

Minutes of the 2nd Meeting of Technical Committee on Plumbing

Date : 27th September 2016 (Tuesday)
Time : 2:00 p.m. ó 5:15 p.m.
Venue : Room 4819, Immigration Tower, 7 Gloucester Road, Wan Chai

Present :

Chairman

Mr. CHAN Chung Kun Assistant Director/New Territories, WSD

Members

Mr. CHUNG Chi Ming	The Hong Kong Institution of Engineers
Mr. Ivan HO Man Yiu	The Hong Kong Institute of Architects
Mr. Vincent HO Kui Yip	The Hong Kong Institute of Surveyors
Mr. HUNG Chi Kwong	Hong Kong Plumbing and Sanitary Ware Trade Association Limited
Mr. Kenneth CHAN Tin Chi	The Chartered Institute of Plumbing and Heating Engineering ó Hong Kong Branch Limited
Mr. MA Yuk Ying	Hong Kong Institution of Plumbing and Drainage Limited
Mr. TANG Kwong Yiu	Hong Kong Licensed Plumbing Professionals Association Limited
Mr. CHENG Wai Cheong	Hong Kong Water Works Professionals Association Limited
Mr. Simon KWOK Tung Keung	Hong Kong General Building Contractors Association Limited
Mr. WONG Wing Wah	Registered Minor Works Contractor Signatory Association Limited
Mr. TANG Sze Wo	The Hong Kong Registered Contractors Association Company Limited
Mr. Eric YUNG Chun Tang	Hong Kong Federation of Electrical and Mechanical Contractors Limited
Mr. Barry KU Chun Ming	Bun Kee (International) Limited
Mr. Michael CHAN Ka Wah	Kembla (HK) Limited
Mr. Jason CHENG Kai Chun	Shun Lee Building Materials & Sanitary Wares Limited
Mr. Coleman TSE Kin Hung	The British Standards Institution Hong Kong
Mr. LEE Wai Kwok	Association of Construction Materials Laboratories Limited
Mr. Vincent LO Wing Shing	The Real Estate Developers Association of Hong Kong (REDA) (<i>Ad-hoc</i>)
Mr. LAU Chiu Kwong	Chief Building Services Engineer/1, Architectural Services Department
Mr. NG Tat Kwan	Chief Building Services Engineer/2, Housing Department
Mr. Edwin TANG Hoi Kwan	Chief Building Surveyor/New Territories West, Buildings Department (<i>Ad-hoc</i>)
Mr. TAM Lung Cheung	Deputy Chief Fire Officer (Licensing & Certification) Fire Services Department (<i>Ad-hoc</i>)
Mr. Roger WONG Yan Lok	Chief Engineer/Technical Support, WSD

Mr. LEE Tai On	Chief Electrical & Mechanical Engineer/Maintenance, WSD
Mr. LAU Chin Hung	Senior Mechanical Engineer/ Material Control, WSD
Mr. Edwin CHAN Wing Chow	Senior Engineer/Technical Support (2),WSD

Secretary

Mr. Anthony LAI Wing Kwong	Senior Engineer/Technical Support (1), WSD
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Note Taker

Mr. Davis WAN Chin Man	Engineer/Technical Support (6), WSD
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In attendance

Mr. David WONG Man Kei	Senior Engineer/HK (4), WSD
Mr. Rico CHEUNG Yip Kui	Senior Engineer/KIn (3), WSD
Mr. YAU Hau Yin	Senior Engineer/NTE (4), WSD
Mr. NGAI Man Fai	Senior Engineer/NTW (3), WSD
Mr. IP Chit Ki	Senior Engineer/Supply Planning
Mr. Terry KUNG Ting Wai	Mechanical Engineer/ Material Control, WSD
Ms. FOK Ka Lai	Engineer/Technical Support (1), WSD
Mr. Simon WONG Fuk Hing	Engineer/Technical Support (2), WSD
Mr. Kevin LEE Hong Nin	Engineer/Technical Support (3), WSD
Mr. Robin LAW Yuk Fat	Engineer/Technical Support (4), WSD

Absent with apologies

Mr. Thomas TSE Che Wah	Hong Kong Construction Association, Limited
Mr. Danny WONG Sing Lam	Contractor's Authorised Signatory Association Limited

Action by

Opening Remarks

1. The Chairman introduced all present and welcomed them to the 2nd meeting of Technical Committee on Plumbing (TCP). He informed the meeting that as a result of a recent adjustment to organization of WSD, he now took up the chairmanship of the TCP and Mr. Roger WONG Yan Lok took up the chairmanship of the TCP Works Subgroup.

Agenda Items

Item 1 – Confirmation of the Minutes of the Last Meeting

2. The minutes of the 1st TCP meeting were confirmed without amendment.

Item 2 – Matters arising from the Last Meeting

(a) Proposals to Streamline Vetting of Plumbing Proposals and Inspection of Plumbing Works (re. para. 5 of 1st meeting minutes)

(b) Interim Inspection of Concealed Pipes (re. para. 8 of 1st meeting minutes)

3. WSD said that the proposed enhancement of procedures for interim inspection of underground pipes and final inspection of completed plumbing works had been set out in the WSD Circular Letter (CL) No. 2/2016 issued in June 2016. As stipulated in the CL, a pilot scheme to try out the enhanced procedures would be implemented for one year and applicants might join on a voluntary basis. A review would be carried out by WSD before the expiry of the pilot scheme to evaluate its effectiveness, workflow, feedback and patronage, identify areas for improvement, and decide whether the scheme should continue.

WSD

4. Regarding the proposed measures for streamlining vetting of plumbing proposals and interim inspection of concealed pipes, WSD would consider these measures in due course making reference to the running and review of the pilot scheme.

WSD

(c) Guidelines for submission of plumbing proposal (re. para. 9 of 1st meeting minutes)

5. WSD said that as reported in the Works Subgroup meetings a draft framework for the guidelines was being worked out and an ad-hoc working group would be formed to develop the guidelines.

WSD

(d) Implementation of Recommendations of WSD Task Force on Investigation of Excessive Lead Content in Drinking Water (re. para. 10, 11, 12 and 13 of 1st meeting minutes)

6. WSD said that the draft “Best Practice Guide on Plumbing” to be presented to the meeting under agenda item No. 3, as a matter arising from the meetings of TCP Works Subgroup, had provisions for the following recommendations of WSD Task Force on Investigation of Excess Lead Content in Drinking Water:

- Engaging qualified person to carry out adequate and regular field inspection,
- Good practice or guidelines for systematic non-destructive tests of solder pipe joints
- Good practice or alerts for random sampling and testing of materials delivered to site
- Use of pipe materials free from risk of misuse of leaded solder.

7. Regarding “Use of pipe materials free from risk of misuse of leaded solder”, WSD also said that the Materials Subgroup had discussed mechanical jointing of copper

Materials
Subgroup

pipes/fittings and would follow up the item.

(e) Guideline for updating “List of British Standards applicable to Inside Service and Fire Service” (re. para. 15 of 1st meeting minutes)

8. WSD said that this item would be covered by and discussed under agenda item No. 4 as a matter arising from the meetings of TCP Materials Subgroup.

(f) Application of WSD’s general acceptance for pipes and fittings(re. para. 17 of 1st meeting minutes)

9. WSD said that an ad-hoc meeting after the 1st TCP meeting was held on 1st April 2016 among relevant stakeholders to follow up this item and WSD observed that the processing of suppliers’ applications for WSD’s general acceptance (GA) for pipes and fittings was generally smooth and an application could generally be processed in about a month.

Item 3 – Matters arising from the Meeting of TCP Works Subgroup

10. The Chairman said that there were three items recommended by the Works Subgroup for the consideration of the meeting.

(a) Best Practice Guide on Plumbing

11. WSD took the meeting through TCP paper No. 2/2016 (**re. Appendix 1**) regarding the draft “Best Practice Guide on Plumbing” (BPG), which aimed at recommending some good practices in design and construction of different types of plumbing works. WSD said that the draft BPG had been supported by TCP Works Subgroup at its meeting held in September for seeking TCP’s endorsement through today’s meeting. The draft BPG had been refined taking into account the comments received in the Works Subgroup meeting. WSD proposed to seek TCP’s endorsement of the BPG for promulgation to the public for information. Members’ opinions and WSD’s replies were as follows:

- (1) Members remarked that WSD’s regulatory role was not seen in the BPG.

WSD said that the BPG aimed at explaining to various stakeholders involved in plumbing works their different roles and responsibilities and recommending some good practices for different stakeholders in design and construction of different types of plumbing works.

- (2) Regarding paragraph 4.2.1.3 of the BPG, Members enquired whether the taking random samples of essential components delivered to site for testing should be

carried out only once for each project, instead of on every delivery of essential components. Some Members opined that two random testing samples for small scale projects might be disproportionately costly as the total numbers of fittings were small.

WSD said that while the BPG was meant to apply to general cases, by its paragraph 1.3, i.e. *“We encouraged the relevant stakeholders to adopt the recommendations set out in the BPG as far as practicable”*, it had already provided flexibility necessary for special cases. In response to Members’ question, WSD explained that upon delivery instead of during the construction was used in paragraph 4.2.1.3 as it helped early detection of non-compliant pipes/fittings if the taking of random samples for testing was conducted at early stage, i.e. upon delivery of the materials. Some Members expressed that the number of random samples for testing for a small scale project might be less than two at the decision of the professionals responsible for the preparing the plumbing specifications. Moreover, it was agreed that taking random samples for testing should be on a project basis instead of on each delivery basis.

- (3) Members enquired about the rationale of taking random samples for testing for some essential components which already had WSD’s general acceptance (GA). Members opined that the issue should be related to material control at source (i.e. manufactures or suppliers). In addition, Members asked whether WSD would refuse to issue the “Certificate regarding Water Supply Connection” if the proposed taking random samples for testing was not adopted in the project.

WSD explained that basically GA was based on testing of samples provided by the applicants at the time of application of GA, while the proposed taking random samples of essential components for testing upon delivery helped to ensure the pipes and fittings delivered to site for installation complied with the required standards. WSD noted that the testing of random samples of plumbing materials was in line with the common practice of the building industry to test samples of building materials delivered to site, such as steel reinforcement. Some Members opined that taking random samples on site for testing was a risk management approach to avoid completing plumbing works with non-compliant plumbing materials. WSD said that WSD would not refuse to issue the “Certificate regarding Water Supply Connection” if the proposed taking random samples for testing was not adopted in the project.

Some Members expressed that they supported the testing of random samples delivered to site which was an effective control measure at site level different from testing by manufacturers/suppliers or testing under surveillance schemes such as the BSI kitemark, though the number of random samples taken for testing for materials under surveillance schemes might be reduced. Moreover, some Members shared that there was BSI certification for installation of fire services and it might be explored to extend the certification to installation of potable inside services.

- (4) Regarding paragraph 4.1.3 of the BPG, Members enquired which party would be appropriate to carry out the independent verification check on the quality of the plumbing proposal.

WSD said that anyone in the project team who was not involved in the design of the plumbing proposal would be appropriate to carry out the verification check. For the avoidance of doubts, it was agreed to delete the word “independent” in relevant paragraphs.

WSD

- (5) Member requested and WSD agreed to include the presentation powerpoint for the TCP Paper No. 2/2016 as the Appendix of the meeting minutes. (re. **Appendix 2**). WSD would also explore the feasibility of developing a CPD course on best practices to licensed plumbers.

WSD

- (6) Regarding paragraph 2.2.1 of the BPG, Members enquired what is the meaning of “不斷地進行監督”.

WSD said that the Chinese translation of “continuous supervision” to “不斷地進行監督” in the BPG had made reference to the Chinese translation used in the “Code of Practice for Site Supervision” issued by the Buildings Department.

- (7) Regarding paragraph 4.2.2.2 of the BPG, Members enquired whether 100% checking should mean carrying out lead test for all soldered joints. Regarding paragraph 4.2.2.3 of the BPG, Members suggested revising the terms “soldering material with lead” and “brazing material with cadmium” as acceptable soldering/brazing materials may still contain acceptable amount of lead/cadmium; Moreover, Members said that there was no quick test for cadmium, even cadmium could be detected by the x-ray fluorescence analyzers, such devices were not common yet and the risk of buying brazing

materials on the local market containing excess cadmium was not high, therefore Members suggested deleting the part of quick test for cadmium in paragraph 4.2.2.3.

WSD said that paragraph 4.2.2.3 of the BPG stipulated that, “...*minimum 2 soldering pipe joints from every storey should be selected randomly for conducting the NDT...*” and paragraph 4.2.2.3 was meant to advise that the project team should attend 100% checking for the NDT as stated in paragraph 4.2.2.3. WSD agreed to revise the wording of paragraph 4.2.2.2 accordingly and also revise the wording of paragraph 4.2.2.3 as per Members’ suggestions.

WSD

12. In conclusion, the meeting endorsed the BPG, subject to amendments as mentioned in items (2), (4) and (7) in paragraph 11 above, for promulgation to the public for information.

(b) Random Inspection on Plumbing Works

13. WSD took the meeting through TCP paper No. 3/2016 (re. **Appendix 3**) and presented the proposal on the implementation of random inspection of plumbing works. Subsequent to the consultation in the meeting of TCP Works Subgroup on 6th September 2016, the proposal had been refined taking into account the comments received from relevant stakeholders. Members’ opinions and WSD’s replies were as follows:

- (1) Members expressed if the LP of a project selected for random inspection might be considered by developers or main contractors not as good as other LPs of projects not selected for random inspection.

WSD reiterated that the selection would be on a project basis and there were other criteria apart from LP criteria to consider in the selection process.

- (2) Members enquired whether the projects involving “Government, Institution or Community” (GIC) uses would score higher marks for random inspection. If such a project was selected for random inspection, whether the inspection would be conducted for the GIC parts only.

WSD said that the random inspection was intended to target new building projects involving domestic buildings / buildings for sensitive consumers. Therefore, projects with GIC uses for sensitive users would score higher marks. All plumbing works found on site at the time of random inspection would be subjected to inspection by WSD. However a project, which had been selected for random inspection, would normally not be selected for

random inspection again within 6 months.

14. In conclusion, the meeting endorsed TCP paper No. 3/2016.

[Post meeting note: The typo "31.6.2015" in paragraph 11 of the TCP Paper No. 3/2016 is corrected to "30.6.2015" in the paper at **Appendix 3**.]

(c) Mandatory Use of Designated Products registered under Water Efficiency Labeling Scheme (WELS)

15. WSD took the meeting through TCP paper No. 4/2016 (**re. Appendix 4**) and presented the details of mandatory use of designated products registered under WELS (designated WELS products) for all new buildings and buildings under major renovation that would require submission of designated WSD forms and involve the use of designated WELS products, i.e. stage 1 of the mandatory WELS scheme (Scheme Stage 1). WSD introduced a voluntary WELS that had been implemented since 2009 and had consulted relevant stakeholders about Scheme Stage 1 since 2014. WSD reported that a business impact assessment (BIA) on Scheme Stage 1 was currently underway to collect views on compliance difficulties and compliance costs from stakeholders, and planned to soft launch it in late 2016. WSD would like to seek Members' views and comments on Scheme Stage 1. Members' opinions and WSD's replies were as follows:

- (1) Members opined that the grace period of twelve months might not be adequate because the contracts of some projects might be awarded before the rolling out of the scheme, thus did not provide for the requirements of Scheme Stage 1. If such a project could not be completed before the expiry of the grace period, the products ultimately installed might fail to meet the requirements of Scheme Stage 1. Moreover, the duration of many a medium to large scale project would likely exceed two years and the water using products to be used might have decided at the early stages of the projects.

WSD said that the duration of the grace period was under review and if the grace period of 12 months proved not applicable for some projects, WSD might consider giving them special consideration on an individual basis.

- (2) Members enquired whether the scheme allowed flexibility for buildings with special functions or usage, such as hotels needing showers of higher water flow to satisfy customers. Members also enquired whether Scheme Stage 1 would allow users to change a compliant product to a non-compliant product after occupying the premises.

WSD said that the exemption criteria were under review. In general, applications for exemption should be with strong justifications and would be assessed basically on a case-by-case basis. WSD remarked that users should not change a compliant product to a non-compliant product after occupying the premises as it would defeat the intent of using the compliant product to achieve water conservation.

- (3) Members enquired whether the grace period would be linked to the submission of Form WWO 46 or the final inspection by WSD. Moreover, Members suggested that the commencement of the grace period might be linked to the commencement date of the building project stated in the "Notice of Appointment of Registered Contractor" submitted to the Buildings Authority. Members also enquired if a project with Form WWO 46 submitted prior to the grace period was not subjected to the requirements of Scheme Stage 1.

WSD said that the grace period would be linked to the submission of Form WWO 46 and Form WWO 46 submitted on or after the soft launch of Scheme Stage 1 should specify the details of designated WELS products complying with the requirements of Scheme Stage 1. WSD would consider giving special consideration to contracts involving supply of water using products that were signed before the soft launch of Scheme Stage 1. WSD explained that basically whether a project was subjected to the requirements of Scheme Stage 1 would depend on when Form WWO 46 was first submitted, thus a project with its Form WWO 46 submitted before the soft launch would not be affected by Scheme Stage 1.

- (4) Members considered that sufficient time should be allowed so that adequate designated WELS products would be available on the market, from which developers/consultants might choose suitable products for their projects.

WSD said that this view had been received during the BIA. WSD understood that there were products fulfilling the requirements of Scheme Stage 1 but not yet registered under WELS. WSD believed that more products would be applied for registration under WELS upon the soft launch of Scheme Stage 1.

- (5) Members opined that the requirements of Scheme Stage 1 would increase project costs and therefore suggested WSD touching base with the Project Cost Management Office of the Development Bureau, which exercised cost control over public works projects.

WSD noted the view. WSD considered that the cost of the water consuming products depended very much on the brand and shared that some water saving devices might be even cheaper than those without water saving function.

- (6) Members enquired whether stage 1 of the mandatory WELS would cover retail sales of water using products.

WSD said that the aspect of retail would be covered in stage 2 of the mandatory WELS.

- (7) Members suggested WSD allow the developers to declare for exemption from Scheme Stage 1 so that the grace period would not be overly long.

WSD said that they did not anticipate the grace period of 12 months would cause any particular difficulties to the plumbing industry. WSD would consider giving exemption to projects on an individual basis instead of lengthening the grace period.

- (8) Members suggested that WSD should clearly spell out the mechanism/considerations for exempting projects from Scheme Stage 1 before the rolling out of the scheme. Moreover, Members suggested WSD taking account of the Residential Properties (First-hand Sales) Ordinance, under which the sanitary products had to be publicized and a flat might only be sold 7 or 8 years after completion.

WSD noted the suggestions.

- (9) Members opined that there might not be sufficient designated WELS products on the market after rolling out of Scheme Stage 1 by late 2016.

WSD said that they were reviewing whether products registered under similar WELS in other countries could be recognised as WELS products in Hong Kong. On the other hand, WSD would accept the installation of a WELS flow controller to a water tap/shower for bathing not fulfilling the requirements under Scheme Stage 1 to form a "combined" water saving device that could meet the said requirements. To this end, WSD understood that laboratories would increase resources for testing non-designated products after the soft launch of Scheme Stage 1.

- (10) Members enquired whether WSD would keep accepting the non-designated product plus designated flow controller arrangement.

WSD replied that the said arrangement would be accepted in the coming years but drew Members attention to that upon the launch of the concerned statutory provisions (i.e. Stage 2), all types of products subsumed under WELS by retail should be registered under WELS.

- (11) Members enquired whether it was required to test a combination of non-designated product plus designated flow controller.

WSD said that testing of the combined water saving device by accredited laboratories might be required after the grace period but the detailed arrangement was still being reviewed.

- (12) Members suggested WSD review the launching programme of Scheme Stage 1 and conduct a briefing to the plumbing industry before rolling out Scheme Stage 1.

WSD reiterated that the stakeholders had been consulted about proposal since 2014 and the current BIA had further enhanced the consultation. That said, WSD would consider organising briefing sessions in due course.

WSD

Item 4 – Matters arising from the Meeting of TCP Materials Subgroup

Guideline for adopting latest edition of British Standard

16. The Chairman said that there was an item recommended by the Materials Subgroup for the consideration of the meeting.

17. WSD took the meeting through TCP paper No. 5/2016 (re. **Appendix 5**) and presented the proposed six-step procedure for updating the British Standards (BSs) applicable to the pipes and fittings of inside service or fire service. Regarding the 6th step, WSD said that the proposed guideline aimed to engage the relevant stakeholders for updating the BSs and after the TCP meeting which endorsed the updates of the BSs, the proposal would be put up to Assistant Director/New Territories for approval. Members' opinions and WSD's replies were as follows:

- (1) Members advised that the BSI could provide training to the plumbing industry for BSs to be updated and for BSs just updated.

The meeting noted the advice.

- (2) Members enquired how an updating of a BS might affect products already granted with the GA based on the old BS and whether the adoption of an updated BS could be deferred.

WSD explained that the adoption of an updated BS depended on the nature of the changes: if the changes were minor or affect safety, they could be endorsed by the TCP and adopted swiftly, and if the changes would take manufacturers a long time to adopt the updated BS, then their adoption might take a longer time. WSD further explained that the TCP would be adequately consulted for the adoption of an updated BS.

18. In conclusion, the meeting endorsed TCP paper No. 5/2016.

19. WSD said that the adoption of the following five BSs had been supported in the 2nd meeting of the TCP Materials Subgroup held on 16th August 2016:

- (1) BS 1212-4:2016
- (2) BS EN 763-2 : 2016
- (3) BS EN 1503-4 : 2016
- (4) BS EN 12449 : 2016
- (5) BS EN 60335-2-35 : 2016

After explaining the changes, WSD recommended the adoption of the updated BSs for the meeting's endorsement. The meeting endorsed the recommendation for WSD's follow up.

WSD

20. WSD said that after approval by Assistant Director/New Territories, these updated BSs would be promulgated on WSD's website and in the enhanced webpage to be rolled out in October 2016 all updated BSs would be grouped together for easy reference.

WSD

Item 5 – Matters arising from the WSD Circular Letter No. 9/2015

Appeal Mechanism under Point Penalty System

21. WSD took the meeting through TCP paper No. 6/2016 (re. **Appendix 6**) and

reviewed the implementation of the appeal mechanism under point penalty system which had been put into operation as a trial for nine months starting from 1 January 2016. WSD proposed to seek Members' views on whether the trial appeal mechanism was to be cancelled, to be adopted as a standing mechanism, or to be retained for one year for a further review at the end of the year.

22. In conclusion, the meeting agreed to extend the trial appeal mechanism for one year and for a further review by WSD.

WSD

Item 6 – Review of Standards and Requirements for Plumbing Installation

23. WSD briefed the meeting that WSD would review and update technical requirements stipulated in Schedule 2 of the Waterworks Regulations, the "Hong Kong Waterworks Standard Requirements for Plumbing Installation in Buildings", and the "Handbook on Plumbing Installation" and "WSD Circular Letters". WSD would engage consultants to develop a new publication to incorporate the technical requirements, taking into account overseas experience and practices. WSD said for such purpose the consultants might contact and consult Members.

24. Members suggested WSD set up a small steering committee for the exercise and WSD said they would consider the suggestion.

WSD

Item 7 – AOB

25. Members enquired about the trial of the metal leaching test on plumbing products based on AS/NZS 4020. WSD replied that they were studying two methodologies in the standard. WSD planned to raise the matter for discussion in the next laboratories meeting and then the Materials Subgroup meeting. Members further asked whether the testing method based on AS/NZS 4020 would apply to the random samples for testing of the BPG. WSD advised that the current testing requirements should still apply until relevant changes were formally announced.

WSD

Next Meeting

26. There being no other business, the meeting was adjourned at 5:15 pm. The next meeting will be called in due course.
