1 Disinfection of Service Pipes and Private Mains

In order to safeguard water quality and public health of our customers, it is a requirement that supply pipes and private mains falling into certain categories are disinfected (chlorinated) and tested before a connection is allowed to our water main.

Key Points

After pressure testing and flushing, service pipes and mains shall be chlorinated when either:

- Service pipes 25mm,32mm and 50mm where the lay length is longer than 50m
- The service pipe is of diameter 63mm where the lay length is longer than 10m
- All service pipes greater than 63mm
- Where it is suspected that ingress may have occurred, such as flood water, sewage, drainage or animals.

Requirements

- Make sure you have arranged a connection date with our Developer Services team, before starting the chlorination process.
- Chlorination must be carried out a maximum of ten days before the connection date.
- We require a copy of the disinfection certificate and sample results at least two working days before the connection date.
- It is your responsibility to ensure that the company carrying out the disinfection is aware of our requirements. We recommend providing them with a copy of this fact sheet.
- The sample results must be from a 'UKAS' accredited laboratory.

By following this guide and subject to satisfactory sample results and other pre-connection conditions being met, your new connection can be completed as planned.

However, if this guide is not followed you may need to re-disinfect and sample your pipe(s) at your own cost, which may also result in your new connection being delayed.

Chlorination Guidance

1. The pipe shall be flushed, filled with chlorinated water to not less than 50mg/l and allowed to stand for 1 hour.
2. The level of chlorine shall be recorded; the residual at the end of this period should not be less than 45mg/l. If it is less than 45mg/l then the pipe should be re-flushed and chlorinated.
3. The chlorinated water should be flushed out until the chlorine residual has returned to the original background level of the incoming water supply and the pipe refilled. All highly chlorinated water must be de-chlorinated before discharge. Guidance for the safe disposal of chlorinated water can be found within the Principles of Water Supply Hygiene Technical Guidance Notes[1].
4. After standing for 30 minutes a sample is taken and on-site tests are undertaken.

If a disinfectant other than chlorine is used it must be listed in the Drinking Water Inspectorates List of Approved Products and Processes.
The chlorination certificate must clearly state that the disinfection has been carried out in accordance with BS EN 806.
Example information required for the disinfection certificate is provided at the end of this fact sheet.

Sampling

The sample results of the post flush sample(s) should include on-site free and total chlorine residual, total coliforms and *E.coli*, qualitative

water fact sheet

For further information contact the Customer Services team at
SES Water, London Road, Redhill, RH1 1LJ
Tel 01737 772000 or Fax 01737 766807 www.seswater.co.uk

2 Disinfection of Service Pipes and Private Mains

taste & odour, turbidity (or visual appearance) and pH.
Chlorine measurement must be undertaken on site. Qualitative taste & odour and turbidity may be undertaken on site or submitted to a laboratory. Total coliforms and *E.coli* must be submitted to a 'UKAS' accredited laboratory.

Example information required for the sample results is provided at the end of this fact sheet.

Guidance and Regulations

Under the **Water Supply (Water Fittings) Regulations 1999**, you are required to disinfect your underground pipe work prior to connection. Disinfection must be carried out to **BS EN 806**.

For further details and clarification, please refer to the BS EN 806, the Regulations[1] and Sections G13 and R13 of the Defra Guidance Notes[2]

The Principles of Water Supply Hygiene document[3] sets out the principles to be considered in drawing up operational procedures for maintaining safe and wholesome drinking water supplies with specific focus being given to hygiene. This includes guidance on new mains, preparation of chlorine solutions and disposal of chlorinated water.

[1] http://dwi.defra.gov.uk/stakeholders/legislation/ws(fittings)regs1999.pdf

[2] http://webarchive.nationalarchives.gov.uk/20130402151656/http://archive.defra.gov.uk/environment/quality/water/industry/wsregs99/documents/waterregs99-guidance.pdf

[3] http://www.water.org.uk/publications/reports/principles-water-supply-hygiene

Contacting us

Further details are available from our Developer Services team:
e-mail: DeveloperServices@seswater.co.uk
Tel: 01737 772000 option 4

water fact sheet

3 Disinfection of Service Pipes and Private Mains

DISINFECTION INFORMATION

Site Information

Name of Company	
Name of Individual	
Date	
Site Details	
Pipe Details (material length, diameter)	

Pre-Disinfection

Length of flush time	mins
Chlorine level of incoming water (post flushing and prior to disinfection)	mg/l

Disinfection

Initial chlorine level	mg/l
Contact time	mins
Chlorine level immediately after the contact time	mg/l

Post-Disinfection

Chlorine level after flushing	mg/l
Date and time of samples collected for laboratory analysis	Date Time

Declaration

I confirm that this disinfection has been carried out in accordance with BS EN 806 and the that pipe has been left sealed awaiting connection.	

BACTERIOLOGICAL TESTING

Test	Result	Typical Values
Total Chlorine (residual)		-
Total coliforms per 100ml		0
Total *E.Coli* per 100ml		0
Turbidity / Appearance		<4 NTU
pH		6.5 – 9.5
Taste & Odour		Clear / mild chlorine
Plate count (also known as Total Viable Count) 37ºC-2 day and 22ºC-3 day (optional)		-

water fact sheet

For further information contact the Customer Services team at
SES Water, London Road, Redhill, RH1 1LJ
Tel 01737 772000 or Fax 01737 766807 www.seswater.co.uk