



## POSITION STATEMENT SUMMARY

# Light wall steel pipe in fire hydrant systems

## Position

Effective 5 December 2024, the following is a position of Fire and Rescue NSW (FRNSW):

Where light wall pipe conforming with AS 4118.2.1 is identified as being installed within a fire hydrant system, FRNSW recommend that an action plan be developed to replace all such light wall pipe with AS 2419.1:2021 steel pipe to reduce the risk of fire hydrant system failure during maintenance, testing or firefighting operations in the event of fire.

**Note:** There are known cases of light wall pipe failure during hydrant system testing and firefighting operations, with the failure being directly attributed to the nominal wall thickness and galvanising.

Clause 6.2.1 “Above ground pipes” of AS 2419.1–1994 *Fire hydrant installations* indicated that steel tube used above ground was to conform with AS 1074, AS 1579, AS 1769 and AS 4041. Under the provisions of AS 1074, DN100 light wall steel pipe was to have a nominal wall thickness of 3.6 mm, while medium wall pipe has a nominal wall thickness of 4.5 mm for DN100, and 5.0 mm for DN150.

Amendment 1 of AS 2419.1–1994, published in 1996, added AS 4118.2.1 *Fire sprinkler systems. Part 2.1 Piping – General* to the list of Australian Standards referenced in Clause 6.2.1 “Above ground pipes”. Under the provisions of AS 4118.2.1, light wall steel pipe was permitted to have a nominal wall thickness of 2.11 mm for DN100, and 2.77 mm for DN150.

Amendment 2 of AS 2419.1–1994, published in 2004, replaced Clause 6.2 including removing AS 4118.2.1 from the list of Australian Standards referenced in Clause 6.2.1 “Above ground pipes”. Nominal pipe wall thicknesses reverted to AS 1074 (e.g. 3.6 mm for DN100 light wall, 4.5 mm for DN100 medium wall, and 5.0 mm for DN150 medium wall).

Reference must be made to the FRNSW website to ensure this position is current at the time of use, and this position has not been superseded or revoked.

## Summary

This position statement identifies that any light wall pipe conforming with AS 4118.2.1 should be replaced with AS 2419.1:2021 steel pipe when it is identified as being installed within a fire hydrant system. An informative comment clarifies that light wall pipe is known to fail during hydrant testing or operation, directly attributable to the pipe wall thickness and galvanising.

The position provides a historical context regarding the inclusion of AS 2118.2.1 light wall pipe within AS 2419.1–1994 and minimum allowable nominal wall thicknesses, where it was referenced by Amendment 1 of the Standard for the period between 1996 and 2004. Reference to AS 4118.2.1 light wall pipe was removed in Amendment 2 of AS 2419.1–1994 published in 2004.

This position statement has been authorised for release by Chief Superintendent Fire Safety, FRNSW.

## Contact us

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