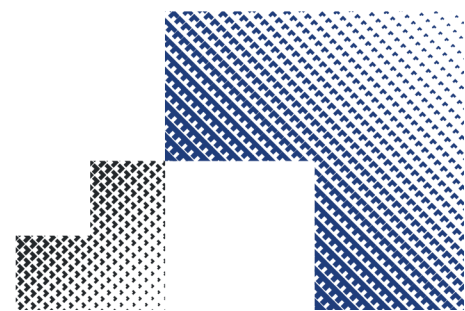




Streamlining rolling stock approval processes

Potential improvements to clarify roles and responsibilities for safety assurance within the current regulatory framework

Consultation paper | May 2025



Report outline

Title	Rolling Stock Approval Process: Potential improvements to clarify roles and responsibilities for safety assurance within the current regulatory framework.
Type of report	Consultation Paper
Purpose	For public consultation
Abstract	This discussion paper is the first step in developing safety assurance guidance for rolling stock approvals. It has been developed to seek input from industry on ideas for reforms and improvements to processes that can be delivered within the current regulatory framework.
Submission details	The NTC will accept submissions until 3 June 2025. Send submissions to: rollingstock@ntc.gov.au
Attribution	This work should be attributed as follows: National Transport Commission (2025), <i>Rolling Stock Approval Processes: Potential improvements to clarify roles and responsibilities for safety assurance within the current regulatory framework</i> , NTC, Melbourne.
Key words	Rolling Stock, Accreditation, Approval, Registration, Rail Infrastructure Manager,
Contact	National Transport Commission Level 3/600 Bourke Street Melbourne VIC 3000 Ph: (03) 9236 5000 Email: rollingstock@ntc.gov.au



Have your say

What to submit

The purpose of this document is to seek industry feedback on the opportunities presented in this paper to ensure clarity of the roles and responsibilities of RIMs and RSOs in rolling stock approval and acceptance.


When to submit

We are seeking submissions on this issues paper by 3 June 2025.

How to submit

Any individual or organisation can make a submission to the NTC.

Making a submission

 Email your submission to **rollingstock@ntc.gov.au**

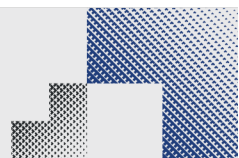
Where possible, you should provide evidence, such as data and documents, to support the views in your submission.

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Acronyms

Table 1 List of Acronyms

Acronym	Definition
CRN	Country Regional Network
ERA	European Union Agency for Railways
ERP	Engineering Response Procedures
FRA	Federal Railroad Administration (US Department of Transportation)
ITMM	The Infrastructure and Transport Ministers' Meetings
NNI	National Network for Interoperability
NTC	National Transport Commission
ONRSR	Office of the National Rail Safety Regulator
RAS	Route Access Standard
RIM	Rail Infrastructure Manager
RISSB	Rail Industry Safety and Standards Board
RSNL	Rail Safety National Law
RSO	Rolling Stock Operator
RSU	Rolling Stock Units
RTO	Rail Transport Operator
SFAIRP	So Far as Is Reasonably Practical
SMS	Safety Management System
WHS	Work Health and Safety
WOS	Working on Rail Safely



Executive Summary

Background

The National Transport Commission (NTC) has been tasked by Infrastructure and Transport Ministers to streamline rolling stock approval processes. In 2024, Ministers directed the NTC to facilitate the implementation of three rolling stock approval projects.¹ These projects are:

1. Develop guidance on safety assurance² to help rail operators and rail infrastructure managers meet their obligations under the Rail Safety National Law and to provide better clarity around RIM and RSO roles and responsibilities.
2. Pilot a single application approach to register rolling stock on the National Network for Interoperability (NNI) to help reduce duplication and costs for RSOs and RIMs and improve mutual recognition between RIMs.
3. Investigate harmonising testing requirements and locations to reduce time and costs for RSOs and RIMs.

This paper focusses on the first project: develop guidance on safety assurance to streamline rolling stock approvals, enhance efficiency and reduce costs for the rail industry. Currently, there is a lack of shared understanding of roles and responsibilities in relation to safety assurance of rolling stock within Australia. Better clarity of responsibilities should help to reduce duplication of effort and enable greater efficiencies via mutual recognition and streamlined processes. This work will inform subsequent projects relating to piloting a single application form and harmonising testing requirements.

Purpose

This consultation paper is the first step in developing guidance for RIMs and RSOs on what constitutes an appropriate level of safety assurance for the approval of rolling stock on networks.

The purpose of this consultation paper is to seek stakeholder feedback on potential opportunities to streamline the process to approve rolling stock certification and registration. This will inform the development of guidance material on safety assurance to provide better clarity on RIMs and RSOs roles and responsibilities and ONRSR expectations. This guidance material will be submitted into the ITSOC/ITMM process for 2026.

¹ *Infrastructure and Transport Ministers' Meeting Communique*, June 2024.

<https://www.infrastructure.gov.au/infrastructure-transport-vehicles/transport-strategy-policy/infrastructure-and-transport-ministers-meetings>

² By safety assurance we mean processes of certification and registration to ensure rolling stock can be safely introduced to a network.

Scope

The scope of the project includes the rolling stock approval processes of certification and registration for new and modified freight locomotives and wagons that travel across networks on the National Network of Interoperability (NNI). The NNI identifies all the interstate freight and passenger lines between Australia's major ports, regions and passenger terminals. The NTC has developed an interactive map of the NNI. It shows the important interfaces between networks where getting alignment is crucial to helping rail play a bigger role in the country's economy.³

Related Projects

There are several other projects being undertaken by various agencies which are complementary to the NTC's streamlining rolling stock approvals work. These include:

- **The NTC's mandatory rail standards work** – the NTC has a program of work looking at mandatory standards with the initial focus on two standards: digital train control and signalling systems, and a single on-board interface. A mandatory standard for rolling stock approvals will also be progressed following this work. The outputs and recommendations from the streamlining rolling stock projects will assist to inform the development of a mandatory standard for rolling stock approval. For example, development of safety assurance guidance, a single application process and common testing arrangements could provide the foundation for a mandatory standard or process to be followed.
- **Review of the Rail Safety National Law (RRSNL)** – the review recommended that ONRSR be given a role to coordinate the delivery of safety and productivity benefits including national processes for registration of rolling stock and safety assurance. The next step in the RRNSL process is the development of a regulatory impact analysis assessing the proposed changes in the law and potential role of the regulator.⁴
- **Development of the National Rolling Stock Register (NRSR)** – work is being led by RISSB to develop a National Rolling Stock Register (NRSR) to facilitate the registration of rail vehicles that operate on the Australian rail network.⁵ Once operational, the NRSR will be an important part of a more harmonised process. The NTC's work on streamlining rolling stock approvals and RISSB's NRSR project are complementary. However, the key difference is that the NTC's work in streamlining rolling stock approvals is looking at the how the underlying **processes and approvals** need to change in order to be streamlined so that the NRSR, once operational, can be used to its full potential.

Appendix A provides more detail on other related projects.

³ <https://www.ntc.gov.au/news/new-map-helping-guide-national-approach-safer-more-productive-digital-rail-system>

⁴ Recommendation 2, *Rail Safety National Law Review, Final Report*, June 2024. <https://www.ntc.gov.au/review-rail-safety-national-law>

⁵ <https://www.rissb.com.au/news/national-rolling-stock-register-to-roll-into-production/> September, 2021.

About this Paper

In developing this paper, we have:

- Reviewed rolling stock approval application forms and supporting information from eight RIMs that make up the NNI. We found that:
 - There is a wide variety of information requested by RIMs, which differ to large degrees both across and within states.
 - Most, but not all RIMs publish rolling stock approval forms. Few networks inquire about the prior approval status of rolling stock, whether by another operator or on a different network.
 - There are 1,021 unique information requirements across the RIMs and application forms.
 - There are few specific requirements that are common to all RIMs.
 - The voluntary Australian Standard for rolling stock compliance certification (AS7501) or elements of it, is not consistently referenced in the application forms or processes of some RIMs, while some forms reference their own unique standards.
- Reviewed the current co-regulatory framework and ONRSR guidance materials. We found that:
 - Safety duties, including a general duty to ensure safety so far as is reasonably practicable (SFAIRP) and the RSNL Principle of Shared Responsibility is being interpreted differently by RIMs. Some RIMs request highly detailed information on vehicles so that they can verify compliance with standards themselves. Other RIMs accept that RSOs are the most appropriate party to assure that vehicles comply with network rolling stock standards. This contributes to different approaches to approval processes across the NNI.
 - There is no specific published guidance material that clarifies ONRSR expectations for managing safety SFAIRP through rolling stock approval processes.
- Reviewed other safety assurance approaches and key learnings. We found that:
 - In the UK, independent third-party verification bodies play a key role in the rolling stock approval process, overseen by an independent rail regulator.
 - In Europe, the independent agency and regulator (European Union Agency for Railways (ERA)) issues vehicle authorisations and certification and develops common technical standards.
 - In the US, the Federal Railroad Administration (FRA) sets safety regulations and oversees the certification of rail infrastructure for both freight and passenger trains. The FRA directly regulates and certifies passenger rolling stock and sets the design and safety standards for freight rolling stock but does not certify individual freight rolling stock. This includes inspection by an independent third-party testing organisation.
 - The road industry in Australia has a common set of standards for mutual recognition of vehicle compliance on the Australian road network, and importation of vehicles is a streamlined process. There is a Register of Approved Vehicles (RAV), a publicly searchable database of vehicles.

Compared to these examples, current processes for certifying and approving rail vehicles in Australia is highly decentralised and inconsistent. Similar to the Australian rail environment, the networks considered in the review comprise multiple infrastructure managers, networks with differing characteristics/use levels and varying route standards. These examples suggest centralised processes can be established in complex multi-jurisdictional environments.

Opportunities for change

This discussion paper is seeking stakeholder feedback to develop an understanding of how suggestions can work in practice to improve rolling stock approval processes.

Rolling stock certification

The analysis of the current situation has suggested that the certification process is an area where a shared understanding of roles and responsibilities could be established. There are many potential ways to better clarify the roles and responsibilities of RSOs and RIMs relating to rolling stock certification to reduce inefficiencies and duplication of effort while maintaining safety. Because application processes focus heavily on providing assurance that vehicles comply with standards, process improvements in this area are likely to provide significant benefits. Several ideas, aligned with the voluntary Rolling Stock Compliance Certification Standard AS7501, are presented for comment, for example:

- RSOs take primary responsibility for certifying that a vehicle meets safety standards. Supporting safety assurance requirements for RSOs such as transparent, auditable processes to be introduced into the rolling stock approval process.
- Consistent use of an Independent Competent Person (ICP) to assess vehicle compliance with standards. This could include an 'accreditation scheme' for ICPs' (separate and distinct from RTO's accreditation determined by ONRSR) to provide quality assurance for RIMs and RSOs regarding verification that standards have been met. Details of how an accreditation scheme might work have not been considered in this paper.

Rolling stock registration

Currently the specifications and characteristics of each vehicle are registered into separate RIM registers and databases which in some instances are paper based. This is the part of the individual RIM process of assuring that rail vehicles approved for use on their networks have been identified and recorded and is important for network operations. The current approach to registration involves each network gathering information on rail vehicles which is inefficient and poses challenges to RSOs and RIMs. Analysis has highlighted that a more streamlined approach could include:

- A single application form
- RIMs sharing information
- Using the National Rolling Stock Register (under development by RISSB) to store certification and registration information in a central database
- Testing performance information can be shared with other RIMs and is retained in the National Rolling Stock Register or in a separate system if appropriate.

Network approval

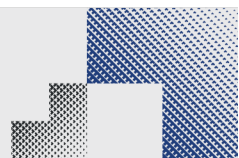
Network approval refers to the safety and efficiency assurance processes applied by RIMs to ensure that a train can operate safely and efficiently on their infrastructure and particular routes. RIMs specify the conditions under which trains may operate on a network. Network approval is addressed by some RIMs through the rail access process.



Other opportunities

Other areas of refinement to assist with developing safety assurance guidance that have been identified include:

- Conflict Resolution - providing a conflict resolution process for RSOs where they believe that a RIM is acting unreasonably in the rolling stock application process e.g. if the application process is prolonged, if requests for information, for testing or for approval conditions are considered to be unreasonable.
- Continuous improvement mechanism - a mechanism could potentially be established to check the effectiveness of the proposed new approach, to refine and make improvements to the assurance model once agreed.



Question 1: Do you have any comments on the problem statement? Stakeholders are encouraged to make comments on the view presented that there are unique and duplicative RIM approval processes and where they think that there are any areas that are not accurately covered, or further clarification and evidence can be provided_____ 19

Question 2: What other matters should we consider informing the development of guidance to streamline rolling stock approval processes? If you are a RIM can you please submit a summary of your process for certification, registration and network approval. If you are an RSO, please advise what issues you have with rolling stock approval processes. _____ 19

Question 3: RIMS across the NNI issue unique rolling stock approval application forms that request a wide variety of information, and there appears to be limited application of AS7501 by *some* RIMs. **What are the barriers to RIMs and RSOs adopting AS 7501 for their certification processes? Do you have any comments about rolling stock approval forms? Do RSOs have comments on their experience with different forms for different RIMs? Do RIMS have comments on how they use approval forms to gather the information they need for decision-making?**
27

Question 4: Is there potential to harmonise and streamline information across multiple networks? For example, increasing the commonality of information requirements, in line with work being done by RISSB on the National Rolling Stock Register? What would you suggest could be the mechanism for RIMs to coordinate this process? _____ 27

Question 5: If application processes and forms are better aligned with sequential steps to reach network approval (clearly defined certification and registration), could there be separate collection for information required for safety assurance at each step? i.e. compliance certification, separate to collection and management of information required for creating registers of vehicles? 27

Question 6: To provide more transparency, links to rolling stock approval application forms can be housed in a single location. **What benefits do you see from this approach? Where do you suggest this be housed in the future?** _____ 27

Question 7: Does the RSNL and support material provide sufficient guidance on meeting your safety duties for rolling stock certification, registration and network approval? _____ 38

Question 8: What suggestions do you have to improve the legislative framework or guidance for safety assurance for rolling stock approval processes? 38

Question 9: Are you aware of relevant case studies from other countries or sections of approval processes and safety assurance that could be useful? Please provide details if there are ideas from elsewhere that could be helpful to inform potential improvements to the clarify of roles and responsibilities. 44

Question 10: Feedback on the opportunities for reforms presented in Section 5? The focus of this consultation is to seek feedback on the ideas presented. We want to understand if any of these suggestions can work in practice to improve the current state. Where there are concerns, explicit responses are helpful with details of why it is a concern and what impacts are expected _____ 54



1 Introduction and Problem Statement

Key points

The current problem is that operators experience unique and duplicative Rail Infrastructure Manager rolling stock approval processes across Australia, creating a cost burden, discouraging innovation and reducing competition.

The NTC is developing guidance on roles and responsibilities in the safety assurance of rolling stock. Stakeholders have clearly expressed that more formal designations of roles and responsibilities and a shared understanding of requirements for safety assurance will assist in a more harmonised and streamlined approach.

This paper is the first step in developing that guidance and has been prepared to seek input from industry on ideas for reforms and improvements to processes.

1.1 Introduction

This paper is in two parts.

The first part provides an analysis of the current state and outlines:

- the problems with the process reported by stakeholders
- a review of current application forms
- current guidance on roles and responsibilities of RIMs and RSOs for approving and accepting rolling stock in the legislative framework
- the current guidance from ONRSR for eliminating risk or managing safety so far as is reasonably practicable (SFAIRP).

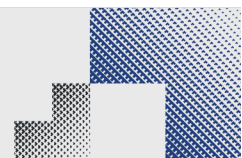
The second part focuses on ideas to address some of these problems by clarifying the roles and responsibilities of different parties and discusses:

- key learnings from safety assurance approaches overseas and other transport settings
- potential opportunities for improvements aimed at developing a consistent approach to RSO and RIM roles and responsibilities, applied to the key steps in the approval process
- draft principles and elements for a potential safety assurance guidance to enable more streamlined processes.

Feedback on this paper will inform the development of guidance material on safety assurance to provide better clarity for RIMs and RSOs roles and responsibilities, for endorsement by infrastructure and transport ministers in 2026.

1.2 Overview of the steps for rolling stock approval

Rolling stock approval involves the certification of vehicle design and construction, testing and compliance with standards and other network requirements, registration of rail vehicles and approval of trains to operate on networks.



Working definitions for these steps are given below for the process that applies based on an example of one RSO seeking network approval for one train on a single RIM network, see Table 2.

Table 2 Working definitions of approval processes

Certification	Certification is carried out at the rail vehicle level by class or 'Type' of vehicle. The certification process ensures that the rolling stock vehicle meets all necessary rolling stock and interface standards and network requirements. Certification confirms that a unit of rolling stock has been designed, constructed, and tested in accordance with relevant standards. Certification processes include new, modified and existing rolling stock proposed for operation on a network on which the class of rolling stock has not previously operated.
Registration	Registration is the process of assessing that a rail vehicle can operate safely on a specific network. Registration involves recording a vehicle's characteristics so that features can be shared with interested parties. Vehicle characteristics may include certification status, type, physical vehicle characteristics, performance characteristics, modification state, limitations on use, ownership, and insurance.
Network Approval	Once registered, RSOs can apply to a RIM for a train configuration (multiple vehicles) to be approved for operation on the RIM's network. The RIM will check that the train can operate safely and efficiently on the infrastructure and particular routes. Network approval is for a train, made up of one or more vehicles. Certain configurations of certified and registered vehicles may not be compatible with a network when formed in certain configurations, such as: <ul style="list-style-type: none">▪ Trailing configurations of approved wagons being too heavy for the tractive effort and ruling gradient▪ Combinations of locomotives (the locomotive consist) applying too much dynamic brake

In practice, RIMs have a variety of approaches to accepting rolling stock onto their networks, and the process may not be so clearly set out as the sequence of key steps outlined above. From a RSO perspective, the process is currently undertaken separately for every network that they want to travel on.

1.3 Statement of the Problem

1.3.1 RSOs experience challenges with different Rolling Stock Approval Processes across different rail networks of Australia

RIMs apply processes to assure themselves that rolling stock operating on their network is safe and fit for operation under the network's conditions, to meet their safety duties to eliminate or minimise risks SFAIRP.

However, RSOs experience major challenges in securing approval from RIMs to operate new and modified rolling stock on their networks. These challenges include:

- RSOs having to complete unique applications for each RIM when operating across networks.
- Each RIM has their own standards and requirements that RSOs must comply with.
- Applications differ in length and detail, with forms ranging from 3 to 61 pages and requirements varying significantly.
- RIM decisions are informed by assurance of compliance with standards which may require static and dynamic testing on their network and/or extensive supporting documentation.
- Testing is not coordinated between RIMs, and testing requirements are often duplicated and repeated, resulting in cost and time burdens.
- Most but not all RIMs publish application forms and associated information, further slowing the process.
- Significant costs are associated with the lack of a streamlined approach.

A preliminary assessment undertaken by NineSquared found that these processes cost the industry more than \$20 million each year with the cost likely to increase over time. This analysis included only those costs that could be readily quantified such as:

- RSO and RIM time to prepare and assess applications.
- External costs incurred by RSOs who require help with applications.
- Costs of testing and when RIMs require additional physical testing, further financial costs may be incurred and are often exacerbated by the limited availability of testing locations.
- Administrative costs are also borne by RIMs who must review each application themselves, even when the RSO has passed the safety requirements for one or more other RIMs. There is little to no sharing of information on registered rolling stock information between RIMs, including minimal shared recognition of testing results.

The actual impact is likely to be much higher than \$20 million per year as the estimate does not quantify the impact of the current approval processes on deterring investment in more innovative rolling stock, and therefore on incentives to compete in new markets.

Another issue associated with the certification and registration process is that test results and application approvals are often linked to the individual owner that funded the testing, rather than the vehicle itself. Repeated application and testing requirements may therefore be required for each transfer of ownership.

1.3.2 The current approach also discourages innovation and investment in new technology and reduced competition.

RSOs have advised they often prioritise investment in older, less efficient rolling stock to avoid the administrative burden, operational risks and extended timeframes that come with the registration of new technology. Examples have been identified where RSOs elect to operate rolling stock from the 1960s despite more modern technology being available but not adopted due to rolling stock approvals process.

Differing standards across RIMs also means that technology developments that do occur, often take place in silos, meaning the broader Australian rail sector cannot benefit from improvements in efficiencies.

Recent publications by RISSB⁶ and GHD⁷ found similar issues to those identified by NineSquared and the NTC outlined above. RISSB focused on the inefficiencies regarding duplications of application and testing processes and inconsistencies in minimum technical standards. The GHD report found that fragmentation of networks between RIMs creates challenges with interoperability, supplier costs, net zero transition, safety and technology adoption, consistent with issues identified in work prior by NineSquared and the NTC.

1.4 Stakeholder concerns about clarity of roles and responsibilities for managing safety risks for rolling stock

Industry consultation to date has identified the lack of clarity and inconsistency across networks regarding roles and responsibilities and has suggested ONRSR expectations for rail safety is likely a significant contributor to the inefficiencies noted above in section 1.3.1.

1.4.1 Shared responsibility may create a lack of clarity regarding roles and responsibilities

There are a range of parties that have a shared responsibility for rail safety under the RSNL, including, Rail Transport Operators (RTOs) (including RSOs and RIMs), designers, manufacturers, and suppliers of rolling stock (or parts of rolling stock), the ONRSR.

RIMs and RSOs must seek to enter into an interface agreement for the purpose of managing risks. The interface agreement must provide for the respective roles and responsibilities of each party in respect of the control measures put in place to manage risks associated with the interface.

However, the RSNL does not place prescriptive requirements on RIMs regarding what constitutes a 'fit for purpose' level of assurance before granting approval to rolling stock to travel on a network. Each RIM has developed its own safety criteria which is a major contributor to the disconnected nature of the application process.

⁶ Rail Industry Safety & Standards Board 2024, *White Paper: Streamlining the Rolling Stock Approval Process*, RISSB, Canberra.

⁷ GHD Group 2024, *Harmonisation of Rail Standards*, GHD Group, Sydney.

1.4.2 Industry has concerns about ONRSR expectations

There is no detailed published guidance material specifically about rolling stock approval processes available for RTOs to clarify ONRSR expectations.

Consultation with RIMs suggests further guidance from ONRSR about safety assurance expectations to clarify roles and responsibilities could be beneficial.

RISSB has produced the Australian Standard (AS) *AS7501:2019 Rolling stock compliance certification* which provides a general process for assessing rolling stock compliance with relevant standards, however this standard is voluntary and is not applied in full or consistently, with only some exceptions. There appears to be no incentive for RSOs to apply AS7501, and for RIMs to base their acceptance process on the application of AS7501.

Even with more detailed guidance from ONRSR, there are currently limited incentives for RIMs to streamline approval processes. There are no incentives to apply greater mutual recognition of rolling stock assurance and approvals of other networks.

1.5 Outline of the Safety Assurance Guidance Project

1.5.1 Project Aim

This project aims to develop an appropriate level of safety assurance for the approval of rolling stock. Potential outcomes that this project could contribute to include:

- reducing the cost of rolling stock approvals for both rail operators and infrastructure managers
- increasing interoperability between networks
- increasing rail innovation and competition, while maintaining or improving rail safety.

1.5.2 Project Outline

This project involves:


Current State Assessment

- A detailed review of application forms and supporting information for networks that make up the National Network of Interoperability.
- Reviewing the current regulatory framework and ONRSR guidance materials.
- Reviewing safety assurance processes and procedures for other transport networks, such as the Australian road network and rail networks overseas.

Options Development

- Engagement with ONRSR and other stakeholders on current legislative requirements and opportunities to streamline processes.
- Developing key principles for safety assurance and clarifying roles and responsibilities.
- Finalising options and developing guidance material

A separate project to pilot a single national application approach will provide an opportunity to test potential improvements generated as part of this consultation process. The pilot would involve



testing a single application form process. This pilot will be referred to throughout this paper as the 'Project to Pilot a Single Application Form'.

1.5.3 Scope

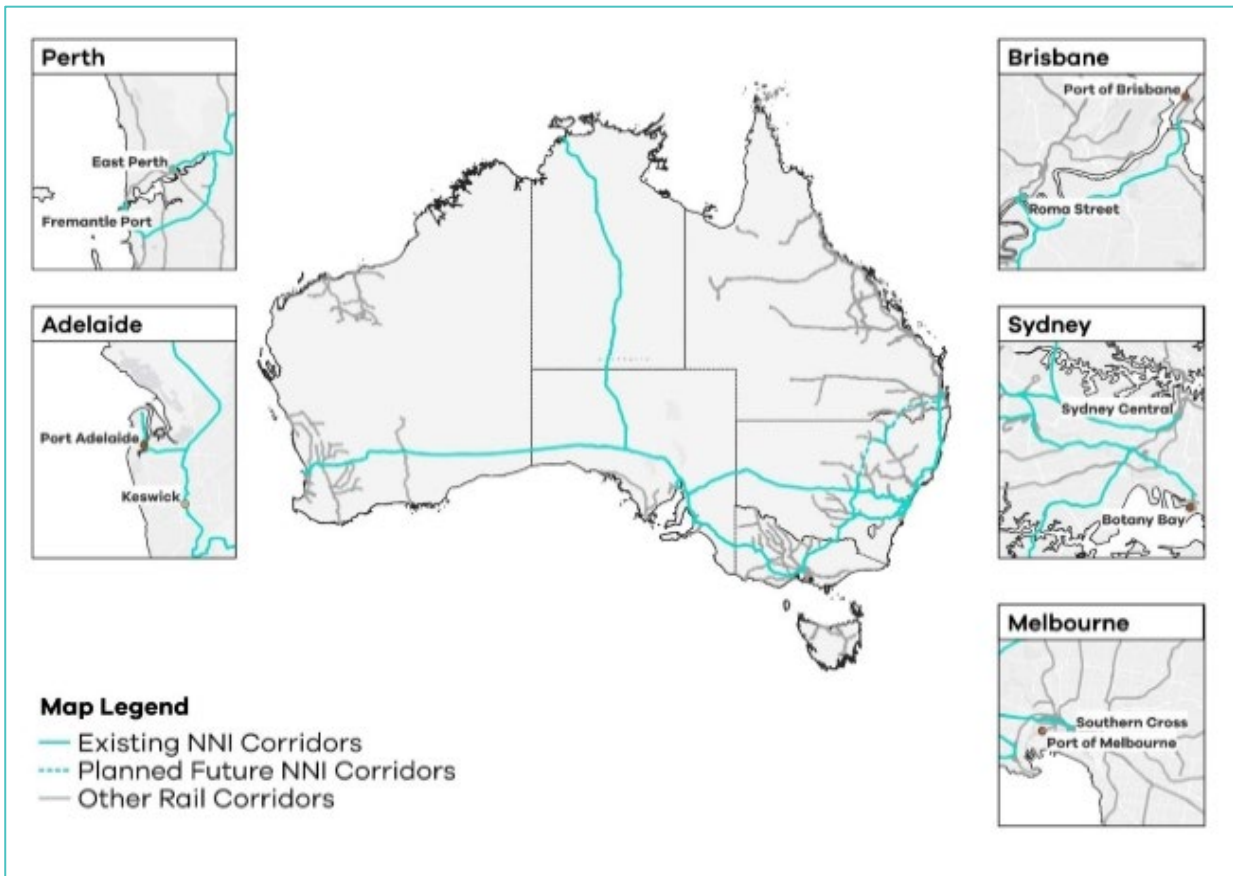
Acknowledging that the Australian rail network is a complex system involving around 195 accredited operators and 50,800 km of track⁸ this project is centred on the main national freight network, as this is where the bulk of applications and approvals are required. The scope of this project therefore includes the rolling stock approval processes of certification and registration for freight locomotives and wagons that travel across networks on the NNI.

The NNI is a group of rail lines and corridors that have been defined in consultation with industry and government and comprises the standard gauge network that connects major ports and terminals. The NNI is expected to evolve over time as interoperability projects are delivered. The map below in Figure 1 shows the NNI as it is currently defined and an interactive version is available on the NTC's website at this link <https://www.ntc.gov.au/project/national-network-interoperability>

While passenger rail vehicles also need to go through these approval processes, the volume of applications is much lower compared to freight. Passenger vehicles are not in scope of the project, however streamlined processes for freight vehicles could be applied to them and other rail vehicle types. Rail heritage, hand trolleys, maintenance and road rail vehicles are also not in scope.

⁸ Office of the National Safety Regulator (ONRSR) 2025, *Rail Safety Report 2023-2024*, ONRSR, Adelaide.

Figure 1 National Network of Interoperability Map



Question 1:

Do you have any comments on the problem statement?

Stakeholders are encouraged to make comments on the view presented that there are unique and duplicative RIM approval processes and where they think that are any areas that are not accurately covered, or further clarification and evidence can be provided

Question 2:

What other matters should we consider informing the development of guidance to streamline rolling stock approval processes?

If you are a RIM can you please submit a summary of your process for certification, registration and network approval. If you are an RSO, please advise what issues you have with rolling stock approval processes.

2 Analysis of current RIM approval processes in Australia

Key points

A detailed desktop analysis of application forms for networks comprising the NNI was conducted. The key findings were:

- There is a wide variety of information requested by RIMs, which differ to large degrees both across and within states.
- All RIMs ask for some degree of owner and operator information, and locomotive information, but vary in their degrees of specificity and depth required.
- Most, but not all, RIMs publish rolling stock approval forms. The most common category of information in both locomotive and freight vehicle forms is related to vehicle-specific data, making up at least 40% of each RIM's forms.
- The most common checks were standards compliance (including static and dynamic testing), RSO responsibility (brakes, bogies, wheels and side bearers) and safety equipment.
- The approach to assuring compliance with standards varies significantly by RIM. Some RIMs request highly detailed information so that they can verify compliance with standards themselves whilst some do not refer to standards on the form.
- Few application forms inquire about the prior approval status of rolling stock, whether by another operator on the same network or if the same vehicles are already approved on a different network.
- Few RIMs apply AS7501 in full or the use of Independent Competent Persons (ICPs).

This chapter provides a summary of the analysis undertaken of RIM rolling stock application materials to:

- Assess the availability and degree of transparency of information on rolling stock approval processes, and
- Provide evidence and insights on current processes applied by RIMs to inform work in this project on opportunities for streamlining current approval processes and providing guidance on safety assurance.

2.1 Approach to the review of application forms

We reviewed 12 freight wagon and locomotive rolling stock application forms for eight RIMs managing networks on the NNI:

- ARTC
- Arc Infrastructure

- TfNSW⁹
- UGL Regional Linx
- Aurizon Bulk Central Network
- Queensland Rail
- V/Line
- Public Transport Authority of Western Australia

The process involved assessing the extent of information requested by RIMs, with a particular focus on items related specifically to standards and safety. Other areas of interest included:

- Information enabling recognition of prior network approvals, either on the same network or other networks
- Application of AS7501 (Rolling Stock Compliance Certification)
- Recognition of ICPs and requirements of declarations from applicants

The review also considered the approaches taken by RIMs to publish information on network requirements and standards and approved vehicles.

2.2 Key findings

2.2.1 Application forms

Application forms cover various types of vehicles, including locomotives, freight vehicles, multiple unit trains, passenger vehicles, infrastructure maintenance vehicles, road/rail vehicles, and trolley trailers. The forms differ significantly in their structure and specific requirements, reflecting the diversity of the vehicles and their unique characteristics. This analysis specifically focusses on freight locomotive and wagon application forms and processes.

Except for Arc Infrastructure and the Public Transport Authority of Western Australia, all other RIMs currently publish their forms. ARTC and Arc Infrastructure are currently in the process of developing a joint application form. Draft documents were shared for the review of application forms and process for analysis. To avoid considering documentation that is likely to be superseded in the future, the analysis has considered draft combined forms for ARTC and Arc Infrastructure. These forms, and therefore some findings of the desktop analysis, may be subject to change.

The length of application forms varies widely among RIMs. The shortest forms are 3 pages, while the longest ones can extend up to 61 pages. This variation indicates the differing levels of detail and complexity required by different RIMs for rolling stock approval.

Supporting information on network requirements and applicable standards is not consistently referenced across the forms. Some RIMs, like V/Line, Aurizon and ARTC, specifically mention AS7500 series standards, while others do not reference any standards. This can create challenges for rail operators attempting to comply with RIM requirements.

The documentation and publication of approved vehicles also vary among RIMs. Some RIMs, like ARTC and TfNSW, maintain detailed records in their Train Operating Conditions (TOC) manuals,

⁹ TfNSW conduct the rolling stock approval function on behalf of Sydney Trains, who is the accredited Rail Infrastructure Manager. For the purposes of this paper, we have referred to TfNSW for simplicity.

which list all approved vehicles, their specifications, and relevant operational details. Other RIMs do not publish information on approved vehicles.

Table 3 summarises the analysis of selected RIMs rolling stock application forms, including the number of forms length, availability, standards and where records are published.

Table 3. Description of forms and processes analysed

RIM	Number of forms	Length of forms	Availability of application form	Standards	Where records are published
ARTC and Arc Infrastructure	5 – for locomotives, freight wagons, hauled passenger vehicles, self-propelled & Diesel Multiple Unit (DMU) passenger vehicles, and the registration of additional vehicles to a class	2 to 13 pages	Shared in draft form. Existing forms for ARTC are published	References to Working On Rail Safely (WOS) and Engineering Response Procedures (ERP) standards, as well as the AS7500 series	ARTC TOC manual, which is transitioning to a Route Access Standard (RAS), both publicly available
TfNSW	7 – for locomotives, freight vehicles, locomotive hauled passenger vehicles, multiple unit train vehicles, infrastructure maintenance vehicles, road/rail vehicles, and trolley trailer support frame and quadricycle vehicles	23 to 61 pages	Publicly available on TfNSW standards website	References to their own Rolling Stock Units (RSU) standards	TfNSW TOC manual, publicly available
UGL Regional Linx	7 - with same types as TfNSW	12 to 24 pages	Publicly available on UGL website	References to Country Regional Network (CRN) standards	CRN TOC manual, publicly available
Aurizon Bulk Central	One three-page Word-based form (publicly available), and an Excel-based application file (not publicly available). It is understood that completion of the first form then leads to access to the Excel file	3 pages and 15 sections in an Excel sheet	Word form publicly available on Aurizon website, Excel file not publicly available.	References to AS7500 series	Information on approved vehicles not publicly available

RIM	Number of forms	Length of forms	Availability of application form	Standards	Where records are published
Queensland Rail	1	18 pages	Publicly available on QR website	No references to standards	Information on approved vehicles not publicly available
V/Line and MTM	1 for each RIM, which are the same form with different branding	8-9 pages	Publicly available on V/Line website	References to Railways of Australia Manual of Engineering Standards & Practices, and AS7500 series	Network Service Plan, publicly available
PTA WA	1 form for rolling stock, with four other forms for track machines, road rail vehicles, rail trailers and rail trolleys.	17 pages for rolling stock	Not publicly available	References to Australian standards, including AS7500 series	Approved Vehicle Register, not publicly available

2.2.2 Information on network requirements and applicable standards

Each RIM has unique application forms and approval procedures. Some procedures overlap in terms of what they request, such as TfNSW and UGL, which require detailed rolling stock information including static and dynamic test results, but to varying levels of depth. Other RIMs, such as QR and V/Line focus exclusively on general rolling stock information and requirements pertaining to operational information (i.e. routes that vehicles will operate on). Few RIMs apart from these ask for operational information in their application forms.

Network standards and requirements are not referenced consistently in application forms. As outlined in Table 2, only four networks refer to the AS7500 series (V/Line, ARTC, Aurizon and PTA), whilst some forms reference their own unique standards (e.g. RSU or CRN standards suites).

2.2.3 Information RIMs requested from RSOs

Throughout the 10 locomotive and wagon rolling stock approval forms analysed, 1,021 unique information requirements were identified. Approximately 477 of these were requirements related to both locomotives and wagons, with 340 unique to locomotives, and 204 unique to wagons.

Table 4 illustrates the number of fields of locomotive and freight vehicle information that are requested by RIMs in their application forms, which RSOs are required to complete. This information is categorised into the following five areas:

- operator information, which includes information about the owner, company name and contact details.
- locomotive/vehicle information, which includes specific descriptions of items such as dimensions, safety equipment, operating conditions and brakes
- test results, which includes static and dynamic testing results

- train service information, which includes information about timetable requirements and route information
- other fields, which are those that do not fit into the above categories. This is only relevant for QR and PTA WA, who have fields asking about the ability to use access rights, the form of access agreement being applied for, or request other supplementary information thought to be pertinent to the application.

Table 4 Breakdown of form requests by category by RIM

RIM	Operator	Locomotive	Test results	Train service	Other fields	Total
Locomotive forms						
ARTC/Arc	8	106	23	0	0	137
Aurizon	14	161	5	0	0	180
PTA WA	10	57	16	0	7	90
QR	9	25	0	20	9	63
TfNSW	7	250	152	0	0	409
UGL	6	142	44	0	0	192
V/Line	3	44	0	0	0	47
Wagon forms						
ARTC/Arc	8	100	19	0	0	127
Aurizon	14	161	5	0	0	180
PTA WA	10	57	16	0	7	90
QR	9	25	0	20	9	63
TfNSW	7	193	111	0	0	311
UGL	6	92	28	0	0	126
V/Line	3	44	0	0	0	47

Source: NineSquared Analysis

The most common category of information was locomotive information, which made up at least 40% of information requirements in relevant forms. This largely comprised of items related to locomotive descriptions and dimensions, operating conditions, and brake and safety equipment information. There was also emphasis from certain RIMs (TfNSW and UGL) on static and dynamic test result information. This includes categories such as safety system function test results, static brake and vehicle twist test results, ride performance tests, and dynamic kinematic performance tests.

The RIM with the longest forms was TfNSW, which had 408 data items in their locomotive application form, and 310 items in their wagon application form. Required information mostly related to safety

equipment, brakes and brake performance, operating conditions, and vehicle-to-vehicle interface and coupling.

The only RIM to request information about routes and train services in their application form was QR, which asked about train service descriptions, timetable requirements and the ability to use access rights and the form of access agreement being applied for. V/Line asked about required routes, and the track gauge in their application form. It should be noted that QR, V/Line, PTA and Aurizon's forms for locomotives and wagons are the same form – i.e. they only have one application form which can be used for both types of vehicles.

There is also very little commonality across requirements by different RIMs. As can be seen in Table 5, of the 1,021 total items across all of the forms, only 31 are common across five or more RIMs (some of which overlap across the form types, in the owner/operator information sections). TfNSW have the most unique requirements in both types of forms, and PTA and UGL have the lowest proportion of locomotive and wagon requirements requested by them alone.

Table 5 Commonality across requirements

RIM	Total for RIM	Data items requested						
		by 1 RIM	by 2 RIMs	by 3 RIMs	by 4 RIMs	by 5 RIMs	by 6 RIMs	by 7 RIMs
Locomotive forms								
ARTC/Arc	137	83	18	11	7	8	6	4
Aurizon	180	96	44	15	6	8	7	4
PTA	91	28	21	15	8	8	7	4
QR	63	49	4	2	0	1	3	4
TfNSW	409	292	67	19	11	9	7	4
UGL	192	73	64	25	10	9	7	4
V/Line	47	22	6	6	2	2	5	4
Total	817	643	112	31	11	9	7	4
Wagon forms								
ARTC/Arc	127	58	30	17	7	5	8	2
Aurizon	180	100	47	11	5	6	9	2
PTA	91	42	22	8	3	5	9	2
QR	63	49	4	2	0	1	5	2
TfNSW	311	207	57	21	9	6	9	2
UGL	125	51	30	20	9	6	7	2
V/Line	47	21	8	5	3	1	7	2
Total	681	528	99	28	9	6	9	2

Source: NineSquared Analysis

Analysis was conducted on each of the data items, to consider the primary purpose of items requested by RIMs. Each data item was assigned to a primary category, with 25 categories identified across the 1,021 total unique data items. These categories are shown in Table 6. The greatest number of data items were related to standards compliance, operator responsibility and safety. The Operator Responsibility category refers to operators providing information to RIMs that is not directly relevant to the approval process, but should responsibly provide the information, such as the bogie or brake manufacturer, or if the vehicle is fitted with toilets.

Table 6 Total data items by assessed reason for inclusion

Reason	Total data items	
	Locomotive	Wagon
Standards Compliance	312	238
Operator Responsibility	159	182
Registration	116	115
Safety	93	38
RIM Commercial	34	34
Track Access - Commercial	20	20
N/A	19	2
Train Performance	9	1
Track/Bridge Integrity	8	9
Environmental	7	3
Operator Requirement	6	14
All other categories*	34	25

*Source: Analysis *includes categories such as Vehicle Integrity, Improved Adhesion, OHS, RIM Operations, Grade Negotiation etc.*

2.2.4 Information on prior approvals

Few application forms inquire about the prior approval status of rolling stock, whether by another operator on the same network or if the same vehicles are already approved on a different network. V/Line, Aurizon and TfNSW acknowledge or ask about previous approvals. V/Line and Aurizon specifically inquire whether rolling stock has received approval on other networks to facilitate the approval process.

Advice from RIMs indicates that while not referenced in their application forms, several networks informally accept some aspects of certification by other RIMs.

2.2.5 Application of AS7501 Rolling Stock Compliance Certification

Some RIMs mentioned the voluntary national standard for rolling stock compliance certification AS7501 and the use of an ICP in the rolling stock approval process. However, the processes applied by several networks suggest that most RIMs are unwilling to rely on compliance certification performed by ICPs on behalf of RSOs to any significant degree. Some application forms require detailed information about equipment in addition to assurance from operators that vehicles comply with standards. For more information on AS7501 see Section 3.3.

2.2.6 Publication of information on approved vehicles

RIMs publish information on approved vehicles in different ways. ARTC, TfNSW and UGL Regional Linx publish TOC or RAS manuals while V/Line publishes information in a Network Service Plan. Aurizon, Queensland Rail and the PTA do not publish registers or data on approved vehicles.



Question 3:

RIMS across the NNI issue unique rolling stock approval application forms that request a wide variety of information, and there appears to be limited application of *AS 7501* by some RIMs. **What are the barriers to RIMs and RSOs adopting AS7501 for their certification processes? Do you have any comments about rolling stock approval forms? Do RSOs have comments on their experience with different forms for different RIMs? Do RIMS have comments on how they use approval forms to gather the information they need for decision-making?**

Question 4:

What specifically can be harmonised/streamlined across multiple networks? For example, which aspects of information can be made common? What would you suggest could be the mechanism for RIMs to coordinate this process?

Question 5:

If application processes and forms are better aligned with sequential steps to reach network approval (clearly defined certification and registration steps), should there be separate collection of information required at each step, for example, compliance certification information, separate to collection and management of information required for registration of vehicles?

Question 6:

To provide more transparency, links to rolling stock approval application forms could be housed in a single location. **What benefits do you see from this approach? Where do you suggest this be housed in the future?**

3 Current Australian legislative framework and guidance

Key Points:

RTOs have a general duty to ensure safety so far as is reasonably practicable (SFAIRP) taking into account and weighing up all relevant matters. The Rail Safety National Law (RSNL) also provides for the Principle of Shared Responsibility such that all parties in the rail system have a shared responsibility for rail safety, however, there are specific duties pertaining to the different Rail Transport Operators (RTO).

The RSNL also provides that managing risks associated with the carrying out of rail infrastructure operations or rolling stock operations is the responsibility of the person best able to control those risks, and that more than one person can concurrently have the same duty.

RTOs are required to have interface agreements in place which must include provisions for implementing and maintaining control measures for risk associated with the interface. The agreement must also include the respective roles and responsibilities of each party. ONRSR publishes an SMS Guidelines which is consistent with ONRSR's current regulatory remit, but does not extend to efficiency or harmonisation requirements.

The current regulatory framework appears to be open to different interpretations which translates to different approval processes. Some Rail Infrastructure Managers (RIMs) request detailed information on rail vehicles so that they can verify compliance with standards themselves. Other RIMs believe that rolling stock operators are the most appropriate party to assure that vehicles comply with network standards.

There is currently no specific published guidance material available for RTOs to clarify ONRSR expectations for rolling stock approval processes.

In the current regulatory environment, there are no legal obstacles that prevent RIMs from adopting a voluntary, and less burdensome approach. This includes more consistent application of AS7501 as the national standard for rolling stock compliance certification in Australia.

This chapter examines the legislative requirements under the RSNL to understand what the law says about the roles and responsibilities of RIMs and RSOs. It also considers rolling stock safety guidance issued by ONRSR and the relevance of this to current rolling stock approval processes.

The current state, described in previous sections, for the approval of rolling stock shows that in practice there is significant variability across RIMs in terms of their approach to safety assurance. This section considers the extent to which this may be explained by different interpretations of their responsibilities set out in legislation.

3.1 Relevant legal requirements of rail transport parties regarding safety

3.1.1 All parties in the rail system are required to comply with safety duties

Parties in the Australian rail system are required to comply with safety duties as set out in the *Work Health and Safety Act 2011 (Cth)* (WHS Act) and RSNL.

The RSNL and the WHS Act require RTOs to eliminate and minimise risks to safety so far as is reasonably practicable. Both laws apply, and to the extent of any inconsistency, WHS law prevails. The specific duties under each are different though they may overlap. WHS laws impose general duties to ensure the health and safety of employees in the workplace, and others affected by the work or in the workplace.

The RSNL duties apply to RTOs and place duties on specific parties. They go beyond the workplace and apply to the entire rail system, therefore encompassing public risks.

The WHS Act encompasses workplace safety and is applicable to workers, whilst the RSNL encompasses the safety of rail operations and applies to both the public and workers. This section briefly outlines the relevant safety duties to workers and Persons Conducting Business Undertakings (PCBUs) in the rail industry under the WHS Act and RSNL.

3.1.2 All Rail Transport Operators need to be accredited by ONRSR

The RSNL prescribes that RTOs must be accredited by ONRSR to carry out their railway operations. The purpose of accreditation of an RTO in respect of railway operations is to attest that the RTO has demonstrated to ONRSR their competence and capacity to manage risks to safety associated with those railway operations (RSNL s61, s65).

To demonstrate this competence and capacity to manage risks, it is a legislative requirement of accreditation that RTOs have an appropriate safety management system (SMS) in place. A SMS is an RTOs primary means for identifying hazards, recording the risks to safety it has identified within its operations, and detailing how those risks are managed and monitored. RTOs are legally obliged to implement and then comply with their SMS (RSNL s101).¹⁰

3.1.3 Rail Transport Operators have a duty to ensure safety so far as is reasonably practicable

The RSNL is a Schedule to the *Rail Safety National Law (South Australia) Act 2012* and is adopted and modified by an adoption Act in each state/ territory.¹¹ The RSNL prescribes safety duties similar to those in the WHS Act but applies them specifically to railway operations.

¹⁰ Office of the National Safety Regulator (ONRSR) 2022, *ONRSR Guideline: Safety Management System*, ONRSR, Adelaide.

¹¹ Office of the National Safety Regulator (ONRSR) 2025, *Legislation- Rail Safety National Law and related legislation*, ONRSR, Adelaide.

All Rail Transport Operators have a **duty** to ensure SFAIRP, the safety of the operator's railway operations (RSNL s46).

The meaning of 'reasonably practicable' is defined in the RSNL (s47) as that which is (or was at a particular time) reasonably able to be done in relation to ensuring safety, taking into account and weighing up all relevant matters including:

- (a) The likelihood of the hazard or the risk concerned occurring; and
- (b) The degree of harm that might result from the hazard or the risk; and
- (c) What the person concerned knows, or ought reasonably to know about-
 - (i) the hazard or risk and
 - (ii) the ways of eliminating or minimising the risk; and
- (d) The availability and suitability of ways to eliminate or minimise the risk; and
- (e) After assessing the extent of the risk and available ways of eliminating or minimising the risk- the cost associated with the means to eliminate or minimise the risk, including whether the cost is grossly disproportionate to the risk.

In addition to the RSNL, ONRSR provides supplementary guidance on the meaning of duty to ensure safety SFAIRP. Refer to section 5.4 for further information.

3.1.4 The principles of shared responsibility and more than one duty for the same matter apply

While the general duty applies to RTOs, the RSNL also provides for the **Principle of Shared Responsibility** (s50) such that all parties in the rail system have a shared responsibility for rail safety (see the breakout box below). Important to consideration of responsibilities, is the notion that the level and nature of responsibility is dependent on factors relating to the activity or decision made and the capacity that the person has to control, eliminate or mitigate those risks.

The RSNL provides that each person must discharge their duty to the extent that they have the capacity to influence and control the matter (s51(4)).

The RSNL provides that 'managing risks associated with the carrying out of rail infrastructure operations or rolling stock operations is the responsibility of the person best able to control those risks' (s50(4)).

The RSNL also states that **more than one person can concurrently have the same duty**, and each duty holder must comply with that duty to the standard required by the Law regardless of a duplication of duty holders (s51(3)). However, if more than one person has a duty for the same matter, each person must discharge the person's duty to the extent to which the person has the capacity to influence and control the matter (s51(4)(b)). Failure to comply with a safety duty is an offence under the RSNL and may incur serious penalties.

Rail Safety National Law Section 50

Principles of shared responsibility, accountability, integrated risk management, etc

- (1) Rail safety is the shared responsibility of-
 - (a) Rail transport operator; and
 - (b) Rail safety workers; and
 - (c) Other persons who-
 - (i) Design, commission, construct, manufacture, supply, install, erect, maintain, repair, modify or decommission rail infrastructure or rolling stock; or
 - (ii) Supply rail infrastructure operations or rolling stock operations to rail operators; or
 - (iii) In relation to the transport of freight by railway- load or unload freight on or from rolling stock; and
 - (d) The Regulator; and
 - (e) ONRSR; and
 - (f) The public
- (2) The level and nature of responsibility that a person referred to in subsection (1), or falling within a class of person referred to in that subsection, has for rail safety is dependent on the nature of the risk to rail safety that the person creates from the carrying out of an activity (or the making of a decision) and the capacity that person has to control, eliminate or mitigate those risks.
- (3) The persons and classes of persons referred to in subsection (1) should-
 - (a) Participate in or be able to participate in; and
 - (b) Be consulted on; and
 - (c) Be involved in the formulation and implementation of, measure to manage risks to safety associated with railway operations.
- (4) Managing risks associated with the carrying out of rail infrastructure operations or rolling stock operation is the responsibility of the person best able to control those risks.
- (5) If approaches to managing risks associated with any particular railway have potential impacts on any other railway or a railway network of which the railway is a part, the best practicable rail safety outcome should be sought.

3.1.5 Rail Transport Operators have specific responsibilities including safety of rolling stock

While the RSNL references the principle of shared responsibility (s50), there are specific duties pertaining to the different RTOs (s52) outlined within the legislation as demonstrated by Table 7.

Although two RTOs may share a safety duty, the RSNL provides for the additional duties of a RIM (s52(3)), and the RSO(s52(4)).¹²

Table 7 Excerpt of RSNL detailing 'Duties of Rail Transport Operators.' Formatted as a table to compare roles and responsibilities of RSOs and RIMs

Areas of Shared Responsibility	Rail Infrastructure Manager	Rolling Stock Operator
Maintenance	The provision or maintenance of rail infrastructure that is safe (s52(3)(a))	The provision or maintenance of rolling stock that is safe (s52(4)(a))
Design and construction	That any design, construction, commissioning, use, installation, modification, maintenance, repair or decommissioning of the manager's rail infrastructure is done or carried out in a way that ensures the safety of railway operations (s52(3)(b))	That any design, construction, commissioning, use, modification, maintenance, repair or decommissioning of the operator's rolling stock is done or carried out in a way that ensures safety (s52(4)(b))
Scheduling, control and monitoring	That systems and procedures for the scheduling, control and monitoring of railway operations are established and maintained so as to ensure the safety of the manager's railway operations (s52(3)(c))	Compliance with the rules and procedures for the scheduling, control and monitoring of rolling stock that have been established by a RIM in relation to the use of the manager's rail infrastructure by the RSO (s52(4)(c))
Maintaining equipment, and procedures and systems	-	That equipment, procedures and systems are established and maintained so as to minimise risks to the safety of the operator's railway operations (s52(4)(d))
Arrangements for rolling stock use, operation and maintenance	-	That arrangements are made for ensuring safety in connection with the use, operation and maintenance of the operator's rolling stock (s52(4)(e))
Communication systems	That communications systems and procedures are established and maintained so as to ensure the safety of the manager's railway operations (s52(3)(d))	That communications systems and procedures are established and maintained so as to ensure the safety of the operator's railway operations (s52(4)(f))

¹² The RSNL 2012 indicates the roles and responsibilities of the manufacturers and suppliers in Section 53. Manufacturers are not in scope for this project.

3.1.6 Interface Agreements

RSOs and RIMs are required by sections 105 and 106 of the RSNL to seek to enter into an interface agreement which must provide for:

- implementing and maintaining measures to manage risks associated with the interface; and
- the evaluation, testing and (where appropriate) revision of measures in relation to identified risks and incidents considered; and
- the respective roles and responsibilities of each party to the agreement in relation to those measures; and
- procedures by which the parties to the agreement will exchange information about, and monitor compliance with, their obligations under the agreement; and
- a process for keeping the agreement under review and its revision.

Safety interface coordination is a mandated inclusion in a rail transport operator's safety management system (SMS). ONRSR sets its expectations for this element of an operator's SMS in its SMS Guideline. But these expectations do not extend to consideration of efficiency or interoperability outcomes given that ONRSR's current legislative remit is safety. The Guideline notes that other agreements can also be incorporated into an interface agreement such as an access agreement and network rules.

3.2 Current ONRSR guidance and expectations to fulfil legislative requirements are limited in this area

The legal requirements for RTOs in the industry are complemented by ONRSR guidelines, policies, and codes of practice. These documents ensure that the industry is clear on how ONRSR will administer the law.

ONRSR issues guidance materials that explain key concepts relevant to duty holders such as managing risks SFAIRP, and the concept of shared responsibility, though there is currently no specific published guidance material available for RTOs to clarify ONRSR expectations for rolling stock approval processes.

Subsequently, during previous consultation with select RTOs, several stated that there is limited advice from ONRSR on how to best navigate legislative requirements. Namely how to implement the principle of shared responsibility. In situations where there are multiple duty holders, RTOs report difficulty in upholding the principle of shared responsibility, particularly when 'the party best able to control risks' is difficult to discern or contested (see section 2.4).



Although ONRSR does not provide published guidance material specifically related to rolling stock approvals, the *ONRSR Safety Message: Managing your rolling stock assets*¹³ (ONRSR Safety Message) highlights some key good practices and requirements for effective management of freight rolling stock assets for RTOs. The safety message, while not exhaustive, provides a list of key aspects, and information, a good safety management system should contain regarding effective maintenance of rolling stock.

The critical safety risks relating to maintaining rolling stock are detailed within the ONRSR Safety Message and refer to derailments or collisions, fires caused by rolling stock, and passengers caught in doors or between trains and platforms. It also includes issues related to excessive speed, brake failures, train loading issues and failure of driver safety systems. ONRSR states that each of these risks should have controls in place to ensure the rolling stock is safe for workers and passengers SFAIRP.

The safety message refers to key pieces of ONRSR guidance material¹⁴ and the *Safety Management System Guideline* and the *Meaning of Duty to Ensure SFAIRP Guideline*.¹⁵

The *Meaning of Duty to Ensure SFAIRP Guideline* outlines the process to determine what is or was 'reasonably practicable' for the duty holder to consider in minimising risks. A way of eliminating, or if this is not reasonably practicable, of minimising a hazard or risk is regarded by the ONRSR as suitable if it:

- Is effective in eliminating or minimising the likelihood and/or degree of harm of a hazard or risk
- Does not introduce new and higher risks in the circumstances, a
- Is practical to implement in the circumstances in which the hazard or risk exists.

In assessing the suitability of risk controls, the duty holder may also consider whether they will be:

- Technically and logistically suitable, for example, compatible with the existing systems or operating requirements, or available at the locations required.
- Environmentally suitable, for example, suited to the climatic conditions or operating environment.
- Effective at reducing the risk.

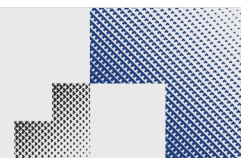
The following points should also be considered:

- As well as meeting the SFAIRP test, any decision to reject risk controls and/or tolerate high or extreme risks must be made in compliance with an individual duty holder's SMS.
- The level of risk reduction offered by a control under consideration.
- Other independent risk controls providing protection.
- The potential for common failure modes which could render more than one risk control ineffective; and

¹³ Office of the National Safety Regulator (ONRSR) 2023, *Safety Message: Managing your rolling stock assets*, ONRSR, Adelaide.

¹⁴ Office of the National Safety Regulator (ONRSR) 2022, *ONRSR Guideline: Safety Management System*, ONRSR, Adelaide

¹⁵ Office of the National Safety Regulator (ONRSR) 2021, *ONRSR Guideline: Meaning of duty to ensure safety so far as is reasonably practicable*, ONRSR, Adelaide.



- The hazards a particular control deals with.

The extensive considerations entailed in managing safety SFAIRP, combined with the principle of shared responsibility contributes to the duplication of safety assurance processes among RTOs.

The *ONRSR Major Projects Guideline*,¹⁶ includes useful information that is not about rolling stock approvals but may be applicable to guide some of these issues. The guideline includes 'Effective Control and Management of Major Projects' section, which considers which party should be held accountable in the event of an incident, given the overarching principle of shared responsibility.

3.2.1 The ONRSR Major Projects Guideline may be relevant guidance for consideration

The *ONRSR Major Projects Guideline* covers:

- Planning safety assurance across rolling stock acquisition / modification organisation.
- Assuring safe outcomes needs rigorous oversight. The services of the ICP represents good practice in this regard.
- Risk-based system engineering and safety assurance processes, to address risks from design phase onward.
- Quantify / understand risks that are unacceptable, tolerable or broadly acceptable, including Quantitative Risk Assessment, where necessary.
- Human factors integration plan
- Derogation process for managing non-compliance to standards.

Excerpt from the *ONRSR Major Projects Guideline* is given below:

In identifying which party is responsible for effective management and control of risks, ONRSR will be guided by consideration of which party has the greatest ability to influence and direct the relevant railway operation (i.e. the management of rail infrastructure, or the operation or movement of rolling stock).

It is possible that both the owner and the contractor will exert some degree of effective control and management, depending on:

- The precise arrangements between the parties in these relationships
- The degree of autonomy given to the lessee, contractor or alliance contractor
- Involvement of the owner or principal in the day-to-day running of the railway operations
- The ability of the owner or principal to take over, step-in or direct the way in which railway operations are carried out
- Governance arrangements, including veto rights of the owner or principal
- Other factors

In demonstrating that assets manage safety risk SFAIRP, ONRSR expects as a minimum:

- Major projects to identify the entities that are the key safety stakeholders from the requirements definition phase onwards
- Major projects, at the requirements definition phase, to document:

- The role of each key safety stakeholder
- The responsibilities and accountabilities of each key safety stakeholder for safe project outcomes, including RSNL safety duties, and
- The management of interfaces across the key safety stakeholders
- Major projects to ensure roles and responsibilities support clear safety leadership and accountability throughout project delivery and
- The RTO responsible for the operation or maintenance of the assets to assure itself that the delivered assets are safe.

The guidance provided by ONRSR does not currently clarify a specific level of safety assurance for the acceptance of rolling stock on networks. Consequently, some RIMs and rail owners have provided guidance to meet this need. Transport for NSW (TfNSW) published a *Framework for Assuring the Safety of Rail Assets and Infrastructure* which explains how framework for asset configuration management, can assist TfNSW, Sydney Trains and NSW Trainlink (Agencies) to meet their safety duties in relation to the safe design, construction, operation and maintenance of rail transport services in NSW across the asset life cycle.¹⁷

3.3 AS7501 Rolling Stock Compliance Certification

AS7501:2019 (the Standard) is the national standard for rolling stock compliance certification in Australia. AS7501 covers the design, construction and testing of individual items of rolling stock (i.e. rail vehicles). The Standard provides a generic process for assessing rolling stock compliance with the RSO nominated rolling stock standards and the relevant RIMs nominated interface standard.¹⁸

This standard provides a structured process for RIMs and RSOs to follow, facilitating the assessment and certification of rolling stock. By adhering to AS7501, stakeholders can ensure that vehicles are safe and compliant, which is fundamental for their acceptance and use on various rail networks.

AS7501 is important because a key function of rolling stock approval processes is to provide assurance that vehicles comply with nominated interface standards in deciding whether to accept them for use on those networks. AS7501 is the national standard for this and defines processes that can be followed by RIMs and RSOs. This includes the role of ICPs in the process. Understanding the application of this standard (or other rolling stock certification standards) provides insights into the extent of harmonisation in approval processes.

‘Chapter 2 of the Standard explains the roles and responsibilities as following:

- The RSO is responsible for determining the standards to which the rolling stock will be designed and built.

¹⁷ TfNSW 2024, *Guide to Transport for NSW Framework for Assuring the Safety of Rail Assets and Infrastructure*, TfNSW, Sydney.

¹⁸ Rail Industry Safety and Standards Board 2019, *Rolling stock compliance Certification Preview AS7501:2019*, RISSB, Canberra.

- The RSO is also responsible for appointing the ICP and obtaining the RIM's agreement for this appointment.
- The RSO (and ICP) ensure the design and construction conform to the standards. The ICP should be consulted on the suitability of the referenced standards
- The RSO (supported by ICP) produces certification documentation (against the standards) to present to the RIMs for acceptance onto their networks.
- The RIM assesses that the AS7501 process has been followed, and, if satisfied, accepts the rolling stock.

The application of AS7501 helps to streamline the approval process and promotes harmonisation across different networks. Understanding and implementing this standard is essential for achieving consistent and efficient approval processes, thereby reducing complexity and improving the overall safety and reliability of the rail network.

3.4 RIMs and RSOs appear to have varied interpretations of their legal responsibilities

Throughout stakeholder consultation, some RIMs reported that the legislated principle of shared duty, coupled with the duty to ensure safety SFAIRP contributed to their perceived responsibility for the safety of their networks. RIMs appear to have conflated these principles with duplicative oversight processes for the rolling stock that traverse their networks. RIMs expressed concerns about their responsibility for high-risk networks and so adopt a process of re-checking vehicle compliance as part of their safety assurance.

However, management of a high-risk section of a network may best be addressed by setting standards and operating conditions to run on the network. High-risk environments should not preclude following the safety assurance guidance set out in AS7501, which is consistent with streamlined processes to manage risks on other complex rail networks including in the UK and European rail systems (described in the Chapter 4).

Despite this, the law effectively prescribes that RSOs are the key party for managing safety risks associated with rolling stock maintenance, design and construction.

Broadly speaking, the AS7501 approach is for the RSO to complete the work for certification of vehicles and prepare compliance certificates (with an ICP approved by the RIM) and for the RIM to then review the compliance certificates and approve, if satisfied (or ask for further evidence, if not satisfied).

This raises a question around how RIMs see their role in assurance of the safety of rolling stock, particularly around requirements around 'use' and 'control.' Some RIMs request highly detailed information on rail vehicles so that they can verify compliance with standards themselves. Other RIMs believe that RSOs are the most appropriate party to assure that vehicles comply with network standards and accept 'self-certification'.

The RSNL does not place prescriptive requirements on RIMs regarding what constitutes a 'fit for purpose' level of assurance before granting approval to rolling stock to travel on a network. ONRSR provides no guidance specific to this aspect of the law. In the current regulatory environment, there are no legal obstacles that prevent RIMs from adopting a voluntary, and less burdensome approach. However, the current co-regulatory environment reduces RIM confidence and encourages duplicative scrutiny of RSOs.



Question 7:

Does the RSNL and support material provide sufficient guidance on meeting your safety duties for rolling stock certification, registration and network approval? If not, what is needed?

Question 8:

What suggestions do you have to improve the legislative framework or guidance for safety assurance for rolling stock approval processes?

4 Review of other safety assurance approaches and key learnings

Key Points:

A desktop review of international processes in rail in Great Britain (GB), Europe and United States (US) found:

- Independent third-party verification bodies play a key role in the rolling stock approval process in GB, overseen by an independent rail regulator.
- In Europe, an independent rail agency and regulator, the European Union Agency for Railways (ERA), issues vehicle authorisations and certification and develops common technical standards.
- In the US, the Federal Railroad Administration (FRA) sets safety regulations and oversees the certification of rail infrastructure for both freight and passenger trains. Certification processes include inspection by an independent third-party testing organisation.

And a review of the Road Vehicle Standards (RVS) Legislation (Australia), which comprises the *Road Vehicle Standards Act 2018 (Cth)* and the *Road Vehicle Standards Rules (2019)* found the approval process is national and streamlined, with all applications submitted via an online application and approvals portal. Further:

- The road industry has a common set of standards for mutual recognition of vehicle compliance on the Australian road network, and importation of vehicles is a streamlined process. The process occurs once and is not repeated across different networks.
- There is a Register of Approved Vehicles (RAV), a publicly searchable database of vehicles that have met the requirements of the RVS legislation and been approved to be provided to the Australian market.

Compared to these examples, current processes for certifying and approving rail vehicles in Australia is highly decentralised and inconsistent. Similar to the Australian rail environment, the networks considered in the review comprise multiple infrastructure managers, networks with differing characteristics/use levels and varying standards. These examples suggest centralised processes can be established in complex multi-jurisdictional environments without creating new government bodies.

This chapter provides a review of international processes in Great Britain (GB), Europe and United States (US) to assess best practices that might be applied to rolling stock approval processes in Australia. The road transport regulatory environments for light vehicles and heavy vehicles in Australia were also reviewed.

Desktop research formed most of the inter-jurisdictional analysis. The case studies were reviewed to assess areas of best practice that could be applied to the Australian rail system harmonise rolling stock approval processes.

The key findings are summarised in Table 8 below.

Table 8 Key findings to guide improvements to the Australian rail industry

Case study	Key elements
United Kingdom	
The role of third-party verification bodies	<ul style="list-style-type: none"> ▪ In Great Britain, independent third-party verification bodies, called Approved Bodies (ApBo) and Designated Bodies (DeBo) play a key role in the rolling stock approval process. ▪ ApBos and DeBos are used by the applicant to verify that a rail vehicle is compliant with the mandated National Technical Specification Notices (NTSNs) and the UK National Technical Rules (NTRs).¹⁹ ▪ These independent verification bodies are appointed by the UK Government and required to meet national regulations to operate. These bodies are accredited by UKAS, the National Accreditation Body for the UK.²⁰ ▪ The ApBos and DeBos summarise the vehicle’s compliance and produce a Technical File, which is then assessed by the Office of Rail and Road (ORR).²¹ The ORR is the independent safety and economic regulator for Britain’s railways. It is responsible for ensuring that railway operators comply with health and safety law.²² ▪ After the Technical File is submitted to the ORR for approval, the ORR adjudicates whether the interoperability requirements have been met. ▪ The Department of Transport also publishes a list of ApBos and DeBos that are recognised by the Regulator.²³

¹⁹ Department for Transport 2022, *Guidance Railway interoperability glossary*, Department for Transport, London.

²⁰ UKAS 2025, *United Kingdom Accreditation Service*, UKAS, London

²¹ Crossrail Learning Legacy 2021, *The Role of Rolling Stock Approval and Assurance within Major Railway Programmes*, Crossrail, London.

²² Office of Rail and Road 2024, *Organisations*, Office of Rail and Road, London.

²³ Department of Transport: United Kingdom, *Guidance - Rail interoperability: approved bodies and designated bodies*, <https://www.gov.uk/government/publications/rail-interoperability-notified-bodies>.

European Union

Independent regulator that is jointly responsible for vehicle authorisations and verification

- The European Union Agency for Railways (ERA) is a decentralised, independent agency responsible for developing common technical standards, safety measures and targets in cooperation with the rail sector.
- The arrangements in the EU are very similar to arrangements in Great Britain with each National Safety Authority (NSA) able to perform the same role as the ORR for domestic vehicles. Using the ERA is a requirement for international vehicles but for domestic vehicles, operators can choose to use either their NSA or the ERA. The ERA performs over three quarters of vehicle approvals.
- The Vehicle Authorisation process allows the authorising entity to achieve reasonable assurance that the applicant and other parties involved in the design, manufacture, verification and validation of the vehicle have fulfilled their legislative obligations and responsibilities and the vehicle conforms to applicable laws. Comparatively, safety certification gives confirmation that the railway undertaking has established its safety management system and is able to comply with relevant safety requirements to control risks and operate safely in the Member States concerned with the area of operation.
- The European Union uses the 'One-Stop Shop' website, an online information and communication portal that allows operators to submit applications for authorisation. The operators independently submit forms which are both provided by and verified by the ERA. These forms include, for example, demonstrating evidence that the applicant has used third-party verification bodies to confirm compliance to regulations.^{24 25}
- The outcome of the ERA's assessment is accessible to stakeholders specified by the applicant on the 'One-Stop Shop' portal.²⁶

United States of America

Testing centre

- The rolling stock approval process in the US is chiefly regulated by the Federal Railroad Administration (FRA) which sets safety regulations and oversees the certification of rail infrastructure for both freight and passenger trains.

²⁴ Certifier Group 2024, Notified Bodies, Certifier, Paris.

²⁵ Directive (EU) 2016/797 of the European Parliament and of the council of 11 May 2016 on the interoperability of the rail system within the European Union, p. 51 ([available here](#)).²⁶ ERA 2019, *The European Union Agency for Railways goes live with the first release of the one-stop shop*, ERA, Valenciennes.

²⁶ ERA 2019, *The European Union Agency for Railways goes live with the first release of the one-stop shop*, ERA, Valenciennes.

- To operate on any railroad, potential RSOs in the United States are required to obtain a rolling stock certification from the Federal Railroad Administration (FRA). This certification ensures the rolling stock meets all safety, operational, and compatibility standards as legislatively required.
- The Association of American Railroads (AAR) also provides a mandatory and voluntary Manual of Standards and Recommended Practices²⁷ to guide manufacturers. The certification requires the applicant to undergo inspection by an independent third-party testing organisation.
- Once the FRA finds the inspection and outcomes satisfactory, it will provide approval of inspection outcomes. Following this, the applicant must obtain Operating Authority²⁸ before legally operating on the rail network. This is regulated by the FRA, and managed by the Federal Motor Carrier Safety Administration (FMCSA). It is equivalent to registration.

Australia

Road Vehicle Standards (RVS) Legislation

Streamlined national standards, assessment and public register of vehicles

- Unlike the rail industry, the road industry has a common set of mandatory standards for mutual recognition of vehicle compliance on the Australian road network that is largely governed by mandated national standards, and importation of vehicles is a streamlined process.
- The Australian Design Rules (ADR)²⁹ are the national standards for road vehicle safety, anti-theft and emissions. All new road vehicles manufactured in Australia and imported new or second-hand vehicles, must comply with the relevant ADRs when they are first supplied to the Australian market.
- The approval process is national and streamlined with the use of a single system, and national regulator. Once permitted, applicants are approved to operate in all states. All applications are submitted through an RVS online applications system and approvals portal managed by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts.
- There is a Register of Approved Vehicles (RAV), a publicly searchable database of vehicles that have met the requirements of the RVS legislation and been approved to be provided to the Australian market.

²⁷ Association of American Railroads 2023, *Manual Standards and Recommended Practices Section A-I*, AAR, Washington

²⁸ Federal Motor Carrier Safety Administration 2025, *Types of Operating Authority*, FMCSA, Washington.

²⁹ Australian Government 2025, *Australian Design Rules*, Infrastructure, Canberra.

- To be entered on the RAV, a road vehicle must first be granted either a vehicle type approval or concessional RAV entry approval. Vehicle type approval is the main pathway used to show someone meets requirements. When a number of the same make and model (or type) of vehicle will be provided, a person can apply for vehicle type approval. If granted, this means that type of vehicle can be provided to the Australian market in an unlimited volume. It identifies the applicable national road vehicle standards for a road vehicle type or model and specifies the documents required to confirm compliance with them. This option is generally used for commercial quantities of road vehicles
- In addition to applying for road entry approval, all vehicles are required to register with state or territory authorities. This involves compliance with roadworthy standards to ensure that vehicles can be operated safely, meeting safety requirements. There is effectively mutual recognition of registration so a vehicle registered in any state or territory may travel across the Australian road network.

Australia

Heavy Vehicle Performance- Based Standards Scheme

- The performance-based standards (PBS) vehicle scheme aims to encourage innovative vehicles to enter the market.
- Unlike the traditional approach to regulation involving prescriptive definitions of vehicle characteristics that manufacturers and operators must adhere to, the PBS scheme provided more flexibility in how trucks are built.
- Under the standards, vehicles are assessed according to 16 minimum vehicle performance standards to ensure they are stable on the road and can turn and stop safely.³⁰ There are an additional four infrastructure protection standards.
- The design and vehicle approval process is simplified. To allow for improved vehicle design, PBS vehicles may be granted exemptions from certain vehicle standards and regulations, such as those contained in the ADR and the Heavy Vehicle National Regulation.³¹
- While the approval process for PBS vehicles has been simplified, PBS vehicles are classed as restricted access vehicles meaning they are not permitted to use all parts of the road network (unlike light vehicles and general access heavy vehicles). Historically, network access for PBS vehicles has been fragmented with variations by state and local government area.

³⁰ NHVR 2025, *The Standards*, NHVR, Brisbane.

³¹ NHVR 2019, *Performance Based Standards: An introduction for road managers*, NHVR, Brisbane.

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- Over the past decade, state government road managers and the National Heavy Vehicle Regulator (NHVR) have implemented various policies to expand network access for PBS vehicles including national notices which effectively harmonise network access for PBS vehicles across networks managed by multiple road managers.
 - These reforms have significantly increased the use of PBS vehicles. There are currently over 23,000 PBS vehicles now approved, with uptake more than double the average growth over the previous 5 years.³²
-

In summary, the key learnings of this review are:

- Independent third-party verification bodies play a key role in the rolling stock approval process in GB. These bodies are appointed by the Government in GB and are required to meet national regulations to operate.
- Across Europe, rail operators apply to the ERA for authorisation regardless of whether they are operating solely within a national network of their State, or across several Member States. The ERA is a decentralised, independent agency responsible for developing common technical standards, safety measures and targets in cooperation with the rail sector. The ERA acts as the European Authority or Regulator in issuing vehicle authorisations, and certifications.
- In the US the FRA sets safety regulations and oversees the certification of rail infrastructure for both freight and passenger trains. Certification processes include inspection by an independent third-party testing organisation.

Additional review of the Australian Road Vehicle Standards approach found the approval process is national and streamlined, with all application submitted via an online application and approvals portal. Further, the road industry in Australia has a common set of standards for mutual recognition of vehicle compliance on the Australian road network, and importation of vehicles is a streamlined process. There is a Register of Approved Vehicles (RAV), a publicly searchable database of vehicles.


These examples suggest centralised processes can be established in complex multi-jurisdictional environments without creating new government bodies. Australian equivalents to overseas bodies are national regulators, and with an expanded remit regarding interoperability, ONRSR could potentially take this role, i.e. there would be no need to create new government bodies.



Question 9:

Are you aware of relevant case studies from other countries or sections of approval processes and safety

³² NHVR 2025, *Heavy Vehicle Productivity Plan 2025 – 2030*, NHVR, Brisbane.



assurance that could be useful? Please provide details if there are ideas from elsewhere that could be helpful to inform potential improvements to the clarify of roles and responsibilities within the Australia context?

5 Ideas to clarify roles and responsibilities for rolling stock safety assurance

Key Points:


In this chapter we discuss:

- The key findings from the analysis of application forms, review of legislative framework, review of other approaches and stakeholder feedback to date.
- Ideas for draft key principles for developing safety assurance guidance.
- Ideas for safety assurance reforms aiming to develop a consistent approach to RSO and RIM roles and responsibilities for the certification and registration stages of the approval process.
- The role of Office of the National Rail Safety Regulator (ONRSR).

5.1 Summary of findings

The key findings from the current state analysis, review of legislation and learnings from other rail and transport regimes are briefly outlined below.

- Detailed analysis of application forms for rolling stock approval confirmed that:
 - RIMs across the NNI adopt unique safety assurance processes about trains traveling on their networks. From a RSO perspective, RSOs need to provide similar information in multiple ways for a single end-to-end journey across networks.
 - RIM requirements for RSOs to certify vehicle compliance with standards differ such that some RIMs accept certification documentation from RSOs, while others conduct more detailed additional analysis to satisfy themselves that vehicles meet standards. There are differing views among RIMs regarding which party is most appropriate for assuring that vehicles comply with standards.
 - Application processes and forms are used to manage risks but are not limited to safety risks and include gathering information for creating vehicle registers and assessing risks for infrastructure.
 - Independent assessment processes (by ICPs) are supported in the current system to a limited degree.
 - There is no easy-to-access, single location for information on rolling stock approval requirements. Application processes are often unclear to RSOs and some of the forms are not published on RIM websites.
- RIMs have different approaches to managing rolling stock risks SFAIRP. While many parties have a shared responsibility for rail safety under the national law, there is no specific guidance



on what constitutes an appropriate or 'fit-for-purpose' level of assurance before RIMs can accept rolling stock on networks. The current state of the rolling stock application process is in part accounted for by different interpretations by RIMs of what is acceptable to demonstrate that they are managing the risks on their networks SFAIRP.

- ONRSR expectations are an important driver for the risk-based approach taken by RIMs. A desktop review of current guidance shows that there is limited specific material from ONRSR on rolling stock approval by RIMs. Some compliance actions by ONRSR have been interpreted by some RIMs to mean that RIMs are ultimately responsible for any safety incidents on their network. ONRSR may provide direct guidance to individual RTOs through the audit process.
- There are no legislative impediments to RIMs adopting a voluntary approach to reduce the burden associated with current processes. However, there are also no commercial incentives for RIMs to streamline or harmonise processes to minimise the burden on RSOs. In the current system, RIMs are responsible for determining the extent of their role in assuring the compliance of vehicles with standards - a key focus of rolling stock approval processes. There are no obligations placed on RIMs or incentives to act consistently, or in a prescribed timeframe, leading to uncertainty and unpredictable processes for RSOs.
- In other jurisdictions in rail, harmonised and centralised approaches to approving vehicles and trains are successfully applied. There is also a more streamlined approach in the Australian road regulatory environment for approving road vehicles. There is little or no duplication of processes related to certification that the vehicle or train (or road vehicle) meets standards. Roles and responsibilities, for asset managers and those seeking approval for new or modified vehicles to traverse those assets are clear.

5.2 Ideas for key principles that would apply when developing Safety Assurance Guidance to improve rolling stock approvals processes

To support the development of practical Safety Assurance Guidance to help to issues detailed in the current state analysis, the following key principles have been developed.

These key principles are based on feedback from stakeholders regarding what would be expected from any guidance on safety assurance. Stakeholders emphasised that any guidance to clarify roles and responsibilities needs to help to improve the current state. These are not final principles but are presented for stakeholder feedback.

- **Safety is paramount.** Guidance for safety assurance needs to ensure that safety is maintained or improved.
- **Efficiency.** Guidance for safety assurance needs to help to improve efficiency in the rolling stock approval process across the NNI. Proposed changes should not create greater administrative burden on RSOs that further reduce the efficiency of operations.
- **Risk-based approach.** Guidance for safety assurance at each stage of the approval process must involve an understanding of safety risks being managed to ensure that any controls in place are appropriate to the risk. This also involves considering the different risk profiles for sections and/or networks along the NNI.

- **Transparency and accountability.** Guidance for safety assurance would expect clearly defined RIM requirements for safety assurance that are open and available to all and provide accountability for RIMs and RSOs.
- **Consistency.** Guidance for safety assurance would promote harmonised requirements and streamlined processes for safety assurance to provide safety and efficiency benefits to rail operations using the NNI.
- **Collaboration and information sharing.** Guidance for safety assurance would promote RIMs sharing information on RSO safety assurance requirements and criteria, thereby supporting a more streamlined set of processes which is more efficient for RIMs as well as RSOs. Guidance would encourage RIMs to collaborate both together and with industry to enable innovative new rolling stock on the network to improve safety and efficiency.
- **Mutual recognition.** Guidance for safety assurance would promote harmonised processes to facilitate RIM acceptance of rolling stock assurance by other RIMs. This creates certainty for RSOs and efficiencies for RIMs and RSOs in approval processes for the NNI.

These ideas for principles are applied to guide the potential improvements discussed in Section 5.3.

5.3 Potential improvements to clarify roles and responsibilities for safety assurance

This section outlines some suggested areas of improvement, for stakeholder feedback.

There are many potential ways to better clarify the roles and responsibilities of RSOs and RIMs relating to rolling stock certification to reduce inefficiencies and duplication of effort while maintaining safety.

Under the current regulatory framework, this requires a common understanding of the role of the RSO in managing risks to ensure that their rolling stock is safe SFAIRP and the RIM in assuring themselves that rolling stock complies with standards and requirements of their network and can be safely introduced to the network.

Considering the ultimate desired outcome of the approval process is that trains operate safely and efficiently on the NNI, this means that the final stage of the approval process, i.e. network approval, should be robust and appropriate for RIMs to meet their safety duty. Working backwards, this outcome relies on assurance about the previous two steps in the process - that the vehicles in the train are certified as meeting safety technical standards and that there is integrity of information about each of the vehicles at the point of registration.

Potential changes for the approval process that could inform developing safety assurance guidance are discussed below. Note that these changes are aimed to align with the ideas for key principles outlined in the previous section (5.2) that would underpin the safety assurance guidance.

Section 5.3.1. proposes that the first and key changes would apply to the certification stage of the approval process. Because application processes focus heavily on providing assurance that vehicles comply with standards, process improvements in this area are likely to provide significant benefits. Thoughts and ideas for improvements are also presented for registration (Section 5.3.2.) and network approval (Section 5.3.3) stages.

5.3.1 Safety assurance to certify that vehicles comply with standards should be the primary responsibility of RSOs

Analysis of current processes and consultation with industry has identified potential changes to the certification process. The key change that is proposed for consideration is a shift from a mixed approach to certification which involves RIMs and RSOs, to RSOs taking primary responsibility for verifying that the vehicle they propose to operate on the NNI meets safety standards.

If consistent processes are followed and ideally underpinned by an integrated set of current network requirements and standards applicable to the NNI, then RIMs should be able to accept the compliance certification of the rolling stock without the need for additional, duplicative steps. This includes preventing the need for RIMs or network owners to take responsibility for certifying rolling stock themselves, which currently occurs for some networks. This approach could be tested through the project to pilot a single application form, which could be implemented within the current regulatory framework.

Another key element for the proposed certification approach as per AS7501 is consistently using an independent ICP to assess vehicle compliance with standards. ICPs (sometimes referred to by other names) are accepted by RIMs for assuring that road/rail vehicles and some types of passenger rail vehicles comply with standards and are also used for other aspects of rail operations such as assurance of signalling equipment by some RIMs.

Adopting a ‘scheme’ for competency and skills for ICPs that could be recognised by all RIMs on the NNI could help to ensure that RIMs have confidence in this approach to certifying compliance of rolling stock. Options for an ICP ‘accreditation scheme’ (separate and distinct from the accreditation of RTOs) and details of how this could work are outside the scope of this paper. However, key to this proposal is an additional layer of safety assurance for RIMs that quality assurance applies to parties who verify compliance with standards.

Some ideas on how a certification process could work, based on AS7501, for stakeholder discussion and feedback, are shown in Table 9 below.

Table 9 Current process, possible future improvements

Potential Area of certification process for change	Current Safety Assurance Approach	Proposed New Safety Assurance Approach for freight vehicles (wagons and locomotives) on the NNI
Overall roles and responsibilities for certification process	Unique rolling stock approval approaches by RIMs to meet their duty to ensure safety of their networks SFAIRP. Inconsistent application of AS7501. Some RIMs require extensive detailed information for certification, and others require RSOs to confirm compliance with standards.	Consistent approach across RIMs, following AS7501. All RTOs have a safety duty under RSNL, but there are specific roles and responsibilities for rolling stock certification processes, based on which party has the greatest ability to control and influence risks to safety. <ul style="list-style-type: none"> • RSOs are responsible for certifying vehicle compliance with the standards via an agreed standardised process. RSOs have effective management and control of the safety of the vehicle

		<p>proposed for registration to operate on a network.</p> <ul style="list-style-type: none"> • RIMs are required to check that RSOs have certified compliance with rolling stock standards.
<p>Responsibility and processes for checking compliance standards are met</p>	<p>Different approaches by RIMs to check vehicle compliance with standards.</p> <ul style="list-style-type: none"> • Some RIMs request a Certificate of compliance from the RSO. This provides assurance to the RIM that compliance with the standards has been verified. • Some RIMs do not rely on third party certification with standards, they also ask for evidence so that they can conduct technical checks of compliance with standards. 	<p>Consistent approach to check compliance with standards.</p> <ul style="list-style-type: none"> • RSO provides a Certificate of compliance, and possibly also self-declaration of compliance. RIMs could accept declarations by operators that rolling stock meets standards and eliminating or minimising the need for technical information to verify that equipment meets standards. • RIMs are responsible for checking that the RSO has compliance certificates (issued by an ICP). • RSOs may be required to have an auditable process to verify that: <ul style="list-style-type: none"> • Rolling stock (and rolling stock configurations) are designed and constructed by parties competent to perform the activity • Validation and verification have been conducted to confirm that the rolling stock (and rolling stock configurations) have been designed and constructed competently, and network standards and requirements have been adhered to • Records are kept of validated safety critical performance parameters
<p>Recognising who may certify compliance with standards</p>	<p>RSOs and RIMS have different approaches to who certifies vehicle compliance</p> <ul style="list-style-type: none"> • There may be a range of different qualified persons involved in the process depending on the operator. • RIMs may use internal technical staff to check compliance 	<p>ICPs are recognised in and can be relied on in RIM approval processes, as per AS7501.</p> <ul style="list-style-type: none"> • Competent, independent person to give assurance that compliance checks are independent and robust. • Transparent published list of recognised/accredited ICPs for rolling stock certification.

	<p>Some RSOs rely on an internal Chief Engineer who is highly qualified for the role, though strictly speaking is not independent.</p> <p>ICPs may be used by RSOs that have been agreed by the RIM.</p> <p>There is no standardised accreditation process for competency, potential for different levels of performance/skills or other quality assurance for ICPs.</p>	<ul style="list-style-type: none"> ICP accreditation scheme in place that all RSOs and RIMs endorse. Oversight mechanisms in place to ensure minimum level of competency and performance.
Treatment of Non-compliance with standards	<p>Application for exemptions for non-compliances with standards are complex and slow to resolve with no consistency in approach across RIMs in how these matters are resolved.</p>	<p>A standardised, transparent process for exceptions, including assessments and decision-making. Any areas of non-compliance are clearly identified and can be considered by RIMs in the rolling stock approval process.</p>
Mutual recognition of testing for certification	<p>Limited or non-existent mutual recognition by RIMs for certification compliance, including testing performance.</p> <p>RIMs do not tend to share information about applications or approval processes.</p>	<p>Mutual Recognition by RIMs for certificate of compliance for a vehicle to travel on the NNI.</p> <p>RIMs could consistently ask applicants:</p> <ul style="list-style-type: none"> if vehicles have already been approved on another network if equipment is based on a design that has been previously approved by that network or another network whether they agree to equipment information being shared with another RIM if they seek access to that network

5.3.2 Registration of vehicles is a RIM responsibility, and RIMs need to continue to better streamline this process

The current approach is that the RIM is responsible for recording the specifications of each vehicle into their operational systems. This is the part of the RIM process of assuring that rail vehicles approved for use on their networks have been identified and recorded. This role appears to be clear, and there is no suggestion from stakeholders that this arrangement is an issue from a safety assurance perspective.

However, the rail industry recognises that the current approach to registration which involves each network gathering information on rail vehicles is highly inefficient and duplicative. Currently, the specifications of each vehicle are submitted repeatedly by RSOs and then entered into separate RIM registers of approved vehicles (i.e. TOCs) and databases. RIMs may be required to regularly update published vehicle registers or issue waivers for approved vehicles in between updates to registers. This can create a complex and burdensome system for RIMs to manage, which can sometimes involve hundreds of waivers being issued outside of updates to published registers. A more streamlined approach will include:

- A single application form. RSOs only need to provide information on vehicles once to RIMs.
- RIMs sharing information
- Using the National Rolling Stock Register (under development by RISSB) to store all information in a central database. A list of approved vehicles for use on the NNI would be contained in the central register. A combined non-digital version of a vehicle register (i.e. similar to current TOC or RSA schedules of approved vehicles) could be developed as an interim measure before implementation of the National Rolling Stock Register if this provides efficiencies for RIMs.
- Testing performance information can be shared with other RIMs and is retained in the National Rolling Stock Register or in a separate system if appropriate. This would reduce the need for additional testing for new networks or at change of ownership where possible.

5.3.3 Network approval is a RIM role and responsibility, and RIMs could consider better streamlining this process

Each RIM specifies the conditions under which rail vehicles or in some cases trains may operate on their network, such as maximum mass and speed. Processes for this vary by RIM.

Many RIMs do not have an explicit process for approving trains (as distinct from approving rail vehicles) for use on networks. As noted in Section 2, in most cases rolling stock application forms do not ask for details of train operations and focus on individual rail vehicles. Once accepted by the RIM, vehicles are typically approved for use across the entire network (subject to any limitations). Details of approved rail vehicles are published in vehicle registers and/or databases. These include details of conditions or limitations (e.g. mass, speed, how they can be configured within a train).

For most networks, RSOs can then seek to operate a train on that network, with processes for this set out in an access agreement or contract. As part of this process, RSOs may be required to use systems operated by RIMs to book rail paths. In granting access, train controllers will check that rail vehicles that make up trains are approved for use on the network and will check for approval conditions that should be taken into account. RIMs and RSOs are also required to enter into an interface agreement. Inconsistent approval conditions present major challenges for RSOs. During consultation, one RSO reported a situation where separate limitations were placed on a freight wagon required to travel across three separate networks: two different speed restrictions (one general restriction and another on curves) and another restriction that only allowed the wagon to be operated without a load. This prevented operation of the service and required the operator to escalate a complaint to a higher authority in the relevant RIMs to enable that service to commence. General variations in restrictions are a concern to RSOs who believe that they can add complexity to drivers and introduce unnecessary safety risks into operations.

It is acknowledged that RIMs may have different risk profiles across different sections of their networks. However, for the NNI, the Class 1 track classification would ideally recognise constraints on sections of the network and those sections of consistent standard across RIMs.

In the future, RIMs could coordinate decisions on conditions of approval for rail vehicles or train configurations and aim to harmonise these conditions where possible, possibly via a Configuration Control Board or other collaborative arrangements. Sharing information on safety risks and how to manage those risks may support a safer rail system overall. It would also provide consistency of operating conditions for RSOs to run safely and efficiently across the NNI. A more harmonised

approach would need an appropriate balance of safety and efficiency measures for trains operating on the NNI.

5.3.4 Other refinement proposals for consideration

Other areas that require attention in the development of Safety Assurance guidance have been identified. These include:

- *Conflict Resolution.* RSOs have no recourse if they believe that a RIM acts unreasonably in the rolling stock application process e.g. if the application process is prolonged, if requests for information, for testing or for approval conditions are considered to be unreasonable. There are conflict resolution procedures in each access agreement which could be used in rolling stock application processes although these are not seen as effective by most RSOs. There may be consideration for a provision to arbitrate when there are conflicting views, though the party that would have this role is unclear. A voluntary protocol could be developed for the NNI, setting out timeframes for application processes, process requirements and expectations (e.g. timely provision and consideration of information) and dispute resolution mechanisms. Similar protocols have been developed for road freight access permits managed by the NHVR which require decisions by multiple road managers, noting that ultimately responsibility for access decisions sits with the road manager. Depending on the future remit of ONRSR, this could also be a function that is supported by ONRSR. Elements of a protocol for conflict resolution for rolling stock applications could be tested through the project to pilot a single rolling stock application process form.
- *Continuous improvement mechanism.* A mechanism could potentially be established to check the effectiveness of the proposed new approach, to refine and make improvements to the assurance model once agreed.

5.4 The role of ONRSR in rolling stock approvals

The Review of the Rail Safety National Law (RRSNL) recommended that

*The RSNL be further amended to give the Regulator an explicit role to coordinate and/or facilitate (and powers to do so if needed) delivery of such safety and productivity benefits. For example, this could include the Regulator identifying potential opportunities for agreement by ministers to include in a national safety and productivity improvement program. This could work for issues such as the development of national processes to provide for equipment type approvals across rail infrastructure managers (RIMs), networks, registration of rolling stock, or safety assurance.*³³

This paper has also highlighted key learnings from overseas regulators in Great Britain, the EU and USA including:

- The regulator's role in harmonising/centralising testing/verifying of rolling stock
- The regulator's role in overseeing compliance to standards and authorisation or acceptance onto networks
- The regulator's role in derivation and/or custodianship of mandatory rolling stock standards.

³³ Recommendation 2, *Rail Safety National Law Review, Final Report*, June 2024. <https://www.ntc.gov.au/review-rail-safety-national-law>

The NTC invites stakeholders' views as to what they think a regulator's role should be in relation to rolling stock approvals.



Question 10:

Please provide your feedback on the opportunities for reforms presented in Section 5. The focus of this consultation is to seek feedback on the ideas presented. We want to understand if any of these suggestions can work in practice to improve the current state. Where there are concerns, detailed responses are helpful with details of why it is a concern and what alternatives do you proposed.

In providing your responses, you may wish to address some of the specific questions below. Any and all comments on proposed ideas are encouraged.

- What could be reasonably expected by RIMs as evidence that the safety obligation under certification is being met by RSOs? If RSOs take on the responsibility for vehicle certification with standards, what requirements need to be in place to sufficiently support RIMs to meet their safety duties?
- Would using an ICP's assessment be a sufficient condition for safety assurance for RIMs for rolling stock certification? Would a 'scheme' be needed or registration/accreditation to give confidence in the performance and competency of ICPs? Should ONRSR play a role, or is there a role for other existing organisations?
- Could the approval process be further simplified if RIMs focus acceptance processes and forms more strongly on the provision of information in relation to non-compliance and the associated risk assurance for managing this non-compliance (rather than a principle of 'ask in all circumstances')?
- Is there any value in developing common streamlined processes for assessing exceptions/non-compliances? Could there be information sharing arrangements for RIMs to support swift review and resolution?
- What can help to facilitate mutual recognition by RIMs? What are possible mechanisms to improve consultation and information sharing among RIMs? Are there barriers that stop the sharing of information?

6 Stakeholder Consultation and next steps

6.1 Consultation Period

The purpose of this document is to seek stakeholder feedback on the opportunities presented to ensure clarity of the roles and responsibilities of RIMs and RSOs in rolling stock approval and acceptance.

Feedback on this Consultation Paper is open from 6 May to 3 June 2025. Submissions should be made to rollingstock@ntc.gov.au.

6.2 Next Steps

Outputs from this work will inform the development of Safety Assurance Guidance.

Outputs from this work will inform the pilot of a single application form for rolling stock approvals. Elements that could be included in the pilot:

- Use of a common application form
- Single assessment process and mutual recognition
- Use of the National Rolling Stock Register (when developed)
- Handover of information for change of ownership
- Potential need for ICPs.

A call for Expressions of Interest to participate in the pilot project for a single national application form will be sent out mid-2025.

6.3 Consultation Questions

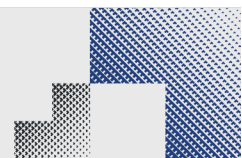
Question 1: Do you have any comments on the problem statement? Stakeholders are encouraged to make comments on the view presented that there are unique and duplicative RIM approval processes and where they think that there are any areas that are not accurately covered, or further clarification and evidence can be provided _____ 19

Question 2: What other matters should we consider informing the development of guidance to streamline rolling stock approval processes? If you are a RIM can you please submit a summary of your process for certification, registration and network approval. If you are an RSO, please advise what issues you have with rolling stock approval processes. _ 19

Question 3: RIMS across the NNI issue unique rolling stock approval application forms that request a wide variety of information, and there appears to be limited application of AS7501 by some RIMs. What are the barriers to RIMs and RSOs adopting AS 7501 for their certification processes? Do you have any comments about rolling stock approval forms? Do RSOs have comments on their experience with different forms for different RIMs? Do RIMS have comments on how they use approval forms to gather the information they need for decision-making? _____ 27



- Question 4:** What specifically can be harmonised/streamlined across multiple networks? For example, which aspects of information can be made common? What would you suggest could be the mechanism for RIMs to coordinate this process? 27
- Question 5:** If application processes and forms are better aligned with sequential steps to reach network approval (clearly defined certification and registration steps), should there be separate collection of information required at each step, for example, compliance certification information, separate to collection and management of information required for registration of vehicles? 27
- Question 6:** To provide more transparency, links to rolling stock approval application forms could be housed in a single location. What benefits do you see from this approach? Where do you suggest this be housed in the future? 27
- Question 7:** Does the RSNL and support material provide sufficient guidance on meeting your safety duties for rolling stock certification, registration and network approval? If not, what is needed? 38
- Question 8:** What suggestions do you have to improve the legislative framework or guidance for safety assurance for rolling stock approval processes? 38
- Question 9:** Are you aware of relevant case studies from other countries or sections of approval processes and safety assurance that could be useful? Please provide details if there are ideas from elsewhere that could be helpful to inform potential improvements to the clarify of roles and responsibilities within the Australia context? 44
- Question 10:** Please provide your feedback on the opportunities for reforms presented in Section 5. The focus of this consultation is to seek feedback on the ideas presented. We want to understand if any of these suggestions can work in practice to improve the current state. Where there are concerns, detailed responses are helpful with details of why it is a concern and what alternatives do you proposed. 54



Appendix A. Related Projects

There are several other projects being undertaken by other states and organisations in addition to the NTC’s streamlining rolling stock approvals projects. See Table 10 for a list of related projects.

The NTC’s program of streamlining rolling stock approval work is looking at how rolling stock approval **processes** can be improved within the existing regulatory framework. Work by the NTC has considered the processes that RIMs follow to make decisions about whether or not to accept rolling stock on their networks, how these processes impact on RSOs and the outcomes that result from them. This has considered the collection of different processes that make up rolling stock ‘approval’ including application, assurance, acceptance and conditions. NTC work has applied a business case logic to firstly understand the problem and its impacts before considering solutions Stakeholders have been engaged to confirm the understanding of the problem and explore a wide range of potential solutions

The related projects below in Table 10 do not directly review these processes but are important complementary projects that support overall national reform for rail and rolling stock approvals.

Table 10 Related Projects

Initiative	Comment
<p>NTC mandatory rail standards</p> <p>As part of the National Rail Action Plan, NTC is leading the delivery of two mandatory standards (referred to as Tier 1 standards) requirements for digital train control and signalling systems (trackside infrastructure standard), and a single on-board interface (on-board standard). The initial work in this space is to establish the scope for delivery the mandatory standards. It is expected that the work will be completed by June 2025.</p> <p>A third mandatory rolling stock standard is also proposed and will be considered in the future.</p>	<p>The outputs of the rolling stock approvals work will inform the development of a mandatory standard for rolling stock approval/acceptance.</p> <p>Elements that could be included in a mandatory standard include:</p> <ul style="list-style-type: none"> • Use of a common application form • Single assessment process and mutual recognition • Use of the National Rolling Stock Register (when developed) • Handover of information for change of ownership • Coordinated testing, sharing of results and retention of information.

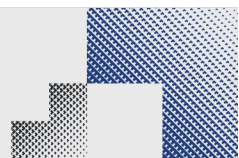
Initiative	Comment
<p>Review of the RSNL ³⁴– The review recommended that ONRSR be given a role to coordinate the delivery of safety and productivity benefits including national processes for registration of rolling stock and safety assurance. If these recommendations are implemented, the regulator could be more actively involved in rolling stock approval processes applied by RIMs and facilitating greater harmonisation. The next step in review of the RSNL process is for the NTC to consult on a regulatory impact statement analysing the proposed changes in the law and to the role of the regulator.</p>	<p>The NTC is leading a Regulation Impact Analysis (also referred to as a RIS)</p> <p>The future role of the ONRSR in interoperability may have an impact on ONRSR’s role in relation to rolling stock approvals.</p>
<p>National Rolling Stock Register – Work by RISSB on a national rolling stock register began four years ago in 2021³⁵ to facilitate the registration of rail vehicles that operate on the Australian rail network. RISSB is leading this work in collaboration with a reference group comprising major RIMs.</p>	<p>The NTC work related to a single national rolling stock approval application form could feed into the register and be used to articulate the specific requirements needed for registration.</p>
<p>TfNSW review of rolling stock acceptance framework - TfNSW is currently reviewing its rolling stock network acceptance framework.</p> <p>The framework is NSW focussed and used to ensure processes are in place for accepting rolling stock onto rail networks to satisfy legislation for the safe operation of rolling stock and that rolling stock is compatible with network infrastructure.</p>	<p>The TfNSW framework is aimed at clarifying the rolling stock approval process in NSW.</p> <p>We will need to consider how this process relates to any national proposals to streamline rolling stock approvals.</p>
<p>National Product Type Approval Framework – The product type approval (PTA) process provides assurance that <u>new or modified products</u> are safe for use on rail networks.</p> <p>TfNSW and the Department of Transport and Planning (DTP) Victoria have been working to standardise type approval of products across transport and asset classes.</p>	<p>While type approval is a separate process to rolling stock approvals, they share some similarities.</p> <p>They are both processes for equipment to be accepted for use on transport networks. There may be learnings from the harmonisation of product type approvals that can be applied to harmonising rolling stock approvals.</p>

³⁴ https://www.ntc.gov.au/sites/default/files/assets/files/Rail%20Safety%20National%20Law%20Review%20-%20Final%20report%20%28June%202024%29%20%281%29_0.pdf

³⁵ <https://www.rissb.com.au/news/national-rolling-stock-register-to-roll-into-production/>



Initiative	Comment
Currently TfNSW, DTP, Queensland Rail and ARTC have signed a memorandum of understanding to implement the framework and are working to expand the framework. More jurisdictions are considering joining the initiative.	



Glossary

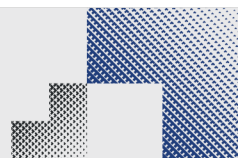
Table 11 Glossary of Terms

Term	Definition
Accreditation	The process by which Rail Transport Operators (RTOs) are certified by the Office of the National Rail Safety Regulator (ONRSR) to carry out railway operations, ensuring they have the competence and capacity to manage safety risks.
AS7501	The Australian Standard for rolling stock compliance certification, which provides a structured process for assessing rolling stock compliance with relevant standards
Certification	The process of ensuring that rolling stock meets all necessary standards and requirements, confirming that it has been designed, constructed, and tested in accordance with relevant standards.
Configuration Control Board	A proposed collaborative arrangement for coordinating decisions on conditions of approval for rail vehicles or train configurations.
Consultation Paper	A document developed to seek input from industry on ideas for reforms and improvements to rolling stock approval processes within the current regulatory framework.
Independent Competent Person (ICP)	A competent, independent person who assesses vehicle compliance with standards, providing assurance that compliance checks are independent and robust.
National Network for Interoperability (NNI)	A group of rail lines and corridors that connect major ports and terminals, forming the main national freight network.
National Rolling Stock Register	A central database under development by the Rail Industry Safety and Standards Board (RISSB) to store information on rail vehicles approved for use on the Australian rail network.
Office of the National Rail Safety	The regulatory body responsible for overseeing rail safety in Australia, including the accreditation of RTOs and the provision of guidance on safety management systems.



Regulator
(ONRSR)

Rail Infrastructure Manager (RIM)	An entity responsible for the provision and maintenance of rail infrastructure, ensuring its safety and compliance with relevant standards.
Rail Safety National Law (RSNL)	Legislation that sets out the safety duties and responsibilities of parties involved in railway operations, including RIMs and RSOs.
Rail Transport Operator (RTO)	An entity accredited by ONRSR to carry out railway operations, including the operation and maintenance of rolling stock.
Rolling Stock Operator (RSO)	An entity responsible for the operation and maintenance of rolling stock, ensuring its safety and compliance with relevant standards.
Safety Management System (SMS)	A system implemented by RTOs to identify hazards, record risks, and detail how those risks are managed and monitored.
Safety Assurance	The process of providing assurance that rolling stock meets safety standards and requirements, ensuring it can be safely introduced to the network.
So Far As Is Reasonably Practicable (SFAIRP)	A principle under the RSNL that requires parties to ensure safety by taking into account all relevant matters, including the likelihood of risks occurring, the degree of harm, and the availability of ways to eliminate or minimize risks.
Train Operating Conditions (TOC)	Manuals or databases maintained by RIMs that list approved vehicles, their specifications, and relevant operational details
Voluntary Rolling Stock Compliance Certification Standard	A standard that provides a general process for assessing rolling stock compliance with relevant standards, though its application is not mandatory



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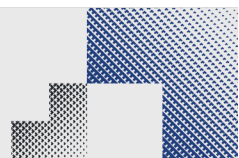
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