

**Drinking Water Safety Advisory Committee  
Thirteenth Meeting**

**Date** : 1 December 2023 (Friday)  
**Time** : 4:00 pm – 5:40 pm  
**Venue** : Conference Room 3, G/F, Central Government Offices,  
2 Tim Mei Avenue, Tamar, Hong Kong / Video conferencing

**Minutes of Meeting**

**Members Present**

Ir LEUNG Kwong Ho, Edmund	Chairman
Ir Dr CHAN Hon Fai	Vice-Chairman
Ir CHUNG Chi Ming	
Dr CUNLIFFE David Anthony	(via video conferencing)
Dr HO Koon Sing, Gray	
Mr HO Kui Yip, Vincent	
Ir Prof LO Man Chi, Irene	
Ir TANG Ming Sum, Michelle	
Prof TO Kai Wang, Kelvin	
Prof TSE Lap Ah, Shelly	
Prof WONG Kong Chu, Chris	
Dr WONG Siu Ming, Raymond	
Dr WONG TAAM Chi Woon, Vivian	
Mr YAU Kwok Ting, Tony	Director of Water Supplies
Mr HO Ying Kit, Tony	Deputy Secretary for Development (Works) 3
Dr SO Pui Sheung, Kellie	Head (Atg), Non-Communicable Disease Branch, Department of Health (“DH”)
Mr KAN Yim Fai, Fedrick	Secretary Team Leader (Water Safety), Development Bureau (“DEVB”)

### **Members Absent with Apology**

Dr CHUI Ting Fong, May  
Prof HO Kin Chung  
Prof LEE Wing Yan, Vivian  
Dr MA Yiu Wa, Anthony

### **In Attendance**

Ms KWAN Kai Yin, Janice	Assistant Secretary (Water Safety) 1, DEVB
Mr LO Tsz Lung, Warren	Assistant Secretary (Water Safety) 2, DEVB
Ms YEUNG Man Yan, Didi	Executive Manager (Water Safety), DEVB
Mr WONG Kwok Fai, Alfred	Deputy Director of Water Supplies
Mr MA Hon Wing, Wilson	Assistant Director/Development, Water Supplies Department (“WSD”)
Mr CHOY Tak Yip	Chief Chemist, WSD
Ms LAM Lai Hang, Mable	Chief Engineer/Technical Support, WSD
Mr KUNG Ting Wai, Terry	Senior Mechanical Engineer/ Material Control and Testing, WSD
Mr YU Chi Wing, Albert	Senior Chemist/Water Quality (Standards and Monitoring), WSD
Ms CHAN On Yee, Anna	Chemist/Planning (2), WSD

### **Action by**

1. The Chairman welcomed all Members to the meeting. At the Chairman’s invitation, the Secretary reported that non-official committee members had visited the Tai Po Water Treatment Works (“TPWTW”) and Plover Cove Reservoir on 17 October 2023 to gain more understanding of WSD’s on-site chlorine generation facilities and unmanned surface vessel system. He added that after the visit, the Chairman had published two articles on water supplies in his column in The Standards in November.

2. The Secretary advised that no comments on the meeting materials had been received from Members absent from this meeting.

### **Agenda Item 1: Confirmation of Minutes of the Last Meeting**

3. The minutes of the twelfth meeting were confirmed.

### **Agenda Item 2: Matters Arising from the Last Meeting**

*[Prof Shelly TSE joined at this juncture.]*

4. As reported in the respective post-meeting note in paragraphs 13 and 24 of the minutes of the last meeting, a breakdown of buildings with water safety plans according to “building age” had been sent to Members on 11 July 2023. WSD had also shared the information on overseas water quality incidents on *Legionella* to the Prevention of Legionnaires’ Disease Committee at its meeting held on 7 June 2023.

5. On Member’s suggestion for inviting more pilot projects from the Architectural Services Department and Housing Department (“HD”) to participate in Stage 2 of the voluntary Registered Plumbing Contractor scheme (paragraph 12 of the minutes of the last meeting), Ms Mable LAM, Chief Engineer/Technical Support of WSD, reported that WSD had formally written to the two departments inviting more projects to join the scheme. Mr Tony YAU, Director of Water Supplies, added that WSD had also introduced the details and benefits of the scheme at a high-level in-house meeting, in which HD had expressed willingness to identify more projects for participation. He added that WSD would look for further opportunities to carry out the promotion work. Members had no further comment on this matter.

### **Agenda Item 3: Updates on Implementation of Action Plan for Enhancing Drinking Water Safety in Hong Kong (“Action Plan”)**

6. Ms Anna CHAN, Chemist/Planning (2), and Mr Terry KUNG, Senior Mechanical Engineer/Material Control and Testing, of WSD updated Members on the implementation of the Action Plan.

7. Members discussed WSD's proposal ("the Proposal") to impose an upper limit of 3.5% on lead content in all plumbing materials in contact with fresh water as a new statutory requirement, with a proposed transitional period of 4 years or more, as summarised below:

- (a) A member pointed out that in promulgating its new requirement on lead content in plumbing materials, Australia had allowed a transitional period for the industry to make changes to achieve an upper limit of 0.25% on the weighted average lead content ("0.25% limit") in plumbing products (including pipes, valves and fittings, etc.) from May 2026 onwards. Based on overseas experience, a key consideration when imposing new requirements and setting transitional timeframes was the local manufacturers/suppliers' readiness to make relevant products available. In Australia, the migration to the 0.25% limit would likely be smooth as some local companies had indicated their readiness to import or manufacture products that could comply with the new requirement.
- (b) Some members enquired about the reason for setting an upper limit on lead content at a level of 3.5% instead of 0.25% that had been adopted in some overseas countries as well as the associated impact to the trade, the differences in the methodologies adopted in arriving the 3.5% and 0.25% limit, and why it was not feasible to adopt the two limits at the same time.
- (c) Some members suggested WSD should well publicise the Proposal so as to avoid giving rise to a perception that public health might not be adequately safeguarded under the Proposal.
- (d) Some members suggested WSD should educate the public about the latest world trend in using plumbing products with lower lead content, which might drive the use and hence supply of such products. They also recommended WSD encourage the trade to explore more new importing sources which could help improve the product availability in the future.
- (e) Some members advised that from a health perspective, the lead level in drinking water should be kept as low as reasonably practicable. WSD might consider setting a timeframe for further reducing the lead content in plumbing materials by phases in the long run, e.g. a visionary target date of implementing the 0.25% limit.

- (f) A member suggested that WSD might monitor the trend of lead content in drinking water as an indicator to reflect if the 3.5% limit would be stringent enough to safeguard public health, and a limit of 5µg/L on lead content in drinking water might also be considered as a suitable benchmark.
- (g) A member recommended WSD consider selecting some products meeting the 3.5% limit and evaluating them based on the method adopted for the 0.25% limit so as to gather more information.

8. In response to the above views raised by Members, Ms Mable LAM advised that most plumbing products imported for use in Hong Kong were from the European Union (“EU”) following BS/EU standards. Based on WSD’s records, the lead content of some common drinking-water-related plumbing products (e.g. copper alloy pipe fittings and valves) currently available in Hong Kong ranged from 4% to 6%. She explained that the 3.5% limit had been proposed with reference to the relevant prevailing material standards adopted by Australia and several EU member states as well as having due regard to the degree of impact that would be brought about by adopting different upper limits and the associated transitional period required for full implementation. To avoid causing excessive impact to the plumbing trade while bringing in the lead content control as early as practicable, WSD therefore proposed to adopt the 3.5% limit in the upcoming legislation amendment.

9. Mr Tony YAU supplemented that the proposed 3.5% limit on the lead content of plumbing materials had been based on their relatively satisfactory leaching performance in complying with the Hong Kong Drinking Water Standard (“HKDWS”) in respect of lead, i.e. not exceeding 10µg/L, as demonstrated by laboratory testing results. He went on to advise that WSD had also considered the availability of the plumbing products in the local market, of which the majority were imported from EU and had not been certified against the 0.25% limit. Based on earlier consultations with the plumbing trade, the Government considered it more prudent to adopt the 3.5% upper limit in the proposed legislation amendment as a start. He also affirmed that upon enactment of the legislation amendment, WSD would continue to monitor the market development and review if there was room to make progressive enhancement of the upper limit, particularly when the market became more mature. He added that WSD would supplement further information on the current implementation of the 0.25% limit in the overseas context after the meeting.

**WSD**

*[Post-meeting note: Based on WSD's search, the 0.25% limit has yet to be adopted worldwide. While a few countries in North America and Australasia are adopting this limit, none of the European countries is found to follow suit. It is also noted that the USA and Canada have implemented the 0.25% limit since 2014, but Australia and New Zealand just commenced their transition to adopt the same limit in May 2023 and November 2023 for implementation in May 2026 and September 2025 respectively.]*

10. At the Secretary's request, Mr Terry KUNG elaborated that the 0.25% limit referred to the weighted average lead content against the wetted surface area of a plumbing product. On the other hand, the 3.5% limit would apply to every single component of a plumbing product.

*[Mr Tony HO joined at this juncture.]*

11. Mr Alfred WONG, Deputy Director of Water Supplies acknowledged that safeguarding drinking water safety was a common prime concern of both the Committee and WSD. He emphasised that the ongoing monitoring results of drinking water in Hong Kong demonstrated consistent compliance with HKDWS. The new requirement would enable WSD to move a step forward to help safeguard public health from the drinking water safety perspective, while giving due consideration to a host of factors in the local context.

12. The Chairman concluded that, with extensive discussions, WSD should be fully aware of the views from Members. He remarked that the Committee had to ensure drinking water safety but the availability of plumbing products in the local market should not be overlooked. Taking cognisance of a host of factors as discussed in particular that the Proposal would provide one step forward to enhancing drinking water safety, the Chairman suggested and Members agreed the Proposal be accepted by the Committee, but requested WSD to conduct an interim review after implementation of the new requirement for two years with a view to exploring the suitability of bringing in further enhancement earlier.

**WSD**

#### **Agenda Item 4: Summary on International Water Quality Incidents**

13. Ms Anna CHAN gave a brief account of WSD's review on major international water quality incidents for the period from January to July 2023. For the three incidents more relevant to Hong Kong, she elaborated why the risk of occurrence in the local context were low. She then shared a piece of recent

news regarding high levels of Per- and polyfluoroalkyl substances (“PFAS”) found in groundwater around Yokota Air Base in Tokyo. Whilst PFAS were being kept in view under the Watch List, she pointed out that the risk of occurrence of similar incidents in Hong Kong would be low. She also reported that no major water quality incident had happened in Hong Kong since the last meeting.

14. For the elevated lead level water quality incident in Yarrabah of Australia, a Member supplemented that corrective measures were being implemented to restore the drinking water supply to its pH range of 7 to 7.5. Apart from the fact that Hong Kong’s drinking water supply was generally maintained at a slightly alkaline level, he shared that Yarrabah, being a small community with an indigenous population of some 2500 people, did not have as many control measures as those implemented in Hong Kong. The Chairman remarked that online analysers in water treatment works (“WTWs”) were crucial instruments that should be maintained with high accuracy. In response to the Chairman’s enquiry on whether adjustment of lime dosage was automated based on the monitoring data collected from the online analysers, Mr TY CHOY, Chief Chemist of WSD, advised that WSD had developed and implemented an Integrated Treatment Information & Tele-Alert System (“INTEL”) in TPWTW to adjust the dosage of lime based on real-time monitoring data. He added that INTEL had been found effective in controlling the water quality and WSD had planned to install the system in other WTWs by phases.

#### **Agenda Item 5: Any Other Business**

15. At the Chairman’s invitation to clarify the content quoted in a news coverage in respect of the Director of Audit’s report on expansion of TPWTW, Mr CHOY pointed out that water samples were tested during different stages of the water treatment process, and the parameters quoted as “not met” in the news report were in fact the signals for triggering adjustment of certain chemical dosage to ensure compliance of the final drinking water quality with HKDWS. Mr CHOY supplemented that the quality of water supplied by TPWTW had been satisfactory with no exceedance of HKDWS detected. A Member enquired whether such issue should be notified to the Committee and/or DEVB, and it was unique to TPWTW. Mr CHOY replied that monitoring, control and adjustment of chemical dosage was a routine procedure in all WTWs to ensure the safety of drinking water and hence he considered it not necessary to notify the Committee or DEVB of such daily operational matters.

16. The Secretary recapped that a range of pesticides and antibiotics were being monitored and watched under HKDWS, the Surveillance List and the Watch List, and further invited Members to alert the Committee if they came across any specific pesticides and antibiotics that rendered attention.

*[Ir Michelle TANG joined at this juncture.]*

17. Ms Anna CHAN gave a brief account of the latest status of radiological monitoring at the Tseung Kwan O Desalination Plant (“TKODP”) and advised the Committee that WSD had not detected any radioactive pollution since the commencement of the monitoring at the seawater intake points of TKODP in June 2023. A member enquired about when and how the baseline level for tritium would be established, and when there would be a change in level given Japan’s discharge of nuclear-contaminated water. Another Member enquired about the cost-effectiveness of WSD’s monitoring. In response, Mr CHOY said that seawater desalination was a new drinking water source of Hong Kong and hence WSD was prudently monitoring the seawater quality. He elaborated that WSD had started monitoring tritium monthly since June 2023 and would collect data for two years with a view to establishing the baseline level for tritium in mid-2025, as well as reviewing the monitoring frequency for tritium. So far, the tritium level had been below 6 Bq/L and within the baseline level measured by the Hong Kong Observatory in the Hong Kong waters over the past years. In response to the Chairman’s enquiry, Mr CHOY advised that WSD had also stepped up the monitoring of strontium-90 to a monthly basis for characterising the new water source, though strontium-90 had not been detected in the Hong Kong waters. Having considered the complex analytical work and time required, the monitoring frequency of strontium-90 would be changed to quarterly after the commissioning of TKODP, similar to the existing practice at other strategic WTWs. The Chairman remarked that reverse osmosis was a new technology adopted in Hong Kong for water supplies and hence WSD should closely monitor the operation of TKODP and the quality of the desalinated water, particularly during its initial operation period.

18. Since this was the last meeting of the current term, the Chairman expressed his gratitude to Members for their contribution and support over the past two years. The Vice-Chairman proposed a Vote of Thanks to the Chairman, who would be retiring from the Chairmanship, and Members extended their appreciation to the Chairman.

19. There being no other business, the meeting adjourned at 5:40 p.m.