



The Implications of Document G (G1, G2 & G3)

G1-Sanitary Conveniences and Washing Facilities & G2- Bathrooms

Any dwelling (house, flat or maisonette) should have at least one closet, one wash-basin and one bathroom with a fixed bath or shower. Where a house is divided in a way that the occupants do not form part of a single household, the house should have at least the same provision as a dwelling and the provision should be accessible to all of the occupants.

A space containing a closet or urinal should be separated by a door from a space used for the preparation of food, and for rooms containing a closet, wash-basins with a supply of hot water should be located in the same room, or in a space with direct access to the room containing the closet* (provided it is not used for the preparation of food).

Any urinal, wash basin or closet should have a smooth, non-absorbent surface which is capable of being easily cleaned, and any flushing apparatus should be capable of cleaning the receptacle effectively. No pipe other than a discharge or flush pipe should be connected to any part of the receptacle.

Closets, Baths and Showers**, may be fitted with a macerator and pump, discharging into a discharge stack via a small bore branch. However, closets may only be fitted with a macerator and pump if there is access to a closet discharging directly into a gravity system, and the macerator and pump small bore drainage system is the subject of a current European Technical Approval (this also applies to baths and showers).

Closets and Urinals using chemicals or other means of treatment where there is no suitable water supply or means of disposal of foul water. Closets and Urinals*** fitted with Flushing apparatus should discharge through a trap and discharge into a discharge stack or drain. Wash-

basins, Baths and Showers should discharge in the same way as urinals, or may, if located on the ground floor, discharge into a gully or directly into a drain.

** In dwellings it is acceptable for the wash-basin to be located in a room adjacent to the room containing the closet.*

*** Baths and Showers 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.*

**** Urinals Baths and Showers should discharge through a grating.*

G3-Hot Water Storage Systems up to 500 litres and 45kW

Prior to the installation of Unvented Hot Water Storage Systems, a person who intends to carry out the installation must deposit full plans with the Local Authority.

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 BBA as meeting the requirement of regulation G3; or
- 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; or
- The subject of a proven independent assessment that will clearly demonstrate an equivalent level of verification and performance to the above.

Directly Heated units or packages should have a minimum of 2 temperature activated devices operating in sequence:

- A non self-resetting thermal cut-out to BS3955 or to BS4201
- One or more temperature relief valves to BS6283, these devices are additional to any thermostatic control which is fitted to maintain the temperature of the stored water.

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 approved as above (BBA, NACCB or proven independent assessment)

In both units and packages, the temperature relief valve(s) should be located directly on the storage vessel, such that the stored water does not exceed 100°C. The valves should be sized to give a discharge rating at least equal to the power input to the water. The valve(s) should not be disconnected other than for replacement purposes. Each valve should discharge via a short length of metal pipe of a size not less than the outlet size of the temperature relief valve, through an air break over a tundish located vertically as near as possible to the valve(s). Discharge pipes should; have a vertical section of pipe at least 300mm long below the tundish before any bends, be fitted with a continuous fall and should terminate in a safe place where there is no risk to persons in the vicinity.

Indirectly Heated units/packages require the same safety devices as stated for directly heated units/packages, however, 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 approved as above (BBA, NACCB or proven independent assessment).

If the unit incorporates a boiler, the thermal cut-out may be the boiler. The temperature relief valve should be sized and located and the discharge pipe should be provided as stated for direct units/packages.

Where an indirect unit/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).

The unit or package should be installed by a competent person, holding a current Registered Operative Identity card for the installation of unvented domestic hot water storage systems issued by:

- CITB
- IPHE
- The Association of Installers of Unvented Hot Water Systems (Scotland and Northern Ireland)
- Individuals who are designated Registered Operatives and employed by companies included in the list of Approved Installers; or
- An equivalent body

Unvented hot water storage systems with a capacity of more than 500 litres and an input more than 45kW 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.

Thermostatic Mixing Valves

The TMV2 scheme has been introduced to address the problem of scalding by hot water in domestic properties. It is a requirement built into the housing corporations scheme development standards. This effectively means that all social housing stock in the UK must ensure that all immersion areas are fitted with a thermostatically controlled hot water supply. It is also likely that these standards will eventually be included within Building Regulations applicable to all new private accommodation.

The purpose of the TMV2 scheme is to test, monitor, approve and list the various manufacturers valves that comply to the TMV2 scheme. This is carried out by Buildcert, an impartial 3rd party test house. The reason for this is to give the public the confidence that a) the valve that they are buying will do the job it is intended for and b) to ensure that manufacturer's standards remain high to prevent injuries from scalding hot water

For full details on this and all Building Regulation documentation visit:
www.odpm.gov.uk.

For further information regarding TMV's, visit the TMVA website at: www.tmva.org.uk, or take a look at the Databyte entitled: [New guidance on preventing domestic hot water scalding](#).

The Institute of Plumbing & Heating Engineering cannot accept responsibility for any errors or omissions contained in this information.

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