Guidance Note

Fire Industry Association

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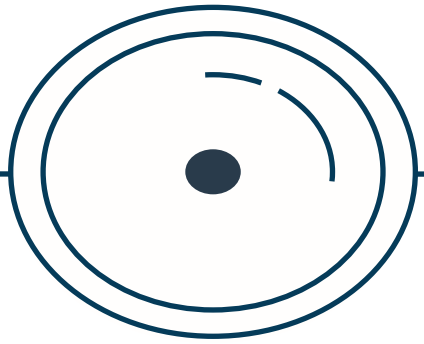
Use of fire alarm systems for lockdown (specifically in schools)



Updated to BS 5839-1:2025

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1. INTRODUCTION

For those of us in the fire detection & alarm (FD&A) industry, evacuation of buildings is a recognised and understandable objective. It is borne out of the need to keep building users safe in case of fire moving them away from danger or out to an ultimate place of safety. Dependant on the risk to users and systems available to them, the Premises Management can employ varying degrees of controlled evacuation such as staged, phased or simultaneous evacuation.

Premises Management also have a responsibility to consider the safety of users in other situations ranging from warning of slippery floors; through operating safe systems of work (e.g. permit-to-work procedures) to providing emergency lighting. Some buildings have unique situations due to their location, particular usage, inherent value or social importance. This has led to management considering risks that users may be exposed to immediately outside their building. For example, a local chemical release incident may require the users of a nearby building(s) which could be affected by the pollution (or explosion) to remain inside with windows and doors closed. Similarly, a school may receive a report of a dangerous animal in the vicinity and may consider keeping children inside the school at break-times until it is safe for them to use the grounds. The need to stay in or return to a building for safety is known as an invacuation. As with evacuations there are several degrees of invacuation. The most demanding is to immediately lockdown the area preventing circulation movement within, egress from or access to the building (to frustrate attackers gaining entry). The invacuation alarm is generally short term/momentary to prevent panic and to enable further & ongoing communications. There could be a different alarm in order to signal 'all clear'.

Generally, these two safety functions are achieved by two separate and distinct systems but more recently it is being requested that the FD&A provide both evacuation and invacuation facilities. This is usually based on a perceived cost saving (one system rather than two). The unseen benefit is that the FD&A systems are installed to a standard which limit the probability of impairments thus making an invacuation system more reliable than using less dependable communications systems.

2. SCOPE

This document discusses the possibility of utilising the infrastructure of a fire detection & alarm system to fulfil both safety functions.

Outside the scope of this document is the need for the Premises Management to have a procedure discussed and agreed with their interested parties of what should be done in the unlikely event of both alarms operating.

Excerpt from BS 5839-1:2025 Clause 5a) *If a building contains alarm systems associated with hazards other than fire, the various hazard alarms need to be properly coordinated and be distinct from each other. In these buildings, the relative priorities need to be assessed, and the system arranged so that a higher priority alarm cannot be prevented or obscured by one of a lower priority. Although, in general, fire has the highest priority, there are buildings in which other hazards can have higher priorities than fire.*

3. LEGISLATION & GUIDANCE

There are no official regulations covering invacuation/lockdown however, Premises Management are obliged to carry out a risk assessment and take appropriate measures to keep building users safe.

Invacuation guidance has mostly been produced by the education sector who historically have experience in protecting students from unwelcomed or unwanted visitors (court restricted, intoxicated, and violent or aggrieved parent or student etc).

Teaching union the NASUWT called for all schools to have a concrete protocol to be used in the event of a dangerous event happening on or near the premises.

ProtectUK[1] has a searchable guidance document library using the keyword lockdown will provide duty holders with the latest advice and guidance associated with the type of premises requiring lockdown. The National Protective Security Authority (NPSA) has produced a guidance document, Marauding Terrorist Attacks Supplementary Guidance: Lockdown[2]. Lockdown may be implemented in many ways and unfortunately there is no commonly agreed terminology. It is important when discussing lockdown with others to clarify exactly what is meant. The aim is to prevent persons moving into danger and to prevent or frustrate attackers accessing the site.

This document is not intended to provide guidance on creating a lockdown plan or procedure.

3.1 The Terrorism (Protection of Premises) Act 2005 (Martyn's Law)

The Terrorism (Protection of Premises) Act 2025[3], also known as Martyn's Law is a new UK law requiring venues, events and educational settings to consider and, in some cases, take steps to improve protection from terrorist attacks. This law, named after Martyn Hett, who was killed in the 2017 Manchester Arena bombing, represents a significant step forward in enhancing the safety and security of the public in qualifying premises by proactively preparing and implementing robust emergency plans and processes. This ensures Premises Management are ready to protect their premises and occupants in the face of any potential threats. The purpose of the legislation is not to instil fear, but to empower and equip people with the tools and knowledge to provide an effective response to an emergency.

3.2 Key aspects of Martyn's Law

Scope:

The law applies to publicly accessible premises and events across the UK that meet specific capacity thresholds, with examples being town halls, community centres, hospitality venues, libraries, museums, places of worship and educational settings to name a few. There are two tiers – Standard Tier (primarily suited to smaller premises with a capacity of ≥100 persons) and Enhanced tier (for capacities of ≥800 persons)

Duty:

The legislation places a duty on those responsible for operating or managing a premises to consider the threat of a terrorist attack and how they would respond. The depth of the responsibilities will vary depending on the tier but essentially requires terrorism risk assessments to be carried out alongside staff awareness and

[1] https://www.protectuk.police.uk/
[2] https://www.npsa.gov.uk/system/files/documents/mta-guidance-sg-lockdown_official-npsa-edn-3-oct24.pdf
[3] Martyn's Law Fact sheet https:/homeofficemedia.blog.gov.uk/2025/04/03/martyns-law-factsheet/

vigilance through training, whilst mandating the need for documented security plans and procedural measures.

4. PROCEDURES

Different agencies have developed their own procedures.

NaCTSO uses three major points and some general ways of letting people know what's happening.

1. Training of staff: understands roles, regularly test and exercise, refresh.
2. "Stay safe" principles: Run, Hide, Tell.
3. What to expect: from armed police.

For more information see final section of this document.

Schools tend to adopt Lockdown levels, for example:

- Full lockdown alarm – for most serious instances – threat on the premises – take immediate action.

– Lock doors and windows. Remain in class, move away from windows & doors and remain quiet.

- Partial lockdown alarm – for disturbances outside – threat nearby – move inside the building.

– Close doors and windows. Remain in class, classroom activity can continue as normal.

- A lesser used Third lockdown alarm – used for site specific issues – e.g. alert certain staff to an issue.

– School & classroom activity can continue as normal with stand-in teacher(s).

An alternative single level lockdown procedure:

- An Alarm distinct from all others on site – e.g. an air horn.
- Key staff members with specific roles – communication etc.
- Bring everyone inside.
- Shut all external doors and windows, close blinds.
- If possible, account for everyone.
- Stay away from windows and doors and if applicable remain silent.
- Await instructions from senior staff, police or the 'all clear'.

An excerpt from a health, safety and wellbeing site:

- Invacuation is the opposite to evacuation. You find refuge inside a building during an emergency.
- Invacuation may be required when there is an environmental hazard, (such as a smoke cloud or suspected chemical leak), or a security related incident.

- The invacuation siren sounds different to the evacuation siren and is instantly recognisable. When there is an invacuation emergency, the alarm will sound for 30 seconds.
- When the emergency is over a second steady tone siren will be sounded to demonstrate 'all clear'. This will be accompanied by an emergency message giving information about 'all clear'.

What seems to be omitted from Lockdown procedures is what to do if there is a fire alarm during the lockdown incident. Such an alarm may be false due to being instigated by the intruder to disrupt the lockdown but could also be real due to the intruder setting a fire or a situation developing due to the lack of manual intervention i.e. a kitchen cooker not being switched off due to the urgency of the lockdown procedure. This document does not offer any recommendations for this type of instance as it would need to be subject to a case-by-case risk assessment. The omission of manual call points within the publicly assessable areas of the school, for example the reception lobby, could be one of the outcomes of the risk assessment.

5.POSSIBILITIES

Dependant of size of premises, budget and speed of requirement/implementation:

- Some premises may be able to rely on word of mouth or utilise an air horn etc.
- Others can utilise internal messaging systems such as IP phones, text, email, staff phones, etc.
- Public Address (PA) system – including pre-recorded messages including tones.
- Intelligent digital signage (augmented with CCTV).
- Dedicated 'Lockdown' alarm tone from a dedicated lockdown alarm system.
- Dedicated school wide audible system incorporating; zonal messaging, class change, change of schedule, lockdown level(s).
- Dedicated 'Lockdown' alarm tone from a carefully designed and capable fire alarm system.
- Systems utilising Wi-Fi/wireless (care needs to be taken due to the potential unreliability e.g. cyber blocking.
- Some systems utilise the fire alarm and voice alarm systems.

6.FIRE DETECTION & ALARM SYSTEM

BS 5839-1:2025 clearly states in clause 15.1.12 that: Fire alarm evacuation tones should not be used for purposes other than warning of fire; it then goes on to give 2 exceptions:

a) where the response is identical to that required in event of a fire (i.e. immediate evacuation by use of all escape routes) or
b) in schools, the fire alarm signal is used to indicate the start or finish of predetermined periods. In these cases, the duration of class change should not exceed 10s.

Obviously an 'invacuation/lockdown' alarm demands the opposite situation from a fire alarm so the FD&A evacuation tones should not be used.

It is likely that an addressable fire alarm system would be capable of handling, controlling and managing an invacuation/lockdown facility by the utilisation of different tones within the fire alarm sounders. Previous versions of BS 5839-1 precluded the use of fire alarm sounders, unless all interested parties had agreed to their use (often with a different tone), however this would have been subject to a variation. An alternative was via the provision of 'additional' sounders installed on the FD&A system used only for lockdown so as not to conflict with the recommendations of BS 5839. These would have to be audibly different to the fire alarm sounders (and any others in use on site) and it would make sense for them to be a different colour (clearly labelled) & installed away from the fire alarm devices; and possibly enhanced with flashing beacon (VID) which should be of a different colour to any fire alarm visual alarm devices (VADs) in use within the property. Now however, with the release of BS 5839-1:2025, fire alarm sounders may be used, but with a different tone to the evacuation tones without the need for a variation.

Such an invacuation/lockdown system benefits from the monitoring, integrity & reliability provided by the fire alarm system complying with BS 5839.

7. CONCLUSION

Sharing the fire alarm system's infrastructure for an invacuation/lockdown alarm does not conflict with the recommendations of BS 5839-1:2025.

Providing the invacuation/lockdown system elements are installed to the same standard as the fire alarm, then in theory an addressable system utilising the FD&A sounders but **not** the evacuation tone and triggered by dedicated and separate inputs not impinging on the fire alarm operation (i.e. programmed using Cause and effect to work independently of the fire detection and alarm system evacuation tones) could provide a reliable, fully monitored and prioritised lockdown alarm (LDA) including 'all-clear' messaging. (Any additional equipment should be installed to BS 5839).

Before embarking on the design of such a system for a particular building, the user (and interested parties) should produce and communicate a design specification taking in to consideration priorities, potentials and operational requirements; including what actions should be taken in the unlikely event of a fire alarm during a lockdown alarm. (This is no different to the procedure which would need to be considered if there were two totally separate systems in place i.e. an air horn and a fire alarm system.) Also to be considered is the effect on the invacuation/lockdown system when routine maintenance to the FD&A system is being carried out.

It is feasible that a risk assessment of a large complex building with differing situations could result in a simultaneous part invacuation and part evacuation for ultimate safety; so, the combined FD&A and LDA should be capable of simultaneous operation.

8. FURTHER READING & INFORMATION

Lockdown in primary schools:
https://www.theschoolrun.com/primary-school-lockdown-procedures

A councils guide to Invacuation: (it downloads in Word)
https://www.bradford.gov.uk/hands/documents/Schools%20Information/WYSSF%20 - %20Guidance%20Document%20and%20Template%20-%20Invacuation%20including%20 Lockdown.docx

DISCLAIMER

The information set out in this document is believed to be correct in light of information currently available but is not guaranteed and neither the Fire Industry Association nor its officers can accept any responsibility in respect of the content or any events rising from use of the information contained within this document

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