

The Building Regulations 2000



# **APPROVED DOCUMENT**

- **G1** Sanitary conveniences and washing facilities
- **G2 Bathrooms**
- Hot water storage **G3**



# Contents

PA	GE			PAGE
Use of guidance	2	DIAG	RAM	
Sanitary Conveniences and		1.	Typical discharge pipe arrangement	13
Washing Facilities	5	ΤΔΒΙ		
	5	1	Sizing of copper discharge nine 'D2'	
Guidance	5	EL	for common temperature relief valve	
Performance	5		outlet sizes	13
Meaning of terms	5			
Section 1: Sanitary conveniences and washing facilities	6			
Number, type and siting of appliances	6			
Design	6			
Installation	6			
Chemical closets, etc.	6			
Alternative approach	6			
Bathrooms The Requirement G2	7		- 1	
Guidance	7		901	
Performance	7		GIV.	
Section 2: Bathrooms	8	EK		
Hot water storage The Requirement G3	9			
Guidance	10			
Performance	10			
Meaning of terms	10			
Section 3: Systems up to 500 litres and 45kW	11			
Design	11			
Direct heating	11			
Indirect heating	11			
Installation	11			
Discharge pipes	12		Ac	
Inspection of installations	12		CIU	
Section 4: Systems over 500 litres or over 45kW	14	ER	2.	
Standards referred to	15			

# <u>G</u> Use of guidance

# THE APPROVED DOCUMENTS

The Building Regulations 2000 (SI 2000/2531), which came into operation on 1 January 2001, replace the Building Regulations 1991 (SI 1991/2768) and consolidate all subsequent revisions to those regulations. This document is one of a series that has been approved and issued by the Secretary of State for the purpose of providing practical guidance with respect to the requirements of Schedule 1 to and Regulation 7 of the Building Regulations 2000 for England and Wales.

### At the back of this document is a list of all the documents that have been approved and issued by the Secretary of State for this purpose.

Approved Documents are intended to provide guidance for some of the more common building situations. However, there may well be alternative ways of achieving compliance with the requirements. Thus there is no obligation to adopt any particular solution contained in an Approved Document if you prefer to meet the relevant requirement in some other way.

# **Other requirements**

The guidance contained in an Approved Document relates only to the particular requirements of the Regulations which the document addresses. The building work will also have to comply with the requirements of any other relevant paragraphs in Schedule 1 to the Regulations.

There are Approved Documents which give guidance on each of the parts of Schedule 1 and on Regulation 7.

# LIMITATION ON REQUIREMENTS

In accordance with Regulation 8, the requirements in Parts A to K and N of Schedule 1 to the Building Regulations do not require anything to be done except for the purpose of securing reasonable standards of health and safety for persons in or about buildings (and any others who may be affected by buildings or matters connected with buildings).

# MATERIALS AND WORKMANSHIP

Any building work which is subject to the requirements imposed by Schedule 1 to the Building Regulations should, in accordance with Regulation 7, be carried out with proper materials and in a workmanlike manner.

You may show that you have complied with Regulation 7 in a number of ways. These include the appropriate use of a product bearing CE marking in accordance with the Construction Products Directive (89/106/EEC)<sup>1</sup> as amended by the CE Marking Directive (93/68/EEC)<sup>2</sup>, or a product complying with an appropriate technical specification (as defined in those Directives), a British Standard, or an alternative national technical specification of any state which is a contracting party to the European Economic Area which, in use, is equivalent, or a product covered by a national or European certificate issued by a European Technical Approval issuing body, and the conditions of use are in accordance with the terms of the certificate. You will find further guidance in the Approved Document supporting Regulation 7 on materials and workmanship.

# Independent certification schemes

There are many UK product certification schemes. Such schemes certify compliance with the requirements of a recognised document which is appropriate to the purpose for which the material is to be used. Materials which are not so certified may still conform to a relevant standard.

Many certification bodies which approve such schemes are accredited by UKAS.

# **Technical specifications**

Building Regulations are made for specific purposes: health and safety, energy conservation and the welfare and convenience of disabled people. Standards and technical approvals are relevant guidance to the extent that they relate to these considerations. However, they may also address other aspects of performance such as serviceability, or aspects which although they relate to health and safety are not covered by the Regulations.

When an Approved Document makes reference to a named standard, the relevant version of the standard is the one listed at the end of the publication. However, if this version has been revised or updated by the issuing standards body, the new version may be used as a source of guidance provided it continues to address the relevant requirements of the Regulations.

The appropriate use of a product which complies with a European Technical Approval as defined in the Construction Products Directive will meet the relevant requirements.

The Department intends to issue periodic amendments to its Approved Documents to reflect emerging harmonised European Standards. Where a national standard is to be replaced by a harmonised European Standard, there will be a co-existence period during which either standard may be referred to. At the end of the co-existence period the national standard will be withdrawn.

<sup>&</sup>lt;sup>1</sup> As implemented by the Construction Products Regulations 1991 (SI 1991/1620).

<sup>&</sup>lt;sup>2</sup> As implemented by the Construction Products (Amendment) Regulations 1994 (SI 1994/3051).

# THE WORKPLACE (HEALTH, SAFETY AND WELFARE) REGULATIONS 1992

The Workplace (Health, Safety and Welfare) Regulations 1992 contain some requirements which affect building design. The main requirements are now covered by the Building Regulations, but for further information see: *Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992. Approved code of practice and guidance*, HSE L24, 1998. ISBN 0 71760 413 6.

ERSION

ONLINEVERSION

ONLINEVERSION

The Workplace (Health, Safety and Welfare) Regulations 1992 apply to the common parts of flats and similar buildings if people such as cleaners and caretakers are employed to work in these common parts. Where the requirements of the Building Regulations that are covered by this part do not apply to dwellings, the provisions may still be required in the situations described above in order to satisfy the Workplace Regulations.

G



# The Requirement G1

This Approved Document deals with the following Requirement from Part G of Schedule 1 to the Building Regulations 2000.

Requirement

#### Sanitary conveniences and washing facilities

**G1.** (1) Adequate sanitary conveniences shall be provided in rooms provided for that purpose, or in bathrooms. Any such room or bathroom shall be separated from places where food is prepared.

- (2) Adequate washbasins shall be provided in -
  - (a) rooms containing water closets; or

(b) rooms or spaces adjacent to rooms containing water closets.

Any such room or space shall be separated from places where food is prepared.

(3) There shall be a suitable installation for the provision of hot and cold water to washbasins provided in accordance with paragraph (2).

(4) Sanitary conveniences and washbasins to which this paragraph applies shall be designed and installed so as to allow effective cleaning.

# Guidance

# Performance

In the Secretary of State's view Requirement G1 will be met if there are provided:

- a. sanitary conveniences in sufficient numbers of the appropriate type for the sex and age of the persons using the building; and
- b. washbasins, with hot and cold water, in or adjacent to rooms containing water closets; sited, designed and installed so as not to be prejudicial to health, in accordance with paragraphs 1.1 to 1.13 below.

### Meaning of terms

Limits on application

The following meanings apply to terms in Section 1.

Sanitary conveniences means closets and urinals.

**Sanitary accommodation** means a room containing closets or urinals whether or not it also contains other sanitary appliances. Sanitary accommodation containing one or more cubicles counts as a single space if there is free circulation of air throughout the space.

# G1 Section 1: Sanitary conveniences and washing facilities

# Number, type and siting of appliances

**1.1** Any dwelling (house, flat or maisonette) should have at least one closet and one washbasin. A house in multi-occupation (a house in which the occupants do not form part of a single household) should have at least the same provision as a dwelling and the provision should be accessible to all the occupants.

**1.2** A space containing a closet or urinal should be separated by a door from a space used for the preparation of food (including a kitchen and any space in which washing up is done).

**1.3** Washbasins should be located in the room containing the closet, or in a room or space giving direct access to the room containing the closet (provided it is not used for the preparation of food) or in a room adjacent to the room containing the closet in the case of a dwelling.

**1.4** The number, type and siting of appliances will be subject in the relevant buildings to regulations made under the *Offices, Shops and Railway Premises Act* 1963, the *Factories Act* 1961 or the *Food Hygiene (General) Regulations* 1970. Attention is also drawn to the requirements of Part M of Schedule 1 to the Building Regulations 2000 (Access and facilities for disabled people).

### Design

**1.5** A closet, urinal or washbasin should have a surface which is smooth and non-absorbent and capable of being easily cleaned.

**1.6** Any flushing apparatus should be capable of cleansing the receptacle effectively. No part of the receptacle should be connected to any pipe other than a flush pipe or discharge pipe.

**1.7** A washbasin provided in or adjacent to sanitary accommodation containing a water closet should have a supply of hot water, which may be from a central source or from a unit water heater, and a piped supply of cold water.

# Installation

6

**1.8** A closet fitted with flushing apparatus should discharge through a trap and discharge pipe into a discharge stack or a drain.

**1.9** A urinal fitted with flushing apparatus should discharge through a grating, a trap and a branch pipe to a discharge stack or a drain (see Approved Document for Requirement H1 Sanitary pipework and drainage for guidance on provision for traps, branch discharge pipes, discharge stacks and foul drains).

**1.10** A closet fitted with a macerator and pump may be connected to a small bore branch discharge pipe discharging to a discharge stack if:

- a. there is also access to a closet discharging directly to a gravity system; and
- b. the macerator and pump small bore drainage system is the subject of a current European Technical Approval issued by a member body of the European Organisation for Technical Approvals, e.g. the British Board of Agrément, and the conditions of use are in accordance with the terms of that document.

**1.11** A washbasin should discharge through a grating, a trap and a branch discharge pipe to a discharge stack or may, where the washbasin is located on the ground floor, discharge into a gully or direct to a drain.

### Chemical closets, etc.

**1.12** Closets and urinals which use chemical or other means of treatment may be used where there is no suitable water supply or means of disposal of foul water.

## Alternative approach

VERSION

**1.13** The requirement can also be met, subject to other legislation, by following the relevant recommendations of Clauses 2, 3 and 6 to 8 of BS 6465-1:1984 Sanitary installations. Code of practice for scale of provision, selection and installation of sanitary appliances.

# BATHROOMS The Requirement G2

This Approved Document deals with the following Requirement from Part G of Schedule 1 to the Building Regulations 2000.

Requirement

Limits on application

#### Bathrooms

**G2.** A bathroom shall be provided containing either a fixed bath or shower bath, and there shall be a suitable installation for the provision of hot and cold water to the bath or shower bath.

Requirement G2 applies only to dwellings.

# Guidance

# Performance

In the Secretary of State's view, requirement G2 will be met if a bathroom is provided containing a fixed bath or shower bath having supplies of hot and cold water and connection to a foul water drainage system.

ONLINEVERSION

# G2 Section 2: Bathrooms

**2.1** Any dwelling (house, flat or maisonette) should have at least one bathroom with a fixed bath or shower.

A house in multi-occupation (a house in which the occupants do not form part of a single household) should have at least the same provision as a dwelling and the provision should be accessible to all the occupants.

**2.2** A bath or shower should have a supply of hot water, which may be from a central source or from a unit water heater, and a piped supply of cold water.

**2.3** A bath or shower should discharge through a grating, a trap and branch discharge pipe to a discharge stack, or may, if it is on the ground floor, discharge into a gully or directly to a foul drain (see Approved Document for Requirement H1, Sanitary pipework and drainage, for guidance on provision for traps, gullies, branch discharge pipes, discharge stacks and foul drains).

2.4 A bath or shower may be connected to a macerator and pump small bore drainage system which is the subject of a current European Technical Approval issued by a member body of the European Organisation for Technical Approvals, e.g. the British Board of Agrément, and the conditions of use are in accordance with the terms of that document.

VERSION

ONLINEVERSION

# The Requirement G3

This Approved Document deals with the following requirement from Part G of Schedule 1 to the Building Regulations 2000.



#### Hot water storage

**G3.** A hot water storage system that has a hot water storage vessel which does not incorporate a vent pipe to the atmosphere shall be installed by a person competent to do so, and there shall be precautions:

(a) to prevent the temperature of stored water at any time exceeding  $100^{\circ}\mathrm{C};$  and

(b) to ensure that the hot water discharged from safety devices is safely conveyed to where it is visible but will not cause danger to persons in or about the building.

Note 1: Under Regulations 13 and 14 of the Building Regulations 2000, a person giving a building notice to, or depositing full plans with, a local authority must, where the work involves the provision of an unvented hot water storage system, provide a statement which specifies:

- the name, make, model and type of hot water storage system to be installed;
- the name of the body, if any, which has approved or certified that the system is capable of performing in a way which satisfies the requirements of paragraph G3 of Schedule 1 to the Building Regulations;
- the name of the body, if any, which has issued any current registered operative identity card to the installer or proposed installer of the system.

Note 2: The Water Supply (Water Fittings) Regulations 1999 (SI 1999/1148) also apply.

Limits on application

Requirement G3 does not apply to:

ERSION

(a) a hot water storage system that has a storage vessel with a capacity of 15 litres or less;

(b) a system providing space heating only;

(c) a system which heats or stores water for the purposes only of an industrial process.

Approved Document G

# <u>G3</u> Guidance

# Performance

In the Secretary of State's view Requirement G3 will be met if a hot water storage system that has a storage vessel with no vent pipe to the atmosphere:

- a. has been installed by a competent person;
- b. has safety devices that prevent the temperature of the stored water at any time exceeding 100°C;

JERSION

VERSION

c. has pipework that safely conveys the discharge of hot water from safety devices to where it is visible but will cause no danger to persons, in or about the building.

# Meaning of terms

The following meanings apply to terms in Sections 3 and 4.

**Unvented hot water storage system** means an unvented vessel for either:

- a. storing domestic hot water for subsequent use; or
- heating domestic water that passes through an integral pipe or coil (e.g. water jacketed tube heater/combi boiler)

and fitted with safety devices to prevent water temperatures exceeding 100°C and other applicable operating devices to control primary flow, prevent backflow, control working pressure and accommodate expansion.

**Unit** means an unvented hot water storage system having the safety devices described in paragraph 3.3 or 3.4 and all operating devices factory-fitted by the manufacturer.

**Package** means an unvented hot water storage system having the safety devices described in paragraph 3.3 or 3.4 factory-fitted together with a kit containing other applicable devices, supplied by the package manufacturer, to be fitted by the installer.

Domestic hot water means water that has been heated for ablution, culinary and cleansing purposes. The term is used irrespective of the type of building in which an unvented hot water storage system is installed.

# Section 3: Systems up to 500 litres and 45kW

**3.1** This section describes the provisions for an unvented hot water storage system having a storage vessel of not more than 500 litres capacity and a power input not exceeding 45kW heated directly or indirectly and requirements related to its installation.

# Design

**3.2** Any unvented hot water storage system should be in the form of a proprietary unit or package which is:

- approved by a member body of the European Organisation for Technical Approvals (EOTA) operating a technical approvals scheme, e.g. the British Board of Agrément (BBA), as meeting the relevant requirement of Regulation G3; or
- b. approved by a certification body having National Accreditation Council for Certification Bodies (NACCB) accreditation and testing to the requirements of an appropriate standard that will ensure the requirement of Regulation G3 will be met, e.g. BS 7206:1990 Specification for unvented hot water storage units and packages; or
- c. the subject of a proven independent assessment that will clearly demonstrate an equivalent level of verification and performance to a. or b. above.

# **Direct heating**

**3.3** To meet the requirement a directly heated unit or package should have a minimum of two temperature activated safety devices operating in sequence:

- a non-self resetting thermal cut-out to BS 3955:1986 Specification for electrical controls for household and similar general purposes, or to BS 4201:1979 (1984) Specification for thermostats for gas burning appliances; and
- b. one or more temperature relief valves to BS 6283-2:1991 Safety and control devices for use in hot water systems. Specification for temperature relief valves for pressures from 1 bar to 10 bar, or BS 6283-3:1991 Safety and control devices for use in hot water systems. Specification for combined temperature and pressure relief valves for pressures from 1 bar to 10 bar. These devices are additional to any thermostatic control which is fitted to maintain the temperature of the stored water.

**3.4** Other safety devices should provide at least an equivalent degree of safety in preventing the temperature of stored water at any time exceeding 100°C and should be:

a. approved by a member of EOTA, e.g. BBA; or

- b. approved by a body having NACCB accreditation, e.g. Kitemarked to an appropriate BS; or
- c. the subject of a proven independent assessment that will clearly demonstrate an equivalent level of verification and safety to a. and b. above.

3.5 In both units and packages, the temperature relief valve(s) specified in paragraph 3.3 (see also 3.4) should be located directly on the storage vessel, such that the stored water does not exceed 100°C. The valve(s) should be sized to give a discharge rating measured in accordance with Appendix F of BS 6283-2:1991 or Appendix G of BS 6283-3:1991 at least equal to the power input to the water. The valve(s) should not be disconnected other than for replacement or relocated in any other device or fitting. Each valve should discharge via a short length of metal pipe (D1) of a size not less than the nominal outlet size of the temperature relief valve either directly or by way of a manifold sized to accept the total discharge from the discharge pipes connected to it, through an air break over a tundish located vertically as near as possible to the valve(s).

## **Indirect heating**

**3.6** Safety devices listed in paragraph 3.3 (see also 3.4) for direct heating are also required for indirectly heated units and packages but the non-self-resetting thermal cut-out should be wired up to a motorised valve or some other suitable device to shut off the flow to the primary heater, that is:

- a. approved by a member of EOTA, e.g. BBA; or
- b. approved by a body having NACCB accreditation, e.g. Kitemarked to an appropriate BS; or
- c. the subject of a proven independent assessment that will clearly demonstrate an equivalent level of verification and performance to a. and b. above.

If the unit incorporates a boiler the thermal cut-out may be on the boiler. The temperature relief valve should be sized and located and the discharge pipe (D1) provided all in accordance with paragraph 3.5.

**3.7** Where an indirect unit or package has any alternative direct method of water heating fitted, a non-self-resetting thermal cut-out device will also be needed on the direct source(s).

# Installation

**3.8** The unit or package should be installed by a competent person, i.e. one holding a current Registered Operative Identity card for the installation of unvented domestic hot water storage systems.

# Discharge pipes

**3.9** The discharge pipe (D1) from the vessel up to and including the tundish is generally supplied by the manufacturer of the hot water storage system (see paragraph 3.5). Where otherwise, the installation should include the discharge pipe(s) (D1) from the safety device(s). In either case the tundish should be vertical, located in the same space as the unvented hot water storage system and be fitted as close as possible and within 500mm of the safety device, e.g. the temperature relief valve.

The discharge pipe (D2) from the tundish should terminate in a safe place where there is no risk to persons in the vicinity of the discharge, be of metal and:

a. be at least one pipe size larger than the nominal outlet size of the safety device unless its total equivalent hydraulic resistance exceeds that of a straight pipe 9m long,
i.e. discharge pipes between 9m and 18m equivalent resistance length should be at least two sizes larger than the nominal outlet size of the safety device, between 18 and 27m at least three sizes larger, and so on. Bends must be taken into account in calculating the flow resistance. Refer to Diagram 1, Table 1 and the worked example;

An alternative approach for sizing discharge pipes would be to follow BS 6700:1987 Specification for design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages, Appendix E, section E2 and table 21.

- b. have a vertical section of pipe at least 300mm long, below the tundish before any elbows or bends in the pipework;
- c. be installed with a continuous fall;
- d. have discharges visible at both the tundish and the final point of discharge but where this is not possible or is practically difficult there should be clear visibility at one or other of these locations. Examples of acceptable discharge arrangements are:
  - i. ideally below a fixed grating and above the water seal in a trapped gully;
  - ii. downward discharges at low level, i.e. up to 100mm above external surfaces such as car parks, hard standings, grassed areas, etc. are acceptable provided that where children may play or otherwise come into contact with discharges a wire cage or similar guard is positioned to prevent contact, whilst maintaining visibility;

- iii. discharges at high level, e.g. into a metal hopper and metal down pipe with the end of the discharge pipe clearly visible (tundish visible or not) or onto a roof capable of withstanding high temperature discharges of water and 3m from any plastic guttering system that would collect such discharges (tundish visible);
- iv. where a single pipe serves a number of discharges, such as in blocks of flats, the number served should be limited to not more than 6 systems so that any installation discharging can be traced reasonably easily. The single common discharge pipe should be at least one pipe size larger than the largest individual discharge pipe (D2) to be connected. If unvented hot water storage systems are installed where discharges from safety devices may not be apparent, i.e. in dwellings occupied by blind, infirm or disabled people, consideration should be given to the installation of an electronically operated device to warn when discharge takes place.

**Note:** the discharge will consist of scalding water and steam. Asphalt, roofing felt and non-metallic rainwater goods may be damaged by such discharges.

**3.10** Electrical non-self-resetting thermal cutouts should be connected to the direct heat source or indirect primary flow control device in accordance with the current Regulations for Electrical Installations of the Institution of Electrical Engineers.

### Inspection of installations

**3.11** Where unvented hot water storage systems comprise units or packages approved by a member of EOTA (e.g. BBA), or an equivalent body which can demonstrate an equivalent level of protection or are approved by a body having NACCB accreditation, e.g. kitemarked to BS 7206:1990, site inspection of an individual installation is unlikely to be necessary. In other situations Building Control Officers or Approved Inspectors may wish to inspect the installation.



# Table 1 Sizing of copper discharge pipe 'D2' for common temperature relief valve outlet sizes

Valve outlet size	Minimum size of discharge pipe D1*	Minimum size of discharge pipe D2* from tundish	Maximum resistance allowed, expressed as a length of straight pipe (i.e. no elbows or bends)	Resistance created by each elbow or bend
G½ 15mm	22mm	Up to 9m	0.8m	
		28mm	Up to 18m	1.0m
		35mm	Up to 27m	1.4m
G¾ 22mm	28mm	Up to 9m	1.0m	
		35mm	Up to 18m	1.4m
		42mm	Up to 27m	1.7m
G1 28mm	35mm	Up to 9m	1.4m	
		42mm	Up to 18m	1.7m
	54mm	Up to 27m	2.3m	
*See 3.5, 3.9, 3.9(a) and Dia	agram 1	IFF		

Worked example:

The example below is for a G $\frac{1}{2}$  temperature relief valve with a discharge pipe (D2) having 4 No. elbows and length of 7m from the tundish to the point of discharge.

From Table 1:

Maximum resistance allowed for a straight length of 22mm copper discharge pipe (D2) from a G½ temperature relief valve is: 9.0m

Subtract the resistance for 4 No. 22mm elbows at 0.8m each = 3.2m

Therefore the maximum permitted length equates to: 5.8m

5.8m is less than the actual length of 7m, therefore calculate the next largest size

Maximum resistance allowed for a straight length of 28mm pipe (D2) from a G1/2 temperature relief valve equates to: 18m

Subtract the resistance for 4 No. 28mm elbows at 1.0m each = 4m

Therefore the maximum permitted length equates to: 14m

As the actual length is 7m, a 28mm (D2) copper pipe will be satisfactory.

# Section 4: Systems over 500 litres or over 45kW

VERSION

VERSION

4.1 This section describes the provisions for an unvented hot water storage system having a storage vessel providing a capacity of more than 500 litres or having a power input of more than 45kW.

4.2 Unvented hot water storage systems within the scope of Section 4 will generally be individual designs for specific projects and inappropriate for EOTA or NACCB approval. Where this is the case the unvented hot water storage system should be designed to the same safety requirements by an appropriately qualified engineer and the system should be installed by a competent person (see paragraph 3.8).

An unvented hot water storage system 4.3 with a storage vessel of more than 500 litres capacity and a power input of not more than 45kW should have safety devices in accordance with the relevant recommendations in BS 6700:1987 Specification for design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages (the relevant Clause is Section 2 Clause 7) or other equivalent practice specifications that recommend a similar operating sequence for safety devices to prevent the temperature of stored water at any time exceeding 100°C.

4.4 Any unvented hot water storage vessel with a power input of more than 45kW should have the appropriate number of temperature relief valves either to BS 6283-2 or BS 6283-3 (see paragraph 3.3) or equivalent (see paragraph 3.4) to give a combined discharge rating at least equal to the power input, or equally suitable temperature relief valves marked with the set temperature in °C and the discharge rating marked in kW, measured in accordance with Appendix F of BS 6283-2:1991 or Appendix G of BS 6283-3:1991 or equivalent (see paragraph 3.4) by a member of EOTA, e.g. BBA, or another recognised testing body such as the Associated Offices Technical Committee (AOTC). The valves should be factory fitted to the storage vessel and the sensing element located as described in paragraph 3.5.

yes FRSION 4.5 Non-self-resetting thermal cut-outs appropriate to the heat source should be incorporated and installed in a similar manner to that described in paragraphs 3.6, 3.7 and 3.10.

Discharge pipes to convey any discharges 4.6 from safety devices should be installed as described in paragraph 3.9.

# Standards referred to

# G1

## BS 6465:1984

Sanitary installations. Code of practice for scale of provision, selection and installation of sanitary appliances.

(Withdrawn and superseded by BS 6465-1:1994 Sanitary installations. Code of practice for scale of provision, selection and installation of sanitary appliances.)

# G3

## BS 3955:1986

Specification for electrical controls for household and similar general purposes. AMD 5940 1988. (Withdrawn and superseded by

BS EN 60730-2-3:1992, BS EN 60730-2-5:1992, BE EN 60730-2-6:1995, BS EN 60730-2-7:1992, BS EN 60730-2-8:1995, BS EN 60730-2-9:1995, BS EN 60730-2-10:1995, BS EN 60730-2-11:1994, BS EN 60730-2-12:1994, BS EN 60730-2-15:1996. Automatic electrical controls for household and similar use.)

### BS 4201:1979 (1984)

Specification for thermostats for gas-burning appliances. AMD 4531, AMD 6268. (Withdrawn and superseded by BS EN 257:1992 Mechanical thermostats for gas-burning appliances. AMD 9303 1997.)

### BS 6283-2:1991

Safety and control devices for use in hot water systems. Specification for temperature relief valves for pressures from 1 bar to 10 bar.

### BS 6283-3:1991

Safety and control devices for use in hot water systems. Specification for combined temperature and pressure relief valves for pressures from 1 bar to 10 bar.

(Withdrawn and superseded by BS EN 1490:2000 Building valves. Combine temperature and pressure relief valves. Tests and requirements.)

### BS 6700:1987

Specification for design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages. (Withdrawn and superseded by BS 6700:1997 Specification for design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages. Partially superseded by BS EN 806-2:2005 Specification for installations inside buildings conveying water for human consumption. Design.)

### BS 7206:1990

Specification for unvented hot water storage units and packages. AMD 9343 1997.

ERSION

ERSION

ERSION



Published by NBS, part of RIBA Enterprises Ltd, and available from:

**RIBA Bookshops Mail Order** 15 Bonhill Street London EC2P 2EA

Telephone orders/General enquiries: 020 7256 7222 Fax orders: 020 7374 2737 Email orders: sales@ribabookshops.com

Or order online at: www.thebuildingregs.com

#### **RIBA Bookshops**

66 Portland Place, London W1B 1AD. Telephone 020 7256 7222. 113-115 Portland Street, Manchester M1 6DW. Telephone 0161 236 7691. Birmingham & Midland Institute, Margaret Street, Birmingham B3 3SP. Telephone 0121 233 2321. RSUA, 2 Mount Charles, Belfast BT7 1NZ. Telephone 028 9032 3760. Renew Rooms, 82 Wood Street, Liverpool L1 4DQ. Telephone 0151 707 4380.

ERSION

ISBN-10 1 85946 207 3 ISBN-13 978 1 85946 207 2 Stock code 56659

© Crown copyright 2006

The Approved Documents are published by NBS for the Office of the Deputy Prime Minister.

This publication has been approved by Ministers and has official status. Copyright in the contents, the cover, the design and the typographical arrangement of this publication rests with the Crown unless otherwise stated. The contents of this publication may be reproduced free of charge in any format or medium for the purposes of private research and study or for internal circulation within an organisation. This is subject to the contents being reproduced accurately and not in a way that implies official status. Any publisher wishing to reproduce the content of this publication must not use or replicate the ODPM crest or replicate the official version's style and appearance, including the cover design, and must not present their publication as being an official publication as this may confuse the public. The reproduced material must be acknowledged as Crown Copyright and the title of the publication specified. The Office of the Deputy Prime Minister does not accept any responsibility for the accuracy and comprehensiveness of any other versions.

Any other use of the contents of this publication would require a copyright licence. Please apply for a licence by writing to the Office of Public Sector Information, Information Policy Team, St Clements House, 2-16 Colegate, Norwich NR3 1BQ. Fax 01603 723000 or email HMSOlicensing@cabinet-office.x.gsi.gov.uk. Further information can be obtained from www.opsi.gov.uk.

NSS www.thenbs.com



Hygiene