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in progress



[Redacted]

HM Coroners Officer  
Cambridgeshire & Peterborough Coroner Service,  
Lawrence Court, Princes Street, Huntingdon, PE29 3PA

BY EMAIL

Email: [Redacted]  
[Redacted]

Your reference: [Redacted]

**12 August 2024**

Dear Sir,

**Terrence Taylor: Prevention of future deaths report**

**I. Introduction**

1. This letter constitutes BSI's response to your regulation 28 report arising out of the death of Mr Terrence Taylor ("the Report").
2. BSI would like at the outset to express its deepest sympathy and condolences for the family of Mr Taylor.
3. The Report includes the following:

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BSI Group The Netherlands B.V.  
Say Building John M. Keynesplein 1-27  
Amsterdam Bergen 1066 EP  
Netherlands  
**bsigroup.nl**

[Redacted]



*“Action is required to ensure operators of care homes are provided with reliable, up to date guidance and to ensure that the limitations of the British Standard are widely known and understood by operators of residential care homes.*

*Action is required to review the British Standard relating to window restrictors to consider whether some different standard or qualification to the existing standard is required in respect of residential care homes and/or deliberate acts to disable window restrictors.”*

4. In accordance with its usual practice, BSI passed the Report to the responsible expert committees, who have replied as detailed below. We believe that constitutes compliance with the required actions, but would be pleased to assist if the coroner has any further questions.

## **II. The role of BSI**

1. BSI’s role as the NSB is established by Royal Charter. BSI has several governing documents (available online at <https://www.bsigroup.com/en-GB/about-bsi/governance/standards-governance/>):
  - a. BSI’s Royal Charter and Bye-laws 1981;
  - b. A Memorandum of Understanding (**MoU**) of 20 June 2002 between the United Kingdom government and BSI in respect of BSI’s activities as the United Kingdom’s NSB;
  - c. BS 0: 2021 ‘A standard for standards – Principles of standardization’ (**BS 0**)
2. Article 1.2 of the MoU provides that BSI’s role as the NSB should be interpreted to include the management, co-ordination and understanding of:
  - a) “British Standards” and “other standardization products”;

- b) participation by BSI in European and international standards bodies, and other international activity undertaken in the interests of BSI as the United Kingdom's NSB;
- c) promotion, marketing, distribution and information activities concerned with British Standards, BSI's other standardisation products, and standardisation generally;
- d) support any corporate infrastructure activities intended, wholly or in part, to enable paragraph 9(a) to (c) above.

The Director of Standards has the primary responsibility for the activities set out in paragraph 9(a) to (d). BSI's present Director of Standards is [REDACTED] (his full title is 'Director-General, Standards', which incorporates the role of Director of Standards).

- 3. BSI develops and distributes standards in response to the needs of UK stakeholders, which include UK Government and business. Standards are technical documents representing good industry practice. They are voluntary documents drafted by independent experts.

### **III. Standards committee structure**

- 4. Each individual standard is the responsibility of one technical committee. A technical committee may be responsible for more than one standard, and may establish subcommittees to deal with individual standards or other discreet areas of its work.
- 5. Technical committees and sub-committees consist primarily of experts who are independent of BSI, and who are often nominated by trade associations, professional bodies, research/scientific institutions, government or other entities (see BS 0, para 7.2). They have an independent chair and BSI provides a committee manager and other support including an editorial project manager for each standard.
- 6. The committees referred to in this letter are examples of such committees.

#### **IV. Status of Standards**

7. The defining characteristic of standards is that they are voluntary, agreed by industry experts and users, including manufacturers, health and safety representatives, regulators and consumer groups. They do not have the status of legislation or regulation (unless specifically referred to in a statute or regulatory instrument), although they may be used as one means of demonstrating compliance in appropriate circumstances. They may also become privately enforceable between individual entities by being incorporated into a contract (see paras 4.14 and 9.2 of BS 0).

#### **V. BSI expert committee feedback**

8. BSI considered the following committees would have relevant expertise:
  - a. B/538, Doors, windows, shutters, hardware and curtain walling
  - b. B/538/1, Windows and Doors
  - c. B/538/4, Building Hardware
9. Representatives of all those committees have jointly considered BS 6375-2. Their response is as follows, which we are quoting in full:

“A committee was formed of members from,

B/538, Doors, windows, shutters, hardware and curtain walling

B/538/1, Windows and Doors

B/538/4, Building Hardware

We were all saddened to hear of the death of Mr Taylor under what must have been such difficult circumstances for everyone concerned and we are determined

to make appropriate changes to standards to reduce the risk of deaths under similar circumstances in the future.

### **Amendments to BS 6375-2**

Our proposal is to amend clause 5.3 of BS 6375-2:2009 so that it includes a requirement for situations when the window is to be used for the purposes described in the Coroner's report. We will need a descriptive term for the mode of use. We have considered, "deprivation of liberty," but this may be too severe and not appropriate for our purpose.

The test will be undertaken on a sample of the window to be used to ensure that the window, the restrictor and any fixings securing it to the window will be tested as a system.

When open, with the maximum opening gap limited to 89mm by a restricting device, the window shall be capable of resisting a load of 850 N applied anywhere on the window in a manner intended to open the casement or sash with the objective of obtaining egress.

This load shall be applied via a 50 mm x 50 mm pad and can be located at various places on the casement or sash, for example

- at the location of the restrictor
- at the hinge points
- at a point the maximum distance from the restrictor

The load shall be applied, for example

- perpendicular to the plane of the open casement or sash
- parallel to the direction of opening of sliding sashes.

As BS EN 14609 does not cover loads applied to restricted sliding sash windows we will need to introduce a new annex to BS 6375-2 describing the test method to be used for such windows.

If loads are to be applied to the casement or sash then it will be necessary to upgrade the glazing so it can withstand comparable loads. We therefore propose that the glazing should be able to support the 850 N point load (applied via the pad) but also be grade 1(B)1 or 1(C)1 when tested in accordance with BS EN 12600. This will reduce the risk of egress being achieved by breaking the glass.

### **Steel-framed windows**

Clause 12.2, safety device loading, of the national product standard for steel windows, BS 6510, will be amended so that it refers to clause 5.3 of BS 6375-2 and doesn't refer directly to a load of 350 N supported for 60 S as it does now.

The other material specific product standards for windows, BS 644, BS 7412 and BS 4873 refer to clause 5.3 of BS 6375-2 without stating loads or durations.

## Existing European Standards

BS EN 14351-1, the European product standard for windows and external pedestrian doors, doesn't, as appears in for example the HSE report RR1150, limit the load bearing capacity of a safety device to 350 N but instead sets 350 N as the minimum, or threshold, value for such devices. It would be for the EU member state, or country in which the product is used, to set the national requirements for such products.

The load bearing capacity of safety devices is an essential characteristic of windows (reference Table ZA.1) therefore, when such a device is fitted to a window the loadbearing capacity of the window, when tested in accordance with BS EN 14609, must be stated on the manufacturer's declaration of performance in accordance with article 4 (2) of the assimilated EU Regulation 305/2011 (The Construction Products Regulation).

However, as this characteristic falls under AVCP System 3, it is possible that, the function of a restrictor as intended in BS EN 14351-1 is not life-safety-critical because, if it was, it would fall under AVCP System 1 as is the case for fire characteristics. This could mean that our proposed amendment to BS 6375-2 would not conflict with existing European Standards. This will, however, need to be checked.

BS EN 14609, is referred to by BS EN 14351-1 as the test method to determine the load bearing capacity of safety devices, but it only covers casement windows not sash windows, clause 7 calls for the restrictors to be disengaged and figures A.1 to A.6 show the movement of the casement to be limited by a "block" stopping the movement of one corner. We will discuss the possible need to amend EN 14609



with the European working group CEN/TC 33 WG1 that is responsible for this standard.

### List of standards

- BS 644:2012, Timber windows and doorsets. Fully finished factory-assembled windows and doorsets of various types. Specification
- BS 4873:2016, Aluminium alloy windows and doorsets. Specification
- BS 6375-2:2009, Performance of windows and doors - Classification for operation and strength characteristics and guidance on selection and specification
- BS 6510:2010, Steel-framed windows and glazed doors. Specification
- BS 7412:2024, Windows and doorsets. Unplasticized polyvinyl chloride (PVC-U) extruded hollow profiles. Specification
- BS EN 12600:2002, Glass in building. Pendulum test. Impact test method and classification for flat glass
- BS EN 14351-1:2006+A2:2016, Windows and doors. Product standard, performance characteristics - Windows and external pedestrian doorsets
- BS EN 14609:2004, Windows. Determination of the resistance to static torsion"

10. Please note that the committee's proposals will have to be implemented by the usual standards development process (as set out in BS 0), which among other things means there will be a period of public consultation. The final version of the standard will therefore be informed by that consultation and may differ from the committee's proposals accordingly. Nonetheless the intention of the process will be to improve the standard, informed by the Coroner's Report and the committee's expertise.





11. BSI believes that the above is self-explanatory and constitutes a full reply to the Coroner's Request. Again, however, if the Coroner has any further questions or requires clarification, BSI would be pleased to assist.

Yours sincerely,



Head of Standards Governance



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