

Waterworks (Amendment) Regulation 2017
(“The Amendment Regulation”)

Response to the questions submitted by
Hon Dr. Helena Wong on 20 June 2017

Response to Question (1)

1. Currently, before approving plumbing materials, the Water Authority (“WA”) requires submission of test reports issued by accredited laboratories that proves the proposed plumbing material conforms to the relevant standards in aspects required by the Waterworks Regulations (“WWR”). As regards BS EN 200:2008 for taps which stipulates that “all materials coming into contact with water intended for human consumption shall present no risk to human”, material supplier will have to demonstrate it via chemical composition testing against relevant metallic standards for metals and BS 6920:2014 for non-metallic materials.

Response to Questions (2), (5) and (8)

2. For PVC stabilizer, plastic pipe and fitting, or other non-metallic materials that would be brought in contact with water, it is a requirement in Schedule 2 of the WWR for them to comply with BS 6920 series which are commonly used to test the suitability of non-metallic products for use in contact with water intended for human consumption. Before approving plumbing materials, the WA requires submission of test reports issued by accredited laboratories that proves the proposed plumbing material conforms to the relevant standards in aspects required by the WWR. Please note that bitumen lining is no longer accepted by the Water Supplies Department (“WSD”) for use as internal lining for pipes in inside service.

Response to Question (3)

3. The WA has set up a general acceptance (“GA”) system on plumbing materials. The supplier will submit to the WA test report issued by an accredited laboratory that proves the proposed plumbing material conforms to the relevant standards in aspects required by the WWR. The WA will check and verify the test reports prior to granting the GA. To strengthen the control of plumbing materials, the WA has enhanced the system by imposing a five-year

validity period of the GA. To further enhance the conformity of plumbing products with the GA requirements, the WSD has formulated a surveillance programme for GA products.

4. Prior to the commencement of plumbing works, the Licensed Plumber (“LP”) is required to submit a full list of all plumbing materials to be used in the plumbing works for approval by the WA. During the interim/final inspections, the WA will conduct random check to ensure that the plumbing materials used are those approved by the WA.

5. In addition, water samples will be collected and tested by the WA or accredited laboratories for specified metal parameters for further checking the materials used in the plumbing system.

Response to Question (4)

6. The fresh water supply in Hong Kong contains low level of chloride ions (below 20 ppm). The WSD also doses a small amount of residual chlorine (around 1 ppm) in the water to keep it free from bacterial infection in the distribution system. According to the advice from WSD’s Expert Committee on Plumbing Materials, the grade 304 stainless steel can resist corrosion up to 200 ppm chloride ion at 50°C.

Response to Question (6)

7. Under the current Regulation 20(1) of the WWR, it stipulates that “(s)ubject to regulation 25, every pipe or fitting shall be of the British Standard” and the current Regulation 25(2) of the WWR stipulates “(t)he Water Authority may approve any pipe or fitting which is not of the British Standard.” The power to relax regulations under Regulation 25(2) of the WWR is essential for the WA to approve the use of a pipe or fitting that is not governed by a British Standard (“BS”). Such provision is important for the plumbing industry to allow the use of such plumbing material.

8. In March 2016, WSD had set up the Technical Committee on Plumbing (“TCP”) with members of representatives from professional bodies, plumbing trade, construction industries, suppliers, standard organization, laboratory and government officials from various departments. The terms of reference of

TCP include inter alia the making of recommendation to the WA for the consideration of new plumbing materials adopting international standard other than BS.

9. Under the proposed Regulation 20 of WWR, both the efficiency of the fire services or inside services in providing reliable and adequate supply of water and the quality of water will be the consideration of the WA in the determination of departure from the prescribed specification relates to the size, nature, materials, strength, test requirements and workmanship of the pipe or fittings.

Response to Question (7)

10. While aging is unavoidable, the WA has been reviewing and introducing the use of corrosion resisting plumbing materials. For instance, unlined galvanized steel pipes, which are vulnerable to corrosion, were banned from use since 1990s, whereas corrosion resisting plastic or copper pipes have been accepted for use. In the case of aged inside service or fire service causing waste or contamination to the supply, the WA will issue a notice to the consumer or agent for rectification.

Response to Question (9)

11. The standard for water tap, BS EN 200:2008, stipulates that “all materials coming into contact with water intended for human consumption shall present no risk to human”. As such, the wetted surface of a water tap intended for human consumption should not have coating/electroplating material. Even if there is such coating/electroplating material, the trade will be requested to demonstrate that such material poses no health risk to human. The WSD accepted the method proposed by some suppliers to carry out metal leaching test for Nickel and Chromium.

Development Bureau
27 June 2017