



BSI Standards Publication

**Code of practice for the preparation,
commissioning and maintenance of
domestic central heating and cooling
water systems**

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Contents

	Page
Foreword	ii
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Objectives of system water treatment	2
5 Causes of problems in central heating and cooling systems	2
5.1 Corrosion	2
5.2 Sludge	3
5.3 Scale	3
5.4 Microbiological contamination	4
6 Treatment of water	4
6.1 General	4
6.2 External	4
6.3 Internal	5
7 Cleaning	5
7.1 General considerations	5
7.2 Cleaning and flushing methodologies	6
7.3 Preparation before cleaning	7
7.4 Powerflushing	7
7.5 Mains pressure cleaning	8
7.6 Gravity cleaning	8
7.7 Recommissioning	9
7.8 Special treatments — boiler cleaning as a separate process	9
8 In-line filters	9
9 System protection	10
10 Testing and ongoing maintenance	10
Bibliography	11

Summary of pages

This document comprises a front cover, and inside front cover, pages i to iv, pages 1 to 11, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 May 2019. It was prepared by Technical Committee CII/62, *Treatment of water for boilers*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS 7593:2006, which is withdrawn.

Information about this document

This is a full revision of the standard, and introduces the following principal changes:

- a widening of the scope to include open vented or sealed cooling systems in individual domestic premises;
- the addition of a glossary of terms and definitions;
- revised and simplified cleaning and flushing methodologies;
- a new clause on in-line filters; and
- a new clause on testing and ongoing maintenance.

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its 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.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

The word “should” is used to express recommendations of this standard. The word “may” is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the clause.

The word “can” is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations.

Commentaries give background information.

Contractual and legal considerations

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

Compliance with a British Standard cannot confer immunity from legal obligations.

Particular attention is drawn to the following specific regulations:

- The Water Supply (Water Fittings) Regulations 1999 [1].
- The Health and Safety at Work, etc. Act 1974 [2].
- The Control of Substances Hazardous to Health Regulations 2002 [3].
- The Building Regulations 2000, as amended (particularly Approved Document L1) [4].
- The Building (Scotland) Regulations 2004 [5].
- The Building Regulations (Northern Ireland) Statutory Rules 2000 [6].
- The Trade Effluent (Proscribed Processes and Substances) Regulations 1989 [7].
- The Hazardous Waste (England and Wales) Regulations 2005 [8].
- The Special Waste (Scotland) Regulations 1996 [9].
- The Hazardous Waste (Wales) Regulations 2005 [10].
- The Hazardous Waste Regulations (Northern Ireland) 2005 [11].

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1 Scope

This British Standard gives recommendations on good practice for the preparation of the circulating water in open vented or sealed heating and cooling systems in individual domestic premises during initial commissioning or re-commissioning following major remedial work (e.g. boiler replacement) and the ongoing water treatment to ensure appliance and system protection and continued efficiency in operation.

NOTE 1 The term “boiler”, as used throughout this British Standard, reflects common parlance and refers to the appliance that heats the circulating water in a domestic central heating system (see 3.4). It does not actually raise steam (i.e. boil the water).

It does not apply to commercial or municipal premises or to multiple residential premises served by one common circuit, unless that common circuit can be effectively cleaned and flushed with domestic equipment. It does apply to individual heating and cooling circuits within individual dwellings in multiple residential premises.

NOTE 2 For specialized closed circuits, such as those containing solar thermal panels and ground source heat pump loops, refer to the manufacturer’s instructions. See also BS 5918 (for solar thermal) and BS 3005 [12] (for ground source heat pumps).

NOTE 3 For larger closed heating systems such as found in commercial or municipal premises, or the primary systems on residential developments, refer to BSRIA BG 29 [13].

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS EN 1717, *Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow*

BS EN 12828:2012+A1:2014, *Heating systems in buildings — Design for water-based heating systems*

BS EN 14743, *Water conditioning equipment inside buildings — Softeners — Requirements for performance, safety and testing*

3 Terms and definitions

For the purposes of this British Standard, the following terms and definitions apply.

3.1 individual domestic premises

private domestic accommodation/dwelling, owned or rented

NOTE 1 Examples of individual domestic premises are house, flat and apartment.

3.2 domestic central heating system

configuration of interconnected components that uses water as a heat transfer medium to distribute centrally generated heat to heat emitters for the space heating of buildings, or parts thereof

[SOURCE: BS EN 12828:2012+A1:2014, 3.1.8, modified]

NOTE Definition is also adapted from Commission Regulation (EU) No 813/2013 [15].