

Adoption of Australian Standard 4428.10 (Alarm Investigation)

Purpose

This policy outlines the adoption of Australian Standard (AS) 4428.10 by the Queensland Fire Department (QFD) to provide benefits to building owners.

The adoption of AS4428.10 has proven to be an effective option in reducing;

- the incidence of false alarm activations,
- complacency to alarms, and
- minimising the cost to occupiers of false alarm charges.

This option is not referenced in the Building Code of Australia (BCA) or AS1670.1, as it is a function of a system. This function is known as an Alarm Investigation Facility (AIF) and has the potential to downgrade the capability of early warning of a fire and as such, is not recommended in any:-

- Health care buildings where the occupants are predominantly non-ambulatory; and
- Buildings accommodating the aged, children or people with disabilities.

What is an Alarm Investigation Facility

The Alarm Investigation Facility is a modification to the existing Smoke Detection and Alarm System. It is that part of the control and indicating equipment which delays the transmission of the fire alarm to provide time for manual acknowledgement and investigation.

The modification functions as follows:

- An alarm subject to the AIF shall activate the visual alarm indications and alarm sounder of the Fire Indicator Panel (FIP) and start the Acknowledgment Timer (AT). The AT facility can be set up to a max of 30 seconds which holds the alarm within the FIP (or control point) in situ for that period of time.
- An occupant of the building has the AT time period (a max of 30s) to acknowledge that an alarm has been activated. The acknowledgement of the AT within the specified time period shall have the provision for silencing the audible alarm.
- If the AT is not acknowledged within the specified time, an alarm shall be transmitted via the Alarm Signalling Equipment (ASE). Once the AT has been acknowledged, an Investigation Timer (IT) shall commence. The IT is adjustable up to a maximum of 300s which shall be set and sealed at the time of commissioning.
- The IT will allow the cause of the alarm to be investigated (up to 5 minutes). After investigation and before the IT times out, should the alarm prove to be a false alarm, the responsible person can press a reset facility, which will reset the alarm system, negating activation and cancelling the fire service response.
- If a second alarm occurs at any time during the AIF time, there shall be a provision for the alarm signal to be transmitted via the ASE to the fire service.

Limitation on Use

The scope of AS4428.10 states that the standard cannot be adopted by a building owner without the permission of the fire service. Use of the AIF on an alarm panel without fire service approval would therefore be in contravention of the *Fire Services Act 1990* (the Act).



QFD does not support the operation of an AIF in new buildings.

AS4428.10 is not referenced in the National Construction Code. Therefore the use of AIF requires an alternative solution to be developed should a stakeholder wish to adopt this standard. The installation of AIF is deemed “alterations to building” and would require the applicant to engage a Building Certifier to ensure that all works are within legislative requirements.

Appendix B of AS4428.10 dictates that it would not be suitable to apply this standard in health care buildings and other buildings that provide accommodation for the aged, children or people with disabilities. QFD supports this strategy and therefore permission for use of AS4428.10 will not be granted to buildings used for these purposes.

Appendix B also states that other systems should be installed to complement the AIF. These systems will limit any effects resulting from a delay in activating the warning system or notifying the fire service. Examples of such systems are:

- Automatic fire sprinkler systems.
- Sound system and Intercom System for Emergency Purposes.
(SSISEP)

The activation of a sprinkler system will notify the fire service and suppress or control a fire. A SSISEP system will allow management to notify the building occupants, communicate instructions and to minimise the risk of injury whilst evacuating the building. QFD will only consider approval of the use of AIF in buildings that contain these other complementary systems.