

**IFC Certification Ltd (IFCC SDI 22 – Requirements for Contractors Installing Residential & Domestic Sprinkler Systems)**

Under the requirements of the IFCC SDI 22 scheme, contractors are also listed and approved (certificated) based on their evaluated / demonstrated level of competence and expertise, in respect of design and installation of sprinkler systems for residential and / or domestic properties in line with BS 9251:2014. This will be established through audit of the contractors design capabilities, site installation work and audit of the contractor’s office systems supporting their sprinkler work.

The IFCC SDI 22 scheme requires that contractors are required to have successfully undertaken training recognised by IFCC in the design, installation and maintenance of residential and domestic sprinkler systems and that this training is evidenced by issue of a “Qualification Certificate” issued by the training provider.

Following successful certification the contractors will be subject to ongoing surveillance of system design work and periodic site inspection of system installation works by IFCC. In addition IFCC will undertake an annual audit of their office systems which support their sprinkler activities (although ISO 9001 certification is NOT required for the IFCC SDI 22 scheme).

**Full listings and information of the IFCC SDI 22 contractors can be found on the internet at [www.ifccertification.com](http://www.ifccertification.com)**

**Presented by:**



**Foreword**

The concept of a third party certification scheme is to provide confidence to regulators, specifiers, industry and the public at large that the manufacturer, contractor, etc. has been subject to assessment of their competence against recognised industry or product standards and has satisfied these requirements.

There are currently two British standards for the design and installation of automatic sprinkler systems installed in the United Kingdom; these being BS EN12845:2009 and BS9251:2014. The LPC Rules for Automatic Sprinkler Installations are based on BS EN 12845: 2009 but have additional requirements in the form of Technical Bulletins.

As LPC Rules/BS EN 12845’s primary objective is property protection of commercial and industrial premises with BS9251 being specific to domestic and residential occupancies for Life Safety protection, there are separate third party certification schemes explicit for each of the sprinkler design standards.

Both sprinkler system design standards, strongly recommend the use of third party ‘certificated, “listed” or “approved” contractors for the design and installation of sprinkler systems.

**Introduction**

This BAFSA Information File has been produced to explain to specifiers, regulators, insurers and others the benefits of specifying Third Party Certificated contractors involved with the design and installation of automatic fire sprinkler systems.

This document therefore, also endeavours to clarify the selection of, and to give guidance as to finding suitable contractors for each of the two design standards who are members of a third party certification scheme accredited by The United Kingdom Accreditation Service (UKAS).

In the UK third Party Certification (although widely recommended by many regulators and endorsed by Part B of the Building Regulations and guidance documents issued to support the current fire safety regulatory regime) is not mandatory with the exception of “Gas Safe” certification for those involved in the installation of gas appliances (formally known as “Corgi”).

We can therefore clarify that third party certification is a voluntary process which reputable companies decide is a way of them demonstrating their competence and abilities to their clients.

The independent third party is confirming that the certificated company/organisation is competent and suitable to undertake a certain type of work within recognised scope parameters.

In order to ensure that third party certification issued by such certification bodies is meaningful and can be proven to be truly independent, reputable third party certification bodies (and testing facilities) apply to UKAS for accreditation to enable them to be subject to competence assessment in order to demonstrate to industry that they are competent to undertake such work in industry and will conduct themselves in a manner to remain independent and impartial of their clients to avoid “conflict of interest”. Once accredited the certification body is required to undergo annual surveillance audits (including on-site witness visits of the CB conducting assessments of the contractors/manufacturers) and 5 yearly re-assessment to ensure they continue to operate in compliance with the requirements of accreditation standards applicable to the type of work they undertake and the industry technical standards and their own scheme commitments.

Therefore by choosing a third party certificated contractor with certification from a UKAS Accredited certification body they have the confidence that in addition to the contractor having been competence assessed in their activities by the certification body, the certification body are themselves subject to assessment of their competence and abilities by UKAS.

**Experienced sprinkler contractor**

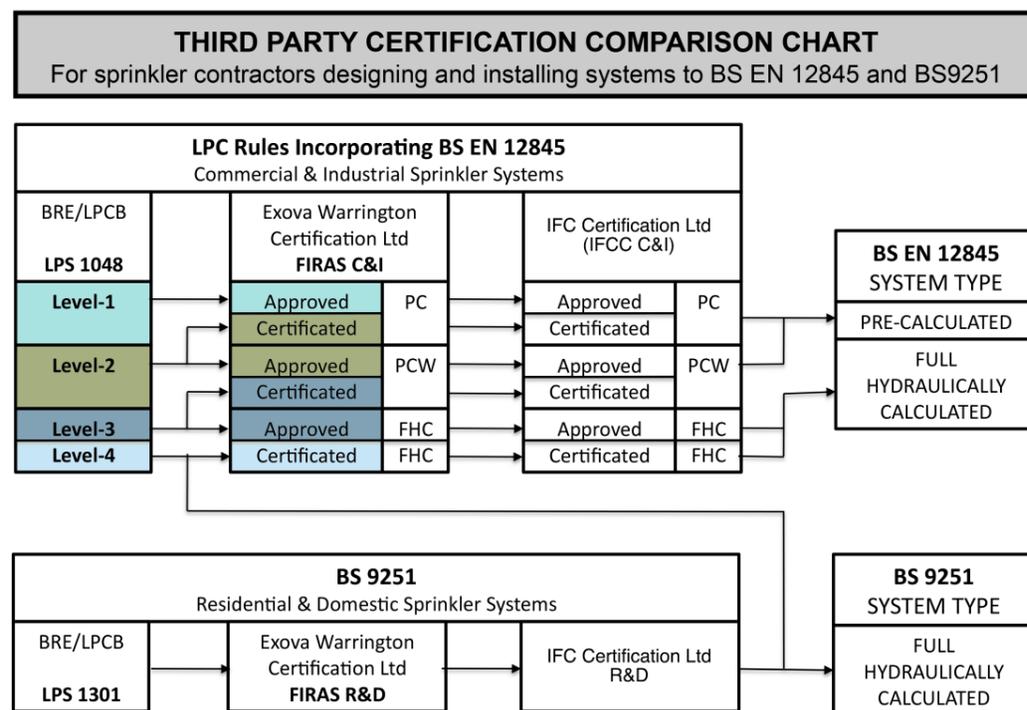
As there are two sprinkler system design standards it is not unusual to find that a particular contractor will have more experience of one standard than the other.

Historically, the Commercial and Industrial standard LPC Rules/BS EN 12845 has the longest established credentials and not surprisingly most recognised sprinkler contractors are those that predominantly work to this standard. However, it should be understood that the design principles and working practises involved with LPC/BS EN 12845 systems are fundamentally different to those for BS9251 sprinkler systems and it does not necessarily follow that a well-established LPC/12845 contractor will be fully conversant with BS9251 requirements. Conversely, a BS9251 contractor may not be suitably qualified to undertake the design and installation of a LPC/12845 system.

Consequently, it is of the utmost importance that any selected contractor employed to undertake the work is fully conversant with the design practises of the correct relevant standard and can demonstrate competency within that particular scope of work.

**Third party certification schemes**

On successful completion of a contract, a contractor who is a member of a third party certification scheme is able to issue a “Certificate of Conformity” thus verifying compliance with the defined installation standards.



Contractors who are members of a third party scheme are regularly audited to various degrees depending on their standing within the scheme and usually have to be quality assessed to ISO 9001: 2008. Design personnel have to demonstrate full competence in their field of work to the satisfaction of the scheme operator.

Currently, there are three accredited bodies that operate such certification schemes for sprinkler installations.

The Loss Prevention Certification Board operates the LPS 1048 scheme for commercial automatic sprinkler installations and the LPS 1301 scheme specifically for Residential & Domestic sprinkler installations.

Warrington Certification Ltd operates separate FIRAS schemes for commercial & industrial sprinkler installations and Residential & Domestic sprinkler installations.

IFC Certification Ltd. (IFCC) operate separate schemes for installers of Commercial & Industrial sprinkler installations (SDI 23) and for installers of Residential & Domestic sprinkler installations (SDI 22).

All are members of UKAS.

### **BRE Global Ltd (operating under the LPCB brand) Loss Prevention Board (LPS 1048) Certification**

This is the longest running scheme and covers design and install work to the LPC Sprinkler Rules for industrial and commercial risks and to BS 9251 for residential and domestic risks. It also covers servicing of fire sprinkler systems. The base scope of the LPS 1048 scheme is the design, installation and commissioning of industrial and commercial fire sprinkler systems. Additionally, sprinkler contractors can include the design, installation and commissioning of residential and domestic fire sprinkler systems and servicing to their approval scope.

There are four levels of approval available within the LPS 1048 scheme for industrial and commercial risks, as shown in the table below. Sprinkler contractors can decide which level of the approval best suits their business needs. There is a single level of approval for residential and domestic risks.

Depending on the level of experience and resources of the sprinkler contractor, it may be a condition of their LPS 1048 approval that some or all of their contracts are supervised by LPCB. Supervision involves a review of the design and an inspection of the completed installation, and, where there are new or modified water supplies, witnessing of commissioning tests by LPCB. Supervision is an internal process within the LPS 1048 scheme and does involve the end user, insurance company or other interested parties. Supervision does not in any way hinder or affect the progress or completion of the sprinkler work. Just because a sprinkler contractor is supervised, it does not mean that they are not competent or able to provide their client with a good quality, compliant sprinkler system. Where a sprinkler contractor demonstrates adequate levels of experience and competency, they can undertake design and install contracts without supervision and can self-certify their work.

An important feature of the LPS 1048 scheme is the requirement for sprinkler contractors to have LPCB qualified engineers. This is to ensure that the key elements of the job, checking the design before installation to ensure that it is compliant with the nominated design standard, inspecting the site to ensure that the system has been installed to the verified design and to a good standard of quality, and that any site changes have been done correctly, and testing & commissioning of the system (validation), are done by competent engineers. To date over 1000 engineers have taken the LPCB competency reviews which have been approved by the Institution of Fire Engineers. All sprinkler contractors, whether they are supervised or not, are subject to regular surveillance audits to ensure that the standard of their work is to a satisfactory standard and compliant with the nominated design standard. Minimum sampling rates have been set for design and install and service contracts.

For compliant systems, LPS 1048 Certificates of Conformity are issued to the client and other interested parties, if requested.

All LPCB approved sprinkler contractors are required to have a documented quality management system, certificated to BS EN ISO 9001, audited by BRE Global Limited.

The territory covered by the LPS 1048 scheme is the UK and Ireland. BRE Global also operates a scheme for overseas sprinkler contractors, LPS 1148, which mirrors the LPS1048 scheme.

**Full listings of all LPS 1048 and LPS 1148 approved sprinkler contractors can be found at [www.redbooklive.com](http://www.redbooklive.com). A copy of the LPS 1048 scheme document can also be viewed and downloaded from [www.redbooklive.com](http://www.redbooklive.com).**

### **BRE Global Ltd (operating under the LPCB brand) LPS 1301 Approval of sprinkler installers for residential and domestic fire sprinkler system**

Launched in 2008, LPS 1301 enables companies that are just involved in the design, installation and servicing of residential & domestic fire sprinkler systems to BS 9251 to gain approval.

**Full listings of all LPS 1301 approved sprinkler installers can be found at [www.redbooklive.com](http://www.redbooklive.com). A copy of the LPS 1301 scheme document can also be viewed and downloaded from [www.redbooklive.com](http://www.redbooklive.com).**

### **Warrington Certification Ltd (FIRAS Commercial & Industrial Sprinkler Systems)**

Under the FIRAS Commercial & Industrial Scheme, contractors are also listed and approved based on their evaluated level of competency and usual scope of work but in comparison with LPS 1048 there are only three defined scope levels compared to its four. However, more emphasis

is placed on as to whether a contractor is considered as “approved” or as “certificated” within the defined scope. To move from “approved” status to “certificated” status is not just dependant on design personnel successfully passing a design review, but is also reliant on successfully working under a supervisory regime for a minimum specified period. The three defined scopes of work are as follows:

PC – Pre-calculated installations excluding water supplies.

*Approved status:* under supervision by FIRAS for each and every contract.

*Certificated status:* self-certificating without supervision.

PCW – Pre-calculated installations including water supplies.

*Approved status:* under supervision by FIRAS for each and every contract.

*Certificated status:* self-certificating without supervision.

FHC – Full hydraulically calculated installations including water supplies.

*Approved status:* under supervision by FIRAS for each and every contract.

*Certificated status:* self-certificating without supervision.

Note: As with LPS 1048, self-certificating status is still dependant on regular periodic technical audits being carried out on design personnel and randomly selected contracts at least twice a year.

**Full listings and information on FIRAS Commercial & Industrial sprinkler contractors can be found on the Internet at [www.warringtonfire.net](http://www.warringtonfire.net).**

### **Warrington Certification Ltd (FIRAS Residential & Domestic Sprinkler Systems)**

This is the longest running scheme specifically covering installers of systems for Residential & domestic premises under BS 9251. At the time of writing, this is the only scheme widely supported by the sprinkler industry.

As there is less variation in the design requirement of a sprinkler system for Residential & Domestic premises, there are no separately defined scopes of work or distinction placed between “approved” or “Certificated” contractors within the scheme.

Under the FIRAS R&D Scheme, contractors are required to have successfully completed FIRAS recognised training courses in the design, installation and maintenance of Residential & Domestic sprinkler systems. It is mandatory that this training is successfully undertaken and “Qualification Certificates” are verified by FIRAS before certification may be granted. There are a number of providers of suitable training courses. Those courses which have been endorsed by BAFSA are regularly listed on its web site at: <http://www.bafsa.org.uk/training.php>. It is essential that the acceptability of a qualification related to a particular training course is verified with the relevant Certification Body in advance.

On application to join the scheme, contractors also have to undertake a pre-certification inspection audit of their office premises and quality assessed, although not

necessarily to ISO 9001: 2008. A full design review and site inspections of completed contracts is also carried out. Subject to satisfactory verification of training qualifications, inspection of the office premise, design review and installation inspections, certification status is awarded.

After certification has been awarded to the contractor, on-going surveillance of system designs and of installation work is carried out by FIRAS on a random basis the frequency of which relates to the contractor’s activity level.

**Full listings and information on FIRAS Residential & Domestic sprinkler contractors can be found on the Internet at [www.warringtonfire.net](http://www.warringtonfire.net).  
IFC Certification Ltd (IFCC SDI 23 – Requirements for Contractors Installing Commercial & Industrial Sprinkler Systems)**

Under the requirements of the IFCC SDI 23 scheme, contractor companies are also listed and approved based on their evaluated / demonstrated level of competence and expertise, under three defined levels of work-scope. Within the three defined levels of work-scope, contractors are assessed as suitable to be listed as either “approved contractors” or as “certificated contractors”. This will be established through audit of the contractors design capabilities, inspection of site installation work and audit of the contractor’s office systems supporting their sprinkler work.

Approved contractors are required to work under a supervisory regime operated by IFCC where all designs are subject to review and approval and installation work is also inspected. In addition the approved contractors are subject to annual office systems audit by IFCC. On satisfactory completion of supervised work the approved contractors are able to certify their work with IFCC’s involvement. Approved contractors are able to move from “approved” status to “certificated” status following satisfactory completion of a defined number of contracts within their level of work-scope.

Certificated contractors are able to work unsupervised and are subject to annual design reviews and periodic site inspection in addition to annual office systems audit by IFCC. Certificated contractors are able to self-certify their work within their defined level of work- scope. It is also a requirement of IFCC SDI 23 that both “approved” and “certificated” companies shall operate quality management systems certificated to ISO 9001 standard.

The three defined levels of work-scope identified by the IFCC SDI 23 scheme are as follows:

PC – Pre-calculated installations which do not include the water supplies

PCW – Pre-calculated installations which include the water supplies

FHC – Full hydraulically calculated installations including the water supplies

**Full listings and information of the IFCC SDI 23 contractors can be found on the internet at [www.ifccertification.com](http://www.ifccertification.com)**