

# ACTIV FIRE

ACTIVE FIRE PROTECTION - EQUIPMENT LISTING SCHEME

April 2008

## e-News

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## Welcome to Issue 2

In the 1st issue of the ActivFire e-News we provided initial details of our move to JAS-ANZ accreditation for our product certification schemes. Since that time, our development of the policies, procedures and documentation that will eventually lead to the granting of JAS-ANZ accreditation, has been progressing well and this edition of the newsletter brings you up to date with the latest developments.

In this issue, you will find important information about the following aspects;

- In order to be clear about what we mean by some of the terms necessarily used in product certification language, we have had to put together a document defining these terms.
- Under the ActivFire Scheme, product certifications will be categorised (grouped), according to the verification of conformity processes that have been applied and to enable the progressive migration of products, as the scope of our accreditation is applied and extended.
- In addition to initial verification of conformity, ISO Guide 65 also requires a process of ongoing surveillance to ensure continuing conformity. A surveillance framework has now been established from which the requirements and procedures, in the form of surveillance schedules, will be defined.
- ISO Guide 65 requires that only recognised agencies with established competence, undertake evaluations for conformity for the certification body. The criteria for the recognition of agencies with the necessary competence have now been developed. ●

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## Language of certification

Clarity of communication is critical in certification. Accordingly, it is important to understand and apply terms and definitions in a context that is relevant to the specific requirements of product certification. Some of the principal terms and definitions to be applied by CSIRO Verification Services – ActivFire Scheme, may be new or have a meaning that differs from common usage.

Please note that many customers of the current ActivFire Scheme may be familiar with some of the terms detailed below. However, implementation of ISO Guide 65 may have altered or further defined some terms. We strongly recommend that current customers take a few minutes to look through the definitions.

**Particular terms, for which formal definition will apply, include the following.**

'Conformity assessment body'

'Evaluation for conformity'

'Recognised conformity evaluation agency'

'CSIRO Verification Services'

'Verification schedule'

'Recognised conformity assessment body'

'ActivFire Scheme'

'Producer'

'Registered testing authority'

'Verification of conformity'

'Registrant'

'Surveillance'

'Specified requirements'

'Manufacturer'

'Reference criteria'

'Designated distributor'

For detailed definitions of the above terms, click here: [Terms and definitions](#) ●

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## Continuity of product certification and listings

It is essential to provide continuity of existing product 'listings'. To appropriately enable this objective, CSIRO Verification Services – ActivFire Scheme proposes to operate within a framework, based upon certification classifications.

These classifications are non-hierarchical groupings of products according to the source or process from which conformity has been verified. They will enable the progressive migration of products, as the scope of our accreditation is applied and extended.

Three (3) certification classifications are proposed, the definitions and scope of which are described as follows.

- 1. Certified Product Approval (CPA);** certification and registration of products, verified by the *conformity assessment scheme (ActivFire Scheme)*, as meeting specified requirements included within the current scope of JAS-ANZ accreditation.
- 2. Listed Product Approval (LPA);** listing and registration of products, verified by the *conformity assessment scheme (ActivFire Scheme)*, as meeting *specified requirements* which are not included within the current scope of JAS-ANZ accreditation or which are in the process to being migrated to product certification standards which are included within the current scope of JAS-ANZ accreditation.

### *Commentary*

The diversity of product types and categories under the CSIRO Verification Services – ActivFire Scheme extends across numerous product standards and technologies (electrical/electronic, mechanical/hydraulic, chemical etc.). As the scope of our accreditation grows, due notification will be provided to existing registrants, should changes be proposed or necessary to the certification requirements and classification as applied to their products. Issues considered in relation to the migration process include the following.

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### Continuity of product certification and listings

- a. Verification of conformity changing from superseded standards to current specified requirements. This may necessitate supplemental evaluation or re-evaluation for conformity.
- b. Establishment or modification of surveillance requirements.
- c. Verification and authorisation of the registrant and other businesses associated with the production and conformance of certified products.
- d. Where verification requirements have varied, a broad time frame will be established for the migration of products of a particular type/category. Within this period, Registrants will be expected to obtain and submit evidence of conformity to current verification requirements.

**3. Recognised Product Approval (RPA);** listing and registration of products, verified by the *conformity assessment scheme (ActivFire Scheme)*, as meeting specified requirements based upon recognition and evidence of *verification of conformity* issued by a *recognised conformity assessment body*.

#### Commentary

Numerous product types and categories, particularly related to mechanical/hydraulic equipment, have been listed under the ActivFire Scheme, where evidence has been provided of approval by a recognised conformity assessment body (eg Factory Mutual, LPCB, SAI Global, Underwriters Laboratories etc). Evaluations and verification of conformity by such bodies must be relevant to the requirements of Australian installation standards, building codes and/or authorities having jurisdiction.

### 'Legacy'/'retired' products

It is expected that some products may be discontinued lines or superseded technologies for which production has ceased or is limited. 'Legacy'/'retired' products, such as these, continue to represent a proportion of equipment which is maintained and serviced in existing installations. Maintaining a separate list of such products, or providing an appropriate means of differentiating them from those which are current and active certifications under the ActivFire Scheme, is under consideration, with further advice to follow in subsequent newsletters. ●

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# Product surveillance

## Current ActivFire Scheme

Listing under the existing ActivFire Scheme provides formal arrangements by which active fire protection equipment can be evaluated and listed against the requirements of appropriate product standards and specifications. The migration from the current requirements to the proposed product certification scheme will extend or vary the scope of product surveillance.

In the context of product certification schemes, product surveillance is straightforward.

- The process of “certification” *verifies* that the certified product meets the requirements of the *reference criteria* (ie. the Standard or specification stated in the certificate).
- The process of “surveillance” is undertaken by the certification body to provide confidence that the certified products *continue* to meet the requirements of the reference criteria.

ISO Guide 65 is the international standard which details the general guidelines for bodies operating product certification systems. It details the aims of product surveillance.

- Surveillance by the certification body should give assurance that certified products continue to comply with the criteria of the standard to which they are certified.
- The procedures required in a certification system should include, as appropriate, surveillance testing, surveillance inspection and/or surveillance of the applicant’s quality system.
- Samples for surveillance testing should be typical of production. Preferably they should be selected by the certification body from the factory or the open market

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## Product surveillance

### Surveillance options

ISO Guide 65 allows a range of methods to be used for product surveillance.

- Sample Testing – Limited inspection/review of randomly selected products to verify ongoing conformity. This option provides a defined, easy to coordinate test process. However, as testing is not to the full requirements of the Standard, sample testing is usually combined with manufacturing/quality audits.
- Type Testing – Testing of certified products selected at the location of manufacture, assembly, distribution, or from the market. This effectively repeats the initial evaluation testing of a product. Many certification systems required products to be retested on a 5 year cycle.
- Manufacturing Audit – Site audit of manufacturer, including review of inspection and testing conducted by the manufacturer and review of manufacturing systems. Formal and thorough manufacturing audits can reduce the requirements for product testing. However, from an Australian perspective (with mostly overseas manufacturing sites), the cost of audits can be high.
- Quality System Audit – Site audit of a quality system which includes elements designed to assure ongoing conformity of products with certification requirements. As with manufacturing audits, the costs of international auditing can be high.

CSIRO Verification Services considers it is important that customers be provided with a surveillance regime which is serviceable and cost effective to its customers.

- Given the logistical difficulty and high cost of annual site audits, a product based surveillance process, within the Australasian 'chain of supply' is preferable.
- ISO Guide 65 suggests that products be reviewed periodically. It is unlikely that re-evaluating products every 5 years would meet this requirement and that other interim reviews will be necessary (eg. site audits).
- The surveillance program should apply to all certified products.

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## Product surveillance

### Proposed solution

CSIRO are proposing that surveillance is performed using a method of “cyclic type testing”. In this process, products would be submitted annually for surveillance testing. During each submission, the product would be tested to a sub-set (20%) of the appropriate Standard. Over a five year period, the product will have been tested to the full requirements of the Standard, and the process would begin again. The following diagram details the proposed cycles for some major product groups.

The idea of “cyclic testing” is extends from some of the concepts laid out in the AS 1851 maintenance standard, where a portion of the installation is tested annually, resulting in a 100% test over a number of years. As most products in this industry have a fairly long market life, this method will provide a cost effective, manageable method to meet ISO 65 surveillance requirements.

### Accreditation

The “Cyclic Type Testing” routine is a proposed solution by CSIRO to meet the surveillance requirements of ISO Guide 65. It has been specifically developed to address issues distinctive to the Australian fire protection industry, and as such differs significantly to the surveillance methods used by product certification schemes in other parts of the world. At this stage, the proposed method has not been accredited, and is therefore subject to change. ●

Product Category	Test Cycle	% of Standard Covered	Total Cycle
Smoke Detectors	Annual	20%	5 Years
Smoke Alarms	Annual	20%	5 Years
Fire Panels	Every 2nd Year	33%	6 Years
Aspirated	Annual	20%	5 Years
Manual Call Points	Every 2nd Year	25%	8 Years

Frequency the product is submitted to the certification body for cyclic evaluation

Average amount of the Standard evaluated during each submission

Number of years taken for a product to be reevaluated to every clause of the Standard



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## Recognition of conformity evaluation agencies

Often the principal evidence of the conformity of a product will be a report issued by a conformity evaluation agency (commonly called a test laboratory). In meeting the requirements of ISO Guide 65 (General requirements for bodies operating product certification systems), CSIRO Verification Services (the conformity assessment body) will more clearly define the minimum requirements for recognition of conformity evaluation agencies.

The framework for recognition of conformity evaluation agencies is based upon elements such as third party accreditation, cooperation, independence and minimum reporting requirements. A register of conformity evaluation agencies recognised under these arrangements, will be established and maintained by CSIRO Verification Services.

### Accreditation

Typically, it will be expected that a conformity evaluation agency be independently accredited for compliance to ISO/IEC 17025 to fields of testing and test methods relevant to the specified requirements of CSIRO Verification Services. Within Australia, we would be seeking evidence of accreditation by NATA (National Association of Testing Authorities). For countries other than Australia, the process of recognition would commence with evidence that the agency has ISO 17025 accreditation from a body listed under the network of NATA's Mutual Recognition Agreement.

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### *Recognition of conformity evaluation agencies*

Laboratory accreditation to ISO 17025 is limited to a specified scope of work, usually referenced by a range of test methods and standards. The scope of accreditation for each evaluation agency will be reviewed in relation to the reference criteria (standards) listed in the various verification schedules upon which product certification is based. Should reference criteria call for test methods outside the scope of any identifiable and accredited conformity evaluation agency, competence within relevant fields of testing may determine the basis for recognition.

## Cooperation

A cooperative relationship between the conformity evaluation agency and CSIRO Verification Services is essential for effective processing of a product certification. This means such organisations must be capable of written and oral communication which is clear, concise and in the mutually understood language of English. The conformity evaluation agency must also provide reasonable access to supplementary information, and be available to authenticate submitted documents.

## Independence

As a guard against perceptions of undue influence, conformity evaluation agencies need to be independent of the organisation having the product evaluated. It is also a requirement that the conformity evaluation agencies not be engaged or associated with consultancy services that may conflict with the independence of their evaluation of products submitted as part of a process of certification.

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## Recognition of conformity evaluation agencies

### Reports

Submitted evidence (conformity evaluation reports) must be clear, concise, relevant and unambiguous in relation to identification of the product and the specified requirements against which it has been evaluated. Many of the specific reporting requirements will be covered in the reporting agency's ISO 17025 accreditation. Recognition by CSIRO Verification Services extends these requirements to include the following.

- Reports in the English language.
- Product designation which is unique and unambiguous.
- A clear statement that the product has met the specified requirements, for which certification is being sought.
- Identification of all parties with direct interests in the evaluation.
- Detail that sufficiently demonstrates that all relevant aspects of the evaluation were executed and completed.

The applicant conformity evaluation agency must submit, as part of its application, an example of a report complying with CSIRO Verification Services requirements. The report format needs to be agreed upon between the applicant and CSIRO Verification Services prior to recognition as a conformity evaluation agency.

### Summary

In order to certify a product, CSIRO Verification Services must be provided with clear and traceable evidence as part of the process of verification that a product meets the specified requirements of the reference criteria (standards etc.). It is essential that conformity evaluation reports (test reports) be provided by agencies that are recognised and established as having the capability to meet this objective. Accreditation by NATA or an equivalent Mutual Recognition Agreement agency forms the basis for CSIRO Verification Services recognising alternative conformity evaluation agencies. Additional requirements also apply to ensure that the evaluations for conformity are relevant, complete and authenticated. ●

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## Future newsletters

Of the many issues, relating to changes to the ActivFire Scheme, subsequent newsletters will address the following.

1. CSIRO Verification Services Advisory Panel, terms of reference and participation.
2. ActivFire Scheme Technical Panel, terms of reference and participation.
3. New and revised forms and documentation, including verification schedules, surveillances schedules and application forms
4. Product certification fee and charges.
5. Recognised conformity assessment bodies; framework, policy and process.
6. Target dates and progress of submission for JAS-ANZ accreditation.

## Previous newsletters

Review previous issue, click here: [ActivFire e-News 1](#) (PDF: 1MB) ●



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# Contacts

If you have any questions regarding this change process, please do not hesitate to contact the appropriate staff.

Contacts for the management and staff of CSIRO's Industrial Research Services, Verification Services and ActivFire Scheme are provided below.

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