

In order to protect our customers and reduce the risk of contamination, there are occasions when your service pipe will need to be disinfected and tested before we permanently connect it to our network.

The requirement is explained further in this guide; however below is a summary of the key points.

Key Points

- Please ensure you have been given a connection date from The New Connections Team **before** commencing the disinfection process.
- Disinfection must be carried out a maximum of ten days before the connection date.
- The New Connections team requires a copy of the disinfection certificate and sample results, for each individual connection, at least **two working days before** the connection date.
- It is your responsibility to ensure that the designated disinfection company is aware of the national and our local disinfection requirements. We recommend providing your designated disinfection company with a copy of this guide. This is a restricted operation and as such all personnel must hold a valid National water hygiene card. Normally a mains water supply is available at or near your site, which can temporarily be connected to, to facilitate disinfection and flushing of the new connection.
- The supply pipe must be sealed with a watertight stop end, following disinfection and clearance sampling. If the pipe is not sealed on the day of connection then your connection will be delayed and the disinfection procedure shall be repeated.
- Please read this guidance document and ensure the correct procedure is followed.

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

If the procedure is not followed you will need to re-disinfect and sample your pipe(s) at your own cost, which may also result in your new connection being delayed.

The following pages detail the procedure and we recommend your chosen disinfection company complete the pro-forma which can be found at the end of the guidance. If our form is not used, all the information held within it must still be supplied.

Requirement

In order to safeguard water quality and public health, it is a requirement that private supply pipes which fall into certain categories are disinfected and tested as detailed below, before a connection is allowed to the water main.

After pressure testing and flushing, systems shall be disinfected in the following instances:

- a) service pipe is greater than 50mm internal diameter (63mm OD),
- b) service pipe length is longer than 50m in length
- c) where it is suspected that contamination may have occurred, eg fouling by sewage, drainage or animals
- d) where a system has not been in regular use and not regularly flushed
- e) where the supply is being converted from a private water supply

If your supply is greater than 50mm internal diameter (63mm OD):

Under the current Water Supply (Water Fittings) Regulations and associated guidance, you are required to disinfect your underground pipe work prior to connection. Detailed disinfection requirements are documented in BS EN 806 sections 1-5 (BSPD 855468) and the Principles of Water Supply Hygiene, technical guidance note 2.

For underground pipe work with an internal diameter greater than 50mm (63mm OD) and for any diameter which is 50m or more in length, the disinfection must be carried out to '**BS EN 806**' to ensure there is no detriment to public health.

For further details and clarification, please refer to section G13 and R13 of the Regulations Guidance Notes, BS EN 806 and S1 1999, 1148.

Disinfection Guidance

The pipe work must be disinfected with a '**hypochlorite**' solution'.

New supplies shall be flushed, filled with chlorinated mains water to not less than 50mg/l and allowed to stand for 1 hour. After which the level of chlorine shall be recorded. The chlorinated water is flushed out with mains water, paying due regard to the impact of the discharge on the environment. Flushing continues until the chlorine residual has returned to the level of the feed water. After standing for 30 minutes on-site tests are recorded and a sample taken. The supply must then be disconnected awaiting confirmation of the clearance samples and permission granted for permanent connection.

The following must be submitted to the New Connections Team prior to the connection being made:

- A disinfection certificate (mandatory)
- The sample results (mandatory)

The 'certificate' must indicate the details of the company and the person, performing the disinfection, date of disinfection, confirmation that the pipe has been flushed prior to disinfection, a 'hypochlorite' solution has been used, the chlorine level of the source water, the chlorine level after dosing, the contact time, the chlorine level after contact, and the chlorine level after flushing. It must also detail the onsite test for appearance, odour and taste.

The certificate must clearly state that the disinfection has been carried out in accordance with BSEN806.

The 'sample results' of the post flush clearance sample(s) must include free and total chlorine residual, taste, odour, visual appearance (or turbidity), *E.coli*, and total coliforms. Chlorine measurement must be undertaken on site. Taste, odour and visual appearance may be undertaken on site or submitted to a laboratory (the latter as turbidity analysis), *E.coli* and total Coliforms must be submitted to a laboratory. Details of any on-site tests must be submitted on the sample label.

The sample results must be from a UKAS accredited laboratory.

It is the customer's responsibility to ensure that the designated disinfection company is aware of our requirements.

If this procedure is not met we have a right to refuse the final connection, and the pipework must be re-disinfected to meet our requirements.

Please note that we cannot connect your supply to our network until we have received these documents complete with all information.

Please liaise with our New Connections Team so that the connection takes place within the disinfection validity period. **Once you have a connection date you will need to ensure the disinfection is carried out a maximum of ten days before the connection date.**

The disinfection certificate and the sample results should be sent and received a minimum of two working days before the connection date via:

Email: newcontm@southwestwater.co.uk

New Connections
South West Water
Peninsula House
Rydon Lane
Exeter
EX2 7HR

Telephone: 0800 083 1821

Fax: 01392 443595

If your supply is

- less than 50mm internal diameter (63mm OD),
- is less than 50m in length
- has been stored in a safe place,
- the ends have always been sealed and
- no contaminant has been in contact with it,

there will be no requirement to disinfect this supply, unless advised by South West Water or you feel you feel it necessary. However, it will need to be adequately flushed.

We regret that due to the competition act South West Water is unable to recommend a contractor to provide disinfection and testing, however, for your information we can provide a list of contractors who have indicated they can provide such a service. We recommend you use an approved contractor, e.g. Watersafe or WIAPS registered. Please contact the New Connections Team should you require a copy of the private contractor list.

We would suggest you obtain quotes from more than one approved contractor as prices and response times may vary.

An example pro-forma containing the information required is given below.

Name of Company undertaking the disinfection and clearance sampling		
Site address of new connection.		
Pipe material, diameter and length used.		
Name of person responsible for disinfection process & EUSR no.		EUSR. No.
Date the disinfection process was undertaken		

Pre-disinfection

Please confirm the pipeline has been flushed before disinfection	Date	Initials
Please record the chlorine level of the source water post flushing and prior to the disinfection solution being introduced	mg/l	

Disinfection

Please record the chlorine level immediately after the above solution has been drawn into the pipework being disinfected prior to standing.	mg/l
Please record the contact time	
Please record the chlorine level immediately after the contact time	mg/l

Post disinfection monitoring/clearance sample(s)

Please record the chlorine level immediately after flushing	mg/l	
Please record the appearance of the supply		
Please record the taste and odour of the supply		
Please confirm a representative sample(s) has been collected for laboratory analysis and that the on-site tests have been recorded on the sample label	Date	Time

Declaration by responsible person

I confirm that that the disinfection above has been carried out by competent persons and in accordance with BSEN 806	Signature	Date

Please submit this certificate along with a copy of all sample results.