



水務署

Water Supplies Department

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檔號
Reference (16) in WSD 3318/50 Pt.4 T/J(7)

10 December 2015

Dear Principal,

Quality Water Supply in Buildings

The quality of treated water supplied by the Water Supplies Department fully complies with the “Guidelines for Drinking-water Quality” published by the World Health Organization in 2011. Nevertheless, the consumers should also keep the plumbing system in their buildings in good condition in order not to cause deterioration in the quality of water supplied in the buildings. In this connection, I would like to provide some advice on matters requiring attention when you carry out works on inside service (i.e. plumbing systems in buildings) as well as on the proper maintenance of the inside service in the ensuing paragraphs.

Works on Inside Service

In accordance with the Waterworks Ordinance (Cap 102), except alterations or repairs which are minor in nature, inside service should be constructed, installed, maintained, altered, repaired or removed by a Licensed Plumber (LP). In addition, prior permission should be obtained from the Water Authority (WA) for these works except maintenance and repair works and minor alteration works.

Examples of alterations and repairs of minor nature include:

- (i) replacement of defective water pipes and fittings; and
- (ii) repairs to leaking pipes and fittings and minor alterations to pipework, etc.

Minor alterations and repairs to inside service shall also conform to the waterworks requirements of the WA. In addition, works on inside service involving the use of soldering for connecting copper pipes shall have the permission of WA and be

carried out by an LP¹. It should be noted that works on inside service not properly carried out may result in deterioration in water quality or even contamination.

Water Supplies Department (WSD) maintains a Licensed Plumber Directory in its webpage at the following link for reference of the consumers: http://www.wsd.gov.hk/en/plumbing_and_engineering/licensed_plumber/index.html.

Maintenance of Inside Service

Fresh water tanks should be cleansed at least quarterly to prevent accumulation of dirt and rust. Besides, the plumbing system should be inspected regularly by a qualified person such as LP, building service engineer or building surveyor. Detailed guidelines and recommended practices for the maintenance of fresh water plumbing systems in buildings are detailed in the WSD's publications entitled "Fresh Water Plumbing Maintenance Guide" and "Consumer Guidebook", which are available in WSD webpage at the following links respectively: <http://www.wsd.gov.hk/filemanager/en/share/pdf/FWPMGe.pdf> and <http://www.wsd.gov.hk/filemanager/en/share/pdf/Guidebook-e.pdf>.

To further encourage the responsible parties to follow the above recommended measures, WSD has launched a voluntary "Quality Water Supply Scheme for Buildings – Fresh Water" since 2002, through which successful applicants will be awarded certificates to recognise their proper maintenance of the inside service. Details of the above scheme are available in the following link in WSD webpage:

http://www.wsd.gov.hk/en/customer_services_and_water_bills/application_for_licence_certificate/qwrsbfwsw/index.html

In view of the recent incident of excessive lead in drinking water found in public rental housing estates, we are currently reviewing the above Scheme for enhancement to include testing of heavy metals and to expand scope of water sampling. The enhancement measures are anticipated to be launched by the end of this year. For details of the Scheme, please contact our Administrative Manager - Ms. Jade HON at 2829 4416.

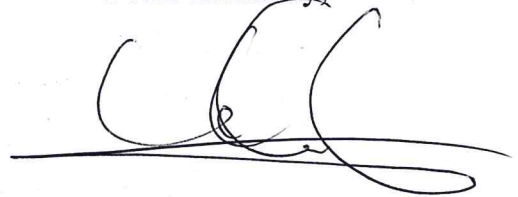
Please also note that in response to the recent incident of lead in drinking water, the Centre for Health Protection has provided some health advice in its webpage at the following link: <http://www.chp.gov.hk/en/content/40434.html>.

¹ The LP can be assisted by workers in carrying out the works if necessary.

Regarding the installation and use of wall-mounted dispensers (previously called wall-mounted kettles), please make reference to the suggestions set out in my previous letter dated 29 September 2015 to schools. Furthermore, based on the findings of a recent study on the wall-mounted dispensers, WSD has produced a leaflet entitled "Tips for Using Wall-mounted Dispensers" which provides more detailed advice on the installation and use of wall-mounted dispensers. The leaflet is attached herein for your reference.

Should you have any enquiries on the above, please contact our "Customer Telephone Enquiry Centre" at 2824 5000.

Yours faithfully,

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the bottom.

(LI Kan Kay)
for Water Authority

Encl.

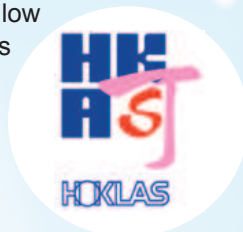
c.c. Education Bureau (Attn.: Ms. WONG Hok Ling, Jessie)
Architectural Services Department (Attn.: Mrs. CHING WOO Wai Ling, Alice
Mr. WONG Tak Choi, Frank)
Department of Health (Attn.: Dr. FUNG On Yee, Connie)
Customer Telephone Enquiry Centre

Purchase of Dispensers

- Purchase products with international certification, which normally includes testing of product safety, such as those certified by the WaterMark of Australia, NSF/ANSI of the US and the Water Regulations Advisory Scheme (WRAS) of the UK or;



- Purchase products with type test reports issued by HOKLAS-accredited laboratories confirming that boiled water complies with the WHO provisional guideline value for lead and that the products use lead-free soldering material and low lead content components (less than 1%).



- A licensed plumber should be engaged to install the dispenser and conduct a lead check on the soldering material at the inlet inside the dispenser to confirm that it is lead-free before using the dispenser.



- New dispensers should be cleaned thoroughly with water and undergo at least four times of boiling with one-third or one-quarter full of fresh tap water before it is used for drinking purposes.

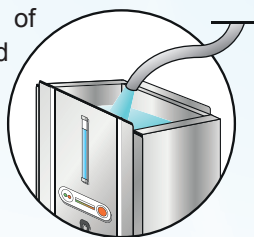
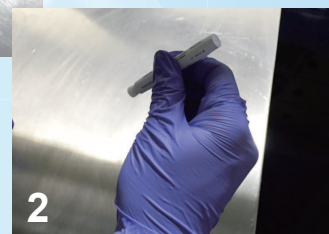


Illustration of Quick Lead Check on Wall-mounted Dispenser



1

Squeeze and crush the barrel of the swab.



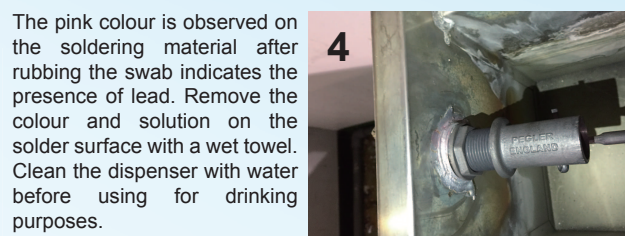
2

Shake and squeeze the barrel of the swab.



3

After draining away the water in the dispenser, rub the swab on the soldering material at the inlet inside the dispenser. Prevent any solution from dropping into the water dispenser by placing a wet cloth under the rubbed surface.

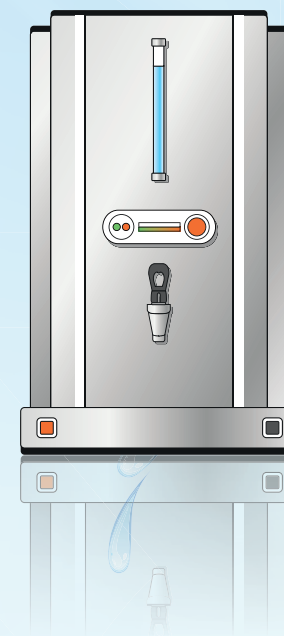


4

The pink colour is observed on the soldering material after rubbing the swab indicates the presence of lead. Remove the colour and solution on the solder surface with a wet towel. Clean the dispenser with water before using for drinking purposes.

- * Please refer to the detailed instructions as stated in the instruction manual before using the testing kit to conduct a lead check. Different kinds of testing kits are available for sale at some hardware stores.

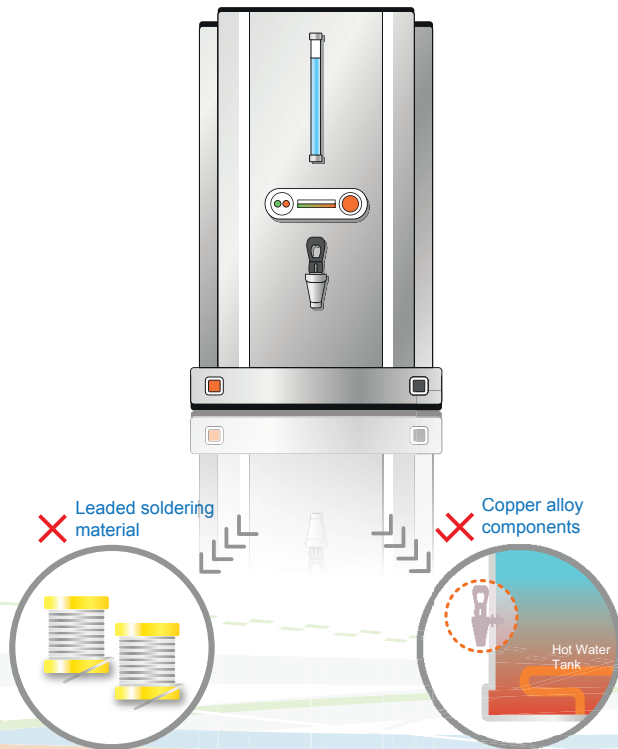
Tips for Using Wall-mounted Dispensers



Water Supplies Department

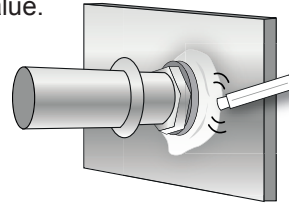
Potential Sources of Lead in Drinking Water in Dispensers

- Leaded soldering material is a major source leading to excessive lead in drinking water in dispensers after boiling. It should not be used in the fabrication of dispensers.
- Copper alloy components of new dispensers leach comparatively more lead in hot water when they were used for the first time but the amount of lead would reduce after a few boiling and draining away cycles and would not cause excessive lead in drinking water.

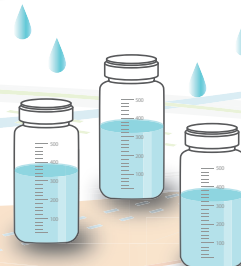


Lead Checking for Dispensers


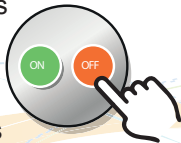
- If you want to make sure that your existing dispenser is lead-free, you should conduct a lead check or arrange to take a boiled water sample for testing of lead. Replace the dispenser if the lead check confirms presence of lead or lead in water exceeding the World Health Organization's (WHO) provisional guideline value.



- You should adhere to the following procedures for taking a boiled water sample from the outlet tap of the dispenser:
 - Take a water sample only after the water inside the dispenser has been cooled down naturally;
 - Fill the water into a polyethylene sample bottle (250 ml) prepared by a laboratory accredited by the Hong Kong Laboratory Accreditation Scheme (HOKLAS) and do it carefully to prevent overflow;
 - Put the cap back on the sample bottle, ensure that it is tightly closed and put on labels (with the sampling location, date and time); and
 - Store the water sample in an icebox with freezer packs and deliver it to the laboratory on the same day.



Things to Note when Using Dispensers without International Certification

- Conduct regular cleaning of the dispenser every six months to prevent accumulation of dirt or other impurities according to the procedures below:
 
 - Ensure that nobody takes water from the dispenser during the cleaning for drinking;
 - Top up the dispenser and boil the water;
 - Isolate the power supply and add a small amount of mild fruit acid (citric acid) in powder form (about 20 grams for a 20-litre dispenser) into the dispenser;
 - Keep the water in the dispenser for about an hour;
 - Start the draining cycle by closing the inlet valve and then drain away the water inside the dispenser;
 - Commence another draining cycle by opening the inlet valve for about one minute and then drain away the water in the dispenser again; and
 - After four or five draining cycles, fully open the inlet valve and resume the power supply when the tank is full.
- Switch off the power of the dispenser every night and during long holidays to avoid continuous automatic heating, which may increase the amount of lead leached into the water in the dispenser if it contains leaded material / components.
 
- Drain away the water in the dispenser every morning. The drained water can be stored for non-drinking purposes.
 