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FIRE SAFETY COMMAND
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18 September 2020

To: Recipients of FSD Circular Letters

Dear Sirs/Madams,

FSD Circular Letter No. 6/2020
Installation of Fire Service Pump or Supply Tank
on Roof or Floor Slab

This Circular Letter serves to supersede FSD Circular Letter No. 1/2012 so as to in line with the extended coverage of the Minor Works Control System (“MWCS”) by the Buildings Department (“BD”) which has proven to be a simple and convenient procedures in carrying out small-scale building works.

In relation to the installation of Fire Service (“FS”) pump(s) and supply tank(s), the Building (Minor Works) (Amendment) Regulation 2020, with the commencement date of 1 September 2020, designates the following new minor works items under the MWCS:

- (i) Erection or alteration of any glass reinforced polyester water tank; and
- (ii) Erection or alteration of any supporting structure for a building services installation, or any metal casing for such an installation.

Therefore, alteration and addition works involving the installation of FS pump(s) and/or supply tank(s) with associated supporting structures or any other building works that fall within the above minor works items may be carried out through the simplified requirements under the MWCS without the need for obtaining approval and consent from the BD. Examples are provided at **Appendix A** for illustration.

For detailed requirements and procedures of MWCS, please refer to the Building (Minor Works) (Amendment) Regulation 2020, General Guidelines and Technical Guidelines on Minor Works Control System and BD website (www.bd.gov.hk).

Notwithstanding the above, the existing submission and certification procedures for FS pump(s) directly seated on roof or floor slab, not involving the construction of structural system nor any other building works, remain valid as outlined at **Appendix B**. Such installation works shall be carried out by a Registered Fire Service Installation Contractors and certified by an Authorized Person or Registered Structural Engineer to ensure its structural safety.

Should you have any questions on the arrangement, please feel free to contact Divisional Officer (Support) of the Fire Safety Command at 2170 9501.

Yours faithfully,



(CHUI Man-leung)
for Director of Fire Services

Encl.

Examples of Minor Works Item for the Installation of FS Pump / Supply Tank

	Minor Works Item	Conditions of Minor Works Item	Classification of Works
1.	Erection or alteration of any glass reinforced polyester water tank ⁽ⁱ⁾ on-grade or on a slab (other than a cantilevered slab)	(a) the works do not involve the alteration of any other structural elements; (b) the capacity of the tank is not more than 4.5 m ³ ; and (c) the works do not fall within the description of item 3 of Part 2 of Schedule 2 or item 2.3 ⁽ⁱⁱ⁾ of Building (Minor Works) Regulation.	Class I Minor Works Item 1.49
2.	Erection or alteration of any supporting structure for a building services installation (such as FS pump over and including 200 kg), or any metal casing for such an installation, on-grade, on a canopy (other than a cantilevered slab) or on a roof (other than a cantilevered slab) of a building	(a) the works do not involve the alteration of any other structural elements; (b) for a supporting structure, the height of the structure, which is designed for the building services installation, is not more than 1.5 m; (c) for a casing — (i) the weight of the casing is not more than 10% of the weight of the building services installation; and (ii) the inner surface of the casing and the installation are not more than 200 mm apart in all directions; and (d) the works do not fall within the description of item 3.50 ⁽ⁱⁱ⁾ of Building (Minor Works) Regulation.	Class I Minor Works Item 1.50
3.	Erection or alteration of any supporting structure for a building services installation (such as FS pump not more than 200 kg), or any metal casing for such an installation, on-grade or on a roof (other than a cantilevered slab and an inaccessible roof) of a building	(a) the works do not involve the alteration of any other structural elements; (b) for a supporting structure— (i) the structure is designed for a building services installation— (A) of not more than 200 kg in weight; and (B) the average weight of which is not more than 100 kg per m ² of the ground area (if the structure is located on-grade) or slab area (if the structure is located on a roof); and (ii) the height of the structure, which is designed for the building services installation, is not more than 1.5 m; and (c) for a casing— (i) the weight of the casing is not more than 10% of the weight of the building services installation; and (ii) the inner surface of the casing and the installation are not more than 200 mm apart in all directions.	Class III Minor Works Item 3.50

⁽ⁱ⁾ The works include associated supporting structure.

⁽ⁱⁱ⁾ For the detail of “item 3 of Part 2 of Schedule 2”, “item 2.3” and “item 3.50”, please refer to Building (Minor Works) Regulation.

Appendix B

Certificate of Structural Safety of Building for FS Pump Directly Seated on Roof or Floor Slab

When the FS pump(s) is seated directly on the roof or floor slab of an existing building (i.e. not involving construction of structural systems, such as spreader, concrete plinth/block for the purposes of evening out the weight of the pump(s) and/or securing the pump(s) or any other building works), an Authorized Person (AP) or Registered Structural Engineer (RSE) is required to ensure the structural adequacy of the building structure with supporting calculation and to submit to the Fire Services Department (FSD) a structural certificate and its related documents to certify the structural safety of the building upon completion of the installation work.

- A) The structural certificate should include the following:
 - 1. Particulars of the appointed AP/RSE;
 - 2. Particulars of the building;
 - 3. A statement by AP/RSE to confirm the structural adequacy of the existing building structure and the availability of the supporting calculation;
 - 4. Particulars of FS pump(s) installed including the individual pump casing;
 - 5. The structural element(s) affected; and
 - 6. The design code adopted for checking.
- B) The related documents include the following:
 - 1. A plan showing the FS pump(s) locations, extent of individual pump casing and the affected structural elements; and
 - 2. Record photos of the completed work.

Sample format of a structural certificate at **Annex I** and the flowchart for processing the structural certificate at **Annex II** are attached for reference.

If it is found that there is pump(s) seated directly on the roof or floor slab of the existing building without calculation and certification by an AP or RSE, Buildings Department may take appropriate action on the pump(s) on safety ground.

Annex I

SAMPLE FORMAT

Certificate of Structural Safety of Building
for FS Pump Directly Seated on Roof or Floor Slab

To: Fire Services Department

I (full name of AP or RSE), hereby certify that the building known as (address of the building) is capable of bearing the load and stresses which may be increased or altered in any way by reason of the fire service installation work completed at (location of installation, e.g. roof floor).

2. I have checked the structural adequacy of the existing building structures and have kept the supporting calculation. Upon request, the supporting calculation can be available for inspection.

3. Details of the completed fire service pump installation and the affected structural elements are as follows:

(a) Fire service pump –

Pump No.#					
Pump static weight including individual pump casing (kg)					

(b) Affected structural elements shown in the attached plan
(e.g. beam/slab marked on approved framing plan)

(c) Design code adopted for checking:
(e.g. LCC, BS8110)

(d) Record photos of the completed work.

Date: _____

(Signature)

*Authorized Person/Registered Structural Engineer

Certificate of Registration No.: _____

Date of Expiry of Registration: _____

Refer to the attached plan showing the pump locations

* Delete whichever is inapplicable

Annex II

**Flowchart for Processing of Structural Certificate
in respect of FS Pump Directly Seated on Roof or Floor Slab**

