WRc Evaluation & Testing Centre Ltd

WBS TEST & ACCEPTANCE CRITERIA PD.

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TEST CODE SHEET

1. <u>TYPE OF TEST(S)</u>

Consumption (regeneration wastewater volume)

2. <u>BYELAW REQUIREMENT FOR FITTINGS</u>

Byelaw 3

No person shall - (a) install or cause or permit to be connected or arranged a water fitting in a manner which, causes, or is likely to cause, waste, undue consumption, misuse of water supplied by the undertakers.

3. BRITISH STANDARDS OR WATER SPECIFICATION, DEEMED TO SATISFY BYELAW REQUIREMENTS

This test code sheet conforms to the draft BEWA Code of Practice type performance standard for salt regenerated ion exchange water softeners for direct connection to the mains water supply. The code of Practice states that 'all water regeneration wastewater volume required to produce softened water between successive regenerations'.

3.1 Fittings with 'kitemarks' which are deemed to satisfy the requirements of byelaws are listed in the directory.

4. <u>TEST PROCEDURE</u>

4.1 Tests applicable to the following fittings -

WATER SOFTENERS

- salt regenerated ion exchange, for direct mains connections.

(A) WATER SOFTENERS

TEST METHOD

Remove the control head from the pressure vessel(s), extract the resin contents and place the resin in a calibrated container fitted with a backwash water supply.

Backwash the resin, drain the water level to the surface of the bed and measure the record the resin volume in litres.

Replace the resin in the pressure vessel(s), reassemble the unit and fill the salt tank/cabinet to the maximum level with the recommended grade or type of salt.

Fit control valves to the inlet and outlet and leave them shut.

Connect the inlet via a water meter capable of a minimum measurement accuracy of $\pm 5\%$ to a water supply at ambient temperature and at the maximum pressure recommended by the manufacturer.

Connect the appliance to the appropriate electrical supply recommended by the manufacturer.

Set controls as necessary to normal (softening) operation, open the inlet and outlet control valves and purge the appliance of air. Carry out any additional commissioning procedures recommended by the manufacturer and then close both inlet and outlet control valves.

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Set controls as necessary (according to the type of regeneration initiation method used) to give the maximum regeneration wastewater volume.

Note the record the inlet water meter reading, open the inlet control valve and manually initiate the regeneration procedure.

Allow the appliance to complete the regeneration cycle and then note and record the inlet water meter reading. Calculate the water consumption in litres.

5. <u>ACCEPTANCE CRITERIA</u>

The total water consumption recorded for the regeneration cycle, as calculated from the inlet water meter readings, shall not exceed eighteen times the resin volume.recorded.