



Date: April 2013

To: All NSI approved companies and applicants where BS 5839-1 is referenced as part of the scheme criteria

TECHNICAL BULLETIN No. 0023

Guidance on the implementation of BS 5839-1:2013

**Fire detection and fire alarm systems for buildings –
Part 1: Code of practice for design, installation, commissioning and
maintenance of systems in non-domestic premises**
(Supersedes BS 5839-1:2002+A2:2008)

The new edition of BS 5839-1 shows a publication date of March 2013 and the Foreword shows 31 March 2013 as the date the new Standard comes into effect.

BS 5839-1:2013 (the “new BS”) is now available through licensed outlets including NSI who can supply copies at a discounted rate. The new BS is also included in the Standards Subscription Service available on-line via the NSI website (www.nsi.org.uk).

We will assess applicant companies against the new BS with immediate effect and you will need to address satisfactorily any variations from the new BS before we will grant approval.

Existing NSI approved companies have until 01 July 2013 to comply with the new BS. In the interim we may raise Auditor Notes for any of the requirements within the new BS that are not fully satisfied. If you do not address any Auditor Notes satisfactorily then these will be treated as Improvement Observation Reports post 01 July 2013.

NOTE REGARDING THE STATUS OF THE NEW BS: Although issued by the British Standards Institution (BSI) as a Code of Practice, it is important to note that we regard compliance with the recommendations given in the new BS as mandatory (except for variations accepted by the client with the concurrence of other interested parties where relevant) for all organizations wishing to obtain or maintain an NSI approval; subject to any additional clarifications and guidance included within this Technical Bulletin or issued subsequently.

Therefore you must regard the recommendations given in the new BS as requirements of the relevant NSI approval schemes.

SUMMARY OF CHANGES

This summary identifies key points and main changes in the new BS and is similar to the list given in the Foreword of the new BS.

Where the actual wording of the new BS is quoted it is reproduced in bold text.

Where it is considered relevant to further clarify the specified requirement, additional guidance is included in italics.

- 1) The title of the document has been amended to reflect that Part 1 of BS 5839 does not address the provision of fire detection and alarm systems in domestic premises. These are covered by BS 5839-6.
- 2) The term “Responsible Person” has been replaced with “**Premises Management**” (see sub clause 3.45) to avoid confusion with the meaning of “Responsible Person” as used in the Regulatory Reform (Fire Safety) Order 2005.
- 3) The term “care home” has been replaced with “**Residential Care Premises**”.
- 4) The term “fire service” has been replaced with “**Fire and Rescue Service**”.
- 5) Clause 4 identifies the need to give staff clear and unambiguous information regarding the location of the fire where people cannot be easily evacuated immediately (e.g. residential care premises and hospitals).
- 6) Sub clause 4.2 c) has been added to recommend that:

“Where occupants of a building are going to need assistance from staff to evacuate the building (e.g. in residential care premises and hospitals), the fire detection and fire alarm system should be addressable if the building has facilities for more than ten people to sleep.”

- 7) A definition of a “zone plan” has been included in sub clause 3.66.
- 8) The findings of a Fatal Accident Inquiry following a fire with multiple fatalities determined that some or all of the deaths could have been avoided if a suitable zone plan had been provided adjacent to the control & indicating equipment (CIE).

In view of this, sub clause 6.1 advises that the responsibility for the provision of a zone plan should be “**defined at an early stage in the planning of an installation.**”

The clause 23 commentary further amplifies the importance of zone plans stating that:

“Accordingly, it is important to ensure that a suitable zone plan is provided adjacent to all CIE (including any repeat control and/or indicating equipment), unless the CIE incorporates a suitable display (e.g. an illuminated mimic diagram).”

We advise that where an approved company has taken responsibility for the design, installation and commissioning of the system then provision of the zone plan would normally be their responsibility.

Where an approved company only has responsibility for certain elements of the system (e.g. design and commission) then the system specification should clearly identify if the company has the responsibility for providing a suitable zone plan.

Further guidance on the provision of zone plans is given in sub clauses 42.2 b)5), 46.2 b)10) and 47.2 i). This is reflected in the sample acceptance certificate in H.4.

- 9) Sub clause 7.2 e) now recommends that where major non-compliances (as defined in sub clause 46.2) are identified as agreed variations then they **“should be clearly recorded in the logbook so that they are readily available for future reference by maintenance companies and any other interested parties.”**
- 10) Table 4 of the 2002 edition of BS 5839-1, “Limits of ceiling height (Category P systems and five minute fire and rescue service attendance)” has been deleted.
- 11) The commentary in sub-clause 15.1 has been updated to include advice that **“Automatic transmission of fire alarm signals is also necessary in the case of residential care premises.”**

Sub clause 15.2 f) now recommends that **“In residential care premises, facilities should be provided for automatic transmission of alarm signals to an alarm receiving centre.”**

Sub clause 15 i) Note 4 has been added to provide advice that any alarm receiving centres used for the receipt of automatic alarm signals from fire detection and fire alarm systems should be certificated to BS 5979 and should include the monitoring of fire alarms within their scope of certification.

- 12) Sub clause 19.1 d) advises that **“In residential care premises where early extinguishing action by the fire and rescue service is critical to life safety, it is not appropriate to delay the summoning of the fire and rescue service when the fire alarm system operates.”**

Sub clause 19.2.2 b) supports the above advice by recommending that:

“In residential care premises, a staff alarm should not incorporate any delay in summoning of the fire and rescue service when the fire alarm system operates, but there may be a delay in the general alarm signal, provided all staff are made aware of the fire alarm signal [see also 15.2f].”

- 13) Sub clause 35.2.7.2 f) recommends that measures to filter out potential false alarms **“should not be applied to signals received from fire alarm systems in residential care premises.”**

14) The commentary in sub clause 45.1 has been amended to give advice regarding the role of the maintenance technician and the purpose of routine servicing. ***“Routine servicing does not constitute a fresh review of the system design; it is a verification of the functionality and serviceability of the existing system.”*** The commentary points out that non-compliance against the recommendations of Section 2 of BS 5839-1:2013 may not be identified during the routine servicing process. It also goes on to point out that even if a maintenance technician does identify an apparent non-compliance it may have been agreed already as a variation.

The sub clause also points out that the maintenance organisation *may* identify areas of non-compliance and provide advice but this does not imply that all areas of non-compliance have been identified nor does it imply that there has been any review of the original design.

15) Sub clause 11.2 m) recommends that visual alarm devices (VADs) should comply with BS EN 54-23:2010. BS EN 54-23 does not become mandated in the UK until 01 July 2013 and at the time of writing there appears to be a shortage of compliant product available on the market in the UK.

In view of this, until 01 July 2013, if an approved company installs VADs that are not compliant with BS EN 54-23 then we will not regard this as a non-compliance against the recommendation of BS 5839-1:2013, sub clause 11.2 m).

From 01 July 2013 companies will be expected to install VADs compliant with BS EN 54-23.

16) With the introduction of BS EN 54-23, clause 17 of the new BS 5839-1 provides additional guidance on the use of compliant VADs. Sub clause 17.2 e) Note 3 refers to a joint LPCB/FIA Code of Practice 0001 “Code of Practice for Visual Alarm Devices Used for Fire Warning”.

We expect approved and applicant companies to have access to this Code of Practice and to adopt the recommendations provided therein. Copies can be obtained from <http://www.redbooklive.com/pdf/CoP-0001-1-0.pdf>

For ease of reference BS 5839-1:2013, Annex F reproduces some of the guidance and look-up tables contained within the LPCB/FIA Code of Practice.

17) Sub clauses 25.2 c) Note 2 and 29.2 e) Note 4 provides the following text:

“The contractor responsible for supplying the 230 V mains power supply needs to ensure that the particular device used does actually afford isolation. A number of switching devices do not meet the required isolation performance criteria. BS 7671:2008+A1:2011, Table 53.4, details whether a particular device can actually be used for the purpose of “isolation.”

The purpose of these notes is to differentiate between “isolation” and “functional switching”.

NSI Technical Bulletin No. 0023

BS 7671:2008+A1:2011 defines isolation as:

“A function intended to cut off for reasons of safety the supply from all, or a discrete section, of the installation by separating the installation or section from every source of electrical energy.”

whilst functional switching is defined as:

“An operation intended to switch “on” or “off” or vary the supply of electrical energy to all or part of the installation for normal operating purposes.”

Fire alarm equipment is not intended to be switched “on” or “off” under normal circumstances and therefore the intention of providing an isolating device adjacent to the control equipment and other mains operated equipment related to the fire detection and alarm system is to enable safe electrical isolation for the purposes of maintenance.

Many devices that have traditionally been used as “isolators” are in effect “functional switches” (e.g. “secret key” switches) and do not afford safe means of electrical isolation.
