

New Fire Safety Requirements – Dwellinghouses

On 6th April 2007, new fire safety requirements come into force. This guidance note sets out to highlight the main changes that will affect dwellinghouses. Guidance on other types of buildings including flats, shops, offices etc. are not covered in this note.

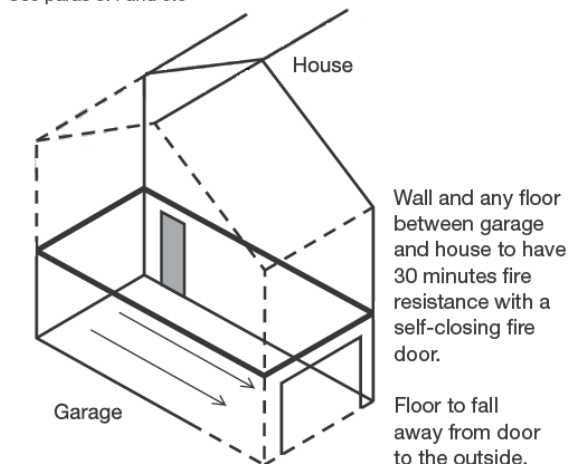
Approved Document B will be replaced by two new documents. **Approved Document B Volume 1** deals with 'Dwellinghouses'; **Approved Document B Volume 2** deals with 'Buildings Other Than Dwellinghouses'. The new documents can be downloaded from the Planning Portal web site - www.planningportal.gov.uk. (Located under professional user – building regulations.)

Garages

Where a domestic garage is attached to (or forms an integral part of) a dwellinghouse the garage should be separated from the rest of the dwellinghouse by 30-minute fire resisting construction. Under the new Approved Document, any door provided between the garage and the house should now be an **FD30S** (E30Sa) self-closing fire door fitted with smoke seals. If a door is provided then the floor of the garage should be laid to fall to allow fuel spills to flow away from the door to the outside. Alternatively, the door opening should be positioned at least 100mm above garage floor level. See Diagram 10.

Diagram 10 **Separation between garage and dwellinghouse**

See paras 5.4 and 5.5



Loft Conversions

The 'alternative approach' for loft conversions has been removed. Where the roof space of a two-storey dwellinghouse is converted to create a third storey, the dwellinghouse should have a protected stairway or the top storey should be separated from the lower storeys by fire resisting construction and be provided with an alternative escape route. (Refer to clause 2.6.) Any door forming part of the enclosure to a protected stairway in a single family dwellinghouse should be a FD20 (E20) fire door in a suitable frame. Self-closing devices are **not** required to these doors.

Where an open-plan arrangement **already exists** at ground floor level it may be possible to provide sprinkler protection to the open-plan area, in conjunction with a fire-resisting partition and door (FD20), in order to separate the ground floor from the upper storeys. This door should be arranged to allow the occupants of the loft room to access an escape window at first floor level in the event of a fire in the open-plan area. Cooking facilities (kitchens) should be separated from the open-plan area with fire resisting construction. The dimensional requirements for escape windows have not changed. Sprinkler systems should be designed and installed in accordance with BS 9251:2005.

Smoke Alarms in Extensions and Material Alterations

Where new habitable rooms are provided above the ground floor level, or where they are provided at ground floor level and there is no final exit from the new room, a fire detection and fire alarm system should be installed. Smoke alarms should be installed in circulation spaces in accordance with paragraphs 1.10 to 1.18 of the Approved Document.

Smoke and Heat Alarm Systems

Smoke and heat alarms are now required to have a standby power supply, such as a battery (either rechargeable or non-rechargeable) or capacitor.

Escape Windows

Escape windows are still required to habitable rooms in upper storeys of a dwellinghouse except where the room is provided with direct access to a protected stairway.

Locks (with or without removable keys) and stays may be fitted to escape windows, subject to the stay being fitted with a release catch, which may be child resistant.

Residential Sprinklers

Commentary on sprinkler systems for dwellinghouses is now given. The Approved Document recognises that sprinkler protection can reduce the risk to life and significantly reduce the degree of damage caused by a fire. Sprinkler protection can also sometimes be used as a compensatory feature where provisions of the Approved Document are varied in some way.

Where sprinkler systems are provided, it is normal practice to provide sprinkler protection throughout the building. However, where the sprinklers are being installed as a compensatory feature to address a specific risk or hazard, it may be acceptable to protect only part of a building (see open plan areas in loft conversions above).

Inner-Inner Rooms

A room accessed only via an inner room (an inner-inner room) may be acceptable if it complies with the requirements for an inner room (paragraph 2.9), not more than one door separates the room from an interlinked smoke alarm and none of the access rooms is a kitchen.

Galleries

Clearer guidance is given on galleries within dwellinghouses. A gallery should be provided with an alternative exit or, where the gallery floor is not more than 4.5m above ground level, an escape window. Alternatively, where the gallery floor is not provided with an alternative exit or escape window, it should comply with the following;

- (a) the gallery should overlook at least 50% of the room below;
- (b) the distance between the foot of the access stair to the gallery and the door

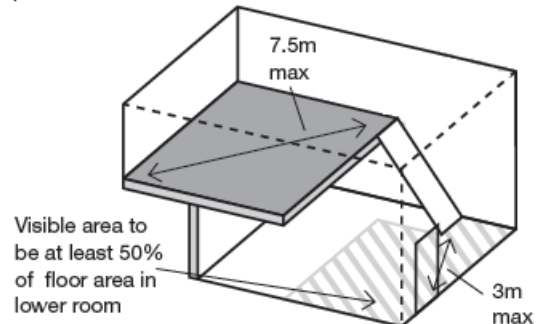
to the room containing the gallery should not exceed 3m;

- (c) the distance from the head of the stair to any point on the gallery should not exceed 7.5m; and
- (d) any cooking facilities within a room containing a gallery should either:
 - i. be enclosed with fire resisting construction; or
 - ii. be remote from the stair to the gallery and positioned such that they do not prejudice the escape from the gallery.

See Diagram 5.

Diagram 5 Gallery floors with no alternative exit

See para 2.12



Notes:

- 1 This diagram does not apply where the gallery is
 - i. provided with an alternative escape route; or
 - ii. provided with an emergency egress window (where the gallery floor is not more than 4.5m above ground level).
- 2 Any cooking facilities within a room containing a gallery should either:
 - i. be enclosed with fire-resisting construction; or
 - ii. be remote from the stair to the gallery and positioned such that they do not prejudice the escape from the gallery.

Replacement Windows

For means of escape purposes, where windows are to be replaced (but not where they are to be repaired only) and the location of the window is such that in a new dwellinghouse, an escape window would be necessary and the window is of sufficient size that it could be used for the purposes of escape then:

- (a) the replacement window opening should be sized to provide at least the same potential for escape as the window it replaces; or

- (b) where the original window is larger than necessary for the purposes of escape, the window opening could be reduced down to the minimum required for an escape window.

Self-Closing Devices

Other than doors between a dwellinghouse and an integral garage (see garages above), fire doors need not be provided with self-closing devices.

Air Circulation Systems

Guidance is now given on the use of air circulation systems in houses with a floor more than 4.5 above ground level. Guidance can be found in paragraphs 2.16 to 2.17.

Junctions of Compartment Walls with Roofs

Additional guidance has been given on the junction of compartment walls with roof structures. The guidance sets out requirements to reduce the risk of fire spread between compartments (i.e. dwellings) and fire spread over a roof adjacent to a compartment wall. Guidance can be found in paragraphs 5.11 to 5.12 and Diagram 11.

Cavity Barriers

Additional guidance has been given on the provision of cavity barriers. In addition, cavity barriers provided around window openings may be formed by the window or door frame if the frame is constructed of steel at least 0.5mm thick or timber of at least 38mm thick. Guidance can be found in paragraphs 6.5 to 6.7.

Roof Coverings

The guidance on roof coverings now incorporates the new European system of classification set out in BS EN 13501-5:2005.

Vehicle Access

The requirement for the fire brigade pump appliance access has been changed. Previously the requirement was for there to be access for a pump appliance to within 45m to a door to the dwelling. The new requirement is for there to be vehicle access for a pump appliance to within 45m of **all** points within the dwellinghouse.

Disclaimer

This guidance note sets out to highlight the main changes to Approved Document B – Volume 1 – Dwellinghouses. Harrow Council cannot be held responsible for any errors made in producing this document. Reference should be made to the Approved Document.



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