



BSI Standards Publication

**Code of practice for liquid fuel firing
- Part 2: Installations providing space
heating, hot water and steam supply
services to non-domestic buildings**

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Foreword

Publishing information

This part of BS 5410 is published by BSI Standards Limited under licence from The British Standards Institution and came into effect on 30 April 2018. It was prepared by Technical Committee RHE/13, *Oil burning equipment*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This part of BS 5410 supersedes BS 5410-2:2013, which is withdrawn.

Relationship with other publications

BS 5410 is published in three parts as follows:

- *Part 1: Installations for space heating and hot water supply purposes for domestic buildings*¹
- *Part 2: Installations providing space heating, hot water and steam supply services to non-domestic buildings*
- *Part 3: Installations for furnaces, kilns, ovens, oil-fuelled stand-off generators and other industrial purposes.*

Hazard warnings

WARNING. Decommissioning and disposal of liquid fuel storage tanks

The decommissioning and disposal of liquid fuel storage tanks can become necessary as part of the maintenance cycle of a liquid fuelled system. This is not covered in this British Standard. It is a very hazardous procedure, and it is imperative that it is only undertaken by specialist operatives who have the right equipment, expertise and insurance. Building owners should never attempt to cut up old liquid fuel storage tanks themselves.

NOTE 1 Attention is drawn to the Construction (Design and Management) Regulations 2007 [1], which class such work as a "demolition project".

NOTE 2 Detailed guidance on decommissioning and disposal of liquid fuel storage tanks is given in OFTEC Technical Book 3 [2]

NOTE 3 Attention is drawn to The Dangerous Substances and Explosive Atmospheres Regulations 2002 [3] and the need to risk assess the selection of equipment to ensure safety in use and maintenance operations.

Use of this document

As a code of practice, this part of BS 5410 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 part of BS 5410 is expected to be able to justify any course of action that deviates from its recommendations.

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.

¹ BS 5410-1 is currently being revised and is due to be published before the end of 2018.

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”).

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.

In particular, attention is drawn to the following specific regulations:

- The Dangerous Substances and Explosive Atmospheres Regulations 2002 [3];
- The Boiler (Efficiency) Regulations 1993 as amended by the Boiler (Efficiency) (Amendment) Regulations 1994 and the Boiler (Efficiency) (Amendment) Regulations 2000 [4];
- The Building Regulations [5], [6], [7];
- The Environmental Protection Act 1990 [8];
- The Control of Pollution (Special Waste) (Amendment) Regulations 1988 [9];
- The Control of Pollution (Oil Storage) (England) Regulations 2001 [10];
- The Control of Pollution (Oil Storage) (Amendment) Regulations (Northern Ireland) 2011 [11];
- The Water Environment (Oil Storage) (Scotland) Regulations 2006 [12];
- The Water Resources (Control of Pollution) (Sludge, Slurry and Agricultural Fuel Oil) Regulations 2010 (as amended) [13];
- The Water Resources (Control of Pollution) (Oil Storage) (Wales) Regulations 2016 [38];
- The Control of Pollution (Sludge, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2001 (as amended) [14];
- The Control of Pollution (Sludge, Slurry and Agricultural Fuel Oil) Regulations (Northern Ireland) 2003 [15];
- The Hazardous Waste (England and Wales) Regulations 2005 (as amended) [16];
- The Hazardous Waste Regulations (Northern Ireland) 2005 [17];
- The Special Waste (Amendment) (England and Wales) Regulations 2001 [18];
- The Special Waste Amendment (Scotland) Amendment Regulations 2004 [19];
- The Building (Approved Inspectors etc.) Regulations 2010 [20];
- The Building (Forms) (Scotland) Regulations 2005 (as amended) [21].
- The Ecodesign for Energy-Related Products and Energy Information (Amendment) Regulations 2015 [22].

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1 Scope

This part of BS 5410 gives recommendations and guidance on the design, installation, commissioning and maintenance of liquid fuel firing installations for heating, hot water and steam supply services in non-domestic buildings. This also includes buildings containing multiple separate dwellings which are all served by a single heating and hot water system and buildings where public assembly, entertainment or hospitality take place.

This part of BS 5410 is applicable to installations burning liquid fuel conforming to BS 2869, and other equivalent fuels, including biofuels, for example, those containing fatty acid methyl esters (FAME) conforming to BS EN 14214, and blends thereof.

This British Standard covers the provision of new installations and also gives guidance on the modernizing of existing installations. This British Standard also gives recommendations and guidance on the selection and installation of liquid fuel storage tanks associated with these installations.

This part of BS 5410 is applicable to the liquid fuel firing equipment forming part of a multi-fuel installation in which liquid fuel is not burnt simultaneously with any other fuel. It is not applicable to liquid fuelled systems for marine installations.

This British Standard is intended for use by designers, specifiers, installers and building owners.

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.

Standards publications

BS 476-21, *Fire tests on building materials and structures – Part 21: Methods for determination of the fire resistance of loadbearing elements of construction*

BS 476-22, *Fire tests on building materials and structures – Part 22: Methods for determination of the fire resistance of non-loadbearing elements of construction*

BS 799-4:1991, *Oil burning equipment – Part 4: Specification for atomizing burners (other than monobloc type) together with associated equipment for single burner and multi burner installations*

BS 799-5, *Oil burning equipment – Part 5: Carbon steel oil storage tanks – Specification*

BS 845-1, *Methods for assessing thermal performance of boilers for steam, hot water and high temperature heat transfer fluids – Part 1: Concise procedure*

BS 845-2, *Methods for assessing thermal performance of boilers for steam, hot water and high temperature heat transfer fluids – Part 2: Comprehensive procedure*

BS 1212-1, *Float operated valves – Part 1: Specification for piston type float operated valves (copper alloy body) (excluding floats)*

BS 1212-2, *Float operated valves – Part 2: Specification for diaphragm type float operated valves (copper alloy body) (excluding floats)*

BS 1212-3, *Float operated valves – Part 3: Specification for diaphragm type float operated valves (plastics bodied) for cold water services only (excluding floats)*

BS 1710, *Specification for identification of pipelines and services*

BS 2869, *Fuel oils for agricultural, domestic and industrial engines and boilers – Specification*