Department of the Environment and
The Welsh Office

The Building Regulations 1991

Hygiene

G

APPROVED DOCUMENT

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

HMSO

1992 EDITION
Second impression (with amendments) 1992

Contents

MAIN CHANGES IN THE 1992 EDITION

This edition of Approved Document G, Hygiene, replaces the 1990 edition. The main changes are:

G1

a. Renumbering: the previous requirement G4 has now been renumbered G1.

b. Kitchen separation: the guidance has been amended to make it clear that a lobby is not required to separate a space containing a sanitary convenience from a space used for the preparation of food (see paragraph 1,2).

G1, 2 and 3

c. References: reference is made to European Technical Approvals (eg under G1 & 2 for macerator and pump small bore drainage systems). Reference is also made to the National Accredition Council for Certification Bodies (NACCB).

G3

d. Installation of unvented hot water storage: requirement G3 has been amended by the addition of a stipulation that an unvented hot water storage system “shall be installed by a person competent to do so”.

e. Notification: the 1992 edition reinstates the need to notify a local authority of intention to carry out building work or make a material change of use by submitting a building notice or by deposit of plans with respect to work which consists only of the installation of an unvented hot water storage system.

f. Systems up to 500 litres and 45kW: previously, factory made systems could have been supplied:

i. without a thermal cut-out where the primary heater was to be connected to a low head vented primary circuit;

ii .with the thermal cut-out connected to a remotely sited boiler when fitted by or under the supervision of a member of the Confederation for the Registration of Gas Installers.

It is now recommended that only proprietary units or packages that have appropriate factory fitted safety devices to satisfy the requirement of G3 are installed, to ensure that such systems are suitable for all situations.

g. Qualifications: guidance is included on the qualifications that should be acceptable to meet the requirement for competence to install unvented hot water storage systems (see paragraph 3.8).

h. Discharge pipes: additional guidance is given on the installation of discharge pipes and a diagram, table and worked example have been included to aid correct sizing.

j. Inspection: guidance is given on where inspection of unvented hot water storage installations may be necessary.

Contents

Use of Guidance

USE OF GUIDANCE

THE APPROVED DOCUMENTS

The Building Regulations 1991, which come into operation on 1 June 1992, replace the Building Regulations 1985 (S1 1985 No. 1065) and consolidate all subsequent revisions to those regulations. This document is one of a series that has been approved by the Secretary of State as practical guidance on meeting the requirements of Schedule 1 and regulation 7 of the Building Regulations.

At the back of this document is a list of those documents currently published by the Department of the Environment and the Welsh Office which have been approved for the purpose of the Building Regulations 1991.

The detailed provisions contained in the Approved Documents are intended to provide guidance for some of the more common building situations. In other circumstances, alternative ways of demonstrating compliance with the requirements may be appropriate.

Evidence supporting compliance
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. However, should a contravention of a requirement be alleged then, if you have followed the guidance

in the relevant Approved Documents, that will be evidence tending to show that you have complied with the Regulations. If you have not followed the guidance then that will be evidence tending to show that you have not complied. It will then be for you to demonstrate by other means that you have satisfied the requirement.

Other requirements
The guidance contained in an Approved Document relates only to the particular requirements of the Regulations which that 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 other requirements in 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 the building.

MATERIALS AND WORKMANSHIP

Any building work which is subject to requirements imposed by Schedule 1 of the Building Regulations should, in accordance withregulation 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, for example, by the appropriate use of a product bearing an EC mark in accordance with the Construction Products Directive (89/106/EEC), or by following an appropriate technical specification (as defined in that Directive), a British Standard, a British Board of Agrement Certificate, or an alternative national technical specification of any member state of the European Community which, in use, is equivalent. You will find further guidance in the Approved Document supporting regulation 7 on materials and workmanship.

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 of the standard 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 Secretary of State has agreed with the British Board of Agrement on the aspects of performance which it needs to assess in preparing its Certificates in order that the Board may demonstrate the compliance of a product or system which has an Agrement Certificate with the requirements of the Regulations. An Agrement Certificate issued by the Board under these arrangements will give assurance that the product or system to which the Certificate relates, if properly used in accordance with the terms of the Certificate, will meet the relevant requirements.

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

The Requirement

SANITARY CONVENIENCES AND WASHING FACILITIES THE REQUIREMENT

This Approved Document, which takes effect on 1 June 1992, deals with the following requirement from Part G of Schedule 1 to the Building Regulations 1991.

Requirement	Limits on application
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

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.

Section 1

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 1991 (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 wash-basin 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

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 Agrement 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

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 Sanitary installations, Part 1: 1984 Code of Practice for scale of provision, selection and installation of sanitary appliances.

The Requirements

BATHROOMS THE REQUIREMENT

This Approved Document which takes effect on 1 June 1992 deals with the following requirement from Part G of Schedule 1 to the Building Regulations 1991.

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.

Section 2

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 HI, 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, eg the British Board of Agrement, and the conditions of use are in accordance with the terms of that document.

The Requirements

HOT WATER STORAGE THE REQUIREMENT

The Approved Document which takes effect on 1 June 1992 deals with the following requirement from Part G of Schedule 1 to the Building Regulations 1991.

Requirement	Limits on application
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 ‘C; and (b) (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.	Requirement G3 does not apply to - (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 (c)a system which heats or stores water for the purposes only of an industrial process.

Note: Attention is drawn to the following extracts from the Building Regulations 1991.

Regulation 11(1) (Giving of a building notice or deposit of plans)

“Subject to the following provisions of this regulation, a person who intends to carry out building work or to make a material change of use shall -

(a) give to the local authority* a building notice in accordance with regulation 12; or

(b)deposit full plans with the local authority* in accordance with regulation 13. “

Regulation 12(4) (Particulars and plans where a building notice is given)

“ . . . a building notice shall be accompanied by a statement which specifies”

* Attention is drawn to regulation 18 (supervision of building work otherwise than by local authorities).

(a) the name, make, model and type of hot water storage system to be installed;

(b) 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;

(c) 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. “

Regulation 13(3) (Full plans)

“Full plans shall consist of

(a) a description of the proposed building work or material change of use, and the plans, particulars and statements required by paragraphs (1) to (4) of regulation 12; and ... “

Note: Bye-laws of the appropriate Water Undertaker also apply.

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; 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

b. 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

Section 3 Systems Up To 500 Litres And 45 Kw

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:

a. approved by a member body of the European Organisation for Technical Approvals (EOTA) operating a technical approvals scheme e.g. the British Board of Agrement (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. 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 Safety and control devices for use in hot water systems Part 2: 1991 Specification for temperature relief valves for pressures from 1 bar to 70 bar, or Part 3: 1991 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 providing at least an equivalent degree of safety in preventing the temperature of stored water at any time exceeding 100°C which are:

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 Part 2: 1991 or Appendix G of BS 6283 Part 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 cutout 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 issued by:

a. the Construction Industry Training Board (CITB); or

b. the Institute of Plumbing; or

c. the Association of Installers of Unvented Hot Water Systems (Scotland and Northern Ireland); or

d. Individuals who are designated Registered Operatives and employed by companies included on the list of Approved Installers published by the BBA up to the 31 December 1991; or e.An equivalent body.

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 3 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 10Omm above external surfaces such as car parks, hard standings, grassed areas etc. are acceptable providing 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 3 m from any plastics guttering system that would collect such discharges (tundish visible).

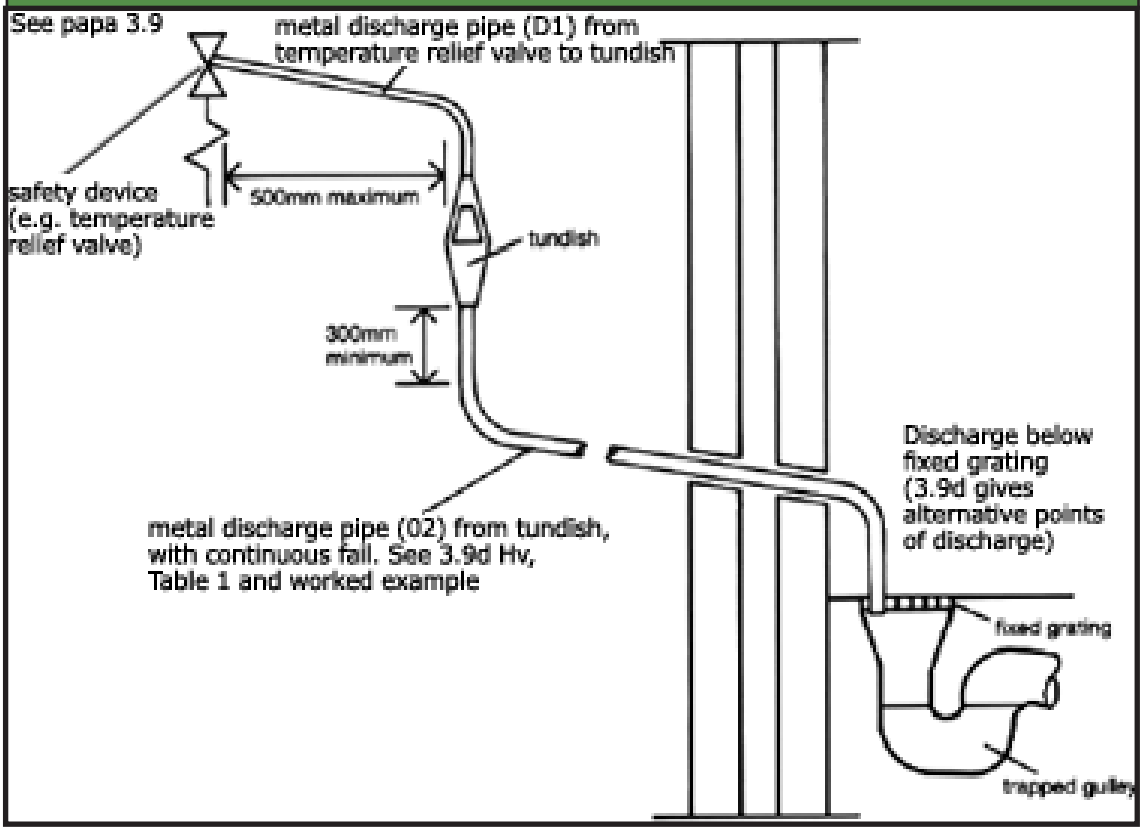
iv. where a single pipe serves a number of discharges, such as in blocks of flats, the number served should be limited to not more than 6 systems so that any installation discharging can be traced reasonably easily. The single common discharge pipe should be at least one pipe size larger than the largest 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 nonmetallic 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.

DIAGRAM 1 Typical discharge pipe arrangement



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 stralght pipe (i.e. no elbows or bends)	Resistance created by each elbow or bend
G ½	15mm	22mm	Up to 9m	0.8m
		28mm	Up to 18m	1.0m
		35mm	Up to 27m	1.4m
G ¾	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 Diagram 1

Worked example:-
The example below is for a G_ temperature relief valve with a discharge pipe (D2) having 4No. 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 G'_ temperature relief vaiva 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.

Mazimum resistance allowed for a straight length of 28mm pipe (D2) from a G'1 temperature relief valve equates to : 18

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

Section 4 Systems Over 500 Litres Or Over 45kw

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)

4.3 An unvented hot water storage system 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 cartilages (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 10O”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 Parts 2 or 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 Part 2: 1991 or Appendix G of BS 6283 Part 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.

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.

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

Standards referred to

Standards Referred To

G1
BS 6465 Sanitary installations.
Part 1: 1984 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.

Amendment slip

1: AMD 5940.

BS 4201: 1979 (1 984) Specification for thermostats for gas-burning appliances Amendment slips

1: AMD 4531
2: AMD 6268

BS 6283 Safety and control devices for use in hot water systems: Part 2: 1991 Specification for temperature relief valves for pressures from 1 bar to 10 bar.

Part 3: 1991 Specification for combined temperature and pressure relief valves for pressures from 1 bar to 10 bar

BS 6700: 1987 Specification for design, installation, testing and maintenance of services supplying water for domestic use within buildings and their cartilages.

BS 7206: 1990 Specification for unvented hot water storage units and packages.

Approved documents published by the Department of the Environment and the Welsh Office as at October 1991

The following Approved Documents have been revised in conjunction with the Building Regulations 1991 and will take effect on 1 June 1992

A	Structure
B	Fire safety
C	Site preparation and resistance to moisture
E	Resistance to the passage of sound
G	Hygiene
K	Stairs, ramps and guards
M	Access and facilities for disabled people
N	Glazing - materials and protection
Reg 7	Materials and workmanship

The following Approved Documents, originally approved for the purpose of the Building Regulations 1985, have not been revised, and will continue to be approved for the purposes of the Building Regulations 1991 with effect from 1 June 1992:

D	Toxic substances, 1985 edition
F	Ventilation, 1990 edition
H	Drainage and waste disposal, 1990 edition
J	Heat producing appliances, 1990 edition
L	Conservation of fuel and power, 1990 edition

Note that the Manual to the Building Regulations 1985 has been withdrawn.