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Distribution: To all Licensed Plumbers and Authorized Persons

Dear Sirs,

WSD Circular Letter No. 6/2023

On-Site Water Test for Effecting Water Supply to Fire Service under Exceptional Circumstances

To avoid possible contamination to water supply systems, all newly constructed fresh water mains (including fire service) shall be put into operation within 7 days after the date of water sampling with satisfactory results at the connection point ("the 7-day requirement"). However, exceptional circumstances (e.g. adverse weather) may occur, in which water supply cannot be effected within 7 days and additional water sampling tests will be required. This current practice will inevitably induce time and cost implications to the applicant concerned, the responsible Licensed Plumber (LP) and the Water Authority (WA).

2. As water supply to fire service is not for potable use and the backflow of water from fire service to the water main has been protected by backflow prevention device installed after the connection point, Water Supplies Department (WSD) has proposed alternative action, which is similar to the on-site water test for effecting water supply to new village type houses as stipulated in Section 4.5.2 of "Guide to Application for Water Supply". WSD has consulted the Technical Committee on Plumbing on this updated requirement.

Existing Workflow

3. Normally, upon satisfactorily final inspection of the new plumbing works for fire service by the WA, the responsible LP will carry out cleansing and disinfection at the connection point of fire service supply, and subsequent arrangement of an accredited laboratory for commissioning test¹.

4. After receipt of the satisfactory test report, the WA will effect water supply within 7 days after the date of water sampling at the connection point of fire service supply. The responsible LP should plan properly to avoid disinfection and water sampling to be carried out immediately before long public holidays. Under the time frame of the 7-day requirement, the WA should receive satisfactory water test report by 4:30pm of Day 5 for effect of water supply by Day 7.

On-Site Water Test

5. When exceptional circumstances outside the control of the relevant parties such as the responsible LP, plumbing contractor or laboratory in the opinion of the WA occur such that water supply to fire service cannot meet the 7-day requirement, in lieu of water sampling test, the responsible LP may choose to carry out re-flushing at the connection point by at least 3 volumes of water in the pipes concerned to ensure that all the stagnant water there is replaced by fresh water with sufficient residual chlorine. To ensure adequate flushing, the responsible LP is required to conduct DPD water test² on site after carrying out the flushing, with details as follows:

- a) A DPD No. 1 tablet is dissolved in about 20 mL of flushed water sample collected at the connection point. The development of a pink colouration indicates presence of free residual chlorine and hence sufficiency of flushing.
- b) The responsible LP shall take video record on site for the whole process of DPD water test conducted, including collection of water samples and development of the pink colouration at one time. The video shall also include information such as date, time and connection point (sampling location) where DPD water test is conducted. Furthermore, the pink colouration shall be recorded against a white background in order to easily distinguish the colour of solution from the background.

¹ Section 4.4.1A. of "Guide to Application for Water Supply" refers.

² It refers to water test using N,N-Diethyl-p-phenylenediamine sulphate (DPD) No. 1 tablet conducting on site. DPD No. 1 tablet will be supplied by WSD and can be collected from the WSD Regional Offices.

c) If the pink colouration fails to develop, flushing and DPD water test shall be repeated until the pink colouration can be detected.

6. After successful completion of DPD water test, the responsible LP shall submit the corresponding video record to the WA via relevant email address in Table 1. Provision of re-testing of water samples collected at the connection point of fire service to the WA is not required. The WA will arrange to effect water supply of fire service within 7 days after the date of re-flushing.

Table 1

Regional Office	Email Address				
Hong Kong & Islands Region (except Lantau)	wsd_hk_cs@wsd.gov.hk				
Hong Kong & Islands Region (Lantau only)	wsd_lantau_cs@wsd.gov.hk				
Kowloon Region	wsd_k_cs@wsd.gov.hk				
New Territories East Region	wsd_nte_cs@wsd.gov.hk				
New Territories West Region	wsd_ntw_cs@wsd.gov.hk				

7. The above arrangement will apply to new fire service only. WSD will carry out random spot checks on DPD water tests carried out by the LP.

Effective Date

8. The above arrangement will take immediate effect.

Enquiry

9. Should you have any enquiry, please contact our Engineer/Technical Support(4) at telephone no. 2829 5657.

Yours faithfully,

(Original Signed)

(YAU Hau Yin) for Water Authority

(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 Branch Hong Kong Plumbing and Sanitary Ware Trade Association Ltd. Hong Kong Licensed Plumbing Professionals Association Ltd. 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 Hong Kong Institute of Construction, 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. Hong Kong Licensed Plumbers Union Limited Hong Kong Metropolitan University Li Ka Shing School of Professional and Continuing Education The Association of Electrical and Mechanical Engineering (Hong Kong) Ltd. Pipeman Engineering (International) Limited Hong Kong Institute of Water and Sanitation Safety WSD 3318/15/81

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