To: Recipients of FSD Circular Letters

Dear Sirs/Madams,

FSD Circular Letter No. 1/2012
Installation of Fire Service Pump on Roof or Floor Slab

This Circular Letter serves to supersede FSD Circular Letter No. 2/2004 and announce the arrangements for installation of Fire Service (FS) pumps on roof or floor slab, which were not originally designed for such installation. Such arrangements are made pursuant to the prevailing enforcement policy against unauthorized building works of the Buildings Department (BD).

According to BD’s prevailing policy, construction of structural system(s) in the form of spreader or concrete plinth/block for the purpose(s) of evening out the weight and/or securing FS pump(s) installed on roof or floor slab are classified as building works. Such building works are subject to Sections 4, 9 and 14(1) of the Buildings Ordinance and should be designed by an Authorized Person / Registered Structural Engineer (AP/RSE). Having obtained the Building Authority’s (BA’s) approval of the design and consent for the commencement of the building works, construction of the structural system and related building works should be carried out by a Registered General Building Contractor (RGBC).

For FS pump(s) directly seated on roof or floor slab not involving construction of structural system(s) or any other building works, the installation should be carried out by a Registered Fire Service Installation Contractors (RFJIC) and certified by an AP or RSE to ensure its structural safety. Relevant submission and certification procedures are outlined at Appendix A for reference.

If any FS pump is found installed on a structural system which is constructed without BA’s approval/consent or the building works are not carried out by RGBC or FS pumps directly seated on roof or floor slab without due calculation and certification by an AP or RSE to ensure its structural safety, BD may take action to have the pump and the structural system removed.

....P.2
The arrangements have been discussed at the liaison meetings of Fire Services Department with APs and RFSIC respectively.

The overall consensus is that in order to facilitate a smooth implementation of the abovementioned arrangements taking into consideration that improvement works could have been entrusted to RFSIC without prior knowledge of the additional cost implications brought about by the new arrangements, there will be a grace period of 6 months for RFSIC to submit FSI drawings with proposal for adopting standard spreaders for FS pumps on flat roof constructed in accordance with the specifications and conditions stipulated in FSD Circular Letter No. 2/2004. Improvement works involving proposals for installation of standard spreader under FSD Circular Letter No. 2/2004 shall be completed by 31 January 2013. In this regard, all submissions of FSI drawings with proposal for adopting standard spreaders must be received by FSD by 31 July 2012. For facilitating the handling of FSI drawing submissions with proposal adopting standard spreaders within the grace period, FSD may issue a notification for no-in-principle objection solely on the proposal for adopting standard spreader separately before the formal endorsement of the FSI drawings. As such, all submissions with proposal for adopting standard spreaders must be clearly specified and shown in the FSI drawing submissions.

Subsequently, the Standard Notification Form (SNF) for reporting completion of the standard spreaders for all submissions, including the previously endorsed FSI drawing submissions and submissions with no-in-principle objection submitted within the 6 months grace period, must be received by FSD by 31 January 2013 and subject to the standard spreaders being accepted in subsequent audit checks by BD. After this date, arrangements specified at paragraph 2 and 3 of this Circular Letter will take effect. Grace period arrangements including endorsement and no-in-principle objection previously granted for the application of standard spreaders will lapse and become null and void.

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

Yours faithfully,

[Signature]

(NG Kuen-chi)
for Director of Fire Services

Encl.
Appendix A

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 and/or securing the pump 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 pump 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 a pump(s) seated directly on the roof or floor slab of the existing building without calculation and certification by an AP or RSE, BD may take appropriate action on the pump(s) on safety ground.
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 –

<table>
<thead>
<tr>
<th>Pump No.#</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump static weight including individual pump casing (kg)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(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
Flowchart for processing of Structural Certificate
In respect of FS Pump(s) directly seated on floor slab(s)

1: RFSIC plans to install pump directly on floor slab.

2: Appointment of AP/RSE. RFSIC provides pump details including pump casing to AP or RSE.

3: AP or RSE checks structural adequacy of building and verifies that no building work is involved in the FS Pump installation.

4: RFSIC installs pump on floor slab

5: RFSIC reports completion of work and AP/RSE submits structural certificate (SC) and related documents to FSD. FSD requests assistance of Structural Consultancy Unit(SCU)/BD by fax and sends referral to SCU/BD via normal dispatch.

6: SCU/BD receives FAX from FSD.

7: Selects for audit check*?

8: SCU/BD requests AP/RSE to provide calculation. SCU/BD retrieves relevant official records.

9: SCU/BD checks acceptability of SC.

10: SCU/BD replies the request of FSD.

11: FSD gives coordinated reply to RFSIC and AP/RSE.

* The rate of audit check is fixed at 100% and will be reviewed from time to time.

Date of FAX

Not later than 30 days from the Date of Fax