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 guidance when carrying out valve operation, pipe flushing and strainer/filter 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 could be arranged adequately.
(2) Before the valve operation work, the RAs/MOs should inspect the conditions of all control valve chambers and clear debris, silt or rubbish found in the chambers and drain off ponding water in the chambers.
(3) Posting 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 and clear debris, silt or rubbish found in the washout pump pits and drain off ponding water in the washout pump pits.

(2) RAs/MOs should design and provide temporary drainage measures to ensure the flushing points are properly conveyed and discharged to a nearby drainage system. For example, provision of a duty submerged pump with standby of adequate discharge capacity.
(3) Posting 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 should follow the "Guidance Notes on the Safe Operation of Valves".
(5) The flushing work at the washouts should be continued until the water from the flushing points become visibly clear.
(6) Washout chamber is classified as confined space. 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 particle entering into inside service system. For extreme case about identification of observable particle in potable water inside service, WSD would advise the registered agent or management office to install filters with appropriate mesh size before sump tanks to provide multi-level protection. Water filters and strainers, which are not well maintained, will cause water quality problems such as bacterial re-growth, etc. The RAs or 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) Posting 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 filters/strainers 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 filters/strainers, open the removal cap of the filters/strainers, take out the screen from the filters/strainers 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 or 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 or MOs completed the filter flushing. If observable particles or sediments are found in sump tanks, the RAs or MOs should discharge the water and arrange for flushing and re-fill.

(5) The water tank cleansing work should be arranged concurrently with the strainer/filter flushing to avoid double handling.

(6) Please refer to photos 1-6 showing the location, removal cap and screen of strainer and filter.

Photo 1 & 1A – Strainer near check meter position of the communal service to individual building block

Photo 2 – Open the removal Cap of the strainer

Photo 3 – Take out the screen for flushing

Photo 4 – Filter before sump tank

Photo 5 – Open the removal cap of the filter

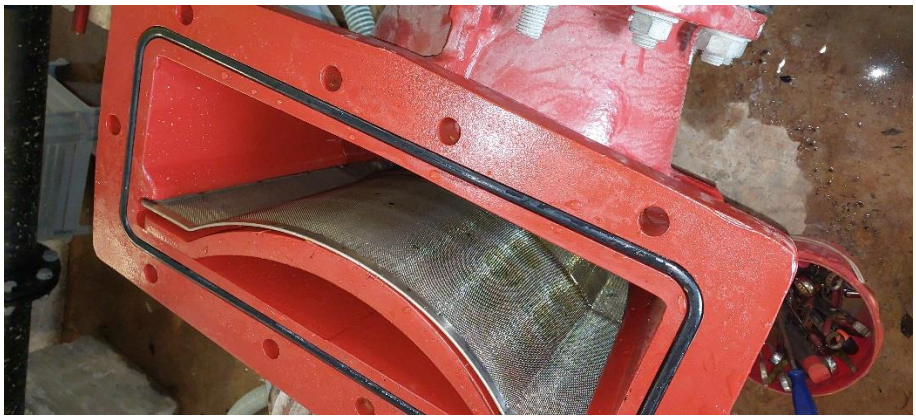

Photo 6 – Take out the screen for flushing