

1.1.2 Background

The transport of dangerous goods is a high-risk activity involving vehicles on Australia's roads and the rail network. The United Nations leads a process of international co-operation to agree harmonised requirements to inform national and international regulation of the transport of dangerous goods to facilitate global supply chain safety and efficiency. The general concepts of dangerous goods classification, packaging, marking, labelling and communication have been the subject of international conventions and codes to ensure global consistency and standardisation since 1957.

The UN Economic and Social Council (ECOSOC) Sub-Committee of Experts on the Transport of Dangerous Goods is responsible for developing and reviewing the UN Recommendations on the Transport of Dangerous Goods – Model Regulations (UNMR) which are internationally accepted and form the basis for dangerous goods transport codes across the world.

Australia implements a model law national scheme structure to promote consistency with the UNMR for the transport of dangerous goods as applied to road and rail. This scheme includes a number of legislative instruments which contain administrative provisions, duties on parties and offences, and provides a mechanism to give legal effect to the Australian Code for the Transport of Dangerous Goods by Road and Rail. However, these instruments have no legal force in and of themselves.

Australian state and territory governments have responsibility for regulating the road and rail transport of dangerous goods through administration of the Australian Dangerous Goods Code (the Code). The Code is adopted through legislation in each in state and territory drawing on national model legislation administered by the National Transport Commission and approved by the Transport and Infrastructure Council.

This single model legislative framework has been in place since the creation of the 7th edition of the Code in 2008 as a Transport and Infrastructure Council Agreed Reform. As per the Intergovernmental Agreement signed by all state and territory transport ministers in 2003, every jurisdiction has agreed 'to use their best endeavours to implement and maintain Agreed Reforms in a uniform or nationally consistent manner.'

1.1.3 Request from the Deputy Prime Minister

The Deputy Prime Minister has requested that the NTC examine the consistency of implementation and interpretation of the legal requirements for the land transport of dangerous goods in Australia.

This request includes matters raised by the Australian Logistics Council (ALC) and the Australian Trucking Association (ATA) that in its next review the NTC considers:

1. *Whether the ADG Code should be adopted into Australian law using the 'applied legislation' model. This is the same model used by jurisdictions to adopt amendments to the Heavy Vehicle National Law made by the Queensland Parliament; and*
2. *Whether a common operations manual should be developed to be adopted by all jurisdictions to encourage a more uniform interpretation of the ADG.*

In support of this request, the ALC and ATA stated:

As is well known, each State and Territory separately implements the updated ADG Code and associated updates to their dangerous goods transport regulations. It is also the case that each jurisdiction can have a number of different agencies responsible for enforcement of the ADG Code. This has led to unfortunate inconsistencies both in the legislative implementation of the ADG as well as its interpretation on the ground.

1.1.4 Previous reviews

Following the development of the 7th edition of the Code, the NTC performed an implementation and regulatory outcomes review⁴. Specifically, the review examined the consistency with which the Code and accompanying model legislation had been implemented by state and territory governments.

The review found a lack of uniformity in the timing of the enactment of legislation across state and territories to implement the 7th edition of the Code was a significant issue for many businesses. Further, jurisdictional variations in adopting model law wording and references can create uncertainty for industry and can increase compliance costs. Operational issues were also raised by industry because of inconsistent enforcement, administration and differing interpretations of obligations and requirements.

Staggered implementation is still evident today. Implementation monitoring conducted by the NTC shows that legislative and regulatory amendments are not implemented consistently across the country.

This paper draws heavily on the following reviews and research reports:

- Productivity Commission Research Report: *Chemicals and Plastics Regulation*, 2008
- Productivity Commission, Supplement to Research Report: Chemicals and Plastics Regulation: *Lessons for National Approaches to Regulation*, 2009
- National Transport Commission, *Australian Code for the Transport of Dangerous Goods by Road and Rail 7th edition reform package – Implementation and Regulatory Outcomes Review*, 2011
- National Transport Commission, *Strategic Framework Review of the Regulation of Land Transport of Dangerous Goods: final recommendations*, 2013.

In preparing this paper, the premises and recommendations in the above reviews and research reports were re-examined. This was to verify their continued validity and to assess if the recommendations had been implemented and, if they had achieved their intended outcome. The Productivity Commission's supplement *Lessons for National Approaches to Regulation* forms the basis of the discussion on available regulatory frameworks in section 6 of this paper.

1.2 Scope of the paper

The scope of this paper is to:

- review the legal framework that gives legal effect to the Code – that is, the legal mechanism(s) used in Australian states and territories that 'call up' the Code into legislation and therefore give it legal force
- provide an overview of where the Australian requirements sit within the United Nations framework
- explore other available frameworks, including those adopted in other countries
- explore options to achieve consistent interpretation of the Code.

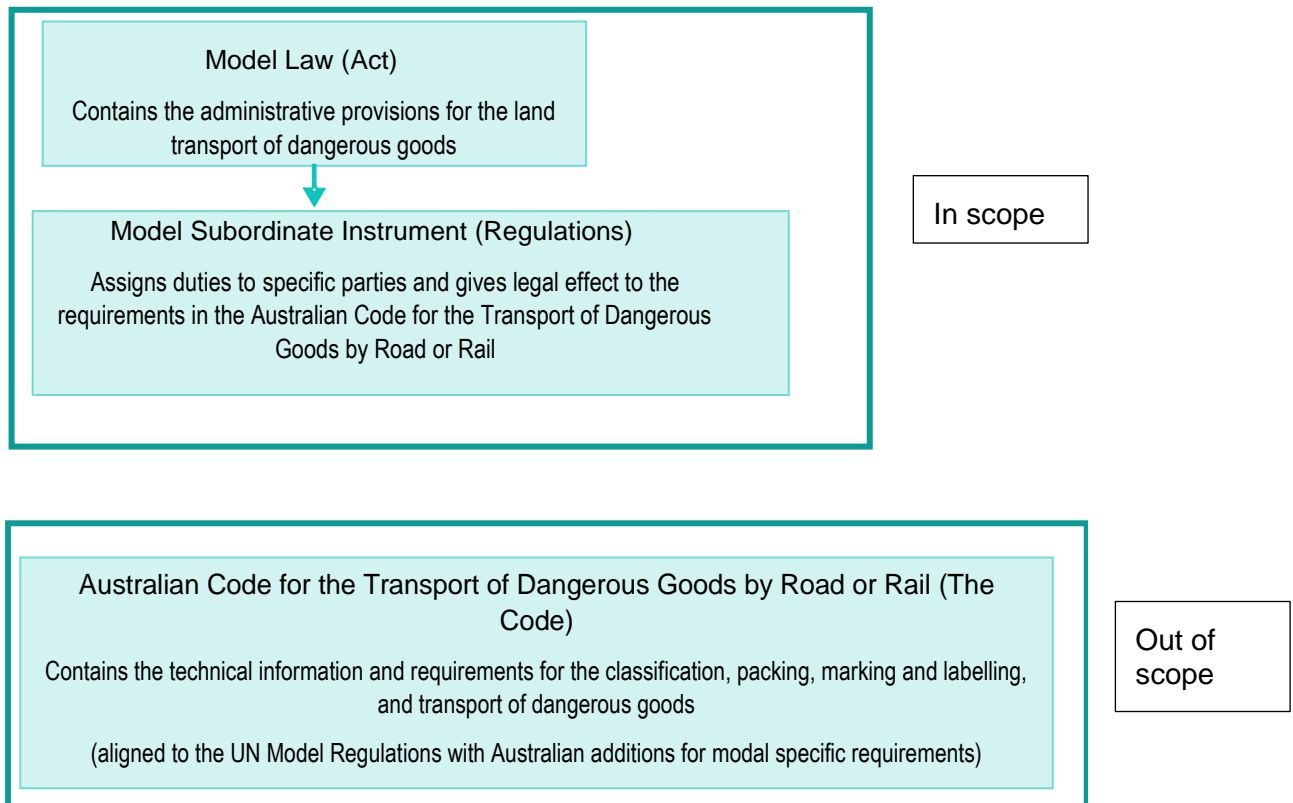
This paper does not include a review of the Code itself. The Code is a document, that although agreed to by the Transport and Infrastructure Council, has no legal force until it is

⁴ National Transport Commission 2011, *Australian Code for the Transport of Dangerous Goods by Road and Rail 7th Edition Reform Package – Implementation and Regulatory Outcomes Review*, NTC, Melbourne

adopted into law in a jurisdiction. The legal framework, therefore, consists only of the *Model Act on the Transport of Dangerous Goods by Road or Rail* (Model Law) and the *Model Subordinate Instrument on the Transport of Dangerous Goods by Road or Rail* (MSI).

Figure 1 shows what is in scope and what is out of scope in this paper.

Figure 1. The parameters of this paper



In 2019, the Transport and Infrastructure Council approved the progression of the NTC's review of the legal framework that underpins the Code and methods by which consistent national interpretation of the Code can be encouraged.

This paper explores how the transport of dangerous goods by road and rail is currently regulated in Australia and overseas, and what potential improvements could be made.

1.3 Problem statement

The legal framework that facilitates the implementation of, and gives legal effect to, the Australian Code for the transport of dangerous goods by road and rail (the Code) across each state and territory is not promoting uniformity for the transport of dangerous goods regulations across Australia.

Improvements may be required to realise the full safety and productivity benefits in harmony with the UN Recommendations on the Transport of Dangerous Goods. Further work is required to ensure that the regulation of the transport of dangerous goods by road and rail in Australia is consistent with international practices where possible.

Inconsistent timing of the implementation of legislative amendments by jurisdictions can lead to a gap in the uptake of productivity and efficiency improvements contained in updated Code requirements. It can also impose significant cost on businesses transporting dangerous goods, particularly those conducting cross-border operations.

Competing priorities of state and territory government agencies, governments and parliaments may be contributing to the inconsistent implementation of national reforms agreed to by the Transport and Infrastructure Council.

The NTC's 2019 National Transport Reform Implementation Monitoring Report to TISOC, shows that some jurisdictions have not yet implemented the 2016 or 2018 transport of dangerous goods amendment packages. This can result in difficulties in compliance and enforcement activities in those jurisdictions that have not yet been able to implement agreed reforms. This scenario can be challenging for entities that operate in multiple jurisdictions to take advantage of reforms and can add significantly to the complexity of their operations.

Inconsistency of interpretation and enforcement of the Code is a particular concern for industry. A key factor appears to be the absence of a common understanding across the national compliance and enforcement community, as well as industry duty holders of 'what compliance looks like' for the various technical requirements in the Code.

2 International and intergovernmental agreements

Key points

- The Code is based on the UNMR, which applies to all modes of transport.
- The Transport and Infrastructure Council voting protocols require consensus for all model and national laws.
- Competing legislative and resource priorities within individual jurisdictions may play a role in inconsistent implementation of model reforms.
- Industry suggests that uniform interpretation of the Code across Australia could be further encouraged.
- The dangerous goods administering agencies can differ from transport agencies in some jurisdictions, which may also contribute to the inconsistent implementation of model reforms.

2.1 International conventions

Since 1957, the general concepts of dangerous goods classification, packaging and communication have been the subject of international conventions and codes to ensure global consistency and standardisation. The United Nations (UN) Economic and Social Council (ECOSOC) Sub-Committee of Experts on the Transport of Dangerous Goods is responsible for developing and reviewing the UNMR.

The Sub-Committee of Experts on the Transport of Dangerous Goods consists of 28 member states (including Australia), nine non-member states, five UN specialised agencies, three intergovernmental organisations, 21 non-governmental organisations that hold consultative status with ECOSOC and 28 non-governmental organisations that hold consultative status with the sub-committee.

The UNMR contain globally applicable recommendations, including recommendations regarding classification, packaging, marking and labelling, and communication requirements for transporting dangerous goods. The UNMR do not include requirements or recommendations to address risks that are specific to any particular mode of transport. At the modal level, the UNMR serve as the basis for international or regional mode-specific requirements. The framework for the development and interrelationship of these mode-specific requirements is detailed in section 4.1 of this paper.

2.2 Intergovernmental Agreement

Since the early 1990s, the NTC and its predecessor the National Road Transport Commission has been responsible for developing, reviewing and maintaining dangerous goods land transport policy, including the Model Law, MSI and the Code.

The NTC leads national land transport reform in support of Australian governments to improve safety, productivity, environmental outcomes and regulatory efficiency. The functions of the NTC are supported by an Intergovernmental Agreement (IGA) signed by all state and territory transport ministers in 2003.

The IGA identifies the NTC's role to:

Develop uniform or nationally consistent regulatory and operational arrangements for road, rail and intermodal transport including recommending to the [Transport and Infrastructure] Council proposed reforms and amendments to agreed reforms.

2.2.1 Voting arrangements for reform proposals under the Intergovernmental Agreement

The current voting arrangements for the Transport and Infrastructure Council in relation to proposed recommendations for its consideration are established by the Council of Australian Governments (COAG) and require Transport and Infrastructure Council decisions to be made on the basis of consensus. Voting is generally required to be undertaken in-session at a council meeting. In circumstances where a minister does not register a vote, the minister is taken to have supported the recommendation.

However, in some cases, the unanimous voting protocol can mean that nationally consistent proposals may not progress, or are delayed, if consensus is unable to be reached.

2.2.2 Achieving national consistency of implementation of agreed reforms

Competing priorities of state and territory government agencies, governments and parliaments may be contributing to inconsistent implementation of national reforms agreed to by the Transport and Infrastructure Council. The NTC's 2019 *National Transport Reform Implementation Monitoring Report* to TISOC, shows that some jurisdictions have not yet implemented the 2016 or 2018 transport of dangerous goods amendment packages.⁵ One jurisdiction has not implemented any of the amendment packages since 2008. For those jurisdictions that have implemented all of the amendment packages, there was no consistency on the dates of implementation.

This scenario makes it not only difficult for entities that operate in multiple jurisdictions to take advantage of reforms but adds to the complexity of their operations. It can also lead to difficulties in compliance and enforcement activities in those jurisdictions that have not yet been able to implement agreed reforms.

2.2.2.1 Interpretation and enforcement

A particular matter that has been raised by the ALC and ATA is the potential to improve the inconsistency of interpretation and enforcement by jurisdictions. There may be many contributors to this inconsistency, but the two key factors appear to be:

- the lack of training for compliance and enforcement officers
- the lack of a common understanding on the part of compliance and enforcement officers as well as duty holders (industry) of 'what compliance looks like' for the various technical requirements in the Code.

The MSI includes a requirement to ensure those involved in transporting dangerous goods are appropriately trained and competent, relevant to the tasks they perform. However, other than for a driver of a vehicle transporting dangerous goods in containers with a capacity of 500 L/kg or more, there is no specific or approved training required.

This lack of detail and specificity around training content has resulted in limited availability of quality public training courses.

⁵ An amendment packages is a compilation of the changes to the model laws and the Code requirements.

In 2006, the NTC indicated in the *Australian Dangerous Goods Code 7th Edition Legislative Package: Summary Response to Public Submissions*⁶ that, in the interest of developing and obtaining approval for the significant structural, content and enforcement changes that were eventually implemented, policy issues such as the lack of a national training package for dangerous goods transport regulatory requirements were not considered. At the time, the NTC believed that training policy was outside the scope of the 7th edition Legislative Package exercise but indicated that it might be addressed in future work programs.

In the 2006 summary the NTC commented:

This is primarily a revision exercise. The intention is not to make major changes to underlying policy on the transport of dangerous goods but to update the Code and the supporting regulatory framework.

2.2.2.2 Competent Authority Panel Rules

The NTC is responsible for development and maintenance of the Competent Authority Panel Rules (CAP Rules). The CAP Rules establish the Competent Authorities Panel (CAP) and set out how CAP is to operate. Under the CAP Rules, the Competent Authority⁷ of each jurisdiction is a member of CAP and is entitled to appoint a representative to participate and vote on its behalf in relation to CAP decisions.

CAP has a number of functions including:

e) to facilitate the establishment of common training and licensing systems across participating jurisdictions

There is no evidence of CAP having developed a set of common competencies or training requirements for those involved in transporting dangerous goods.

There is also limited guidance material available for regulators or industry on how to apply, or comply with, the technical requirements of the Code.

The Victorian Competent Authority (WorkSafe Victoria), through its Dangerous Goods Stakeholder Reference Group, has recently acknowledged the gap in knowledge and training in all aspects of the chemical industry, including transport, and is currently seeking suggestions from stakeholders on how to best address this.

2.2.3 Governance and agreement process

Regulatory reforms and amendments proposed by the NTC are progressed for Transport and Infrastructure Council approval once endorsed by TISOC. This includes proposed reforms and amendments to the Model Law and MSI for the transport of dangerous goods.

It is important to note that, in most jurisdictions, the agencies responsible for regulating the transport of dangerous goods by road or rail do not sit within the transport ministerial portfolios. In most jurisdictions, the relevant laws are administered by workplace safety authorities. This disconnect of administering agencies from transport ministers can contribute to delays and to the inconsistent adoption or implementation of amendments to model laws agreed by the council.

⁶ National Transport Commission 2006, *Australian Dangerous Goods Code 7th Edition Legislative Package: summary response to public submissions*, NTC, Melbourne

⁷ A Competent Authority is the agency or body responsible for administering the applicable laws in each state or territory.

This disconnect can also result in administering agencies not being fully aware of the jurisdiction's commitment to maintaining agreed reforms in accordance with the Intergovernmental Agreement.

In 2008, COAG acknowledged that chemicals policy does not fall under any one ministerial council and agreed to establish a Standing Committee on Chemicals (SCOC) comprising representatives of all ministerial councils with responsibility for the regulation of chemicals. SCOC was established in 2009. SCOC was established to provide a forum to address issues in chemicals and plastics regulation that crossed more than one portfolio and to make recommendations to the appropriate Ministerial Council. The 2009 COAG Memorandum of Understanding for Chemicals and Plastics Regulatory Reform provides that, among other matters, the standing committee's role was to:

- *provide an ongoing forum for assessing the consistency of chemicals-specific policy settings across the relevant policy areas, including: public health; workplace health and safety; transport safety; environment protection; and national security*
- *support the coordinated development of regulatory proposals that have cross-portfolio implications, including the conduct of regulatory impact assessments.*

In its 2008 research report on Chemicals and Plastics Regulation, the Productivity Commission recognised the need for significant cross-portfolio coordination in developing dangerous goods transport regulation and expressed that this was a task that would be facilitated by the creation of SCOC. Proposed reforms to the transport of dangerous goods in Australia are not currently considered by SCOC.

3 United Nations framework

Key points

- Australia is a full member state of both the UN Sub-Committee of Experts on the Transport of Dangerous Goods and the UN Sub-Committee of Experts on the Globally Harmonised System for the Classification and Communication of Hazardous Chemicals.
- The UN Recommendations for the transport of dangerous goods contain the common framework and core provisions for the safe transport of dangerous goods but cannot be used on their own because they do not address mode-specific risks.
- The UNMR are the basis for the mode-specific instruments that regulate transport of dangerous goods by air, sea, road, rail and inland waterways.

3.1 United Nations Model Regulations

The United Nations created the UN Committee of Experts on the Transport of Dangerous Goods (TDG) in 1953 as a subsidiary body of the Economic and Social Council. The committee's mandate was expanded in 1999 to include the Globally Harmonised System for the Classification and Communication of Hazardous Chemicals (GHS). At that time, it became known as the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonised System for the Classification and Communication of Hazardous Chemicals. The committee now has two subsidiary committees, one for matters relating to TDG and one for matters relating to the GHS.

Australia is a full member state of both the UN Sub-Committee of Experts on the Transport of Dangerous Goods (TDG Sub-Committee) and the UN Sub-Committee of Experts on the GHS (GHS Sub-Committee).

The TDG Sub-Committee is responsible for developing and maintaining the UN Recommendations. The UN Recommendations contain the common framework and core provisions for the safe transport of dangerous goods but cannot be used on their own because they do not address mode-specific risks. The UN Recommendations provide a general basis for the safe transport of dangerous goods that is modified and complemented by specific requirements of a country or region and by mode of transport. Australia is represented on the TDG Sub-Committee by the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications.

In the 'About the recommendations' section on its website, the United Nations Economic Commission for Europe (UNECE) states:

The Model Regulations aim at presenting a basic scheme of provisions that will allow uniform development of national and international regulations governing the various modes of transport;It is expected that governments, intergovernmental organizations and other international organizations, when revising or developing regulations for which they are responsible, will conform to the principles laid down in these Model Regulations, thus contributing to worldwide harmonization in this field...

The ADR establishes both the duties of the various parties and the technical requirements. However, it does not contain enforcement provisions.

Variations by contracting states are permitted but must be notified to the UNECE. State variations are published on the UNECE website. Mutual recognition is in place for cross-border transport.

The UNECE Inland Transport Committee Working Party on the Transport of Dangerous Goods (WP.15) regularly updates the ADR in line with the UNMR.

3.2.3.2 Rail – Regulations concerning the International Transport of Dangerous Goods (RID)

The RID is annexed to the Convention for the international transport by rail (COTIF) and as such, it is mandatory for all contracting parties. The Intergovernmental Organisation for the International Carriage by Rail (OTIF) RID Safety Committee is responsible for updating the RID regulations in line with the UNMR. The RID regulations are closely aligned to the ADR as a result of the ADR/RID/AND Joint Meeting.

3.2.3.3 Inland waterways – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)

The ADN provisions are applicable to inland waterways within Europe. The regulations are annexed to the agreement in the same manner as the ADR. They are based on the UNMR, ADR and RID, with additional regulations specific to inland waterways transport.

Appendix B Additional resources

ACCORD Australasia 2010, Submission to NTC: ADG7 Implementation Issues.

Council of Australian Governments (COAG) 2007, *Best practice regulation: a guide for ministerial councils and national standard setting bodies*, COAG, Canberra.

Council of Australian Governments (COAG) 2009, *Memorandum of understanding for chemicals and plastics regulatory reform*,
https://www.coag.gov.au/sites/default/files/agreements/mou_framework_chemicals_plastics_regulatory_signature.pdf [Accessed 18 May 2020]

Department for Transport, Maritime and Coastguard Agency (UK) 2016, *Merchant Shipping (Ambulatory Reference) (Load Line) Regulations 2017*
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/620980/Annex_A_-_Impact_Assessment_Load_Line.pdf [Accessed 18 May 2020]

National Transport Commission 2006, *Australian Dangerous Goods Code 7th Edition Legislative Package: summary response to public submissions*, NTC, Melbourne.

National Transport Commission 2011, *Australian Code for the Transport of Dangerous Goods by Road and Rail 7th Edition Reform Package – Implementation and Regulatory Outcomes Review*, NTC, Melbourne.

National Transport Commission 2013, *Strategic Framework Review of the Regulation of Land Transport of Dangerous Goods: final recommendations*, NTC, Melbourne.

National Transport Commission 2019, Consultation regulation impact statement, *In-service safety for automated vehicles, July 2019*, NTC, Melbourne.

Productivity Commission 2008, *Research Report: Chemicals and Plastics Regulation*, Australian Government, Canberra.

Productivity Commission 2009, *Supplement to Research Report: Chemicals and Plastics Regulation: Lessons for National Approaches to Regulation*, Australian Government, Canberra.

Tate, P. 2005, *Cooperative Federalism: Referrals of State Powers to the Commonwealth and Their Consequences*, Paper delivered at a Constitutional Law Conference in Sydney, 18 February

Transport and Infrastructure Senior Officials' Committee (TISOC) 2012, *2012 Review of the National Transport Commission and other Relevant Bodies*, TISOC, Canberra.

Glossary

Term	Definition
ADG	Australian Dangerous Goods
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
ALC	Australian Logistics Council
ATA	Australian Trucking Association
CAP	Competent Authorities Panel
COAG	Council of Australian Governments
DGSA	Dangerous Goods Safety Advisor
ECOSOC	United Nations Economic and Social Council
GHS	Globally Harmonised System for the Classification and Communication of Hazardous Chemicals
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
ICAO TI	Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organisation
Model Law	Model Act on the Transport of Dangerous Goods by Road or Rail
MSI	Model Subordinate Instrument on the Transport of Dangerous Goods by Road or Rail
NRTC	National Road Transport Commission (now NTC)
NTC	National Transport Commission
PHMSA	Pipeline and Hazardous Materials Safety Administration

RID	Regulations concerning the International Transport of Dangerous Goods
SCOC	Standing Committee on Chemicals
SCOTI	Standing Committee on Transport and Infrastructure (now the Transport and Infrastructure Council)
SOLAS	International Conventions for the Safety of Life at Sea
TDG Sub-Committee	UN Sub-Committee of Experts on the Transport of Dangerous Goods
TISOC	Transport and Infrastructure Senior Officials' Committee
The Code	Australian Code for the Transport of Dangerous Goods by Road or Rail
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNMR	United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations

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National Transport Commission
Level 3/600 Bourke Street
Melbourne VIC 3000
Ph: (03) 9236 5000
Email: enquiries@ntc.gov.au
www.ntc.gov.au

