



ACT
Government



THIRD PARTY CERTIFICATION - SPRINKLERS

FIRE SAFETY GUIDELINE
FSG – 15

JUSTICE AND COMMUNITY SAFETY DIRECTORATE
ACT EMERGENCY SERVICES AGENCY
ACT FIRE & RESCUE

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Contents

- 1 PURPOSE 4
- 2 INTENT 4
- 3 APPLICATION 4
- 4 BACKGROUND 4
- 5 POLICY POSITION..... 5
- 6 REQUIRED DOCUMENTATION..... 5
 - 6.1 DECLARATION OF COMPLIANCE - DESIGN 5
 - 6.2 DECLARATION OF COMPLIANCE - CONSTRUCTION / INSTALLATION 5
 - 6.3 CERTIFICATE OF COMPLIANCE - DESIGN 5
 - 6.4 CERTIFICATE OF COMPLIANCE - CONSTRUCTION / INSTALLATION 6
 - 6.5 DESIGN AND CONSTRUCTION / INSTALLATION DOCUMENTATION PROVIDED BY SAME PERSON..... 6
- 7 REQUIRED QUALIFICATIONS 7
 - 7.1 DECLARATION OR CERTIFICATE OF COMPLIANCE -DESIGN 7
 - 7.2 DECLARATION OR CERTIFICATE OF COMPLIANCE -CONSTRUCTION / INSTALLATION..... 7
- 8 HYDRAULIC CALCULATIONS – SIMULTANEOUS FLOW (HYDRANTS) 7
- 9 FURTHER CLARIFICATION..... 7

Table 1: GLOSSARY OF TERMS

Acronym / Term	Definition
ACTF&R	ACT Fire & Rescue
AS	Australian Standard
AQF	Australian Qualification Framework - the national policy for regulated qualifications in Australian education and training
BCR	Building Confidence Report
NCC	National Construction Code
NRF	National Registration Framework
Declaration of construction or installation compliance	a written document provided by an appropriately qualified person stating that the construction or installation work complies with the performance requirements of the NCC
Declaration of design compliance	a written document provided by an appropriately qualified person stating that the design complies with the performance requirements of the NCC
Certificate of design compliance	a written document provided by an appropriately qualified Independent Third Party stating that the design complies with the performance requirements of the NCC
Certificate of construction or installation compliance	a written document provided by an appropriately qualified Independent third party stating that the construction or installation work complies with the performance requirements of the NCC
Fire Appliance	<ul style="list-style-type: none"> ○ Any vehicle, equipment, implement, or thing used for the prevention, extinguishing or containment of fire or smoke; and ○ Any fire alarm; and ○ Any apparatus for alerting the occupants of a building to a fire or facilitating the evacuation of the building; and ○ Equipment used for the control or evacuation of smoke from a building ○ Any design element of piece of equipment required as part of a Performance Based Solution or Special Hazard Report to meet the performance requirements of the NCC

1 PURPOSE

This guideline has been developed to advise of ACTF&R requirements for independent third-party sprinkler system certification.

2 INTENT

To ensure that sprinkler systems installed in the ACT continue to be designed to a high standard consistent with the NCC and relevant standards. To prevent potential or perceived conflict of interest by having an independent person provide certification of the sprinkler system.

3 APPLICATION

This fire safety guideline applies to all buildings requiring sprinkler protection under the NCC that are referred to ACTF&R under Schedule 2.2 of the Building Regulation, 2008 (ACT). This includes systems designed to AS 2118.1, AS 2118.2, AS 2118.4, AS 2118.6 or any combination of these standards and FPAA101D and FPAA101H systems.

4 BACKGROUND

Prior to the adoption of AS 2118.1 2017 the 1999 version of the standard required that an independent sprinkler certification was provided as part of the sign off process of a 2118.1 sprinkler system. ACTF&R have required independent third-party certification of sprinkler installs since the 1999 edition of the standard was referenced by the NCC. When this edition of the standard was superseded, the requirement was no longer mentioned in the new edition. At this time ACTF&R continued to require independent certification as part of the evidence for ACTF&R to provide a fire appliance approval certificate under section 35 of the Building Regulation, 2008 (ACT).

Recommendation 19 of the Building Confidence Report is “That each jurisdiction requires registered fire safety practitioners to design, install and certify the fire safety systems necessary in Commercial buildings.” Further in implementing this recommendation the report states the recommendation includes “mandatory certification of the testing and commissioning of fire safety systems by registered fire safety system practitioners.” and “To avoid any conflict of interest, the certification of testing and commissioning should not be performed by the system installer.”

As independent testing and certification is one of the key principles from the recommendation, ACTF&R believe it is consistent with the direction of national building reform to maintain this requirement that has been in place for over 20 years despite it no longer being referenced in the standard.

5 POLICY POSITION

ACTF&R require independent certification in the form of a certificate of compliance covering both the design and the installation, from an independent third party or parties as part of the evidence required for issuing a fire appliance approval certificate under section 35 of the Building Regulation, 2008 (ACT).

This position is based upon the following:

- > Active fire safety systems are being favoured over passive systems. Proper installation and maintenance of these systems is critical to occupant safety.
- > There is a large reliance placed on sprinkler systems in buildings by the NCC and through justification of performance solutions.
- > ACTF&R have had the independent certification identify significant issues in several installations. The identification and subsequent rectification of the issues has resulted in safer buildings for occupants and firefighters.
- > Concerns from industry that if the third-party certification was not in place the quality and standard of work would diminish.
- > Current direction of building reform in Australia.

6 REQUIRED DOCUMENTATION

The required documentation for a sprinkler installation is listed below. This is based on the ABCB Model Guidance - Fire Safety Systems Building Confidence Report Rec 19. See table 2 below.

6.1 DECLARATION OF COMPLIANCE - DESIGN

This is a document that is provided by the person responsible for the **design work**; and states that the design complies with the NCC and other prescribed requirements.

6.2 DECLARATION OF COMPLIANCE - CONSTRUCTION / INSTALLATION

This is a document that is provided by the person responsible for the **construction and installation work**; and states that the **construction and installation** comply with the NCC and other prescribed requirements.

6.3 CERTIFICATE OF COMPLIANCE - DESIGN

This is a document that is provided by an independent person who has examined and assessed the **design work** and states that the design complies with the NCC and other prescribed requirements.

6.4 CERTIFICATE OF COMPLIANCE - CONSTRUCTION / INSTALLATION

This is a document that is provided by an independent person who has examined and assessed the **construction and installation** work; and states that the **construction and installation** comply with the NCC and other prescribed requirements.

Certificate of compliance – construction / installation is not required for FPAA 101d systems.

6.5 DESIGN AND CONSTRUCTION / INSTALLATION DOCUMENTATION PROVIDED BY SAME PERSON

Both **Declaration** of compliance documents (Design and Construction / installation) can be but do not have to be provided by the same person.

Both **Certificate** of compliance documents (Design and Construction / installation) can be but do not have to be provided by the same person.

The **Certificate** of compliance documents cannot be provided by the person who provided the **Declaration** of compliance documents.

Table 2: Declarations and Certificates from the ABCB Model Guidance - Fire Safety Systems Building Confidence Report Rec 19.

Declaration of Compliance	Declaration of Compliance	Certificate of Compliance	Certificate of Compliance
Design	Construction / Installation	Design	Construction / Installation
Is a document that:	Is a document that:	Is a document that:	Is a document that:
(a) is provided by the <i>registered</i> person who is responsible for the design work; and	(a) is provided by the <i>registered</i> person who is responsible for the construction or installation work; and	(a) is provided by an appropriately <i>registered</i> and, where necessary independent, person who has examined and assessed design work; and	(a) is provided by an appropriately <i>registered</i> and, where necessary, independent person who has examined and assessed construction or installation work; and
(b) states the design complies with the NCC and other prescribed requirements.	(b) states the construction or installation work complies with the <i>building approval</i> documentation and other prescribed requirements.	(b) states that the design complies with the NCC and other prescribed requirements.	(b) states that their examination and assessment confirms the construction or installation work complies with the <i>building approval</i> documentation, the NCC, and other prescribed requirements.

7 REQUIRED QUALIFICATIONS

7.1 DECLARATION OR CERTIFICATE OF COMPLIANCE -DESIGN

The required qualification to provide a declaration or certificate of compliance design is the National Registration Framework - Fire Systems Designer Level 2 / Fire System Designer Level 3 (as appropriate for the building type) with experience in the relevant field or equivalent. ACTF&R will continue to accept declarations and certificates from designers in the ACT currently performing this type of work.

7.2 DECLARATION OR CERTIFICATE OF COMPLIANCE - CONSTRUCTION / INSTALLATION

The required qualification to provide a declaration or certificate of compliance construction / Installation is the National Registration Framework level 2 Water-based fire system installer, Set 1, AQF 4, with 4 years' experience. This person should have as a minimum a Certificate IV in Fire Protection with units relevant to water-based fire systems design, installation and compliance and prescribed units for licensing as a fire systems contractor or equivalent. ACTF&R will continue to except declarations and certificates from installers in the ACT currently performing this type of work.

For a FPAA 101D system a licenced plumber is required to install the system as it connects to the drinking water supply.

8 HYDRAULIC CALCULATIONS – SIMULTANEOUS FLOW (HYDRANTS)

All hydraulic calculations in the design must consider simultaneous flow for both hydrant and sprinkler systems regardless of the possible independence of each system. If a declaration or certificate of compliant design does not specifically state that simultaneous flow for both hydrant and sprinkler systems have been considered the declaration and certificate will not be accepted.

9 FURTHER CLARIFICATION

For further information or clarification please consult the original legislation and referenced documents or contact the ACTF&R Community Safety Section ACTF&R Fire Safety <ACTFRFireSafety@act.gov.au>.

Table 3: Related forms and documents

Related legislation and documents

Building Act, 2004 (ACT)

Building Regulation, 2008 (ACT)

Emergency Act, 2004 (ACT)

Emergency Regulation, 2004 (ACT)

FPAA101D - Technical Specification FPAA101D Automatic Fire Sprinkler System Design and Installation - Drinking Water Supply

FPAA101H - Technical Specification FPAA101H Automatic Fire Sprinkler System Design and Installation - Hydrant Water Supply.

National Construction Code (NCC)

AS2118.1-2017 Automatic fire sprinkler systems, Part 1: General systems

AS2118.1-1999 Automatic fire sprinkler systems, Part 1: General systems

National Registration Framework for building practitioners - Model guidance on BCR recommendations 1 and 2: 2021

Fire safety systems - Model guidance on BCR recommendation 19: 2021



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