

BS 5410-2:2013



BSI Standards Publication

Code of practice for oil firing

Part 2: Installations over 45 kW output capacity for space heating, hot water and steam supply services

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to vi, pages 1 to 88, an inside back cover and a back cover.

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 31 March 2013. 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This part of BS 5410 supersedes BS 5410-2:1978, which is withdrawn.

Relationship with other publications

BS 5410 is published in three parts as follows:

- *Part 1: Installations up to 45 kW output capacity for space heating and hot water supply services;*
- *Part 2: Installations of over 45 kW output capacity for space heating, hot water and steam supply services;*
- *Part 3: Installations for furnaces, kilns, ovens and other industrial purposes.*

Information about this document

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

- condensing boilers are now included;
- boilers burning biofuels are now covered.

Hazard warnings

WARNING. Decommissioning and disposal of oil storage tanks

The decommissioning and disposal of oil storage tanks can become necessary as part of the maintenance cycle of an oil fired system. This is not covered in the present standard. It is a very hazardous procedure, and it is imperative that it is only undertaken by specialist operatives who have the right equipment and expertise. Building owners should never attempt to cut up old oil 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 oil storage tanks is given in OFTEC Technical Book 3 [2].

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.

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.

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 Boiler (Efficiency) Regulations 1993 as amended by the Boiler (Efficiency) (Amendment) Regulations 1994 and the Boiler (Efficiency) (Amendment) Regulations 2006 [3];
- The Building Regulations [4], [5], [6];
- The Environmental Protection Act 1990 [7];
- The Control of Pollution (Special Waste) (Amendment) Regulations 1988 [8];
- The Control of Pollution (Oil Storage) (England) Regulations 2001 [9];
- The Control of Pollution (Oil Storage) (Amendment) Regulations (Northern Ireland) 2011 [10];
- The Water Environment (Oil Storage) (Scotland) Regulations 2006 [11];
- The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) Regulations 2010 (as amended) [12];
- The Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2001 (as amended) [13];
- The Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations (Northern Ireland) 2003 [14];
- The Hazardous Waste (England and Wales) Regulations 2005 (as amended) [15];
- The Hazardous Waste Regulations (Northern Ireland) 2005 [16];
- The Special Waste (Amendment) (England and Wales) Regulations 2001 [17];
- The Special Waste Amendment (Scotland) Amendment Regulations 2004 [18];
- The Building (Approved Inspectors etc.) Regulations 2010 [19];
- The Building (Forms) (Scotland) Regulations 2005 (as amended) [20].

1 Scope

This part of BS 5410 gives recommendations and guidance on the design, installation, commissioning and maintenance of oil burning installations for heating, hot water and steam supply services having a total rated output of over 45 kW and/or an oil storage capacity above 3 500 L.

This part of BS 5410 is applicable to installations burning liquid fuel conforming to BS 2869:2010+A1, including biofuels, for example those containing fatty acid methyl esters (FAME) conforming to BS EN 14214, and blends thereof.

The standard covers the provision of new installations and also gives guidance on the modernizing of existing installations. The standard also gives recommendations and guidance on the selection and installation of oil tanks associated with these installations.

This part of BS 5410 is applicable to the oil burning equipment forming part of a multi-fuel installation in which oil is not burnt simultaneously with any other fuel. It is not applicable to oil fired systems for marine installations. The standard also gives recommendations on thermal fluid heaters and on portable plants, for example those used for emergency or temporary heat supply.

The standard is intended for use by designers, specifiers, installers and building owners.

2 Normative references

The following referenced documents are indispensable for the application 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*