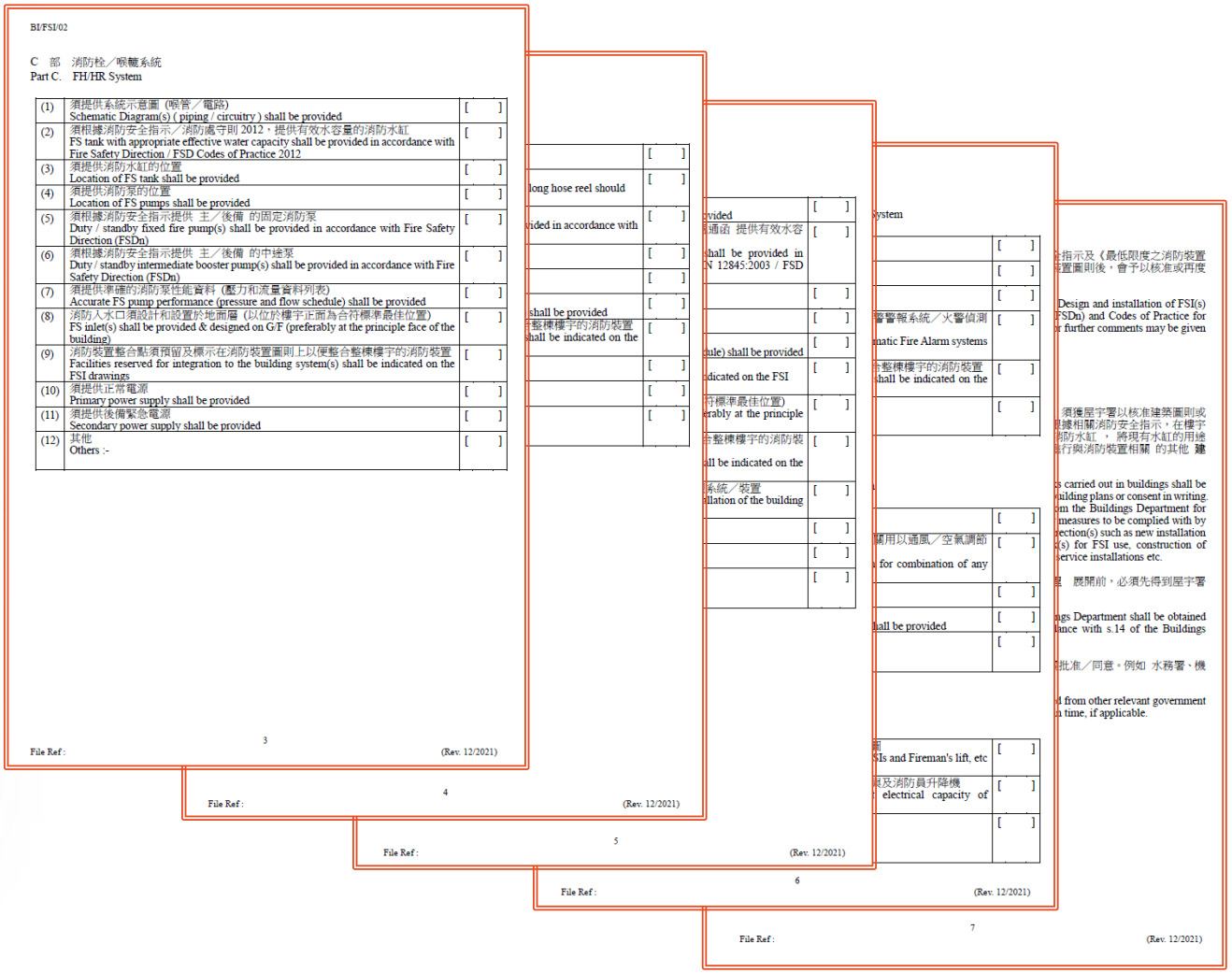
B 部 消防裝置圖則的一般要求
Part B. General requirement in FSI drawings

(1)	須提供準確的圖則清單／樓宇位置及平面圖／圖例／消防註釋及其消防裝置的狀況與準則 (現有／新安裝部分) Accurate drawing List / Location & Block Plan / Legend / Fire Services Notes with status criteria (existing / newly installed portions), exact scope of works with system descriptions, relevant Rules and Codes of Practices, etc. shall be provided	[ ]
(2)	任何不包括在所遞交圖則內的樓宇範圍／部分，須以影線或陰影顯示並加上說明 Any areas / portions of the building not included in the submission shall be hatched or shaded with description	[ ]
(3)	消防裝置圖則與消防安全指示／已獲批准的建築圖則相符 FSI drawings tally with Fire Safety Direction / approved general building plan	[ ]
(4)	消防註釋與消防裝置圖則相符 FS notes tally with FSI drawings.	[ ]
(5)	須提交 3 套圖則(包括系統示意圖)，其中至少 2 套須要著色 Three (3) sets of drawing (including schematic piping diagram) shall be submitted with at least 2 sets in colour	[ ]
(6)	須依從消防處通函第 4/96 號的規定圖則比例和顏色代碼。而現有消防裝置須以虛線顯示 Drawing scale and colour codes shall be provided in accordance with FSD Circular Letter 4/96. The existing FSI works to be shown in hidden lines.	[ ]
(7)	重新遞交的消防裝置圖則已經修訂，或依據上次遞交時所獲的意見作相應更改 FSI plan resubmission is amended or incorporated the comments made in previous submission	[ ]
(8)	須整合整棟樓宇的消防裝置。如適用，須提供整套消防裝置，或在消防裝置圖則上標示每個整合點 FSI(s) for the entire building is required to be integrated. Full set of FSI(s) shall be provided or any integrated point(s) to be marked on FSI drawings if applicable	[ ]
(9)	文字和符號難以閱讀 (字體／符號過小，或文字／符號與圖則的色彩對比過低) Text and symbols are not readable (size of font/symbol is too small / low colour contrast between text/symbols and the drawing)	[ ]
(10)	現有消防裝置(如手控火警警報系統、消防喉轆、出口指示牌照明裝置)，與及相關房間及處所名稱必需明確地展視在消防裝置圖則上 Existing FS installation (i.e. MFA, alarm bells, HR/FH and exit sign), room name should be clearly displayed on FSI drawing plans.	[ ]
(11)	其他 Others :-	[ ]

File Ref : 2 (Rev. 12/2021)

2. Observations on FSI/314D submission (cont'd)

Checklist for Major Defects



BI/FSI/02

C 部 消防栓／喉轆系統
Part C. FH/HR System

(1)	須提供系統示意圖 (喉管／電路) Schematic Diagram(s) (piping / circuitry) shall be provided	[ ]
(2)	須根據消防安全指示／消防處守則 2012，提供有效水容量的消防水缸 FS tank with appropriate effective water capacity shall be provided in accordance with Fire Safety Direction / FSD Codes of Practice 2012	[ ]
(3)	須提供消防水缸的位置 Location of FS tank shall be provided	[ ]
(4)	須提供消防泵的位置 Location of FS pumps shall be provided	[ ]
(5)	須根據消防安全指示提供 主／後備 的固定消防泵 Duty / standby fixed fire pump(s) shall be provided in accordance with Fire Safety Direction (FSDn)	[ ]
(6)	須根據消防安全指示提供 主／後備 的中途泵 Duty / standby intermediate booster pump(s) shall be provided in accordance with Fire Safety Direction (FSDn)	[ ]
(7)	須提供準確的消防泵性能資料 (壓力和流量資料列表) Accurate FS pump performance (pressure and flow schedule) shall be provided	[ ]
(8)	消防入水口須設計和設置於地面層 (以位於樓宇正面為合符標準最佳位置) FS inlet(s) shall be provided & designed on G/F (preferably at the principle face of the building)	[ ]
(9)	消防裝置整合點須預留及標示在消防裝置圖則上以便整合整棟樓宇的消防裝置 Facilities reserved for integration to the building system(s) shall be indicated on the FSI drawings	[ ]
(10)	須提供正常電源 Primary power supply shall be provided	[ ]
(11)	須提供後備緊急電源 Secondary power supply shall be provided	[ ]
(12)	其他 Others :-	[ ]

File Ref : (Rev. 12/2021)

3. Fire Service Installation Requirements prescribed in the Ordinance

Industrial Building under Cap. 636			
	Automatic Sprinkler System		Exit Signs (including Directional Signs)
	Fire Hydrant and Hose Reel System		Secondary Source of Electrical Power Supply
	Manual Fire Alarm System		Automatic cut-off device for Mechanical Ventilating System
	Emergency Lighting		

- **Fire Service Installations Requirements should be referred to the Fire Safety Direction (FSDn) of individual case.**
- **Detailed specifications and requirements of the above are set out in the Code of Practice for Minimum Fire Service Installations and Equipment 2012.**

3. Fire Service Installation Requirements prescribed in the Ordinance (cont'd)

Point to note

A. Fire Hydrant/Hose Reel system -

- ☑ **Minimum** flow of not less than **1350 l/min** for any **3 hydrant outlets** operating simultaneously;
- ☑ Hydrant **rising main** with nominal **bore not less than 100mm** shall be installed for each staircase and **FS inlet** shall be provided at **G/F**;
- ☑ For **more than one rising mains** in the system, the inlets shall be interconnected. **Not less than ϕ150mm header pipe**(s) with a **maximum height of 30m** above ground level may be required to **connect the Fire Service inlets**;
- ☑ Each rising main supplies **two hydrant outlet** per floor;
- ☑ A **by-pass pip**e for fixed fire pumps shall be provided;
- ☑ Provide **visual fire alarm** (VFA) point near every hose reel and alarm point;
- ☑ **Manual fire alarm call point** shall be provided adjacent to all storey exits and **all staircase exits to open air on G/F** or place of ultimate safety;

3. Fire Service Installation Requirements prescribed in the Ordinance (cont'd)

Point to note

B. Automatic Sprinkler System -

- ☑ The hazard classifications are dependent on the building's occupancy and use. If any occupancy is classified as OH1 to **OH3**, the sprinkler system shall be designed **using the higher hazard class** accordingly;
- ☑ **Reduction of sprinkler tank effective capacity** will be considered only upon the design and installation are complied with the requirements **of BSEN 12845:2003 clause 9.3.4** and **relevant requirement of FSD CL 3/2006**;
- ☑ **Jockey pump** shall be provided to replenish minor water loss and to maintain system pressure;
- ☑ **Master fire alarm bell** shall be provided at the main entrance of the building;
- ☑ **The water motor alarm gong** shall be installed on exterior wall of the building and close to the sprinkler control valve;
- ☑ The height difference between the highest and lowest sprinkler on an installation shall **not exceed 45m**.

3. Fire Service Installation Requirements prescribed in the Ordinance (cont'd)

Point to note

C. Secondary Source of Electrical Power Supply -

- ☑ Secondary supply from electricity obtained before the main switch **is subject to the approval from Electrical Company**;
- ☑ **Discrimination between protection devices** of final, sub-main and main circuits shall be allowed.
- ☑ All newly installed **electrical installation works shall be complied with the CoP for the Electricity (Wiring) Regulations, Supply Rules of relevant Supply Company** and allied with the existing electrical installations;
- ☑ **Fire resisting cables to be used for the fire safety improvement works** in accordance with FSD Circular Letter No. 2/2017. If any cable is exempted from the minimum fire resistance requirement under the condition listed on the FSD Circular Letter No. 2/2017, it shall be specified clearly on the drawings.

Thank you