



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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Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	4
4 Work undertaken in connection with liquid fuelled installations	5
5 Classification of fuels	5
6 Application of liquid fuel firing burners	6
6.1 General	6
6.2 Choosing liquid fuel burning equipment	6
6.3 Appliances	6
<i>Table 1 — Recommended maximum turn-down ratios for different types of boilers</i>	7
6.4 Warm air heaters	12
7 Design and construction of accommodation for liquid fuelled installations	13
7.1 General	13
7.2 Classification of buildings	13
7.3 Accommodation for boilers	13
<i>Table 2 — Construction, and fire resistance (in hours), of boiler room enclosures, doors and windows in “large buildings” and places of public entertainment or assembly</i>	15
<i>Table 3 — Construction, and fire resistance (in hours), of boiler room enclosures, doors and windows in all buildings other than “large buildings” and places of public entertainment or assembly</i>	16
<i>Table 4 — Examples of types of construction for the recommended periods of fire resistance given in Table 2 and Table 3</i>	17
7.4 Ventilation and supply of combustion air	19
<i>Table 5 — Minimum air vent free-area for room-sealed boilers installed in an enclosure</i>	22
7.5 Boiler installation	22
<i>Table 6 — Safety valve sizes (open vented systems only)</i>	24
<i>Table 7 — Feed and expansion pipe sizes</i>	26
<i>Table 8 — Open safety vent pipe sizes</i>	26
7.6 Warm air heater installations	29
8 Liquid fuel storage systems	32
8.1 Liquid fuel tank construction	32
<i>Table 9 — Types of liquid fuel tank and locations for which they are suitable</i>	33
8.2 Capacity	33
8.3 Selection of tanks	34
8.4 Contents and gauging	34
8.5 Heating for liquid fuel storage tanks	35
<i>Table 10 — Minimum tank, outflow and handling temperatures for liquid fuels</i>	36
8.6 Service tanks	38
8.7 Rooftop tanks	39
8.8 Environmental precautions	39
8.9 Filtration systems	40
8.10 Fill pipes and connections	40
8.11 Vent pipes	41
8.12 Drainage and de-sludging facility	41
8.13 Multiple tanks with return connections	41
9 Positioning and protection for liquid fuel storage and service tanks	42
9.1 General	42

9.2	Above ground tanks	42
9.3	Tanks buried in the ground	43
9.4	Tanks within, on or over a building	44
	<i>Table 11 — Construction and fire resistance of tank chamber enclosures and the doors and openings therein in large buildings and places of public entertainment or assembly</i>	45
	<i>Table 12 — Construction and fire resistance of tank chamber enclosures and the doors and openings therein in all buildings other than large buildings and places of public entertainment or assembly</i>	46
9.5	Secondary containment systems	47
9.6	Siting of tank chambers within buildings	48
9.7	Ventilation of tank chambers	48
9.8	Automatic fire-extinguishing installations	48
9.9	Lighting and electrical equipment in tank chambers	48
10	Installation of liquid fuel storage tanks	49
10.1	General	49
10.2	Installation	49
10.3	Painting and cleaning of steel tanks on site	50
11	Liquid fuel handling system from storage tank to burner	50
11.1	General	50
11.2	Fuel supply systems	51
11.3	Heated liquid fuel systems	54
11.4	Fire valve systems and their installation	61
11.5	Rooftop systems	62
11.6	Size of liquid fuel pipelines	63
11.7	Materials and construction and erection of liquid fuel pipelines	63
11.8	Testing of the pipework installation	64
11.9	Painting and identification	64
12	Storage of kerosene at non-domestic buildings	64
13	Chimney and flue systems	65
13.1	Height of chimneys	65
13.2	Number of chimneys or flues	65
13.3	Chimney cross-sectional area	65
13.4	Chimney exit	65
13.5	Internal surfaces of flues	65
13.6	Types of construction	66
13.7	Lightning conductors	66
13.8	Clean-out access	66
13.9	Connecting flues	66
13.10	Dampers, draught control and combustion excess-pressure relief devices	67
13.11	Induced-draught fans	67
13.12	Balanced flues	67
14	Electrical equipment	68
14.1	General	68
14.2	Wiring	68
14.3	Electrical isolation of boilers	68
14.4	Electrical enclosures, components and cabling	68
15	Instrumentation	69
15.1	General	69
15.2	Essential instrumentation	69
15.3	Other instrumentation	69

16	Commissioning, performance tests and handover	70
16.1	Commissioning arrangements	70
16.2	Precommissioning procedure	70
16.3	Commissioning procedure	71
16.4	Performance tests	74
16.5	Handover	74
17	Maintenance	75
17.1	General	75
17.2	Supplier's and/or installer's responsibility	75
17.3	User's responsibility	76
18	Maintenance personnel's responsibilities	76
19	Safety provisions	77
19.1	Liquid fuel handling system	77
19.2	Housekeeping	77
19.3	Protection against combustion explosions	77
19.4	Fire precautions	78
20	Biofuels	78
20.1	General	78
20.2	Liquid fuel burners	79
20.3	Liquid fuel supply system	79
20.4	Liquid fuel storage	79
20.5	Servicing and inspection	79
Annex A	(normative) Choice of class of liquid fuel	80
Annex B	(normative) Selection of burners	81
	Bibliography	84

Summary of pages

This document comprises a front cover, and inside front cover, pages i to vi, pages 1 to 86, 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 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 standby 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 2006 [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) (Silage, 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 (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2001 (as amended) [14];
- The Control of Pollution (Silage, 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].

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*