Appendix Four – Construction: connection drawings

Typical detail - temporary spade & by-pass arrangement for new mains connections (WM-D 424)

NOTES: General - principle fittings only shown/described. Principle applications are initial connections from existing mains and branches on new mains.

(1&2) Existing/previously commissioned main and tee piece connection to new main/phase.

(3) New permanent controlling sluice valve for new main.

(4&5) Flanged spigot and flange adapter.

(6) Steel spade to provide barrier between existing/live main and new main - spade to be removed on commissioning.

(7) Double flanged pipe (typically 450mm length) with connection point for by-pass 9.

(8) PN16 flange for proposed new main/phase to be laid away from/connected to.

(9) Temporary by-pass for testing and disinfection (sized to suit application but typically with 50mm O.D MDPE pipework and 1.5inch nominal bore fittings):

* By-pass to be isolated at stopcocks B1,B2 and E (and valve 3 where inlet to by-pass is upstream), and temporarily disconnected and plugged off at the outlet of stopcock B2 at times when flows are not required, including during the disinfection/chlorination contact period. By-pass to be permanently disconnected and plugged off at both mains connection points on commissioning.

(9A) By-pass to be connected to existing/live main at suitable point upstream of spade 6.

(9B) BS1010 stopcocks (*upstream stopcock to be female iron to allow for plugging off).

(9C) Southern Water approved double check valve assembly.

(9D) Southern Water check meter.

(9E) Chlorination/pressure testing connection point (tee-piece with 0.5inch outlet and female iron BS1010 stop-tap).
Typical detail - temporary hydrant & by-pass arrangement for new mains connections (WM-D 425)

NOTES: General - principle application will be phased/in line new mains connections. Principle fittings only shown/described.

(1) Previously commissioned/ live butt fused PE main with pupped flange connection to hydrant.

(2) Next new section/phase of butt fused PE main with pupped flange connection to hydrant.

(3) Flanged temporary ducks foot hydrants (If a permanent hydrant is required a tee piece and in line hydrant may be installed/used with the downstream flange being left blanked off until commissioning).

(4) Temporary 2.5inch hydrant standpipes with quick release to female iron adaptors at the outlets (upstream hydrant may incorporate a Southern Water approved double check valve assembly in addition to or instead of the double check valve provided on by-pass 6).

(5) Thrust props.

(6) Temporary by-pass for testing and disinfection (sized to suit application but typically with 50mm O.D MDPE pipework and 1.5inch nominal bore fittings):
  * By-pass to be isolated at hydrants 3 and disconnected standpipes 4 at times when flows are not required, including during the disinfection/chlorination contact period.

(6A) Southern Water approved double check valve assembly (optional if provided at upstream standpipe 4).

(6B) Southern Water check meter

(6C) Chlorination/pressure testing connection point (tee-piece with 0.5inch outlet and female iron BS1010 stop-tap).