

BRITISH STANDARD

Remote centres receiving signals from fire and security systems – Code of practice

ICS 13.320



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Foreword

Publishing information

This British Standard was published by BSI and came into effect on 28 September 2007. It was prepared by Subcommittee GW/1/11, *Remote Centres*, under the authority of Technical Committee GW/1, *Electronic security systems*. A list of organizations represented on this committee can be obtained on request to its secretary.

The start and finish of textual changes introduced by Corrigendum No. 1 are indicated in the text by tags C1 C1. Minor editorial changes are not tagged.

Supersession

This British Standard supersedes BS 5979:2000, which is withdrawn.

Information about this document

This is a full revision of the standard, and introduces the following principal changes:

- a) references updated;
- b) removal of layered security option.

NOTE An ARC that became operational prior to 30 June 2008, and which relied on layered security to achieve compliance with the year 2000 edition of this standard, can continue to use layered security, provided an equivalent standard of protection is achieved compared with the physical means set out in 5.1.1.3.

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

Presentational conventions

The provisions in this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is “should”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This British Standard gives recommendations for the planning, construction and facilities of manned and unmanned remote centres, and for the operation of alarm receiving centres (ARCs) receiving signals from security systems, e.g. intruder, fire, social and closed circuit television (CCTV).

Annex A provides guidance for inspectorates, Annex B contains guidance on remote access to remote centre data systems, Annex C gives a recommended agreement for authorizing filtering.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 405:1987, *Specification for uncoated expanded metal carbon steel sheets for general purposes*

BS 476 (all parts), *Fire tests on building materials and structures*

BS 5051-1:1988, *Bullet resistant glazing – Part 1: Specification for glazing for interior use*

BS 5306-3, *Fire extinguishing installations and equipment on premises – Part 3: Code of practice for the inspection and maintenance of portable fire extinguishers*

BS 5306-8:2000, *Fire extinguishing installations and equipment on premises – Part 8: Selection and installation of portable fire extinguishers – Code of practice*

BS 5628-2, *Code of practice for the use of masonry – Part 2: Structural use of reinforced and prestressed masonry*

BS 5839-1:2002, *Fire detection and alarm systems for buildings – Part 1: Code of practice for system design, installation and servicing*

BS 6132:1983, *Code of practice for safe operation of alkaline secondary cells and batteries*

BS 6133:1995, *Code of practice for safe operation of lead-acid stationary batteries*

BS 7858, *Code of practice for security screening of personnel employed in a security environment*

BS EN 3-7:2004, *Portable fire extinguishers – Part 7: Characteristics, performance requirements and test methods*

BS EN 179:1998, *Building hardware – Emergency exit devices operated by a lever handle or push pad – Requirements and test methods*

BS EN 50131-1, *Alarm systems – Intrusion systems – Part 1: General requirements*

PD 6662, *Scheme for the application of European Standards for intruder and hold-up alarm systems*

DD 243, *Installation and configuration of intruder alarm systems designed to generate confirmed alarm conditions – Code of practice*

CLC/TS 50134-7:2003, *Alarm systems – Social alarm systems – Part 7: Application guidelines*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this British Standard, the terms and definitions given in BS EN 50131-1 and the following apply.

3.1.1 activity monitor

equipment that automatically monitors the ARC staff for periods of inactivity and automatically creates an audible signal within the ARC in the event of failure to detect activity within a predefined period; if the signal is not acknowledged by the ARC staff within a short, predefined timescale, the equipment automatically raises an alert to a separate, manned location

NOTE The period of inactivity could be due to attack or catastrophe.

3.1.2 alarm company

organization that provides services for I&HAS

NOTE This definition is taken from BS EN 50131-1.

3.1.3 alarm condition

condition of an I&HAS, or part thereof, that results from the response of the system to the presence of a hazard

NOTE This definition is taken from BS EN 50131-1.

3.1.4 alarm filtering

procedure whereby signalled alarm conditions are intentionally delayed at the ARC and their status reviewed for the purpose of preventing unnecessary calls to the relevant emergency service by cancelling certain alarm conditions, where such cancellation is authorized by the user.

3.1.5 alarm message

message conveyed from an ARC to the relevant emergency service that indicates that an alarm condition has occurred at a protected premises, or which provides supplementary information concerning a previously reported alarm message

3.1.6 alarm receiving centre (ARC)

continuously manned remote centre to which information concerning the status of one or more alarm systems is reported

3.1.7 alarm signal

signal which, upon being received at an ARC or other remote location, identifies a signalled alarm condition

3.1.8 audibly confirmed

status in which an incident has been confirmed by a human being at a remote location (normally an ARC) and in which the human being, after having interpreted audio information transmitted from the protected premises, has made a decision that there is a high probability that a genuine intrusion, or a genuine attempted intrusion, has occurred

3.1.9 client

person or organization with whom the remote centre has entered into a contract to provide alarm monitoring services

3.1.10 confirmed

NOTE See audibly confirmed (3.1.8), visually confirmed (3.1.33), or sequentially confirmed (3.1.27).

3.1.11 control equipment

equipment necessary for the setting, unsetting and testing of an IAS and for sending an alarm condition to warning devices and/or signalling equipment

3.1.12 customer

person or organization utilizing the services of an alarm company

3.1.13 deliberately-operated device

a detector that creates an alarm condition as the result of deliberate action by one person

3.1.14 detector

device designed to generate an intruder signal or message in response to the sensing of an abnormal condition indicating the presence of a hazard

NOTE This definition is taken from BS EN 50131-1 as "intrusion detector".

3.1.15 false alert

signalled alarm condition that (without having been extended to the relevant emergency service) is regarded by the ARC as cancelled, such cancellation having been authorized by the customer

NOTE 1 Such authorization can be either:

- a) on a case-by-case basis by use of suitable code words or numbers in accordance with a defined alarm filtering routine; or*
- b) by prior written agreement.*

NOTE 2 Communication whereby the customer/user causes (i) a mis-operation signal, or (ii) an unset signal, to be sent to the ARC affirming that the signalled alarm condition is to be filtered out and not extended to the relevant emergency service are examples of cancellation authorized by the customer [see option a) of NOTE 1].

NOTE 3 "False alerts" are not regarded as "false alarms". False alarms are events that have not been successfully identified and filtered out, and have therefore been notified to the relevant emergency service.

3.1.16 fire resistance

ability of an element of building construction, component or structure to fulfil, for a stated period of time, the required stability, fire integrity and/or thermal insulation and/or other expected duty in a standard fire resistance test

NOTE The designation “fire resistant” given to an element implies that this element fulfils the requirements of the relevant standard fire test.

3.1.17 mis-operation signal

signal that is definitely and unambiguously identifiable at the ARC as indicating to the ARC that the alarm system has mis-operated and therefore that the alarm signal is to be filtered out and not extended to the relevant emergency service

NOTE The designation of a particular type of signal as a mis-operation signal is therefore a matter for agreement between the alarm company and ARC, with the concurrence of the customer.

3.1.18 non-combustible

not capable of undergoing combustion under specified test conditions

3.1.19 operations area

that part of an ARC concerned directly with the display of information from the alarm and/or CCTV systems served by the ARC and with the onward transmission of relevant aspects of this information to an emergency service

3.1.20 processor

device that processes the output from one or more sensors to determine whether an alarm condition should be generated

NOTE The processor can be integral with the control equipment.

3.1.21 supervised premises

part of a building to which protection is afforded by an alarm system

3.1.22 remote access

restricted facility to view/edit data and/or to create new records from outside the shell of the remote centre

3.1.23 remote centre

location remote from the supervised premises, in which the information concerned with the state of one or more alarm systems is collected either for reporting (e.g. an ARC) or for onward transmission

3.1.24 response agreement

set of instructions agreed between the remote centre and the client as to the actions to be taken in the event of an alarm signal being received

3.1.25 satellite

remote centre, normally unmanned, in which the information concerning the state of alarm and/or CCTV systems is collected and processed for onward transmission either direct, or via a further satellite, to an ARC

NOTE 1 The junction point of a number of alarm system signalling circuits is not regarded as a satellite.

NOTE 2 An ARC is classified as a satellite if, during periods without manning, alarms are transmitted through it to another ARC.

3.1.26 set

status of an alarm system or part thereof, in which an alarm condition can be notified

NOTE This definition is taken from BS EN 50131-1.

3.1.27 sequentially confirmed

status in which confirmation emanates from two or more independent sensors, detectors and/or processors, which are so configured that there is a high probability that a genuine intrusion, or a genuine attempted intrusion, has occurred

3.1.28 shell

all parts of the boundary of a remote centre including walls, floors, roof or ceiling and including any openings therein

3.1.29 signalled alarm condition

state of monitoring equipment at an ARC (or other remote location) that indicates that intrusion, attempted intrusion or unauthorized interference has occurred at the supervised premises, or is likely to occur

NOTE Once signalled at the remote location as an alarm condition, the event is regarded as a signalled alarm condition even if subsequently filtered out by the ARC personnel as being a false alert not requiring relevant emergency service response.

3.1.30 signalling

initiation of the transmission of an alarm condition from the supervised premises to a remote location

3.1.31 unset

status of an IAS or part thereof in which an alarm condition cannot be notified

NOTE This definition is taken from BS EN 50131-1.

3.1.32 user

person authorized by the customer to operate an alarm system

3.1.33 visually confirmed

status in which confirmation is confirmed by a human being at a remote location (normally an ARC) and in which the human being, after having interpreted a visual image transmitted from the supervised premises, has made a decision that there is a high probability that a genuine intrusion, or a genuine attempted intrusion, has occurred

3.2 Abbreviations

For the purposes of this British Standard, the following abbreviations apply.

ARC	Alarm receiving centre.
IAS	Intruder alarm system.
CCTV	Closed circuit television.
RVRC	Remote video response centre.
I&HAS	Intruder and hold-up alarm system.

4 Planning

4.1 Categorization

The planning for the construction, and for the routing of communications services, of a remote centre should be determined by the intended categorization of the remote centre, taking into account any foreseeable need for change.

Remote centres are categorized according to the type(s) of alarm and CCTV signals handled and the consequent requirements for integrity and security of construction, communications, operation and information. The two types of category are as follows.

- a) *Category I*: remote centre handling signal from fire alarm systems and/or from social alarm systems, and/or from CCTV systems in non-security applications (e.g. traffic flow).
- b) *Category II*: remote centre handling signals from IASs and/or from CCTV systems in security applications that require an emergency response (e.g. loss prevention) and/or from fire alarm systems and/or social alarm systems.

4.2 Site selection

4.2.1 Remote centres

A remote centre should be located in a building with low risk of fire, explosion, flooding, vandalism and exposure hazards from other buildings.

The building housing the remote centre should be protected against the effects of lightning strike.

NOTE Appropriate recommendations for the protection of buildings and electronic equipment against lightning strike are contained in BS EN 62305. As an alternative, a remote centre can adopt the recommendations of 8.3 to sustain monitoring facilities at an alternative centre.

The possibility of gas seepage around cables or pipes below ground level should be given consideration.

4.2.2 Alarm receiving centres (ARC)

4.2.2.1 Category I

Displayed information should not be visible from outside the shell of the ARC.

4.2.2.2 Category II

Preference should be given to locating an ARC in a basement or on an upper floor. Where the ARC is located on a ground floor, access by the general public to the shell of the ARC should be restricted, e.g. by a physical barrier.

The interior of the operations area or equipment room(s) should not be directly visible from outside the shell.

4.2.3 Satellites

A satellite should be located inside a permanent building. Access to the building (or part of the building) in which the satellite is located should be under the exclusive control of the company operating the ARC to which the satellite is associated.

4.3 Consultation

4.3.1 General

Appropriate consultation should be undertaken with other relevant interested parties, for example, planning authorities, utilities, telecommunication providers.

4.3.2 Telecommunications service

4.3.2.1 General

The telecommunications service provider should be consulted and issues that could jeopardize communication between the telephone exchange(s) and the remote centre should be identified.

Where telecommunications services offering the required levels of availability and security cannot be provided, either an alternative location for the remote centre should be considered or alternative means of providing the required levels of availability and security should be implemented, e.g. diverse routing of services using common technologies such as cables or duplicated services using differing technologies such as cables and RF techniques.

4.3.2.2 Category II ARC

The telecommunications service provider should be consulted with regard to providing physical and electronic detection and physical protection to equipment and access points to cables located in the immediate vicinity of an ARC which, if damaged, could interfere with ARC telecommunications.

4.3.3 Emergency services

The security and emergency procedures of the building housing the remote centre and the response requirements of the appropriate service(s) should be established and documented. This discussion should include consideration of escape routes and emergency exits.

There should be discussion and agreement with the appropriate emergency service(s) responsible for the areas covering the supervised premises. This discussion should include consideration of both primary and secondary means of communication with the emergency services.

5 Construction and facilities

5.1 Alarm receiving centres

5.1.1 Shell

5.1.1.1 General

The shell and all supporting structures of the ARC should have a fire resistance of not less than 1 h.

NOTE 1 The application of metal reinforcement can reduce the fire resistance and structural integrity of some construction material.

Cable and service ducts should be sealed where they penetrate walls, floors, etc., to maintain a fire resistance of at least 1 h.

Fire safety procedures for the building should be such that they cause minimum disruption to the ARC activities.

NOTE 2 Attention is drawn to Department of the Environment, Transport and the Regions, Building Regulations 2000 — Approved Document B Fire safety. [1] London: TSO, and to the LPC design guide for the fire protection of buildings [2].

5.1.1.2 Category I

As a protection to the staff from hazards such as fire, and accidental or deliberate vehicle impact, all parts of the shell, but excluding the openings, should be of substantial construction.

As an alternative to the fire resistance of the shell set out in 5.1.1.1, any exterior part of the shell of a Category I ARC should be so located that there is spatial separation sufficient to minimize any potential fire hazard created by neighbouring structures and/or activities.

5.1.1.3 Category II

All parts of the shell should be attack resistant.

Examples of acceptable construction are:

- 1) A solid wall, 215 mm thick, constructed from either brick or dense concrete blocks laid flat;
- 2) A solid wall, 190 mm thick, constructed from dense aggregate concrete reinforced hollow block, designed in accordance with BS 5628-2;
- 3) A wall, 190 mm thick, constructed from hollow concrete blocks that have been reinforced with, for example, steel bars or scaffolding tubes;
- 4) A wall, 150 mm thick, constructed from reinforced concrete cast *in situ*.
- 5) A wall, not exposed to vehicular attack, reinforced with low carbon steel sheets not less than 1.5 mm thick, of construction that would afford a fire resistance of at least 1 h in respect of integrity, insulation and, where relevant, load-bearing capacity, if tested in accordance with the tests specified in BS 476. Low carbon steel sheets should be welded together and supported by a suitably rigid substructure.