

This updates the previous Practice Note-2014-59 issued July 2014.

Purpose

This practice note provides guidance on the requirement to provide the chief officer, with details relating to the installation of any fire sprinkler system that does not meet the DTS provisions of the BCA.

Definitions

The following abbreviations and definitions used in this practice note are set out for convenience. They are not intended to vary the definitions set out in the Act, Regulations or the BCA.

Act Building Act 1993

BCA Volume One of the National Construction Code

BAB means the Building Appeals Board

Chief officer is as defined in the Act and means the chief officer of the Metropolitan Fire and Emergency Service or the Country Fire Brigade, whichever applies to the relevant building permit

DTS means deemed to satisfy solution which is a solution which is deemed to satisfy the Performance requirements of the BCA

Performance solution means a method of complying with the Performance requirements other than by satisfying the DTS solution of the BCA.

Performance requirements are requirements set out in the BCA which state the level of performance which a Performance solution must meet or which a DTS is deemed to meet.

Regulations Building Regulation s2018

RBS Relevant Building Surveyor, as defined in the Act

Background

The BCA requires buildings to contain fire safety features that are designed to protect the building, its occupants and the public in the event of fire.

Fire authorities rely on the fire safety systems installed in buildings when responding to a fire. Fire authorities assume that buildings have been constructed in accordance with the BCA and will perform to the minimum standards required in the BCA.

The BCA has DTS which prescribe in detail the fire safety features required in buildings. However, a building can comply with the BCA without meeting the DTS. This is called a performance solution. Performance solutions are unique to each building.

Fire authorities need to be aware of and satisfied that buildings constructed based on performance solutions will not adversely impact on their ability to respond in an emergency.

The Act and Regulations require that where performance solutions are proposed in relation to matters which affect the firefighting operations of the fire services, the chief officer must be:

- consulted on prescribed matters and provide their report and consent (regulations 129(1), 162, and 187); and/or
- provided with details of the approved design.

This practice note concerns the requirement to give the chief officer details of the proposed design.

Refer to PN 57 – Report and Consent.

Requirement to forward details to chief officer

Regulation 129(3) of the Regulations provides that when a building permit is issued which involves the installation of a fire sprinkler system and that installation does not meet the DTS provisions of the BCA, the RBS must forward details of the installation to the chief officer.

Performance-based BCA

The Regulations adopt the BCA (regulation 10). When assessing an application for a building permit, the RBS must be satisfied that proposed building work will comply with the Act, the Regulations and the BCA.

Compliance with the BCA is achieved by meeting the performance requirements.

Performance requirements can only be satisfied by constructing in accordance with a:

- performance solution; or
- DTS; or
- combination of the above. (see Part AO.2 of the BCA)

There are several performance requirements which refer to the use of fire safety systems to protect buildings, occupants and the public in the event of fire. Fire sprinkler systems are one type of fire safety system.

The DTS provisions relating to sprinkler systems are set out in Part E1.5 of Volume One of the BCA. This Part sets out:

- when a sprinkler system is required to be installed based on the classification of the building, its use, floor area and/or height; and
- that sprinkler systems must comply with Specification E1.5.

Specification E1.5 refers to installation requirements for sprinkler systems including the applicable Australian Standards.

Installation that does not meet the DTS for fire sprinkler systems

Any departure from the DTS relating to the fire sprinkler system's **installation** will trigger the requirement to give details to the chief officer under regulation 129(3). Therefore, details must be provided to the chief officer:

- when the fire sprinkler system is a system required by the DTS; and
- when the fire sprinkler system is installed as part of a Performance solution but would not otherwise be required by the DTS.

Details to be given to the chief officer

Details which are given to the chief officer should include the documented performance solution submitted to the RBS as part of the building permit application and the written assessment of the RBS required by regulation 38 of the Regulations.

For more information on using the performance-based BCA, performance solutions and the requirements for documentation of designs and decisions, refer to:

- PN 2018 – 29 Using volumes One and Two of the National Construction Code Series;
- PN 2018 – 37 Fire Performance Requirements of Volumes One and Two of the National Construction Code Series, and
- PN 2018 – 63 Performance Solutions – Procedures and Documentation.

For the chief officer to understand the impact of the decision not to comply with the DTS for fire sprinkler systems on firefighting operations, the chief officer will need to be given sufficient information to understand the broader design for fire safety systems approved by the RBS.

Therefore, details given by the RBS should include an explanation of how the design of the fire sprinkler system interacts with other fire safety systems and features in the building.

Sprinkler systems and the fire service

Unlike passive construction (fire rated walls, doors etc.) and alarm systems, the operation of a sprinkler system has a significant impact on the operational strategy of the fire services.

On arrival at a fire, the fire services need to assess matters directly relating to the installation of the fire sprinkler system including:

- how effective the fire sprinkler system has been to contain the fire;
- how the fire sprinkler system is likely to continue to operate;
- whether to isolate the fire sprinkler system;
- the level of response (i.e. number of fire trucks) required;
- the provision for water supply and water pressure to the system, and how this will impact on water available for firefighting operations.

By giving details of the installation of fire sprinkler systems to the chief officer, this enables the fire services to have critical information about a building on file which can be assessed as early as possible when the fire alarm is raised. This can minimise delays in formulating operational strategy for responding to the fire and in turn minimise risks to life and property.

Consultation with the Chief Officer at design stage

Although the requirement in regulation 129(3) arises when the building permit is issued, consultation with the chief officer early in the design of performance solutions for fire safety matters is expected.

The International Fire Engineering Guidelines (2005 Edition) are endorsed by the fire safety industry and published by the Australian Building Codes Board. They contain best practice for the development of fire engineering design and include an obligation to engage with the fire services as part of the design process. Building practitioners are expected to follow these guidelines.

Examples of departures from DTS requirements for fire sprinkler systems that should be the

subject of early consultation with the chief officer include:

- sprinkler system design for hazard classes of occupancy (within the meaning of Section 2 of AS 2118.1—1999);
- the type of sprinkler system proposed in relation to the building location or building use;
- the proposal not to have a direct alarm connection to the fire service or other monitoring service;
- variations to water pressure or water flow requirements for a sprinkler system;
- connections to a potable or industrial water supply that may reduce the reliability of the sprinkler system;
- any potential reduction in stored water capacity for use by the sprinkler system;
- the proposed use of dry pipe systems; and
- proposed omission of sprinklers from all or part of a building, e.g. under an external canopy.

The above are examples only, where a building permit is issued approving the installation of a fire sprinkler system which does not meet the DTS in any respect, consultation should occur and regulation 129(3) applies.

Notification period

Regulation 129(3) does not specify a time for forwarding details to the chief officer. Required details should be provided within a reasonable time and 7 days is considered to be a reasonable time (being the same timeframe for providing council with building permit documents under section 30 of the Act).

Modification and Compliance Assessment of Building Appeals Board

An application can be made to the BAB for a modification of the Regulations (section 160) or for a determination that a proposed design complies with the Regulations (section 160A).

Where a building permit is issued based on a determination by the BAB under section 160 to modify the DTS, and the result is to approve an installation of a fire sprinkler system that would not otherwise have complied with the DTS, the requirement in regulation 129(3) will **not** apply.

If the BAB determines that the proposed design meets the performance requirements of the BCA, but it does not meet the DTS requirements for the installation of a fire sprinkler system, regulation 129(3) would still apply.

The usual practice of the BAB is to consult with the chief officer before making determinations under section 160 or 160A relating to fire safety matters. Therefore, the chief officer should have been informed of the determination of the BAB as part of a BAB proceeding.

Information on applying to the BAB for modification and compliance assessments is contained can be referred to in practice note 39-2018 – Building Appeals Board guide to application for modification and compliance assessments.

Further information

For more information, please contact the following organisations:

Victorian Building Authority 1300 815 127

Country Fire Authority (03) 9262 8403

Metropolitan Fire and Emergency Services Board (03) 9662 2311

Want to know more?

If you have a technical enquiry, please email technicalenquiry@vba.vic.gov.au or call 1300 815 127.

Victorian Building Authority
733 Bourke Street Docklands VIC 3008

www.vba.vic.gov.au