



POSITION STATEMENT SUMMARY

Road tunnels

Position

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

FRNSW endorse the guideline *Fire Safety for Road Tunnels* as published by the Australasian Fire and Emergency Service Authorities Council, as the appropriate guidance on fire safety to stakeholders involved in the design and construction of road tunnels.

FRNSW does not support the transportation of placard quantities of dangerous goods (DGs) through road tunnels. Placard quantities of dangerous goods are defined under the *Australian Dangerous Goods Code* (ADGC) and regulated by the *Dangerous Goods (Road and Rail Transport) Regulation 2022 (NSW)*. The transport of placard loads through road tunnels is prohibited under Rule 300-2 of the *NSW Road Rules 2014*.

DGs involved in an incident within a road tunnel have the potential to cause rapid and uncontrolled expansion of the incident, significantly increase fire loads, result in explosive and toxic atmospheres, and raise the likelihood of adverse outcomes for occupants. Such incidents may exceed the capability and capacity of installed fire safety systems, lead to major failure of the tunnel structure and supporting infrastructure and add significant complexity to incident management efforts.

Incidents involving DGs in tunnels can also create conditions that exceed the capability and capacity of attending emergency services. In such cases, emergency service intervention may not be possible due to safety risks to personnel. A defensive strategy, focused on the protection of people, structures, and the environment outside of the tunnel, is likely to be adopted, as conditions within the tunnel would not be conducive to supporting life.

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must be made to the FRNSW website to ensure this position is current at the time of use, and this position has not been superseded or revoked.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 supersedes the previous position last updated on 3 September 2018. The position has been expanded to incorporate informative information.

The position statement directs building proponents to the AFAC guideline as appropriate guidance for fire safety of road tunnels.

Informative commentary identifies that incidents in road tunnels involving dangerous goods may result in conditions which exceed the capability and capacity of emergency services, owing to the volatile nature of dangerous goods in confined spaces. In such circumstances, intervention may not be possible due to an unacceptable risk to responding personnel and therefore adoption of a defensive strategy would be likely.

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

Contact us

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