

Minister's Specification

SA 78

Additional requirements in designated bushfire prone areas

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SCOPE

This Specification outlines additional requirements relating to a Class 1, 2 or 3 building to be constructed in a designated *bushfire prone area* and provides for bushfire protection systems for fighting bushfires.

This Minister's Specification shall be read in conjunction with Regulation 78 of the *Development Regulations 2008*.

INTERPRETATION

Dedicated water supply means dedicated to the bushfire control measures contained in this Minister's Specification.

Fire Authority means the South Australian Metropolitan Fire Service or the Country Fire Service.

Non-combustible means not deemed combustible as determined by AS1530.1 - *Combustibility tests for materials*.

Bushfire Protection Area means an area identified as having either a General, Medium or High level of bushfire risk in the relevant Development Plan.

REFERENCED STANDARDS

Table 1: Schedule of Referenced Standards

| No. | Date | Title |
|---------|------|---|
| AS 1221 | 1997 | Fire Hose Reels |
| AS 1530 | | Methods for fire tests on building materials, components and structures |
| | 1994 | Part 1 Combustibility test for materials |
| AS 2620 | | Domestic Garden Hose |
| | 1983 | Part 1 Reinforced Hose |

PART A - BUSHFIRE PROTECTION SYSTEMS FOR FIGHTING BUSHFIRES

1. Bushfire Protection System

- 1.1 In a designated *Bushfire Protection Area*, a bushfire protection system for a proposed Class 1, 2 or 3 building, must comprise of bushfire fighting equipment and a water supply that-
- (a) is appropriate to the level of bushfire risk; and
 - (b) allows occupants and the fire authority, to the degree necessary, to minimize the spread of bushfire to the building; and
 - (c) is appropriate to the size of the building; and
 - (d) is unaffected by a loss of mains electrical power; and
 - (e) provides a *dedicated water supply* to the degree necessary to enable the bushfire protection system.
- 1.2 Compliance with the provisions of 1.1 can be met by installation of-
- (a) a site specific bushfire protection system in accordance with the minimum requirements for water supply (Part 2), adequate pumping system (Part 3), pipe work (Part 4) and hoses for fire fighting (Part 5) of this Minister's Specification; or
 - (b) a community-based bushfire protection system to the satisfaction of the *fire authority* that is at least equivalent in performance to the aggregate of site specific bushfire protection systems for the number of houses served.

2. Water Supply

- 2.1 A *dedicated water supply* must have a water storage facility on the allotment, located such that it can provide the required water to the bushfire protection system and is accessible by the *fire authority* where required.
- 2.2 The water storage facility must have a minimum capacity and fittings in accordance with Table 2.2.

Table 2.2 Capacity and fittings required for a bushfire protection water storage facility

| AVAILABILITY OF WATER SUPPLY | Minimum water storage capacity (litres)/fittings required | |
|------------------------------|---|-------------|
| | LEVEL OF BUSHFIRE RISK | |
| | General and Medium Excluded (if within 500m of High) | High |
| Connected to mains water | 2000/domestic* | 22000/fire+ |
| Not connected to mains water | 5000/domestic* | 22000/fire+ |

Note:

* domestic fittings are standard household taps that enable an occupier to access a supply of water with domestic hoses or buckets for extinguishing minor fires.

+ fire fittings are accessible to the fire authority and must comply with 2.5.

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- 2.3 Where a water storage facility is required to have a domestic fitting, the outlet for the required capacity must be located at least 400 mm above ground level for a distance of 200mm either side of the outlet.
- 2.4 A water storage facility connected to mains water must have an automatic float switch to maintain full capacity.
- 2.5 Where a water storage facility is required by Table 2.2 to have a fire fitting, access to the water by the *fire authority* shall be by –
- (a) a fire service adaptor fitted in the wall of the water storage facility near the bottom of the water storage facility, with a minimum outlet of 50mm terminating in a 64mm male London round thread; and
 - (b) where the path of travel from the entrance to the property to the water storage facility is more than 30 metres in length, by an all weather roadway-
 - (i) capable of supporting fire-fighting vehicles with a gross vehicle mass (GVM) of 21 tonnes; and
 - (ii) providing a vehicular clearance area of not less than 4 metres in width and 4 metres in height; and
 - (c) where access for a fire appliance is available immediately adjacent to a closed water storage facility, access to the water may be through a removable 'inspection opening' in the top of the water storage facility.
- 2.6 Where the water storage facility is an above-ground water tank, the tank (including any support structure) shall be constructed of *non-combustible* material.

3 Pumps

- 3.1 Where a water storage facility is required to have a fire fitting, the water supply used for bushfire fighting shall be pressurised by-
- (a) a pump that has-
 - (i) a minimum inlet diameter of 38mm; and
 - (ii) is powered by a petrol or diesel engine with a power rating of at least 3.7 kW (5hp); or
 - (b) a pumping system that operates independently of mains electricity and is capable of pressurising the water for bushfire fighting purposes.
- 3.2 A fire fighting pump and any flexible connections to the water supply shall be protected by a *non-combustible* cover that allows adequate air ventilation for efficient pump operation.

4 Pipework

- 4.1 All water pipes and connections between the water storage facility and a pump shall be no smaller in diameter than the diameter of the pump inlet.
- 4.2 All non-metal water supply pipes for bushfire fighting purposes (other than flexible connections and hoses for fire fighting) shall be buried below ground to a minimum depth of 300mm with no non-metal parts above ground level.

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5 Hoses for Fire Fighting

5.1 A hose (or hoses) used for fire fighting shall-

- (a) be located so that all parts of the building are within reach of the nozzle end of the hose and if more than one hose is required they should be positioned to provide maximum coverage of the building and surrounds (i.e. at opposite ends of a dwelling); and
- (b) be capable of withstanding the pressures of the supplied water; and
- (c) be of reinforced construction manufactured in accordance with AS 2620 or AS 1221; and
- (d) have a minimum nominal internal diameter of 18mm; and
- (e) have an adjustable metal nozzle; or an adjustable PVC nozzle manufactured in accordance with AS 1221; and
- (f) have a maximum length of 36m; and
- (g) be readily available at all times.