

Utilizing modern visual and measuring equipment for recording or testing as part of a certification process



July 2005

Background

During 2004 the Inspectors/Certifiers Special Interest Group (IC/SIG) identified that no guideline or reference material was available for industry to provide guidance when conducting inspections as part of a certification process using modern visual equipment and measuring equipment. In response the committee resolved in mid 2004 to develop this guideline, which was endorsed by the Association in July 2005.

Introduction

With the ongoing development and refinement of technology, the IC/SIG decided to formulate a set of guidelines for equipment such as digital cameras, mobile phones (with cameras) and electronic measuring devices that could be utilized in the inspection/certification process. Modern electronic media enables practitioners to remotely view areas to be inspected and the testing processes. However, it is noted that without the correct application of the technology, errors can occur, hence the decision to produce the guidelines.

Application and Limitations

VISUAL EQUIPMENT

Cameras could be used by the inspector for reporting, but it is difficult when a contractor uses a camera to send photos to inspectors unless the inspector is familiar with the location. A photo from a correctly installed location could be used as a proxy for another that had been found to have errors. Identifying factors such as room numbers may not be available at the time of the photo.

TESTING EQUIPMENT

Sonic flow meters can only be used when the exact schedule of pipe is known down to the thickness of the paint; i.e. on new pipework. Existing pipe thickness cannot easily be a known factor due to slime buildup and calcification.

Visual Equipment

Cameras

- Cameras, both still photo and video, must be capable of recording both the date and the time if used to record inspections or tests as part of a certification process.
- Where a record of the inspection cannot be included on the image automatically, the person conducting the inspection must document the place, time, date and sign the documentation as proof of accuracy. It is recommended that a third party, who could be the building owner, building manager, builder, or the engineering consultant or similar professional (independent of the installation contractor) witness the signing of the document.
- Where an installer/contractor is submitting proof of compliance using visual means and the premises has repetitive identical rooms, a second image incorporating a view of the room number should be taken within 30 seconds to ensure the location is accurate. The time and date shall be recorded.

Streaming Video

- Proof of compliance may be accepted using streaming video on mobile phones or the internet providing the certifier has previously indicated his acceptance of this method. It is recognized that it may not be possible to have a record kept (if using mobiles) but as this is a reasonable substitute for the inspector's/certifier's personal attendance on site, the usual reporting procedures can be applied.

General

- In an instance where visual proof is not conclusive e.g. not sufficiently sized to enable easy recognition of the item/situation or blurry, poorly lit, etc, such visual proof is to be excluded.

Measuring Equipment

The use of electronic measuring devices for flow, pressure, distance, height and sound levels are only to be accepted if:

1. The inspector/certifier is familiar with the device and knows its limitations with regard to accuracy (usually +/- 5%).
2. The equipment has been subjected to comparative testing with other calibrated measuring devices.
3. The device has been tested by a recognized third party e.g. ActivFire etc.
4. Non self-calibrating, the device is calibrated by a NATA certified laboratory at intervals not exceeding 12 months.

Where devices are provided by installers/contractors for use in conducting tests, the installer/contractor is responsible for providing proof of 2, 3 or 4 (above) and if not provided, the certifier reserves the right to reject any measurements taken.

Conclusions

The committee agrees in principle to the use of modern technology when used responsibly and when the limitations are known (within a legal framework). The need for these guidelines is based on an insurer's or building surveyor's reliance on the inspector/certifier to be a person with suitable qualifications and experience to sign off on fixed fire protection, detection and occupant warning systems etc. Using this technology without such guidelines could lead those persons to doubt the inspector's/certifier's reliability in proving they have carried out an accurate assessment.

The IC/SIG committee has agreed that this guideline (or a subsequent version) should be referenced in a normative appendix of *AS 4655 Guidelines for fire safety audits for buildings*, and will be proposing to Standards Australia the adoption of this guideline in the Standard.

If you are not sure ask:

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FPA Australia, a not-for-profit member association, is Australia's major technical and educational fire safety organisation. FPA Australia was formed on 1 January 1997 when the members of two former associations, Fire Protection Industry Association Australia (Est. 1926) and the Australian Fire Protection Association (Est. 1960) agreed to amalgamate and form one representative body.

Today FPA Australia plays a pivotal role in providing authoritative advice and information on all aspects of fire safety and emergency management through a range of services to industry, commerce and the community at large. The Association also provides a forum for bringing together practitioners and professionals who deliver a broad range of products and services.

FPA Australia's prime objective is the best possible fire safety for the community. The Association also provides a wide range of services to its members and has a permanently staffed national office.

The **INSPECTORS & CERTIFIERS SPECIAL INTEREST GROUP (IC/SIG)** was established to develop and facilitate communication between industry professionals, government and professional bodies involved in fire systems inspection and certification. The focus of the group is to promote common interpretation of Standards and to ensure education and assessment of capability for registration are both accepted on a national basis.