



Fire Safety for Buildings using Modular Integrated Construction



Ir. CHAN Wai-lam

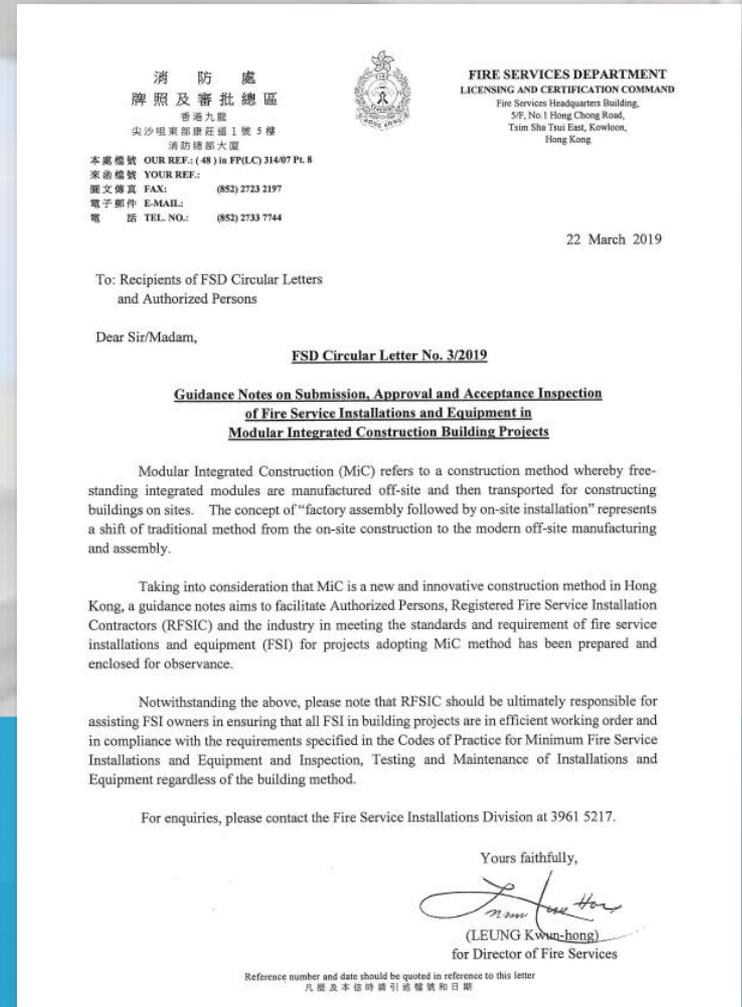
Engineer(FSI)2

Fire Service Installations Division

Fire Services Department

FSD CIRCULAR LETTER NO. 3 OF 2019

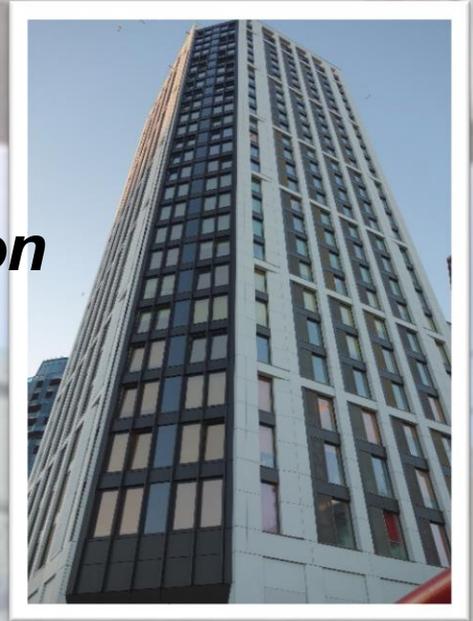
➤ Guidance Notes on
**Submission, Approval and
Acceptance Inspection** of
Fire Service Installations
and Equipment in Modular
Integrated Construction
Building Projects



FSD CIRCULAR LETTER NO. 3/2019



*Equivalent Requirement on
FSI Provision &
Acceptance Inspection*



COMMON FSI IN MIC MODULES

4.28 Hotels—high rise

REQUIREMENTS—SYSTEMS/INSTALLATIONS/EQUIPMENT FOR:

- (i) Audio/visual advisory system
- (ii) Automatic actuating devices
- (iii) Automatic fixed installation other than water
- (iv) Emergency generator
- (v) Emergency lighting
- (vi) Exit sign
- (vii) Fire alarm system
- (viii) Fire control centre
- (ix) Fire detection system
- (x) Fire hydrant/hose reel system
- (xi) Fireman's lift
- (xii) Portable hand-operated approved appliance
- (xiii) Pressurization of staircase
- (xiv) Sprinkler system
- (xv) Static or dynamic smoke extraction system
- (xvi) Ventilation/air conditioning control system



FSI Provision



SUBMISSION AND APPROVAL



Owners:-

engage an **AP** and **RFSIC** at design stage



Authorized Person (AP):-

clearly indicate in the F.S. Notes of the GBP that the building is to be constructed using MiC method and also highlight on the cover letter.

FSI Design

MiC
Building
Projects

SUBMISSION AND APPROVAL



Salient Points for FSI using MiC Constructions Method:-

(i) Covered-up FSI

Access points for covered up installations should be provided

(ii) Flexible pipe jointing

Flexible pipe jointing may be installed for services connection.

(iii) Cabling facilities for fire service installations

Cable joints should not be used for fire resistant cables serving FSI.

(iv) FSI Equipment and Material

All material and equipment shall comply with FSD Circular letter No. 1/2007.

FSI Design

MiC
Building
Projects



ACCEPTANCE INSPECTION



Registered Fire Service
Installations Contractor (RFSIC)

Name/
RFSIC No.

Auditing

Testing

**Log
Book**

Off-site FSI
installation
works

Material
Acceptance

Date/Time/
Location

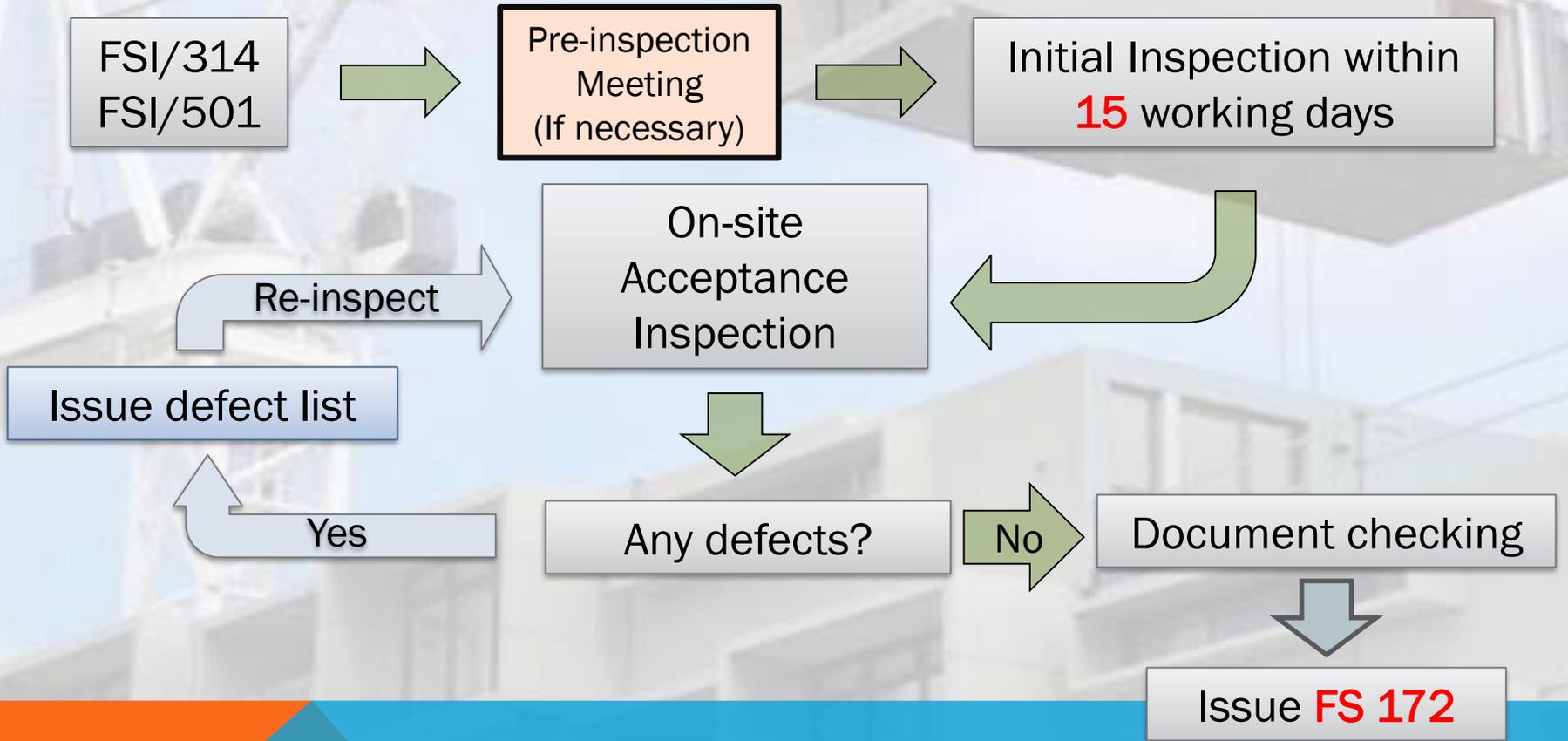
Aim/Result
of Inspection

Quality Assurance

Facilitating RFSIC
on monitoring the
integrated modules

MiC
Building
Projects

WORKFLOW FOR FSI ACCEPTANCE INSPECTION



FSD CIRCULAR LETTER NO. 1/2015

- **Form FSI/501** - Application Form
- **Form FSI/314** with two sets of as-fitted FSI layout plans
- Testing and Commissioning **(T&C) Checklists**
- FSIs **Equipment List**
 - Listing certificates/ records/ documents/ printouts from product certification bodies;
 - FSD approval/ acceptance letters;
 - Test certificates/ data sheets/ catalogues/ calculations; and
 - Other necessary technical information.



IMPORTANT DOCUMENT/ INFORMATION REQUIRED FOR INSPECTION

- Approved General Building Plans
- Approved Smoke Control Submission (Form FSI/314)
- Approval for Fire Engineering Report (if applicable)

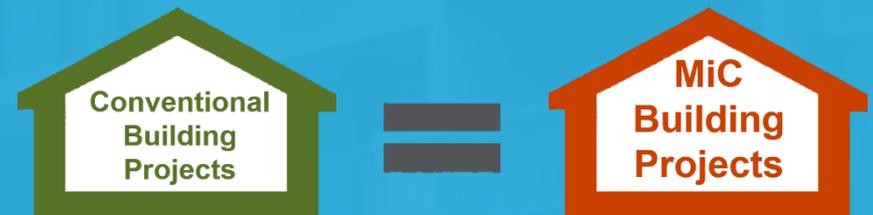


MIC BUILDING PLANS SUBMISSION

Area	Building Type	Building Description	Government/ Private
Tai Po	Domestic	An 17-storey residential building (with institutional facilities) with 1-level basement	Private
Aberdeen	Domestic	Two 17-storey student hostels on top of a 3-level podium used as recreational facilities and carpark	Private
Tseung Kwan O	Domestic	Four 17-storey and one 18-storey domestic buildings with carpark	Government
Sham Shui Po	Domestic	A 4-storey domestic building (with open-kitchen)	Private

IMPORTANT DOCUMENT/ INFORMATION REQUIRED FOR INSPECTION

- Approval for Non-provision/exemptions of FSI (if applicable)
- Approval for Non-FSI Load Connection (if applicable)
- Approval/License for D.G. Store (Fuel Tank Room)
- Approval for method statement of FSIs (e.g. Extended coverage sidewall sprinkler, long throw sprinkler, hot smoke test, etc.)



FACILITATION MEASURES

EXPERIENCE SHARING ON ACCEPTANCE INSPECTION OF FSI

- **Videos and Presentation Slides available at FSD website** ✓

FSD Home Page > Fire Protection > Licensing and Certification



- **5th Briefing: Coming Soon**



A photograph of a modern, multi-story building with a balcony being lowered by a crane. The building is white with dark window frames and a balcony with a glass railing. The crane is visible at the top right, with cables supporting the building. The background is a clear blue sky. The image is overlaid with a large blue diagonal graphic that contains the text "THANK YOU" in white, bold, sans-serif capital letters. The graphic also includes a smaller orange triangle in the bottom left corner.

THANK YOU

ON-SITE MIC CONSTRUCTION



ON-SITE MIC CONSTRUCTION

