



Environment Protection Authority

Regulatory Impact Statement

Proposed Dangerous Goods (Road and Rail Transport) Regulation 2022



© 2022 State of NSW and the NSW Environment Protection Authority

With the exception of photographs, the State of NSW and the NSW Environment Protection Authority (EPA) are pleased to allow this material to be reproduced in whole or in part for educational and non-commercial use, provided the meaning is unchanged and its source, publisher and authorship are acknowledged. Specific permission is required for the reproduction of photographs.

The EPA has compiled this statement in good faith, exercising all due care and attention. No representation is made about the accuracy, completeness, or suitability of the information in this publication for any particular purpose. The EPA shall not be liable for any damage which may occur to any person or organisation taking action or not on the basis of this publication. Readers should seek appropriate advice when applying the information to their specific needs. This document may be subject to revision without notice and readers should ensure they are using the latest version.

Every effort has been made to ensure the information in this document is accurate at the time of publication. However, as appropriate, readers should obtain independent advice before making any decision based on this information.

The EPA shall not be liable for any damage which may occur to any person or organisation taking action or not on the basis of this publication.

All content in this publication is owned by the EPA and is protected by Crown Copyright, unless credited otherwise. It is licensed under the Creative Commons Attribution 4.0 [International](#) (CC BY 4.0), subject to the exemptions contained in the licence. The legal code for the licence is available at [Creative Commons](#).

The EPA asserts the right to be attributed as author of the original material in the following manner: © State of New South Wales and the NSW Environment Protection Authority 20XX.

Cover: An isotank containing benzene is inspected during a joint dangerous goods inspection campaign held by the NSW EPA and Transport for NSW at Simblist Road, Port Botany. Photo: Alex Bourne/EPA

Published by:

NSW Environment Protection Authority

4 Parramatta Square

12 Darcy Street, Parramatta NSW 2150

Locked Bag 5022, Parramatta NSW 2124

Phone: +61 2 9995 5000 (switchboard)

Phone: 131 555 (NSW only – environment information and publications requests)

Fax: +61 2 9995 5999

TTY users: phone 133 677, then ask
for 131 555

Speak and listen users:

phone 1300 555 727, then ask for 131 555

Email: info@epa.nsw.gov.au

Website: www.epa.nsw.gov.au

Report pollution and environmental incidents

Environment Line: 131 555 (NSW only) or info@epa.nsw.gov.au

See also www.epa.nsw.gov.au

ISBN 978 1 922778 18 5

EPA 2022P3673

April 2022

Contents

1. Introduction	1
1.1 Purpose of this document	1
1.2 The regulatory framework	1
1.2.1 International	1
1.2.2 National	1
1.2.3 New South Wales	2
1.3 Who will the Proposed Regulation apply to?	3
1.4 Consultation	3
2. Transport of dangerous goods	4
2.1 Risk management of dangerous goods transport	4
2.2 EPA experience with the operation of the Regulation	6
2.3 Effectiveness of the current Regulation	6
3. The Proposed Regulation	7
3.1 What is changing?	7
3.2 Roll stability system requirements	8
3.3 Prohibited areas	9
3.4 Reporting incidents	10
3.5 Certification of a packaging design	10
3.6 Adjustment of licence and other fees for inflation	10
3.7 Maintenance, testing and inspection of vehicles	12
4. Alternative options	13
4.1 Option 1: Allow the Regulation to be automatically repealed	13
4.2 Option 2: Remaking the Regulation without change	13
4.3 Option 3: Remaking the Regulation with amendments	14
5. Costs and benefits of the Proposed Regulation	14
5.1 Costs	14
5.1.1 Costs to transport companies	14
5.1.2 Costs to drivers	15
5.2 Benefits	16
6. Conclusion	16
Appendix A: Better regulation principles	17
Appendix B: Key proposed amendments	18
Appendix C: Guidance material	20

The Minister for the Environment and Heritage is proposing to remake the Dangerous Goods (Road and Rail Transport) Regulation 2014, which is due for automatic repeal on 1 September 2022.

The *Dangerous Goods (Road and Rail Transport) Act 2008* establishes the Environment Protection Authority as a Competent Authority with powers within the regulatory framework for regulating the transport of dangerous goods by road and rail and specifies safety requirements for dangerous goods transport to minimise the risk of harm to people, property and the environment.

The Proposed Regulation maintains and strengthens the alignment of the Regulation to national dangerous goods Models Laws and the Australian Dangerous Goods Code, and legislates requirements that strengthen safety, maintenance, approvals and incident reporting.

This Regulatory Impact Statement assesses the costs and benefits of the Proposed Regulation and its alternatives, and addresses NSW Government Better Regulation Principles.

1. Introduction

1.1 Purpose of this document

The *Subordinate Legislation Act 1989* requires regulations to be reviewed every five years to ensure they remain relevant and effective. If regulations are not remade, they are subject to automatic repeal, unless a postponement is granted. The repeal of the Dangerous Goods (Road and Rail Transport) Regulation 2014 (the Regulation) has been postponed several times and it is now due for automatic repeal on 1 September 2022. The Minister for Environment and Heritage proposes to remake the Regulation before 1 September 2022.

When a principal regulation is to be remade the responsible agency must prepare a Draft Regulation and Regulatory Impact Statement (**RIS**). A RIS examines the economic and social costs and benefits of regulatory proposals and their alternatives. The *Subordinate Legislation Act 1989* requires that the community be provided with an opportunity to comment on the Proposed Regulation and RIS before the Regulation is made.

This RIS has been prepared in accordance with the *Subordinate Legislation Act 1989* and to address the Better Regulation Principles in the *NSW Government Guide to Better Regulation* – see **Appendix A**.

1.2 The regulatory framework

1.2.1 International

The existing Regulation reflects an international framework for regulating the transport of dangerous goods, which includes the UN Recommendations on the Transport of Dangerous Goods and the UN Manual of Tests and Criteria.

The UN Recommendations on the Transport of Dangerous Goods, which are updated every two years, form the basis for the Model Act on the Transport of Dangerous Goods and the Model Subordinate Instrument on the Transport of Dangerous Goods by Road or Rail (**Model Laws**) and the Australian Code for the Transport of Dangerous Goods by Road and Rail (**ADG Code**), which specify requirements for transporting dangerous goods by road and rail.

1.2.2 National

The Regulation is part of a national regulatory framework which seeks to minimise risks to people, property and the environment from the transport of dangerous goods. The national framework managed by the National Transport Commission (**NTC**) includes:

- the Model Laws, and
- the ADG Code.

This framework harmonises requirements throughout Australia and includes mutual recognition provisions, which ensure that licences, approvals, determinations and exemptions issued in any jurisdiction are recognised in all other jurisdictions.

The EPA provides input to updating the Model Laws and ADG Code through the Transport of Dangerous Goods Maintenance Advisory Group.

The next update to the Model Laws is scheduled to be implemented in 2022. The changes are likely to be machinery in nature, including updating definitions, rewording requirements for the

retention of transport documents, inclusion of fibre-reinforced plastic portable tanks (to be included in the next version of the ADG Code), and a one-year transition period for ADG Code changes.

While most dangerous goods are used in their state of import or origin, the national framework supports interstate transport and mutual recognition embedded in the legislation which allows licensed vehicles to transport dangerous goods in NSW if they are licensed to carry them interstate. In NSW, interstate movements are primarily to and from Queensland, Victoria and the Australian Capital Territory.

1.2.3 New South Wales

The *Dangerous Goods (Road and Rail Transport) Act 2008* (**the Act**) and the Regulation give effect to the Model Laws and the ADG Code in NSW.

The objectives of the Regulation are:

- to set out the obligations of persons involved in the transport of dangerous goods by land transport
- to reduce as far as practicable the risks of personal injury, death, property damage and environmental harm arising from the transport of dangerous goods by land transport
- to give effect to the standards, requirements and procedures of the ADG Code so far as they apply to the transport of dangerous goods by land transport
- to promote consistency between the standards, requirements and procedures applying to the transport of dangerous goods by land transport and other modes of transport.

The Regulation was last amended in 2020 to reflect changes to the Model Laws and the ADG Code. Most updates to the ADG Code are adopted automatically, as Division 2 of the Regulation gives effect to the standards, requirements and procedures of the latest version of the ADG Code.

The EPA and SafeWork NSW are appointed under the Act as joint competent authorities to regulate the road and rail transport of dangerous goods in NSW. The EPA is responsible for consignment, loading and “on-road” and “on-rail” transport matters. SafeWork is responsible for regulating activities prior to transport such as classification, packaging, labelling and workplace safety aspects of vehicle loading and unloading. The storage and use of dangerous goods on business premises is regulated by SafeWork under work health and safety legislation.

The Office of the National Rail Safety Regulator (**ONRSR**) supports the EPA’s regulation of the transport of dangerous goods through a memorandum of understanding with the EPA and other competent authorities.

NSW Police and Transport for NSW conduct compliance and enforcement activities relating to the transport of dangerous goods.

Some other laws, regulations and standards that affect the transport of dangerous goods by road and rail are outlined in Tables 1 and 2.

Table 1 Heavy vehicle and dangerous goods legislation and standards

Commonwealth Legislation	
Heavy Vehicle National Law (HVNL)	Defines the basic vehicle standards required to operate a heavy vehicle and sets out the process for requesting access to roads. The HVNL has been adopted in NSW as applied legislation.
Australian Standards and Australian Design Rules	Set out the technical specifications for many individual parts of a heavy vehicle. These specifications are referenced in the various pieces of legislation governing the use of dangerous goods-carrying vehicles and other heavy vehicles.

Rail Safety National Law (RSNL)	Provides for a national rail safety system and sets out the provisions to ensure that freight (including dangerous goods) is transported safely by rail.
---------------------------------	--

Table 2 State legislation and regulations

NSW Legislation	
<i>Work Health and Safety Act 2011</i> and <i>Work Health and Safety Regulation 2011</i>	Operators and consignors must comply with Work Health and Safety (WHS) legislation when loading and unloading a heavy vehicle. Contains provisions relating to the storage and handling of dangerous goods.
<i>Road Transport Act 2013</i>	Legislates the licensing of heavy vehicle drivers, and the speed limiting and monitoring provisions for heavy vehicles. It also includes provisions for load restraint and operation of light vehicles, which may be used to transport dangerous goods.
Road Rules 2014	Contain provisions restricting the use of vehicles carrying dangerous goods along certain routes and within tunnels.

1.3 Who will the Proposed Regulation apply to?

The Proposed Regulation applies to persons involved in the transportation of dangerous goods by road and rail in NSW. This includes consignors, packers, vehicle licensees, drivers, prime contractors, dangerous goods transport/freight companies, heavy vehicle repairers and rail operators. Some of the organisations that represent these groups include:

- Road Freight NSW (prime contractors/transport industry)
- Australian Logistics Council (prime contractors/transport industry generally)
- ACCORD (national industry association representing manufacturers and marketers of hygiene, cosmetic and specialty products – consignors)
- Chemistry Australia (consignors)
- National Bulk Tanker Association (prime contractors/consignors of bulk liquids)
- Gas Energy Australia (prime contractors/consignors of LPG)
- The Australia New Zealand Industrial Gas Association (ANZIGA) (prime contractors/consignors of industrial gases)
- The Australasian Convenience and Petroleum Marketers Association (ACAPMA) (represents petrol stations and some smaller bulk liquids transporters)
- Safe Load Program (provides training modules and information on safe loading of bulk fuel tankers and maintains a database of maintenance providers)
- Waste Contractors and Recyclers Association of NSW, which addresses business issues relating to the waste and recycling industry on behalf of its members.

The Proposed Regulation also applies to approved Registered Training Organisations that deliver dangerous goods driver training.

The ONRSR was consulted about the proposed amendment to incident reporting as it affects rail operators.

1.4 Consultation

The Draft Regulation and RIS are available for public comment for a minimum of 4 weeks on the EPA website. The EPA will consider feedback received during the consultation before finalising the Regulation.

Submissions can be made **online** by completing the survey at yoursay.epa.nsw.gov.au.

Alternatively, submissions can be sent:

- by email to dg.reform@epa.nsw.gov.au
- by mail to Locked Bag 5022, Parramatta NSW 2124.

2. Transport of dangerous goods

2.1 Risk management of dangerous goods transport

Dangerous goods are substances and objects that pose acute risks to people, property and the environment due to their chemical or physical characteristics being flammable, corrosive, explosive, spontaneously combustible, toxic and water reactive.

Dangerous goods include:

- petroleum products, such as petrol and jet fuel
- gases, including liquefied petroleum gas, industrial gases and toxic gases
- oxidising agents, such as hydrogen peroxide and pool chemicals
- toxic substances, such as cyanides and many pesticides
- corrosives, such as acids and caustic materials.

Diesel fuel is usually not classified as dangerous goods under NSW dangerous goods legislation.

The transport of dangerous goods is a significant industry activity. According to Australian Bureau of Statistics data, in 2017–18:

- 18 million tonnes of dangerous goods were transported in NSW by about 1.7 million vehicle movements (about 4,700 per day)
- 96% of NSW dangerous goods tonnage moved by road involves road movements which are entirely within the state
- the gross value added of NSW dangerous goods freight is estimated at \$343 million a year
- 79% of dangerous goods freight in NSW are petroleum products and gases and about 14% are chemicals and fertilisers.

The regulatory framework for the transport of dangerous goods includes controls that apply when the dangerous goods are being prepared for transport as well as during transport. This helps to ensure that risks are mitigated and that, in the event of an incident, the contribution of the dangerous goods to the incident is mitigated.

Transporting dangerous goods introduces risks, including:

- vapours and dusts accumulating in enclosed vehicles
- solids settling out as a container is vibrated, causing liquids to splash against the lid seal
- gas cylinders venting as the vehicle temperature rises
- packages sliding or becoming airborne when the vehicle is cornering and braking
- chemical reactions if packages open and contents spill, mixing with chemicals in adjacent packages.

To mitigate the risks presented by the dangerous goods transport there are extensive packaging requirements, with the controls depending on the hazards presented by the goods. For many dangerous goods this includes requiring packaging that meets standards for being leak-proof and withstanding falls from a height.

During transport other controls are required to mitigate risks. Vehicles transporting most dangerous goods need to carry a document that outlines details of the dangerous goods on the vehicle. When vehicles are transporting a significant quantity of dangerous goods other controls include:

- placarding of vehicles and large receptacles to warn others of the hazards
- mandatory safety equipment and emergency response information
- segregation of incompatible dangerous goods
- emergency plans and insurance to deal with an incident
- licensing dangerous goods vehicles and drivers.

Significant risks can occur when dangerous goods are incorrectly transported because of the:

- large volumes of traffic using major highways and roadways
- high number of vehicles transporting dangerous goods
- large volumes of pesticides and industrial chemicals, many of which are dangerous goods being transported on the roads
- number of creeks and rivers that highways and roads cross
- proximity of urban water supply dams to many major roads
- sensitivity of the flora and fauna close to roads within national parks, nature and road reserves.

Incidents involving the transport of dangerous goods have the potential to cause fatalities, significant disruption to the transport network and pollution to waterways and land, especially when transported in tanks or in bulk.

EPA tanker incident data covering the period from March 2012 to February 2017 indicates there were 49 dangerous goods transport incidents. More than half of these involved leaking packaging (loss of containment) and travelling on prohibited routes. The economic, social and environmental costs of dangerous goods transport incidents can be significant. For example:

- incidents involving tankers may require evacuation of the surrounding area within a radius of 300 metres or more
- road closures for extended periods cause congestion and delays across the road network
- dangerous goods need to be contained, controlled and recovered
- road surface damage is often significant and requires resurfacing before reopening
- fires from incidents require the use of fire-retardant foams and water, which results in environmental damage and clean-up costs (for example, a 2021 Hume Highway incident cost about \$400,000 in remediation as the firewater contaminated a farm dam, affecting flora, fauna and aquatic life)
- vehicle and dangerous goods waste disposal can be difficult and expensive.

Examples of incidents involving dangerous goods

- A tanker collided with several cars near Jolls Bridge – causing four fatalities and the closure of the F3 north of Sydney for 9 hours following the accident (2010)
- A tanker rolled over due to brake, suspension and steering defects on Mona Vale Road in Sydney, and more than 18,000 litres of fuel escaped and entered nearby drains, igniting and spreading to four cars, causing two fatalities and the extended closure of Mona Vale Road (2013)
- A tanker rollover on Wentworth Avenue, Eastlakes in Sydney, resulted in the road being closed for 24 hours with extended delays across the road network (2016)

- A tanker rollover on the Newell Highway near Pilliga (between Narrabri and Coonabarabran) resulted in the highway being closed for 6 hours and partially for a further 69 hours (2018)
- A tanker fire on the M1 and Pacific Highway near Figtree resulted in both roads being closed for 6 hours and the M1 was partially closed for a further 16–18 hours (2019)
- A fire in a mixed load of dangerous goods on the Hume Highway at Yerrinbool, in the Southern Highlands, resulted in the northbound lane being closed for more than 7 hours (2021)
- A two-truck collision in Wetherill Park, Sydney, caused several roads to be closed for up to 12 hours and the evacuation of several nearby buildings as one of the trucks contained lithium batteries which can explode (2021).

2.2 EPA experience with the operation of the Regulation

The current Regulation came into effect in 2014. Since then the EPA has been a leader in the implementation of harmonised dangerous goods legislation in Australia and has assisted other jurisdictions on such matters as licensing and records management, publications, public registers, inspection programs and enforcement procedures.

As of December 2021, there were 466 vehicle licences (covering 2,868 tankers and 3,839 non-tankers) for the transport of dangerous goods in NSW by 7,075 licensed dangerous goods drivers.

From July 2015 to July 2021, 509 penalty notices for dangerous goods transport matters were issued in NSW. Most of these related to missing or poorly maintained safety equipment, incorrect transport documents or emergency information, or inappropriate placarding of vehicles. Since 2014, there have been three major prosecutions for dangerous goods offences.

The Regulation has been periodically amended to reflect technical changes to the ADG Code and to impose additional requirements to reduce risks including:

- compulsory driver training
- independent certification of tankers and packaging approvals.

Regulatory enforcement programs have included:

- audits of high-risk activities and locations (such as prohibited routes for dangerous goods)
- an audit of dangerous goods driver trainers
- audits of companies that consign and load dangerous goods onto vehicles
- state-wide roadside campaigns jointly conducted with Transport for NSW and/or NSW Police
- investigations of incidents involving the transport of dangerous goods.

The Regulation is part of the EPA's broader regulatory approach to the transport of dangerous goods. This approach consists of three key elements:

- clear and appropriate legislation
- policies and programs that underpin and guide our evidence-based regulatory decisions
- risk-based outcomes-focused enforcement approach to reduce the biggest risks to human health and the environment.

2.3 Effectiveness of the current Regulation

Regulations are effective if they are clear, proportionate and appropriate, understood and complied with by industry, and effectively enforced by regulatory agencies. Reducing the risk of accidents involving dangerous goods depends not only on robust regulation and compliance but on industry education, the quality of transport infrastructure, weather conditions, driver speeding and fatigue, and other issues outside the EPA's control.

The EPA enforces the Regulation in accordance with its [Regulatory Policy](#), which sets out the regulatory tools the EPA uses, regulatory actions it may take and what it considers when making regulatory decisions. Where necessary, the EPA takes strong enforcement action against non-compliant people and businesses, including prosecution.

The EPA engages with stakeholders in regulating the transport of dangerous goods where, in addition to its own in-house expertise and resources, the EPA draws on the experience of industry and other agencies.

The EPA works with industry associations to address emerging issues arising from national consultation processes and regulatory campaigns and to disseminate information about regulatory changes resulting from updates to the ADG Code, Model Laws and the Regulation. The EPA gives presentations at industry events and other forums, and consults with individual businesses on current and emerging issues concerning the transport of dangerous goods.

The EPA also works with other agencies – including SafeWork NSW, Fire and Rescue NSW, Transport for NSW and the NSW Police Force – to effectively enforce the Regulation through targeted compliance campaigns focused on the highest risk routes/locations and activities. Among other things, this close cooperation has led to:

- the development of a comprehensive tank vehicle inspection manual, released in August 2018, which provides guidance to people inspecting road tank vehicles and prime movers intended to transport dangerous goods in accordance with Australian Standard 2809 and the ADG Code
- joint compliance campaigns conducted by the EPA and Transport for NSW
- training and support for NSW Police Highway Patrol and joint compliance campaigns for enforcement and training of officers in dangerous goods inspections
- a joint industry awareness, education and compliance campaign to support the safe and effective transport of hand sanitiser in response to the COVID-19 pandemic.

3. The Proposed Regulation

The Proposed Regulation is necessary to ensure the continuation of legislative requirements in NSW for the transport of dangerous goods by road and rail from 1 September 2022.

The Proposed Regulation clarifies safety, maintenance, inspection, approval and reporting requirements with additional obligations not to provide false or misleading information in relation to the maintenance, testing or inspection of vehicles or in an application for a tank design approval. The Proposed Regulation has been drafted to better align with the national Model Laws and the ADG Code. Changes have been made to correct inconsistencies in language, structure and law between the Regulation and the Model Laws. These corrections do not impose any additional duties or requirements.

3.1 What is changing?

The Proposed Regulation replaces the 2014 Regulation to:

- require roll stability systems to be fitted, maintained and operational on heavy tank vehicles used to transport dangerous goods and create duties for owners, consignors, loaders, prime contractors and drivers
- mirror the requirements in the NSW Road Rule 300-2 which specifies areas where drivers and prime contractors are prohibited from transporting placard loads of dangerous goods, subject to exemptions

- clarify that in an incident resulting in a dangerous situation, a dangerous goods driver must notify the contractor and emergency services as soon as practicable. The prime contractor must notify the EPA as soon as practicable within one hour of becoming aware of the incident
- clarify who the EPA may authorise to approve packaging and tank designs, and create an offence for providing false or misleading information in relation to an application for approval of a dangerous goods tank design
- prescribe licence and other fees and provide for adjustment of fees for inflation in accordance with the Consumer Price Index from 2023–24
- require a person undertaking maintenance, testing or inspection of a licensed dangerous goods vehicle to ensure that such work is carried out in accordance with the ADG Code, and to provide the vehicle owner with an honest report of any non-compliance with the Code.
- make machinery changes and other changes in language and formatting to align as close as practicable with the Model Subordinate Instrument.

Note: NSW does, from time to time (including in the Proposed Regulation), make amendments that create separate offences or obligations (or narrower existing requirements) from those in the Model Laws where appropriate. There are no new requirements as a result of alignment with Model Laws – it is limited to structure, terminology. The Proposed Regulation includes new and separate requirements or narrowed /refined requirements compared to Model Laws.

3.2 Roll stability system requirements

Fuel tankers are among the most potentially dangerous vehicles on the road, carrying loads that make them vulnerable to rollover and explosions. The EPA requires all heavy vehicle tank trailers transporting dangerous goods to be fitted with electronic roll stability systems (**RSS**) to mitigate rollover and loss of control on dry, wet, snowy and icy road surfaces. This requirement was introduced by two determinations made by the EPA under clause 25 of the Regulation on 23 January 2014 and 29 August 2014.

The requirement set out in the Determinations requiring the fitting of RSS have been incorporated into the Proposed Regulation (clauses 91-92), requiring that heavy vehicle tank trailers be fitted with RSS and adding a requirement that they are maintained and operational. These requirements apply to drivers, vehicle owners, prime contractors and consignors (clauses 93-97).

According to a Technical Advisory Procedure prepared by the Australian Truck Association on the fitment and operation of stability control systems (2016), regular maintenance is required to ensure any system operates effectively and that any fault is addressed using appropriate diagnostic equipment.¹

Industry benefits from properly maintained and operational RSS in time and financial savings from avoided incidents. Incidents can be costly in terms of vehicle repairs/replacement, vehicle downtime, damaged cargo, medical and insurance costs for the driver and others involved and legal and settlement fees. Other costs to the community include property and road damage, environmental damage repair costs, road closures and traffic delays.

According to a report by Transport NSW (May 2020), having all heavy vehicles fitted with electronic stability control reduces fatal heavy vehicle accidents by 4%.² A US Department of Transportation cost-benefit analysis of onboard safety systems for trucks in 2009 found that the benefits of having

¹ Australian Trucking Association Industry Technical Council, May 2016, *RSC and ESC systems for trucks and trailers: Technical advisory procedure*, 2nd edition, ACT, page 10.

² Transport NSW, *Safety features and technologies for heavy vehicles*, May 2020, NSW, page 3.

RSS fitted over a 5-year period outweighed the costs associated with purchasing the systems for every class of heavy vehicle.³

Under the “Determination: Transport of Dangerous Goods in Tank Trailers – 23 January 2014”, RSS must be fitted to heavy vehicle tank trailers built on or after 1 July 2014 and used to transport dangerous goods in NSW. Under the “Determination: Transport of Dangerous Goods in Tank Trailers – 29 August 2014”, from 1 January 2019 all dangerous goods tank trailers operating in NSW must be fitted with RSS.

Due to these rules, estimating the cost of requiring RSS to be fitted to new dangerous goods tank trailers in the Regulation can be difficult, as it is now incorporated into the cost of manufacturing the whole vehicle. RSS is now standard on all tank vehicles manufactured in Australia since the introduction of the Australian Code (AS 2809.1:2020).

If an older tank trailer without RSS is brought into NSW for use in dangerous goods transport, then it would need to have RSS retrofitted. The cost of a retrofit is around \$5000.

Given the demonstrated effectiveness of RSS in reducing fatal and non-fatal accidents over the 10 to 20-year lifespan of a tanker vehicle, the additional manufacturing and maintenance cost, or cost of retrofit in the case of an older vehicle, is considered reasonable and appropriate and provides a net benefit to the Australian community.

NSW is the first state to introduce this requirement, which is consistent with good industry practice nationally and internationally.

3.3 Prohibited areas

Under the *NSW Road Rules 2014* (rule 300-2) (**NSW Road Rules**) the driver of a dangerous goods transporter (vehicle) is prohibited from driving the vehicle on or in any road or tunnel specified as a prohibited area under the rule. Certain routes (including tunnels), particularly in densely populated areas, are prohibited because of the increased risk of damage to the community and the environment from an incident.

The Proposed Regulation mirrors this rule by adopting the same “prohibited areas” as rule 300-2, prohibiting drivers from transporting dangerous goods (including placard loads) on or in specified routes (including tunnels)(clause 115) and extending this obligation to prime contractors (clause 114). This allows the EPA to regulate the transport of dangerous goods in prohibited areas. Referencing the NSW Road Rules ensures that additional prohibited areas are automatically captured when they are added under the Road Rules.

The offence provision carries the same penalty for drivers and prime contractors, given the seriousness of the offence and similar responsibility.

The Proposed Regulation also simplifies and clarifies the existing provision allowing the EPA to make Determinations prohibiting specified vehicles and loads from certain routes and areas (including roads and tunnels) and/or at specified times (clause 24). As this is not a new requirement but a rewording to strengthen an existing clause.

The costs and benefits of incorporating the prohibited areas rule in the Proposed Regulation have not been quantified for this analysis as this is an existing requirement under the *NSW Road Rules 2014* (Rule 300-2).

³ US Department of Transportation: Federal Motor Carrier Safety Administration, *Benefit-cost analyses of onboard safety systems*, February 2009, Washington DC, page 3.

As examples noted in this RIS demonstrate, dangerous goods incidents can lead to road closures that financially impact business and the community. The potentially substantial costs to the community of an incident on a prohibited route far outweigh any additional transport costs to prime contractors of using alternative routes which may be longer.

3.4 Reporting incidents

The Proposed Regulation requires the prime contractor to notify the Competent Authority (the EPA or the ONRSR) of an incident involving dangerous goods transport as soon as practicable and “not later than 1 hour after becoming aware of the incident” (clause 177(2)). The 1-hour timeframe is proposed to be added to the Regulation to clarify the requirement for the EPA and industry. The EPA often needs to attend incidents promptly to provide technical and other information and advice to the Police and Fire and Rescue on how to manage dangerous goods that pose a risk to human health and the environment. Prompt notification of incidents is essential.

The cost of failing to report incidents within a 1-hour timeframe is difficult to quantify. In some instances it may be the difference between a fatality and a serious injury requiring hospitalisation; a truck exploding and spreading to other vehicles/property and preventing or extinguishing a truck fire; the loss of containment of dangerous goods and dangerous goods secured and contained; and/or a major highway/road closure and a minor traffic disruption.

3.5 Certification of a packaging design

Under Chapter 6.9 of the ADG Code, the design of a tank used for dangerous goods transport must be approved by the Competent Authority (the EPA) before it can be used to transport dangerous goods.

As indicated under 2.1 above, to mitigate the risks presented by transporting dangerous goods, there are extensive packaging requirements which include requiring packaging that meets standards for being leak-proof and withstanding falls from a height.

The EPA or Safework can authorise a person to issue a packaging approval after verifying that the application complies with the requirements of the ADG Code and relevant Australian Standards. The Proposed Regulation (clause 53) clarifies that only a person who is a qualified mechanical engineer, NATA accredited laboratory, NSW government agency or statutory body can be granted an authorisation.

There is no provision under the Model Laws, Regulation or ADG Code prohibiting the person applying for a tank design approval from providing false or misleading information as part of the application for approval. The Proposed Regulation makes it offence for a person to provide false or misleading information when making an application for approval of a tank design.

3.6 Adjustment of licence and other fees for inflation

Dangerous goods driver and dangerous goods vehicle licence fees have not been reviewed since 2009, while the costs of administering the licensing system have increased during this period. The EPA seeks to align future licence and other fee increases with inflation.

Currently the application for a new dangerous goods driver licence or a renewal is \$57, and the licence is generally valid for 5 years, but licences of shorter duration may be issued in certain circumstances. A 1-year licence is issued for vehicles such as trailers, rigid vehicles, B-double trailers and road-train trailers at a cost of \$87 per vehicle. A transfer of vehicle licence fee is \$11.

The Proposed Regulation (Schedule 1, Part 2), prescribes that fees be adjusted annually by the equivalent of the Consumer Price Index (CPI) for the previous September quarter. The CPI is compiled quarterly by the Australian Bureau of Statistics and measures changes in the price level of a weighted average selection of consumer goods and services. Indexing will better align fees with increases in the costs of administering the licensing framework. Schedule 1 of the Proposed Regulation contains an algorithm for calculating the fee each year with the adjustment for inflation.

The EPA will notify licensees of the new fee amounts through the online licensing system and publication on the EPA website. This approach requires initially including a Schedule of Fees in the Regulation. Rather than updating the schedule every year according to the index, the EPA notifies the Parliamentary Counsel of the new fee amounts and these are published on the EPA website. Licensees are automatically notified of fee increases through the EPA's online licensing system.

Tables 3 and 4 shows how licence and other fees might increase in 2023–24. This example uses the September quarter 2021–22 CPI number.

Table 3 Current and indicative fees

Administrative determinations and approvals Fees clause 170 (1) (b)	Current 2021–22	Indicative 2023–24
Application for approval for a test or training course for drivers (clause 23)	\$341	\$368
Application for approval for a packaging design (clause 48)	\$341	\$368
Application for approval of a segregation device (clause 109)	\$171	\$185
Application for approval of a segregation method (clause 110)	\$171	\$185
Application for approval of emergency information (clause 134)	\$114	\$123
Application for variation of an approval or determination (clause 185)	\$114	\$123
Application for approval of self-insurance (clause 240)	\$114	\$123
Exemptions (clause 164 (1) (l))	\$171	\$185
Application for exemption		

Table 4 Licensing current and indicative fees

Licensing	Current 2021–22	Indicative 2023–24
Application for dangerous goods driver licence	\$57	\$62
Application for renewal of dangerous goods driver licence	\$57	\$62
Application for vehicle licence – additional vehicle	\$87	\$94
Application for vehicle licence – replacement vehicle	\$23	\$25
Application for renewal of vehicle licence	\$87	\$94
Application for transfer of vehicle licence	\$11	\$12

3.7 Maintenance, testing and inspection of vehicles

Vehicle maintenance, testing and inspection are important to reduce incidents caused by mechanical failures. Incidents can also be caused by driver fatigue, poor road conditions, older vehicles without vehicle safety equipment and/or poor maintenance.

The Regulation imposes obligations on owners, loaders, prime contractors, rail operators and drivers not to use a vehicle unless it complies with the requirements set out in Chapter 4.4 of the ADG Code. For tank vehicles, this includes inspection and maintenance requirements contained in AS 2809, the Australian standard for dangerous goods tank vehicles. However, under the current regulation there is no equivalent obligation on persons who undertake maintenance, testing or inspections of such vehicles to ensure the vehicle complies with the ADG Code. Nor is there an obligation on such persons to notify the owner of the vehicle where the vehicle does not comply with the ADG Code.

Heavy vehicle inspections following the Mona Vale incident in 2013 identified the need to improve vehicle maintenance standards within the dangerous goods vehicle fleet. Following this incident, the EPA held discussions with industry operators and consignors about the need to strengthen awareness of maintenance standards. The EPA subsequently developed the Dangerous Goods Tank Vehicle Inspection Manual to help operators and repairers of tank vehicles demonstrate that their vehicle is safe and meets the legislative requirements.

In 2021, the EPA undertook a project examining tanker maintenance and associated record keeping. The EPA identified that many operators of small tanker fleets were heavily reliant on outsourced mechanical services to ensure the tankers are suitably inspected and maintained. This creates a risk of inadequate maintenance practices going unnoticed.

The Proposed Regulation imposes an obligation on persons undertaking maintenance, testing or inspections of vehicles licensed to transport dangerous goods to ensure this work is undertaken in accordance with the requirements in the ADG Code (clause 90 (1) and(2)), and to notify the owner of the vehicle if the vehicle or its equipment does not comply with the ADG Code. Tank vehicles, for example, require regular testing of hatches, vents, valves, etc, and tank pressure testing after repair or modification.

There is a new offence provision (clause 90 (3)) stating that a person who maintains, tests or inspects a licensed vehicle must not provide false or misleading information in relation to the work undertaken. These changes will provide confidence to the transport industry that vehicle maintainers undertake their tasks in accordance with the ADG Code, though vehicle owners will still retain a duty to ensure that their vehicles are suitably maintained and inspected when being used in dangerous goods service.

Table 5 Case study

Tanker inspections

In October 2018, the EPA undertook a joint dangerous goods operation with Roads and Maritime Services involving inspections of 18 fuel tankers using the EPA's Dangerous Goods Tank Vehicle Inspection Manual (released in August 2018) as a tool to assess compliance.

Of the 18 fuel tankers inspected, 15 were found to be non-compliant, with three tankers banned from transporting dangerous goods until they were appropriately serviced, inspected and evidence of this provided to the EPA.

Non-compliances included structural damage to vehicle components, unsecured safety devices, inaccurate transport and emergency documents and non-compliant fire safety equipment. Several penalty infringement notices were issued to drivers and transport companies.

4. Alternative options

The options evaluated to address the objectives and maintain effective and efficient regulation of the transport of dangerous goods by road and rail in NSW were:

1. allow the Regulation to be automatically repealed
2. remake the Regulation without change
3. remake the Regulation with amendments.

4.1 Option 1: Allow the Regulation to be automatically repealed

If the Regulation is not remade, it will be automatically repealed on 1 September 2022 and NSW will have no legislative mechanism for enforcing industry compliance in line with the Model Laws and requirements under the ADG Code.

This option is not consistent with the current intergovernmental agreement, which requires all jurisdictions to use their best endeavours to implement and maintain agreed reforms in a uniform or nationally consistent manner. This includes updating dangerous goods legislation as soon as practicable to reflect changes to the Model Laws and ADG Code, which provide important technical and regulatory requirements to help Australia's transport and logistics industry to operate safely when carrying dangerous goods – including the consignor, packer, truck driver and dangerous goods transport companies.

This option would involve a comprehensive education campaign to inform industry about the change and to encourage industry to follow the ADG Code, best practice guidelines and standards when transporting dangerous goods instead of referring to the Regulation. This would significantly inhibit the EPA's and SafeWork's ability to regulate dangerous goods transport in NSW.

While education and awareness are important non-regulatory tools to promote understanding and encourage industry compliance, this approach is best used to compliment regulatory activities such as inspections, audits and enforcement action. For example, the EPA has an ongoing program of developing guidance material to clarify the requirements in the Regulation and the ADG Code to assist industry. This consists mainly of information sheets and guidance material on specific issues. (See **Appendix C** for a list of this material).

If the Regulation is not remade, the EPA would also need to develop more detailed guidance material as this option would not guarantee that all industry would comply. While some diligent vehicle owners, operators and drivers may undertake the necessary initial investment to comply with the standards in the guidelines and the ongoing cost of maintenance and monitoring, others may not. Guidelines alone would not ensure that suitable prevention measures would be adopted consistently across the industry and could place those who do comply voluntarily at a competitive cost disadvantage to those who choose not to comply.

Guidelines alone are unlikely to provide a consistent degree of protection to dangerous goods loaders, drivers, NSW communities, and the environment from the risks of transport incidents involving dangerous goods. Therefore, the costs could be significantly higher under this option in lives lost to accidents, injuries, property and economic loss and environmental harm.

4.2 Option 2: Remaking the Regulation without change

Remaking the Regulation is necessary to ensure the continuation of legislative requirements in NSW for the transport of dangerous goods by road and rail.

Remaking the Regulation with no change will not result in any additional costs for industry.

However, the Regulation would not include updates to the Model Law and the opportunity to strengthen and clarify safety, maintenance, packaging, and incident reporting requirements would be missed.

Licence and other fees under the Regulation have not been increased since 2009, meaning the costs of administration would fall increasingly on the community and less on industry each year.

4.3 Option 3: Remaking the Regulation with amendments

This is the preferred option, as it allows for the Regulation to better align with the Model Law and for amendments to clarify and strengthen requirements relating to:

- vehicle maintenance
- testing and inspection
- packaging and tank applications and approvals
- incident reporting
- the fitting, maintenance and operation of electronic roll stability systems
- the transport of dangerous goods in prohibited areas
- changes to fees, and
- necessary machinery changes.

The EPA will notify the NTC of changes to the Regulation and will work with the NTC to consider incorporating the changes into the Model Law. This will support better regulatory outcomes and national harmonisation.

5. Costs and benefits of the Proposed Regulation

This section identifies what is changing between the 2014 Regulation and the Proposed Regulation. It describes the costs and benefits of the proposed changes (other than changes in terminology) and the impacts they may have on the NSW transport industry and dangerous goods drivers. A full list and description of these can be found in **Appendix B**.

Amendments which are terminology or layout changes are not part of this assessment.

5.1 Costs

The costs of the Proposed Regulation have been examined using largely qualitative analysis because of the difficulty in quantifying some impacts. Additional costs for industry and from remaking the Regulation are expected to be low and will be outweighed by the benefits, particularly in improving vehicle safety on the road network.

5.1.1 Costs to transport companies

The EPA anticipates that transport companies will not incur substantial additional costs from the proposed amendments to strengthen safety, maintenance, incident reporting and packaging design requirements. There is an additional requirement for prime contractors to notify the Competent Authority as soon as practicable “and no later than an hour of becoming aware of the incident”. This timeframe does not result in additional costs, as it merely clarifies the existing requirement.

The regular maintenance of RSS to ensure they are fully operational should not be a significant additional cost, as it should be a part of regular tank vehicle servicing.

Transport companies that own dangerous goods vehicles in units that require licensing will be affected by the indexation increase of vehicle and other licence fees from 2023–24. This includes companies that own and licence single trailers, rigid vehicles, B-double trailers or a road-train trailers. Licence fees are a small component of the costs associated with operating and maintaining a dangerous goods vehicle and the proposed increase is modest.

In 2019, the EPA engaged an independent consultant to undertake an impact assessment of an increase in licence fees consistent with increases in the Public Sector Wage Price Index (which has been about 2.5% in recent years). The assessment indicated that nearly 64% of licence holders have small fleets of up to five vehicles/trailers and that about 67% of vehicles are in larger fleets of more than 21 vehicles. Based on these figures and the modest proposed fee increase, the assessment concluded that the proposed fee increases would result in very small increases in the total operating costs of transport companies.

NSW vehicle licence fees are in the mid-range when compared with other Australian jurisdictions. The proposed adjustment of fees for inflation from 2023–24 will ensure that fees remain at a similar level in the future.

Table 6 Comparison between jurisdictions (current fees)

Jurisdiction	Driver licence fee (5-year equivalent)	Vehicle licence fee
NSW	\$57	\$87
Victoria	\$83	\$14.50
Queensland	\$96	\$147
South Australia	\$159	\$157
Western Australia	\$113	\$141
Tasmania	\$79	\$53
Northern Territory	\$60	\$29
ACT	\$83	\$12

5.1.2 Costs to drivers

Drivers should not incur extra costs from the proposed amendments to strengthen safety, maintenance, incident reporting, packaging design and prohibited route requirements.

Drivers who pay for their own dangerous goods driver licence will be affected by the adjustment of fees for inflation from 2023–24. Driver licences are issued for 5 years, subject to drivers demonstrating competency by completing a training course, passing a medical exam, and demonstrating a satisfactory driving record. The adjustment to driver licence fees will not occur until the 5-year licence is due for renewal.

Currently, the cost of a NSW dangerous goods driver licence is the lowest of all Australian jurisdictions. By adjusting fees for inflation from 2023–24, NSW is still expected to maintain a favourable fee regime compared with other jurisdictions.

5.2 Benefits

Vehicles that are poorly maintained are a risk factor in incidents involving heavy vehicles carrying dangerous goods. Clarifying and strengthening safety, maintenance and incident reporting requirements in the Proposed Regulation will assist industry in understanding its responsibilities to reduce the risk of incidents. The Proposed Regulation will provide confidence for the community that dangerous goods vehicles are appropriately inspected and maintained.

Ensuring the packaging around dangerous goods is robust and secure will reduce the risk of them escaping and affecting human health and the environment.

When an incident involving the transport of dangerous goods occurs, the EPA as the Competent Authority provides advice to the first responders to assist them to manage the situation. Clarifying the requirement for prime contractors to notify the EPA after an incident will reduce delays in the EPA being notified.

Ensuring that roll stability systems are fitted to heavy vehicle tanker trailers, are operational and maintained, will help to reduce the likelihood of vehicle rollovers of tankers carrying dangerous goods. Mirroring the requirements in Road Rule 300-2 into the Proposed Regulation will safeguard human health and the environment by enabling EPA authorised officers to take action against vehicles transporting placard loads of dangerous goods using certain roads and tunnels.

6. Conclusion

A robust, modern and fit-for-purpose Regulation, which clearly sets out the responsibilities of those involved in the transport of dangerous goods, and which is consistent with national and international requirements, is important in minimising the risks to human health and the environment associated with dangerous goods transport incidents. When requirements are clear and harmonised, industry, the community and environment ultimately benefit.

The Proposed Regulation improves requirements in relation to maintenance, safety, incident reporting, packaging and tanker design approvals and better aligns the regulation of dangerous goods transport in NSW with the national Model Laws. Where necessary, the EPA will provide industry with extra information in the form of guidance material to support industry in understanding their compliance requirements.

Appendix A: Better regulation principles

Under the 'Guide to better regulation for new and amending regulations', a RIS is required to address the better regulation principles set out in the guide. This is in addition to meeting the requirements of the *Subordinate Legislation Act 1989*. These principles have been applied throughout this RIS. Compliance with better regulation principles in this RIS is set out in the following table.

Table 7 Compliance with better regulation principles

Better regulation principle	Dangerous Goods transport issue	Compliance under the RIS
Principle 1: The need for government action should be established	Government action is needed to ensure that dangerous goods are packaged and transported safely and that where possible there is consistency with the Model Laws across jurisdictions.	Section 2.1
Principle 2: The objective of government action should be clear	The objective of government action is to protect human health and the environment from exposure to dangerous goods being transported by licensing dangerous goods drivers and dangerous goods vehicles and other rules. As part of the Staged Repeal program, the remake is necessary and desirable to ensure regulations remain relevant, up to date, accurate and provide robust protection.	Section 2.1
Principle 3: The impact of government action should be properly understood by considering the costs and benefits of a range of options, including non-regulatory options	A range of other options – including non-regulatory options – have been considered, including costs and benefits. These include allowing the Regulation to be repealed and remaking the Regulation as it is.	Section 3
Principle 4: Government action should be effective and proportional	The Proposed Regulation applies to persons responsible for the transport of dangerous goods in NSW. The EPA has assessed the Proposed Regulation as the most effective way to achieve health, safety and environmental objectives.	Section 1.4
Principle 5: Consultation with business and the community should inform regulatory development	The EPA has ongoing formal and informal discussions with industry about improving the effectiveness of the Regulation, the Model Law and ADG Code. The RIS and Draft Regulation will be released for public comment.	Section 1.5
Principle 6: The simplification, repeal, reform or consolidation of existing regulations should be considered	Allowing the automatic repeal of the Regulation was considered under Option 1 (see Section 3.1). This action would not adequately safeguard human health and the environment associated with dangerous goods transport.	Section 3
Principle 7: Regulation should be periodically reviewed and, if necessary, reformed to ensure its continued efficiency and effectiveness	The Regulation is subject to a continuous process of review to align it with changes to the Model Law and the ADG Code. The Proposed Regulation reflects this principle.	Section 1.3

Appendix B: Key proposed amendments

Table 8 Key proposed amendments to the Regulation

Existing requirement	Proposed Regulation	Rationale for change
Clause 25 of the Regulation permits the EPA to make certain “Determinations” regarding the transport of dangerous goods.	<p>Clauses 91-92 of the Proposed Regulation incorporates two Determinations previously made by the EPA that phased in a requirement that heavy vehicle tanker trailers used to transport dangerous goods be fitted with RSS to reduce the likelihood of rollover incidents (“Determination: Transport of Dangerous Goods in Tank Trailers – 2301/14” and “Determination: Transport of Dangerous Goods in Tank Trailers 29 August 2014”).</p> <p>The Proposed Regulation stipulates that RSS must be fitted, maintained and operational and imposes obligations on drivers, vehicle owners, prime contractors and consignors in this regard (clauses 93–97).</p>	Integrating these Determinations into the Proposed Regulation continues this requirement and strengthens it by specifying that RSS not only must be ‘fitted’ but must be maintained and operational.
Road Rule 300-2 prohibits the driver of a dangerous goods transporter from using the vehicle on or in any road or tunnel specified in a table to the rule as a “prohibited area”	Clause 115 mirrors Road Rule 300-2 which prohibits drivers from transporting dangerous goods (including placard loads) on or in specified areas (including tunnels) and extending this obligation to prime contractors (clause 114).	This allows the EPA to regulate the transport of dangerous goods in prohibited areas. Referencing the NSW Road Rules ensures that additional prohibited areas are automatically captured when they are added under the Road Rules.
Clauses 147 and 148 of the Regulation require that when a dangerous goods road vehicle is involved in an incident resulting in a dangerous situation, drivers of vehicles/ trains transporting dangerous goods are required to notify the prime contractor (rail operator and rail infrastructure manager) , the Competent Authority (the EPA), and the police or fire service of the incident “as soon as practicable”.	Clause 177 of the Proposed Regulation makes prime contractors (not drivers) and rail operators responsible for notifying the Competent Authority (EPA) of an incident and removing the existing obligation on drivers to notify the EPA (unless the driver is also a prime contractor).	<p>The sooner the Police (or Fire and Rescue) are notified of an incident, the sooner first responders can attend the incident.</p> <p>Clarifying that the prime contractor is responsible for notifying the EPA within an hour of being aware of an incident, provides the industry and the EPA with more certainty about incident reporting responsibilities and the timeframe. It also frees the driver to respond to issues on the ground and to assist first responders.</p> <p>The EPA often needs to attend an incident to provide technical and other advice to first responders about the risks associated with the dangerous goods being transported and coordinates protection of the environment and clean-up.</p>

Existing requirement	Proposed Regulation	Rationale for change
New requirement	Clause 48 of the Proposed Regulation makes it an offence for a person to provide false or misleading information in an application for the approval of a tank design.	The person who has prepared the application for the tank design approval is the person best qualified to ensure that the application complies with the requirements of the ADG Code and relevant Australian Standards.
The EPA or Safework can authorise a person to issue a packaging approval after verifying that the application complies with the requirements of the ADG Code and relevant Australian Standards.	Clause 53 clarifies that only a person who is a qualified mechanical engineer, NATA-accredited laboratory, NSW government agency or statutory body can be granted an authorisation to approve a tank design.	This clarification ensures that the tank design is reviewed and approved by a person/s with a suitable qualification, experience and knowledge.
Under the existing Regulation the Competent Authority may determine licence and other fees	The Proposed Regulation introduces in Schedule 1, Part 2, an algorithm for the adjustment of fees for inflation. Fees are calculated as “fee units” with 1 fee unit = \$100. The adjustment of fees for inflation is based on the CPI number for the previous September quarter.	Fees have not been reviewed since 2009 and the costs of administering licenses have increased. The CPI is a fair and reasonable measure of increasing administrative costs going forward.
New duties for persons undertaking maintenance, testing or inspections of a licensed vehicle.	Clause 90 of the Proposed Regulation requires persons undertaking maintenance, testing or inspections of a licensed vehicle used to transport dangerous goods to: <ul style="list-style-type: none"> • ensure that the maintenance is undertaken in accordance with the requirements in Chapter 4.4 of the ADG Code • notify the owner of the vehicle if the vehicle or its equipment failed to comply with Chapter 4.4 of the ADG Code • not provide the owner of the vehicle with false or misleading information. 	Ensures that the owners of vehicles have confidence their vehicles are maintained, tested and inspected in accordance with the ADG Code and requirements of AS 2809, the Australian Standard for dangerous goods tank vehicles.

Appendix C: Guidance material

The [EPA website](#) provides detailed information about requirements to transport dangerous goods safely, including:

- identifying dangerous goods
- licensing and training
- controls (transport documents, placard loads, emergency information, stowage, segregation, safety equipment)
- tank design approvals
- determinations
- exemptions
- public register of licensees.

Extra information can be found online at:

- Road and Rail Transport Checklist for Alcohol-Based Hand Sanitiser (April 2020)
<https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/dangerousgoods/transport-of-hand-sanitiser-20200506.pdf?la=en&hash=4E3C2306C760D4386C0F563257A9801C6A6D871E>
- Dangerous Goods Tank Vehicle Inspection Manual
<https://www.epa.nsw.gov.au/publications/dangerousgoods/dangerous-goods-tank-vehicle-inspection-manual>
- The Australian Dangerous Goods (ADG) Code
<https://www.ntc.gov.au/codes-and-guidelines/australian-dangerous-goods-code>
- The Australian Emergency Response Guide
https://www.ntc.gov.au/sites/default/files/assets/files/Australian-Emergency-Response-Guide-Book-2018%28errata%201%29_0.pdf