



水務署
Water Supplies Department

總部 Headquarters

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Distribution: To all Licensed Plumbers and Authorized Persons

Dear Sirs,

Circular Letter No. 2/2019
Procedures for Applications for Water Supply in New Building Projects
adopting “Modular Integrated Construction” Method

To facilitate the adoption of the “Modular Integrated Construction” (MiC)¹ method in Hong Kong, the Water Supplies Department (WSD) promulgates below the procedures for the applications for water supply in new building projects adopting MiC method (MiC projects). The WSD has consulted the Technical Committee on Plumbing on the procedures. The WSD will review the procedures from time to time with reference to the development in the adoption of MiC method in Hong Kong and the experience gained in implementing the procedures.

Applicability of the Procedures

2. The procedures stipulated in the ensuing paragraphs are only applicable to MiC projects with plumbing installations to be constructed off-site in a MiC factory. For MiC projects in which all plumbing installations are constructed in-situ at the building site in Hong Kong, the existing procedures for applications for water supply will apply.

¹ Modular Integrated Construction (MiC) refers to a construction whereby free-standing integrated modules (completed with finishes, fixtures and fittings) are manufactured in a MiC factory and then transported to site for installation for the new building.

Procedures for MiC Projects

3. For MiC projects with plumbing installations to be constructed off-site in a MiC factory, the Applicant for water supply shall provide the following in addition to the submission requirements specified in the *Guide to Application for Water Supply*²:

- i. A **section** shall be included in the plumbing proposal to be submitted with Form WWO 542 clearly **specifying the part of the plumbing installations (plumbing works) to be constructed off-site in a MiC factory**. The extent of the plumbing installations to be constructed in the MiC factory should also be clearly indicated in the Vertical Plumbing Line Diagram, and other documents of the plumbing proposal as appropriate.
- ii. A **supervision plan of the construction of the plumbing installations at the MiC factory** shall be submitted before the commencement of the works **for agreement by the Water Authority (WA)**. The supervision plan shall specify the name, the qualification proof, the supervision frequency and the supervision period of the supervision personnel to ensure that there will be adequate supervision for the plumbing works in the MiC factory. It shall also contain the name, the address, the responsible contact person and the contact means of the MiC factory. The details of the supervision plan shall be determined based on the extent and complexity of the plumbing works. In general, the responsible Licensed Plumber (LP) who submit the Form WWO 46 for the plumbing works to be constructed in the MiC factory shall visit the MiC factory at least once a week to oversee and inspect the plumbing works, and continuous supervision of the plumbing works in the MiC factory shall be provided by a Registered Plumbing Worker (RPW)³.

4. If any part of the plumbing installations will be covered up in the MiC factory, such that the plumbing installations will not be exposable for inspection and non-destructive tests at the building site upon delivery of the MiC modules to the building site in Hong Kong, the following additional details shall be submitted to the **WA for information** before the commencement of plumbing works in the MiC factory:

- i. **Shop drawings** showing details of the plumbing installations in the MiC modules that will be covered up in the MiC factory.

² (posted at the WSD website at the following link:
<https://www.wsd.gov.hk/en/plumbing-engineering/requirements-for-plumbing-installation/guide-to-application-for-water-supply/index.html>)

³ As defined in Part 1 of the Schedule of the Waterworks Ordinance.

- ii. **Production schedule** of the MiC modules in particular the production schedule of the plumbing works in the MiC modules and the corresponding inspection schedule for the plumbing works to be covered up in the MiC modules at the MiC factory for the WA to arrange for interim inspection of the plumbing installations by his Inspection Agent before the concealed parts are covered up in the MiC factory.

Supervision of Plumbing Works in MiC Factory

5. The responsible LP shall ensure that supervision is provided for the plumbing works in the MiC factory in accordance with the supervision plan agreed by the WSD mentioned in paragraph 3(ii) above. Proper supervision records shall be kept including the date and time of inspection and supervision of the plumbing works conducted by LP and RPW. The supervision records shall be submitted to the WA for inspection when required and the WA will assign agent to carry out audit checks of the supervision records at the MiC factory if considered necessary. A sample supervision record is at **Annex** for reference. The responsible LP will be required to declare that plumbing works carried out in the MiC factory have been supervised according to the supervision plan.

Interim Inspection of Plumbing Installations to be Covered Up in MiC Factory

6. For plumbing installations to be covered up in the MiC factory, the WA will arrange an Inspection Agent to carry out interim inspection in the MiC factory before the concealed parts of the plumbing installation are covered up to ensure that they comply in all respects⁴ with the provisions of the Waterworks Ordinance (WVO) / Waterworks Regulations (WWR) and all prevailing requirements of the WA. The Inspection Agent will conduct inspections and carry out non-destructive tests for the plumbing installations. The responsible LP or his/her representative shall be present in all interim inspections such that any noncompliance identified during the inspections could be immediately communicated to the LP or his/her representative for rectification. If the plumbing installations to be covered up are in order, the Inspection Agent will also advise the LP or his/her representative on the spot.

7. The responsible LP shall coordinate and liaise with the Inspection Agent of the WA regarding the exact inspection dates of the plumbing installations to be covered up at the MiC factory. If the inspection frequency so warrants, the responsible LP may be

⁴ Inspection will cover including but not limited to the aspects of material and size of pipes and fittings as well as their jointing method.

required to arrange a working place in the MiC factory for the Inspection Agent to field its resident staff for conducting interim inspection.

Final Inspection at Building Site in Hong Kong and Approval

8. Applicant for water supply of a MiC project shall, as for all other plumbing projects, be required to submit Form WWO 46 Part IV upon completion of the plumbing works at the building site in Hong Kong. Upon receipt of Form WWO 46 Part IV, the WA will conduct final inspection of the completed plumbing installations at the building site. Approval of plumbing works of the MiC project will be granted by the WA subject to:

- i. satisfactory results of the final inspection by the WA at the building site;
- ii. satisfactory results of the interim inspections carried out by the Inspection Agent of the WA on the concealed parts of the plumbing works before they are covered up in the MiC factory (in which case no opening up of concealed plumbing works for inspection will be required at the building site); and
- iii. the commissioning requirements specified by the WA being complied with.

Enquiry

9. Should you have any enquiry, please contact our Engineer/Technical Support(4) at telephone no. 3428 5814.

Yours faithfully,

(Original Signed)

(CHAN Chung-kun)
for Water Authority

Encl.
(with Chinese translation)

c.c.
Housing Department (Attn: SM/QM)
Buildings Department
Architectural Services Department
Fire Services Department

The Hong Kong Housing Society
The Hong Kong Institute of Architects
The Hong Kong Institution of Engineers
The Hong Kong Institute of Surveyors
The Chartered Institute of Plumbing and Heating Engineering – Hong Kong Council
Hong Kong Plumbing and Sanitary Ware Trade Association Ltd.
Hong Kong Licensed Plumbing Professionals Association Ltd.
Hong Kong Plumbing General Union
Hong Kong Water Works Professionals Association Ltd.
The Hong Kong Institution of Plumbing and Drainage Ltd.
Plumbing Technology Student Association
The Association of Registered Fire Service Installation Contractors of Hong Kong Limited
Real Estate Developers Association of Hong Kong
Hong Kong Institute of Vocational Education
Construction Industry Council
The Hong Kong Construction Association, Ltd
Hong Kong General Building Contractors Association Ltd
The Hong Kong Federation of Electrical & Mechanical Contractors Ltd
Contractor's Authorised Signatory Association Ltd
Registered Minor Works Contractor Signatory Association Ltd
Hong Kong Registered Contractors Association Company Ltd
Building Services Operation and Maintenance Executives Society
The Hong Kong Air Conditioning and Refrigeration Association Ltd
Hong Kong Licensed Plumbers Union Limited
Li Ka Shing Institute of Professional and Continuing Education, The Open University of Hong Kong
The Association of Electrical and Mechanical Engineering (Hong Kong) Ltd

WSD 3318/15/81

