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BSI Standards Publication

## PUBLISHED DOCUMENT

# Guide to the flushing and disinfection of services supplying water for domestic use within buildings and their curtilages

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### Summary of pages

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## Foreword

### Publishing information

This Published Document is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 September 2015. It was prepared by Technical Committee EH/3, *Water quality*. A list of organizations represented on this committee can be obtained on request to its secretary.

### Information about this document

This Published Document has been developed to build on the guidance previously given in BS 8558 on the flushing and disinfection of services supplying water for domestic use within buildings and their curtilages, which was regarded as beyond the scope of that British Standard. The intention is to eventually develop this as a British Standard.

A review of this Published Document will be carried out not later than five years after its publication. Informative annexes about the pH impact of various chlorine doses are planned for inclusion in a future revision of this Published Document or when it is converted to a British Standard. Testing is currently being undertaken by Scottish Water.

Any observations or comments will be welcomed. These should be sent to the Secretary of BSI Technical Committee EH/3 at BSI Head Office, at the address on the back cover. On the basis of the replies received, the responsible BSI Committee will judge whether the Published Document can be converted to a British Standard.

**Test laboratory accreditation.** Users of this British Standard are advised to consider the desirability of selecting test laboratories that are accredited to BS EN ISO/IEC 17025 by a national or international accreditation body.

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### Use of this document

As a guide, this Published Document takes the form of guidance and recommendations. It should not be quoted as if it were a specification or a code of practice and claims of compliance cannot be made to it.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

### Presentational conventions

The guidance in this standard is presented in roman (i.e. upright) type. Any recommendations are expressed in sentences in which the principal auxiliary verb is "should".

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

### Contractual and legal considerations

This Published Document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a Published Document cannot confer immunity from legal obligations.**

Attention is drawn to the following statutory regulations.

- Health and Safety at Work etc. Act 1974 [1];
- Control of Substances Hazardous to Health (COSHH) Regulations 2002 [2];
- REACH Regulation [3];
- **The Water Fittings Regulations:**
  - The Water Supply (Water Fittings) Regulations 1999, as amended, in England and Wales [4];
  - The Water Supply (Water Fittings) (Scotland) Byelaws 2014, in Scotland [5];
  - The Water Supply (Water Fittings) Regulations (Northern Ireland) 2009, in Northern Ireland [6];

*NOTE 1 These Regulations apply to requirements relating to plumbing systems in premises to which a supply of public water (municipal water supply) has been provided.*

- **The Water Quality Regulations:**
  - The Water Supply (Water Quality) Regulations 2000, as amended, in England [7];
  - The Water Supply (Water Quality) Regulations 2010, in Wales [8];
  - The Public Water Supplies (Scotland) Regulations 2014, in Scotland [9];
  - The Water Supply (Water Quality) Regulations (Northern Ireland) 2007, as amended, in Northern Ireland [10];

*NOTE 2 These Regulations apply standards of wholesomeness to water provided from the public supply (municipal supply).*

- **The Private Water Supplies Regulations:**
  - The Private Water Supplies Regulations 2009, as amended, in England [11];
  - The Private Water Supplies (Wales) Regulations 2010, as amended, in Wales [12];
  - The Private Water Supplies (Scotland) Regulations 2006, as amended, in Scotland [13];
  - The Private Water Supplies Regulations (Northern Ireland) 2009, as amended, in Northern Ireland [14];

*NOTE 3 These Regulations apply standards of wholesomeness to water provided from private water sources (non-municipal supply).*

- **The Water Industry Acts:**
  - Water Industry Act 1991, as amended, in England and Wales [15];
  - Water (Scotland) Act 1980, as amended, in Scotland [16];
  - The Water and Sewerage Services (Northern Ireland) Order 2006, as amended, in Northern Ireland [17].

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## 1 Scope

This Published Document provides guidance on cleaning, flushing and disinfection of services supplying water for domestic purposes within buildings and their curtilages, including those for the production of foods, but excluding closed systems or other industrial processes.

*NOTE 1 See the Water Quality Regulations [7], [8], [9] and [10] and BSRIA Guide 29-2012 [18] for cleaning closed systems. "Domestic purposes" refers to water used for drinking, washing, cooking and sanitation.*

The guidance is intended to help prepare new and existing systems for use and control microbiological growth in water systems for supply, storage and distribution, to ensure that:

- a) residues of construction are adequately flushed from water distribution systems;
- b) appropriate water quality is achieved;
- c) appropriate disinfectants and processes are used;
- d) construction debris and dust are removed;
- e) risk of corrosion and damage to fixtures, fittings and sensitive plant is minimized;
- f) adequate records of cleaning are produced;
- g) stagnation is avoided or managed; and
- h) appropriate tools and personnel are deployed for the relevant tasks.

The guidance applies to:

- 1) initial commissioning of new or extended systems;
- 2) maintenance of existing systems;
- 3) alteration of existing systems;
- 4) water quality management prior to occupation or as a result of low/no occupancy or usage, and
- 5) (remedial) response to microbiological problems is identified.

*NOTE 2 The techniques set out in this standard are also applicable to the management of premises and systems where water is provided from a private supply.*

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

### Standards publications

BS 1427, *Guide to on-site test methods for the analysis of waters*

BS 8550, *Guide for the auditing of water quality sampling*

BS 8551, *Provision and management of temporary water supplies and distribution networks (not including provisions for statutory emergencies) – Code of practice*

BS 8554:2015, *Code of practice for the sampling and monitoring of hot and cold water services in buildings*