

Guidelines for Maintenance Works on Underground Pipework within Housing Development

The quality of drinking water supplied by the Water Supplies Department (WSD) fully complies with the Hong Kong Drinking Water Standards. Nevertheless, the registered agents (RAs) or management offices (MOs) must consistently maintain the fresh water plumbing systems, including the underground pipework within a housing estate at a high standard to ensure good quality of water to consumer. The underground pipework within a housing estates usually includes water supply network, control valves, strainers/filters and washouts. The RAs or MOs should arrange for regular valve operation and pipe flushing at least once every 12 months, and flushing of strainers/filters at least once every 6 months, or more frequently if necessary. For special situation that the water quality problem still persists after the above mentioned flushing work, the RAs or MOs should seek advice and assistance from WSD.

Please observe the following guidelines when carrying out valve operation, pipe flushing and strainers/filters flushing work.

(A) Guidelines for carrying out valve operation work

- (1) All the control valves for the underground water pipe should be exercised regularly to ensure the control valves could be fully close or open, and necessary repair work to the irregularity identified should be arranged adequately.
- (2) Before the valve operation work, the RAs/MOs should inspect the conditions of all control valve chambers, clear debris, silt or rubbish found in the chambers and drain off ponding water in the chambers.
- (3) Notice should be posted at prominent location of the common area to advise in advance the affected customers of the date and the duration of water supply suspension.
- (4) As the components of valves are subject to high water pressure of the pipeline, the valve operation work should follow the “Guidance Notes on the Safe Operation of Valves” for the sake of safety.

(B) Guidelines for flushing of the underground water pipe through washout

- (1) Before the flushing work, the RAs/MOs should inspect the conditions of all washout pump pits, clear debris, silt or rubbish found in the pits and drain off ponding water in the pits.

- (2) RAs/MOs should design and provide temporary drainage measures to ensure the flushing water is properly conveyed and discharged to a nearby drainage system. For example, provision of a duty and standby submersible pumps to ensure adequate discharge capacity.
- (3) Notice should be posted at prominent location of the common area to advise in advance the affected customers of the date and the duration of water supply suspension.
- (4) During the flushing work, the RAs/MOs should open the control valve gradually to avoid damage the control valve accidentally. The valve operation work should follow the “Guidance Notes on the Safe Operation of Valves” for the sake of safety.
- (5) The flushing work at the washouts should be continued until the flushing water become visibly clear.
- (6) Washout chamber is classified as confined space. If it is necessary to enter the chamber for flushing work, to safeguard the safety of the working staff, it is required to ensure that the flushing procedures comply with the relevant statutory requirements for safety, such as the Factories and Industrial Undertakings (Confined Spaces) Regulations, Cap 59AE. Attention should be paid to the safety measures and requirements on the aspects of lighting, ventilation, gas and personal protective equipment.

(C) Guidelines for flushing of strainers/filters

Strainers (e.g. bucket type, T-type or Y-type strainer) are installed before master meters, pump sets and near the check meter positions of the communal service to individual building block in order to prevent the particles from entering into inside service system. For special situation with identification of observable particles in potable water inside service, WSD would advise the RAs/MOs to install filters with appropriate mesh size before sump tanks to provide multilevel protection. Water strainers and filters, which are not well maintained, will cause water quality problems such as bacterial re-growth, etc. The RAs/MOs shall maintain the strainers and filters in accordance with the manufacturer’s instructions and carry out flushing work at least once every 6 months, or more frequently if necessary. The flushing work comprises the following steps:

- (1) Notice should be posted at prominent location of the common area to advise in advance the affected customers of the date and the duration of water supply suspension. The notice should remind the occupiers to keep all taps closed until cleansing of the strainers/filters has been completed and to flush the taps for 2 minutes after resumption of supply before using water.

- (2) Shut off the inlet valves before the strainers/filters, open the removal cap of the strainers/filters, take out the screen from the strainers/filters for flushing by injecting water to both sides of the screen, in order to scrub the particles/debris accumulated in the screen.
- (3) After flushing work, reinstall the screen to the original position and close the removal cap.
- (4) After the re-installation of the screen, the RAs/MOs should inspect water supply to sump tanks in order to check the water quality. If the water flow was found resume normal and no observable particles identified, the RAs/MOs completed the filter flushing. If observable particles or sediments are found in sump tanks, the RAs/MOs should discharge the water and arrange for flushing and re-fill.
- (5) The water tank cleansing work could be arranged concurrently with the strainers/filters flushing to avoid double handling.
- (6) Please refer to photos 01-06 showing the location, removal cap and screen of strainers/filters.

Photo 01 – Strainer near check meter position of the communal service to individual building block

Photo 02 – Open the removal cap of the strainer

Photo 03 – Take out the screen for flushing

Photo 04 – Filter before sump tank

Photo 05 – Open the removal cap of the filter

Photo 06 – Take out the screen for flushing

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