

Loss Prevention Standard



LPS 1014: Issue 5.2

REQUIREMENTS FOR CERTIFICATED FIRE DETECTION AND ALARM SYSTEM FIRMS

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Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 1 of 15

CONTENTS	PAGE
- PARTICIPATING ORGANISATIONS	
- FOREWORD	
1 SCOPE	5
2 DEFINITIONS	5
3 REQUIREMENTS FOR CERTIFICATED FIRMS	6
4 OPERATIONAL REQUIREMENTS	9
5 PROVISIONAL APPROVAL	12
APPENDIX A SAMPLE CERTIFICATE OF CONFORMITY	13
APPENDIX B PUBLICATIONS REFERRED TO	14
- AMENDMENTS ISSUED SINCE PUBLICATION	15

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 2 of 15

PARTICIPATING ORGANISATIONS

This standard was approved by the LPC Fire and Security Board and Expert Group A. The following organisations participated in the preparation of this standard:-

Association of British Insurers
Association of Building Engineers
Association of Chief Police Officers
Association for Specialist Fire Protection
British Automatic Fire Sprinkler Association
British Security Industry Association
BT Redcare
Chief Fire Officers Association
Door & Hardware Federation
Electrical Contractors Association
European Fire Sprinkler Network
Fire Industry Association
Health & Safety Executive
Metronet
Risk Engineering Data Exchange Group
Royal and Sun Alliance
Royal Institution of Chartered Surveyors

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 3 of 15

REVISION OF LOSS PREVENTION STANDARDS

Loss Prevention Standards (LPSs) will be revised by issue of revised editions or amendments. Details will be posted on our website at www.RedBookLive.com.

Technical or other changes which affect the requirements for the approval or certification of the product or service will result in a new issue. Minor or administrative changes (e.g. corrections of spelling and typographical errors, changes to address and copyright details, the addition of notes for clarification etc.) may be made as amendments.

The issue number will be given in decimal format with the integer part giving the issue number and the fractional part giving the number of amendments (e.g. Issue 3.2 indicates that the document is at Issue 3 with 2 amendments).

Users of LPSs should ensure that they possess the latest issue and all amendments.

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 4 of 15

FOREWORD

This Standard identifies the evaluation and / or testing practices undertaken by LPCB for the purposes of approval and listing of products and services. LPCB listing and approval of products and services is based on evidence acceptable to LPCB:-

- that the product or service meets the standard;
- that the manufacturer or service provider has staff, processes and systems in place to ensure that the product or service delivered meets the standard

and on:-

- periodic audits of the manufacturer or service provider including testing as appropriate;
- compliance with the contract for LPCB listing and approval including agreement to rectify faults as appropriate;

The responsibility for ensuring compliance with the technical and managerial process and requirements for the product or service lies with the manufacturer, service provider or supplier.

NOTES

Compliance with this LPS does not of itself confer immunity from legal obligations. Users of LPSs should ensure that they possess the latest issue and all amendments.

LPCB welcomes comments of a technical or editorial nature and these should be addressed to “the Technical Director” at enquiries@breglobal.co.uk.

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Listed products and services appear in the LPCB “List of Approved Products and Services” which may be viewed on our website:- www.RedBookLive.com or obtained in hard copy or CD by telephoning +44 (0) 1923 664100

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 5 of 15

1 SCOPE

This standard specifies the requirements of the Loss Prevention Certification Board (LPCB) for Firms engaged in system design, installation, commissioning and servicing of fire detection and alarm systems. The requirements for the issuing of LPS 1014 Certificates of Conformity against the Installation Rules are also specified.

2 DEFINITIONS

2.1 Firm

An individual, body corporate or body incorporate, applying for or holding LPCB Certificates for the services detailed in Clause 1.

2.2 Installation rules

For the purposes of this document, Installation Rules typically comprise at least BS 5839-1, but may in addition, or alternatively, include any of the following:-

- a) BS 5839 all other relevant parts
- b) BS 6266
- c) BS 7273 all relevant parts
- d) Health Technical Memorandum 05 all relevant parts
- e) NFPA 72
- f) IS3218 (Ireland)

2.3 Contract

A written undertaking by a certificated Firm to perform work or supply certain articles for a specified consideration.

2.4 Handover

The point in a contract where commissioning and certification of the installation have been satisfactorily completed to the contract specification so enabling the installation to be formally handed over to a responsible person nominated by the user.

2.5 Maintenance

Work of inspection, servicing and repair necessary in order to maintain the efficient operation of the installed system.

2.6 Repair

Non-routine work necessary to restore the efficient operation of the installed system.

2.7 Servicing

Routine process of work on the system (including cleaning, re-alignment, adjustment and replacement) carried out at pre-determined intervals.

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 6 of 15

3 REQUIREMENTS FOR CERTIFICATED FIRMS

3.1 Capability

Certificated Firms shall have the capability to undertake system design, installation, commissioning and servicing, although installation or servicing may be sub-contracted provided contractual responsibility for these services is retained by the certificated Firm.

3.2 Continuity of involvement

The Firm will provide evidence of design, installation, commissioning and servicing of fire alarm installations, in accordance with Installation Rules (see 2.2), over a continuous period of not less than two years.

3.3 LPCB pre-certification site inspections

Prior to Certification the Firm will provide a list of at least 8 installations for which handover has been completed:-

- a) within the last 12 months where the Firm does not have the service contract, or
- b) within the last 2 years where the Firm does have the service contract.

The LPCB will choose installations from this list for inspection to the Installation Rules applied. A sufficient number of installations will be inspected to determine whether the Firm has the capability to design, install, commission and service Fire Detection and Alarm systems in accordance with Installation Rules. The number of installations to be inspected will be at the discretion of the LPCB.

3.4 Management system

3.4.1 In order to ensure that Fire Detection and Alarm systems meet, and continue to meet, the requirements of this scheme, the Firm is required to maintain full control of their design, installation, commissioning and servicing processes through a management system approved by LPCB. The management system shall comply with BS EN ISO 9001.

Full details of the LPCB ISO 9001 certification process are set out in publication SD003 'Quality Management Systems Certification Scheme'.

The duration and frequency of Management System assessment and surveillance visits is typically one day twice per year. However the actual frequency and duration depends on a number of factors including the size of firm and scope of activities.

Firms that apply to join the LPS 1014 scheme that already have ISO 9001 certification with the required scope, or wish to gain ISO 9001 certification with another UKAS accredited certification body, will be

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 7 of 15

subject to an audit of their quality management system during LPS 1014 assessment and surveillance audits by LPCB. Details of the conditions for accepting ISO 9001 certification from another UKAS accredited certification body can be found in LPCB document PN004: *LPS 1014 Application process non-LPCB ISO 9001 certification*.

3.4.2 The Firm's management system will, in addition to meeting the requirements of clause 3.4.1, comply with the following:-

(a) **Authorisation**

The Firm will specify who is authorised to sign LPS 1014 Certificates of Conformity.

(b) **Power supply design**

Battery capacity and rating of chargers used in standby supplies will be calculated from appropriate formulae. The formulae used and the reasoning behind their use will be documented.

(c) **Inspection and test records**

Records will be generated for each installation to:-

- i. Confirm the correct operation of all manual call points and automatic fire detectors.
- ii. Confirm the functional integrity of detection and alarm circuits, the verification of power supplies, including mains powers supplies, and the correct operation of any facilities for remote transmission of alarm (and, where relevant, fault) signals.
- iii. Confirm that the alarm sound level meets specified requirements.
- iv. Confirm that connection of the Fire Alarm System to the mains power supplies is in accordance with specified requirements.
- v. Confirm that the system cause and effect (including, where relevant, display of addressable information) is in accordance with the specification.
- vi. Confirm that there are no obvious sources of false alarms.
- vii. Confirm that the Category of system or extent of protection is as specified.

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 8 of 15

3.5 Competence of staff

a) Competence of staff

The Firm will provide evidence that the relevant staff on each contract are competent, and where appropriate, supervised in respect of the equipment installed.

b) Number of staff

The Firm will employ an adequate number of staff (at least two) experienced in design in accordance with BS 5839-1 and all other Installation Rules applied.

3.6 Customer training

The Firm will show adequate organisation to provide training for customers with regard to their responsibilities. Evidence will be provided that customers have been made aware of their responsibilities and have been offered training in the use of the system.

3.7 Maintenance capability

The Firm will show adequate organisation of:-

- a) A call-out facility, which will result in an 8 hour on site response for, contracted customers with reasonable remedial action being taken on site within a period of 24 hours. The Firm will also have access to an adequate range of stock to resolve such an emergency.
- b) Provision of assistance for customers with regard to their responsibilities, including written instructions as necessary.
- c) Identification of changes in the layout, configuration or use of a building that result in variations from the Installation Rules.
- d) The provision of a call-out facility 24 hours per day, 365 days per year.

3.8 Equipment

The following equipment/components shall be third party approved to appropriate standards:-

Control panels
Detectors
Manual call points
Alarm devices
Line modules
Cables

Equipment/components not listed above need not be third party approved but shall conform to appropriate standards.

Refer to clause 4.3.6 for the issue of the LPS 1014 Certificate of Conformity.

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 9 of 15

4 OPERATIONAL REQUIREMENTS

4.1 Installation rules

All installation contracts undertaken within the Certification Scheme will be in accordance with the Installation Rules, except for those systems involving innovative designs (see clause 3.4). In such cases, the Firm must demonstrate the criteria used in the design of the installation.

4.2 Installations with variations from the Installations Rules

Any variations from the Installation Rules must be brought to the attention of the client or their representative prior to certification being issued. During surveillance visits, the Firm will be asked by LPCB to provide documentary evidence that this has been done.

4.3 Certificate of conformity

4.3.1 A major value of the LPS 1014 scheme to users, enforcing authorities and property insurers is that, by entering into a contract with a certificated Firm for the installation and commissioning of a Fire Detection and Alarm System, the purchaser is guaranteed that a single Certificate of Conformity will be issued by the Firm, certifying that the design, installation and commissioning of each system complies with the Installation Rules specified.

4.3.2 The Certificate of Conformity shall be issued at handover and shall indicate any agreed variations from the Installation Rules. The LPS 1014 Certificate of Conformity does not become valid until it has been signed by the authorised representative of the client, demonstrating the client's acceptance of any listed variations. The scope of the certification shall include all aspects of the installation addressed by the relevant contract requirements and the Installation Rules (including, for example, mains power supplies and fire stopping of cable penetrations), regardless of whether such aspects are the contractual responsibility of the Firm or of others.

4.3.3 It should be noted that a certificated Firm must issue a numbered Certificate of Conformity for **every** installation that the Firm is contracted to install and commission, regardless of whether responsibility for design of the installation rests with the Firm or a third party (e.g. consulting engineers). If the certificated Firm sub-contracts the installation work, the Firm remains responsible for the installation work (which should be adequately supervised and inspected by the Firm), and remains responsible for the issue of the Certificate of Conformity. The selection of installation sub-contractors should be based on their ability to carry the work out satisfactorily. It could take the form of approval to a recognised scheme, for example, the EILC industry scheme for work category A3 – fire alarm installation.

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 10 of 15

4.3.4 A certificated Firm may be required, under a contract, to supply and commission a Fire Detection and Alarm System, or to design, supply and commission the system. In such cases, since the Firm is not the installer of the system, it is not mandatory to issue a Certificate of Conformity. The Firm may issue its own certificate of commissioning (e.g. Set to work), provided this certificate does not purport to certify compliance of the installation with the Installation Rules. The Fire Detection and Alarm System will, however, remain outside the scope of the LPS 1014 certification scheme.

However, the certificated Firm may certificate the installation against the installation rules (if for example this is a requirement under the contract). In this case, an LPS 1014 Certificate of Conformity must also be issued. By carrying out this additional service, which shall include full inspection of the installation against the relevant installation rules, the certificated Firm effectively brings the Fire Detection and Alarm System within the scope of the LPS 1014 certification scheme. Such systems may then be inspected by the LPCB during the course of surveillance visits, even though the certificated Firm is not the installer of the system.

4.3.5 Compliance with the above requirements for the issue of Certificates of Conformity is a prerequisite for the continued certification of a Firm, and will be verified in the course of surveillance and quality assurance audits carried out by the LPCB.

4.3.6 An LPS 1014 Certificate of Conformity shall not be issued unless the equipment/components used in the system comply with clause 3.8.

4.4 Certification of extensions and alterations

An LPS 1014 Certificate of Conformity for the work must be issued if a valid LPS 1014 certificate exists in respect of the original installation.

LPS 1014 Certificates of Conformity may be issued for extensions and alterations to existing installations which are not covered by an LPS 1014 Certificate of Conformity, provided the scope of the work covered by LPS 1014 certificate is clearly defined. If the Firm, in addition, wish to certificate retrospectively the entire installation (i.e. the original installation plus the work carried out) an LPS 1014 Certificate of Conformity may be issued, providing the Firm carry out a full design review and site inspection of the system, including full re-commissioning, against the installation rules and obtain agreement for any variations from the client.

If an extension can be considered to 'stand alone' (e.g. an independent system to protect a computer suite within a building), an LPS 1014 Certificate of Conformity must be issued.

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 11 of 15

4.5 LPCB Surveillance

Prior to each surveillance audit, the Firm shall provide LPCB with a list of contracts they have completed since the previous audit using LPCB form F353, from which LPCB will select one or more suitable contracts to review.

The number of contracts selected for review by LPCB will depend on the size and complexity of the contracts made available for audit. Where possible, the audit will involve the inspection of two sites, alternatively, where it is not possible to visit two sites, the audit will consist of a review of a number of project files and the inspection of at least one site.

4.6 Regional offices

Where the Firm wishes to design and commission under the Certification Scheme in regional offices, then these offices shall meet the requirements of this standard to be eligible for Certification.

4.7 Maintenance

Maintenance of Certificated installations shall only be carried out by LPCB Certificated Fire Detection and Alarm System Firms, or their approved sub-contractor, who have demonstrated:-

- (a) the availability of appropriate compatible replacement equipment for the maintained installation, and
- (b) appropriate staff training.

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 12 of 15

5. PROVISIONAL APPROVAL

5.1 Criteria

Firms wishing to join the LPS 1014 scheme that do not meet the requirements of clauses 3.2 and 3.3 may apply for provisional approval.

5.2 Pre-approval site inspections

For a Firm to be eligible for provisional approval, they must have completed an adequate number of fire detection and alarm systems contracts for LPCB to sample at the assessment audit. A completed F353 shall be submitted with the application form. LPCB will review the list of completed contracts and decide whether there are adequate fire detection and alarm systems to sample. If there are not enough contracts to sample, the application will be placed on hold pending the completion of further contracts.

5.3 Approval certificate

Subject to a satisfactory assessment audit, the Firm will be issued with an approval certificate which will show that the Firm has gained provisional approval in the LPS 1014 scheme. The certificate will be valid for 12 months. If by the end of the 12 months, the Firm does not meet the requirements for full certification by complying fully with clauses 3.1 and 3.2, the provisional certificate maybe re-issued for a further 12 months. However, if the Firm does not comply with the requirements of clause 3.2 within 2 years, provisional LPS 1014 approval may be withdrawn.

5.4 LPS 1014 Certificates of Conformity

Any contract that will be issued with an LPS 1014 Certificates of Conformity shall be inspected by LPCB before certification. The LPS 1014 Certificate of Conformity will be raised and issued by LPCB.

5.5 Red Book listing

Provisionally approved Firms will not be Red Book Listed.

5.6 List of completed contracts

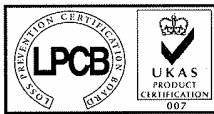
When the provisionally listed Firm receives a new fire detection and alarm system contract, it shall update the F353 form and send a copy to LPCB.

5.7 Other requirements

The requirements of clauses 3.1, 3.4 to 3.8 and section 4 shall also apply for provisional approval.

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 13 of 15

APPENDIX A
SAMPLE CERTIFICATE OF CONFORMITY

THE LOSS PREVENTION CERTIFICATION BOARD	INSTALLATION CERTIFICATE FA				
Page 1 of 1					
FIRE ALARM INSTALLATION LPS 1014 CERTIFICATE OF CONFORMITY					
<small>This Certificate is issued by the fire detection and alarm system firm named below in respect of the Fire Alarm Installation for the Client in (1) of the schedule at the premises in (2) of the Schedule, being a Fire Alarm Installation designed to comply with the Standard(s) or Code(s) of practice as detailed in (3) of the Schedule.</small>					
					
Issuing Company:	Company Name				
LPS 1014 Certificate No:	CFA-				
Contract No:					
THE SCHEDULE					
(1) Client:					
(2) Protected premises address:					
Protected areas:					
(3) Standard(s) or Code(s) of Practice employed:					
Category:					
OTHER (specify):					
Any variations to be detailed on subsequent page(s).	This Schedule consists of a <u>minimum</u> of two pages.				
Revisions					
Issue	Date	Issue	Date	Issue	Date
1		2		3	
4		5		6	
THE LOSS PREVENTION CERTIFICATION BOARD <small>BRE Garston, Watford WD25 9XX United Kingdom • Telephone +44 (0) 1923 664100 • Fax +44 (0) 01923 664603 E-mail: enquiries@bre-certification.co.uk • Web site: www.bre-certification.co.uk</small>					

System User copy

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 14 of 15

APPENDIX B

PUBLICATIONS REFERRED TO

For undated references please refer to the latest published issue.

<u>Standard</u>	<u>Title</u>
BS EN ISO 9001	Quality management systems – Requirements
BS 5839:	<u>Fire detection and fire alarm systems for buildings</u>
Part 1	Code of practice for system design, installation, commissioning and maintenance
Part 6	Code of practice for the design, installation and maintenance of fire detection and fire alarm systems in dwellings
Part 8	Code of practice for the design, installation, commissioning and maintenance of voice alarm systems
Part 9	Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems
BS 6266:	Code of practice for fire protection for electronic equipment installations
BS 7273:	<u>Code of practice for the operation of fire protection measures</u>
Part 1	Electrical actuation of gaseous total flooding extinguishing systems
Part 3	Electrical actuation of pre-action sprinkler systems
Part 4	Actuation of release mechanisms for doors
Part 5	Electrical actuation of watermist systems (except pre-action systems)
HTM 05	Health Technical Memorandum for alarm and detection systems
IS3218 (Ireland)	Code of Practice for Fire Detection and Alarm Systems for Buildings - System Design, Installation, Servicing and Maintenance

Issue: 5.2	LOSS PREVENTION STANDARD	LPS 1014
Date: 20 March 2010		Page 15 of 15

AMENDMENTS ISSUED SINCE PUBLICATION

DOCUMENT NO.	AMENDMENT DETAILS	SIGNATURE	DATE
LPS 1014-3	Issue 3 - superseded		17/05/2002
LPS 1014-4	Issue 4 - not published - withdrawn		---
LPS 1014-5	Issue 5 - published - effective from 17.05.02		17/05/2002
LPS 1014-5	Change to copyright information		17/07/2002
LPS 1014-5.1	Change to copyright information		16/09/2005
LPS 1014-5.2	<p>The term deviation has been replaced by variation throughout the document</p> <p>Participating organisations revised</p> <p>Contents revised, section 5 added</p> <p>2.2 - List of Installation Rules updated</p> <p>2.5 <u>Servicing</u> - definition revised to align with BS 5839-1</p> <p>2.6 <u>Repair</u> - definition revised to align with BS 5839-1</p> <p>2.7 <u>Maintenance</u> - definition revised to align with BS 5839-1</p> <p>2.8 - Innovative Designs no longer used, therefore deleted</p> <p>3.4.1 - Amended.</p> <p>3.4.2 (c) ii. - Amended</p> <p>3.4.2 (c) vii. - Added</p> <p>3.8 - Amended</p> <p>4.2 - Amended</p> <p>4.3.2 - Amended</p> <p>4.3.3 – Amended</p> <p>4.3.6 - Added</p> <p>4.5 - Amended</p> <p>5.0 - Provisional Approval added</p> <p>Appendix A - Certificate replaced by latest version being used</p> <p>Appendix B - List of publications updated</p>		20/03/2010