

1.16 INSTALLATION / EXCHANGE OF SLUICE VALVES, PRVS & NRVS, ETC

- Unless expressly approved by %:, sluice valves shall be installed so that the spindles are truly plumb and extension spindles fitted so that the key head is a maximum of 500mm below the adjacent ground level.
- The Cast or Ductile Iron surface box shall be fixed such that, when a key is fitted to the valve, it shall have equal clearances with the sides of the box.
- The following Technical standards shall be complied with for the installation of mains fittings: **ENG-TS-ENS 105; ENG-TS-ENS 107 and ENG-TS-ENS 109 (these are currently being updated)**. Deviation from these standards is subject to %: written permission.
- The SL3 shall install new valves or replace, existing defective valves and shall erect chambers, surface boxes and marker posts complete with marker plates and numerals in the positions shown on approved drawings or where required by %: to the details shown on the standard drawings included with the Specification. Marker posts, plates and numerals shall be installed before or within 24 hours of the main being returned to service.
- Unless expressly approved by *BW*, sluice valves shall be installed so that the spindles are truly plumb and extension spindles fitted so that the key head is a maximum of 300mm below the adjacent ground level. The Cast or Ductile Iron surface box shall be fixed such that, when a key is fitted to the valve, it shall have equal clearances with the sides of the box.

1.17 INSTALLATION/EXCHANGE OF HYDRANTS OR WASHOUTS

- The following Technical standards shall be complied with for the installation of mains fittings: **ENG-TS-ENS 106 and ENG-TS-ENS 108 (these are currently being updated)**. Deviation from these standards is subject to *BW* written permission.
- The SL3 shall install new washouts or replace, existing washouts or hydrants and shall erect chambers, surface boxes etc and where directed marker posts complete with marker plates and numerals or replacement of marker plates, where required by %:. Where directed, marker posts, plates and numerals shall be installed before or within 24 hours of the main being returned to service.
- The hydrant shall be fixed so as to be truly plumb and in such a position that the top of the outlet is not more than 300mm below the surrounding ground level. Double flanged extension pieces to fit below the hydrant will be provided to enable this height adjustment to be made. The cast or ductile iron surface box will be positioned such that when a key and standpipe are fitted to the hydrant, equal clearances exist around the sides of the box.
- All flange joints shall be made and wrapped as previously described.
- Where directed, marker posts, plates and numerals shall be installed immediately the main is returned to service.

1.18 INSTALLATION OF CHLORINATION POINTS

- Where instructed by the %:, the SL3 shall install chlorination points comprising a combination of sluice valves and hydrants/washouts all as specified.
- Surface boxes are to be positioned true and square and in line and double flanged distance pieces shall be inserted between the fittings where necessary to achieve this.

1.19 CONNECTION TO EXISTING MAINS

- Any connection to be made between a new main and an existing live main will be carried out under Tee Insertion or Mains Connection and with due regard to the relevant clauses of this specification.
- Where it is anticipated that customers' supplies will be interrupted as a result of connection, the *SLP* shall arrange for those customers affected to be notified in accordance with *BW* specification.
- The *SLP* shall consider the following aspects when planning such connections: area of excavation required to allow for jointing room; the time and labour involved for the main to empty once it has been shut down and for pumping water from the main out of the trench and its dechlorination where necessary.
- The *SLP* shall also allow for taking trial holes that may be required in order to locate existing water mains to which such connections are to be made.
- The *SLP* shall not, without the express permission of *BW*; operate any sluice valves for shutting off the mains for the connection to be made.
- For the installation/exchange of valves, hydrants, fittings etc. as detailed in the specification above, valving operations will be carried out as per the specification. The *SLP* should liaise with *BW* to arrange such shutdowns giving at least 21 days notice.
- The timing of shutdowns will be determined by *BW* the *SLP* shall arrange his working programme around the time stated.
- The *SLP* shall allow for waiting time while valves are operated and any mains drain down time required.
- The *SLP* shall maintain pumps as required at working locations sufficient to cope with flows from mains drain down to maintain the water level in the excavation below the invert of the main to prevent any contamination occurring.

1.20 UNDERPRESSURE MAINS CONNECTIONS

- The *SLP* **must** make connections to existing mains by means of under pressure drilling using under pressure tees and valves.
- All under pressure drilling equipment is to be supplied by the *SLP*.
- Prior to fitting the under pressure tee to the main, The *SLP* must thoroughly clean all external corrosion and coating material from the parent pipe and must confirm the outside diameter by means of callipers.
- Prior to drilling The *SLP* must pressure test the Underpressure Tee and Sluice Valve assembly on the parent pipe to the rated pressure of the pipe or one and a half times the normal working pressure whichever is the greatest.
- After drilling the 'coupon' taken from the existing main is to be labelled with the location and the date of the under pressure drilling and handed to *BW*.
- All equipment and fittings used are to be disinfected in accordance with this specification.

1.21 LINE STOPPING MAINS CONNECTIONS

- The *SLP* **must** make connections to existing mains where supplies must be maintained to customers, using line stopping technique (single and multiple stops) using under pressure tees, valves and appropriate pressure rated and approved pipework.
- All line stopping drilling equipment is to be supplied by the *SLP*.

- Prior to fitting the line stopping tee to the main, The *SLP* must thoroughly clean all external corrosion and coating material from the parent pipe and must confirm the outside diameter by means of callipers.
- Prior to drilling The *SLP* must pressure test the Underpressure Tees, pipework and sluice valve assemblies on the parent pipe to the rated pressure of the pipe or one and a half times the normal working pressure whichever is the greatest.
- After drilling the 'coupon' taken from the existing main is to be labelled with the location and the date of the under pressure drilling and handed to *BW*.
- All equipment and fittings used are to be disinfected in accordance with this specification.

1.22 REPAIR & MAINTENANCE

- Compliance with The *Employer's* ISO procedure QSC 006 is mandatory
- All repairs to Iron and Asbestos Cement pipes that require cut out shall be made with Ductile Iron pipe.
- Repairs to moPVC and polyethylene pipe shall be repaired with polyethylene pipe and mechanical fittings.

1.23 REPAIRED MAINS PROCEDURE

- *BW* procedure QSC-006 Repair of Burst Mains must be followed. Also note the length and location of the section of main being sampled for future reference in case repeat samples are necessary.
- Before Sampling: If any flushing or swabbing is required, then this should be carried out in accordance with *BW* procedure QWD-160.
- Sampling: Samples should be taken during flushing, preferably from a proper sampling tap. Any sampling necessary must be done in accordance with *BW* procedures QSC-024. Collection of samples for Laboratory Analysis QSC-025 sample Transportation and QSC-126 Sample Labelling. All on site tests must be done in accordance with the following procedures:
 - QSC-011 On Site Determination of Chlorine
 - QSC-012 On Site determination of Ammonia
 - QSC-013 On Site Determination of pH
 - QSC-014 On Site Determination of Taste and Odour
 - QSC-015 On Site Determination of Conductivity

Please note:

This is a direct copy of the technical standard contained within Developer Services Term Service Contract.