



DFES Built Environment Branch - Technical Note 02/14

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Reticulated Water Supply - DFES Interpretation

Objective

The objective of this Technical Note is to clarify the Department of Fire and Emergency Services (DFES) position in respect of the Australian Standard 2419.1 2005 Amendment 1 - "Fire Hydrant Installations: System design, installation and Commissioning" (AS2419.1), as it relates to a reticulated water supply; in particular what DFES determine a reticulated water supply to be for the purposes of fire hydrant system design, and meeting DFES operational requirements.

Background

AS2419.1 is a nationally adopted standard through direct reference by the Building Code of Australia. AS2419.1 Section 6.2 "Pumpset Configurations" includes a concession for a single duty pump in buildings having an effective height less than 25 metres and if it is connected to a ***reticulated water supply***.

Issue

It is DFES's position that the concession for a single pump is grounded on the principle that if the single pump should fail, a workable back-up to the failed pump and an immediate re-establishment of a water supply to fire-fighters using hand lines can be facilitated through pumping water into the hydrant system via the booster connection using the appliance on-board pump. The on-board pump will source water via the feed fire hydrants installed with the hydrant booster assembly, i.e. a reticulated water supply.

Should the feed fire hydrants with the booster assembly not be capable of flowing at the rate and pressure specified in AS2419.1, then rapid re-establishment of the fire hydrant system water supply will not be possible. This can potentially compromise occupant and fire-fighter safety and may result in greater property losses incurred by building owners.

Conclusion

For the purposes of applying the concession for a single pump as prescribed in AS2419.1 Section 6.2 Pumpset Configurations, DFES consider a reticulated water supply to be one that is directly plumbed to a water supply agency main and the main is capable of maintaining a residual pressure of not less than 200 kPa at the booster assembly feed fire hydrants whilst they are flowing at a rate in accordance with AS2419.1 Tables 2.1 and 2.2.

References

Australian Standard 2419.1 2005
Building Code of Australia 2014