

**SINGLE, NATIONAL RAIL SAFETY
REGULATORY AND
INVESTIGATION FRAMEWORK**

**REGULATORY IMPACT
STATEMENT**

VOLUME 1

July 2009



National Transport Commission

Prepared by

National Transport Commission with Booz and Company

This Regulatory Impact Statement (RIS) was provided to the Council of Australian Governments to inform its consideration of national transport regulatory reform proposals in July 2009. As such, the RIS does not necessarily represent the final outcomes that will be developed and agreed as Governments progress the reform process.

National Transport Commission

**Single, National Rail Safety Regulatory and Investigation Framework:
Regulatory Impact Statement**

Report Prepared by: National Transport Commission with Booz and Company

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REPORT OUTLINE

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FOREWORD

In 2008, the Australian Transport Council (ATC) endorsed the National Transport Policy Framework developed by the National Transport Commission (NTC) and agreed to begin an ambitious program of national reform to address significant national challenges across all transport modes. The National Transport Policy Framework outlined a 'new thinking' approach transport policy which reflects changing industry and operating environments.

Critical to this is the development of a seamless, coordinated transport system. To achieve this, ministers asked that regulatory impact statements be prepared for a national maritime safety regulator, a national heavy vehicle regulator, registration and licensing scheme and a single, national rail regulatory and investigation framework.

Rail is vital to the Australian economy and community. Rail moves goods around Australia, to and from ports and moves people from home to work and leisure activities. As we transition to a lower carbon constrained economy, rail utilisation is likely to grow for both freight and people. Australia needs a safe and productive rail system that can expand to meet current and growing needs.

This draft regulatory impact statement considers the options for developing a single, national rail safety regulatory and investigation framework. In doing so it considers the safety and productivity benefits, as well as anticipating how to set the rail system up for future needs.

A single, national rail safety regulatory and investigation framework presents an opportunity to establish rail safety regulation and investigation equal to overseas best practice and with practice in other transport modes. Rail transport deserves this chance to face its future challenges from a position of strength in regulation and investigation.

This draft regulatory impact statement will be considered by Ministers at ATC in May 2009. The NTC has engaged in significant stakeholder consultations in the development of this regulatory impact, and notes with appreciation the thoughtful and constructive consideration given to the issues raised.

Many people have contributed to the revision of this draft regulatory impact statement. A large number of NTC staff members have played a role, including Karen Dowling, Kathryn Hodges, Dr Neil Wong, Dr Jeff Potter, Ray Hassall, Tony Xu, Tim Eaton, Paul Sullivan, Lynne Habner and Lea Morgan. External advisors from around the nation have also contributed to the revision of this draft document.



Greg Martin
Chairman

SUMMARY

Introduction

On February 2008 the ATC endorsed the National Transport Policy Framework and new reform agenda for the nation's transport system. In July 2008, Transport Ministers requested that NTC prepare a regulatory impact statement for a single, national rail safety regulatory and investigation framework to move Australia towards genuine national markets and seamless regulation for transport.

Current situation

Australia currently has seven rail safety regulators across the nine states and territories. There are different bodies, laws and processes to regulate safety for Australia's rail system, which services a small population of 21 million and runs on 38,550 kilometres of track.

The rail system in Australia has reasonably high safety standards. There are relatively few safety incidents, and few serious accidents. However, when there are serious rail safety accidents, they tend to be large, costly and have a considerable impact on the community. This regulatory impact statement suggests the national safety goal should be continual improvement targeting the 'best' outcomes, not accepting current standards.

Currently a third of rail industry have operations in multiple states and deal with two or more regulators. Managing local variations and interpretations of national laws and different policies, requirements, organisational cultures and data collection needs add unnecessarily to the compliance costs of industry operators. This inefficiency diverts resources away from the end goal, which is operating efficient businesses with good safety outcomes.

Development of this regulatory impact statement

NTC released a draft regulatory impact statement for discussion and consultation in November 2008.

In preparing the draft regulatory impact statement, NTC undertook targeted consultation with governments, industry peak bodies and unions. NTC developed in conjunction with experienced regulators and investigators principles for national regulation and investigation.

Research and consultation identifies two main options for moving to a single, national rail safety regulatory framework: retain and significantly enhance the state-based regulation of rail safety, or establish a national regulatory body.

Similarly, there were two main options for moving to a single, national rail safety investigation framework: enhancing the current arrangements or moving to a national, ideally multi-modal, investigatory body.

The NTC has undertaken considerable analysis of stakeholder comments in revising the final regulatory impact statement. More detailed discussion of the changes arising from stakeholder feedback can be found in the regulatory impact statement.

The stakeholder feedback received was valuable and considered, and the NTC appreciates the input of government, industry and unions in developing the final regulatory impact statement.

Recommended option for improving rail safety regulation

Proposals for change in rail safety regulation take into account the considerable work governments have done in moving towards more consistent rail safety regulation outcomes.

This regulatory impact statement proposes that a national rail safety regulatory framework has three objectives – to provide for improved rail safety performance, to enhance the efficiency and the cost-effectiveness of regulatory activities. A national rail safety regulator would deliver on these objectives by allocating finite rail safety regulatory resources most efficiently for the best safety outcomes.

Branch offices of a national regulator will play the current role of state or territory regulators as the interface with industry, while benefitting from new safety opportunities.

In the face of a growing rail transport task, a national regulator will be better equipped to develop programs for attracting, training, developing and retaining staff, while delivering high levels of safety. The sharing of nationally consistent rail safety data, experience and knowledge across the various offices nationally will support better safety outcomes.

Alternative, incremental proposals for change are premised on further reducing and minimising inconsistencies in regulation, rather than striving for the best regulatory framework.

The NTC recommends the establishment of a single, national rail regulator as the best option for delivering improved safety outcomes on Australia's rail system, reducing the regulatory burden on industry and increasing cost-effectiveness for governments. A single, national regulator would also help to deliver ATC's vision of creating a single national transport market in rail.

Recommended option for improving rail safety investigation

Proposals for change in rail safety investigation must consider the current multi-modal composition of Australia's independent investigators to ensure that all modes benefit from changes in rail safety investigation.

This regulatory impact statement does not find persuasive stakeholder suggestions that the next logical step in reform is model investigation legislation and finds little to support the idea of a new and separate national rail safety investigator.

NTC suggests enhancing the Australian Transport Safety Bureau's rail investigation capability would be the first step in an improved national rail safety investigation framework. An enhanced Australian Transport Safety Bureau creates a practical platform for a single, national rail safety investigator but ultimately, NTC suggests governments should consider a national safety investigator across all transport modes.

Therefore, NTC suggests the Commonwealth government enhance the Bureau's rail investigation capacity in the first instance. Governments in New South Wales, Victoria and Queensland would be encouraged to assign primary investigation responsibility and resources to the Australian Transport Safety Bureau when the Commonwealth satisfies those states that an enhanced Australian Transport Safety Bureau will provide the same, or superior, safety investigation outcomes as their current processes.

Next steps

The proposal will be submitted to the Australian Transport Council (ATC) in May 2009. ATC is then expected to submit this proposal to COAG for approval.

The regulatory impact statement is just the first step towards improvements in rail safety regulation and investigation. After any decision to proceed, the details around establishing a national regulator would need to be worked out and ATC agreement sought at a number of points before implementation. Similarly, the details of changes to the Australian Transport Safety Bureau would need development before implementation.

The rail task in freight and passenger is going to grow over coming years. The opportunity to present this regulatory impact statement to COAG for approval provides governments with an important opportunity to establish the rail safety regulatory and investigation framework which will allow governments, industries and unions to provide the safest and most efficient rail operations for the future.

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INTRODUCTION

1.1 Council of Australian Governments reform agenda

“The goal of regulatory reform is to improve national economies and enhance their ability to adapt to change. Better regulation and structural reforms are necessary complements to sound fiscal and macroeconomic policies.”¹

The Council of Australian Governments (COAG) has committed to regulatory and red tape reduction under the National Reform Agenda (2006). This focuses on ensuring that there is sufficient regulation to protect consumers and to ensure that markets operate efficiently and fairly without unfairly constraining businesses.

In 2006 COAG identified rail safety regulation as a cross-jurisdictional “*regulatory hot-spot*” where overlapping and inconsistent regulatory regimes were impeding economic activity.

COAG noted that the need to comply with different rail safety regimes across jurisdictions increases regulatory and operating costs to the rail industry and adversely impacts on the competitive position and efficiency of interstate rail freight operations.

In early 2008, COAG committed to a comprehensive new microeconomic reform agenda for Australia, including regulatory reform. The regulatory reform stream of COAG’s commitment includes rail safety regulation.

1.2 Australian Transport Council – National Transport Policy Framework

In February 2008, ATC agreed that there is a need for a national approach to transport policy and endorsed the National Transport Policy Framework (ATC 2008). The ATC consists of transport ministers from federal, state and territory governments. It is the ministerial forum for the coordination and integration of transport policy issues at a national level.

Following the meeting in February, the ATC agreed to a vision, policy objectives and policy principles in May 2008. Importantly, the ATC’s vision for Australia’s transport future states:

“Australia requires a safe, secure, efficient, reliable and integrated national transport system that supports and enhances our nation’s economic development and social and environmental well-being.”

To achieve this vision, ATC committed to the following policy objectives:

- **Economic:** To promote the efficient movement of people and goods in order to support sustainable economic development and prosperity.
- **Safety:** To provide a safe transport system that meets Australia's mobility, social and economic objectives with maximum safety for its users.

¹ OECD, p1

- **Social:** To promote social inclusion by connecting remote and disadvantaged communities and increasing accessibility to the transport network for all Australians.
- **Environmental:** Protect our environment and improve health by building and investing in transport systems that minimise emissions and consumption of resources and energy.
- **Integration:** Promote effective and efficient integration and linkage of Australia’s transport system with urban and regional planning at every level of government and with international transport systems.
- **Transparency:** Transparency in funding and charging to provide equitable access to the transport system, through clearly identified means where full cost recovery is not applied.

Following on from these objectives, ATC agreed that it would consider the options of establishing national frameworks for regulation for heavy vehicles, marine safety and rail to move towards establishing genuine national markets and a seamless regulatory framework.

1.3 The National Transport Commission

The NTC was established as an independent body to assist Australian governments in achieving their jointly agreed objective set out in the Inter-governmental Agreement for Road and Rail Regulatory and Operational Reform of:

“...improving transport productivity, efficiency, safety and environmental performance and regulatory efficiency in a uniform or nationally consistent manner.”

The role of the NTC is to lead transport regulatory reform nationally to meet the needs of transport users and the broader community for safe, efficient and sustainable land transport.

The NTC contributes to a vision of the best national transport outcomes for Australia. To achieve this, the NTC consults widely and works with industry and all levels of government to establish priority areas for transport regulatory reform.

The NTC works in close partnership with the road and rail transport sectors, governments, transport agencies, the Australian Local Government Association, regulators and police to develop practical land transport reforms.

1.4 National regulatory and safety frameworks

ATC requested regulatory impact statements for three national regulatory framework projects:

- national heavy vehicle regulatory, registration and licensing scheme
- national marine safety regulator
- single, national rail regulatory and investigative framework.

The NTC was requested to prepare a regulatory impact statement for the rail framework, and has been involved with the Commonwealth Department of Infrastructure, Transport, Local Government and Regional Development in developing the framework for the national heavy vehicle regulation framework.

Marine, rail and heavy vehicle road transport are areas of industry which inevitably operate on a cross or multi-jurisdictional basis. Significant work has been undertaken in heavy vehicle and rail regulation to work towards harmonisation of regulation by the NTC and state and territory governments. Harmonisation has been successful up to a point, at which individual states and territories have the sovereignty to tailor regulations to their needs.

The creation of single regulatory institutions in these areas has the potential to break down the issues of inconsistent regulation by establishing national institutional frameworks. These regulatory impact statements outline options for the next step of regulatory reform in transport.

The three regulatory impact statements will be presented to ATC in May 2009.

1.5 Australia's rail industry

Australia's rail industry is a mix of urban, regional and interstate or national operations.

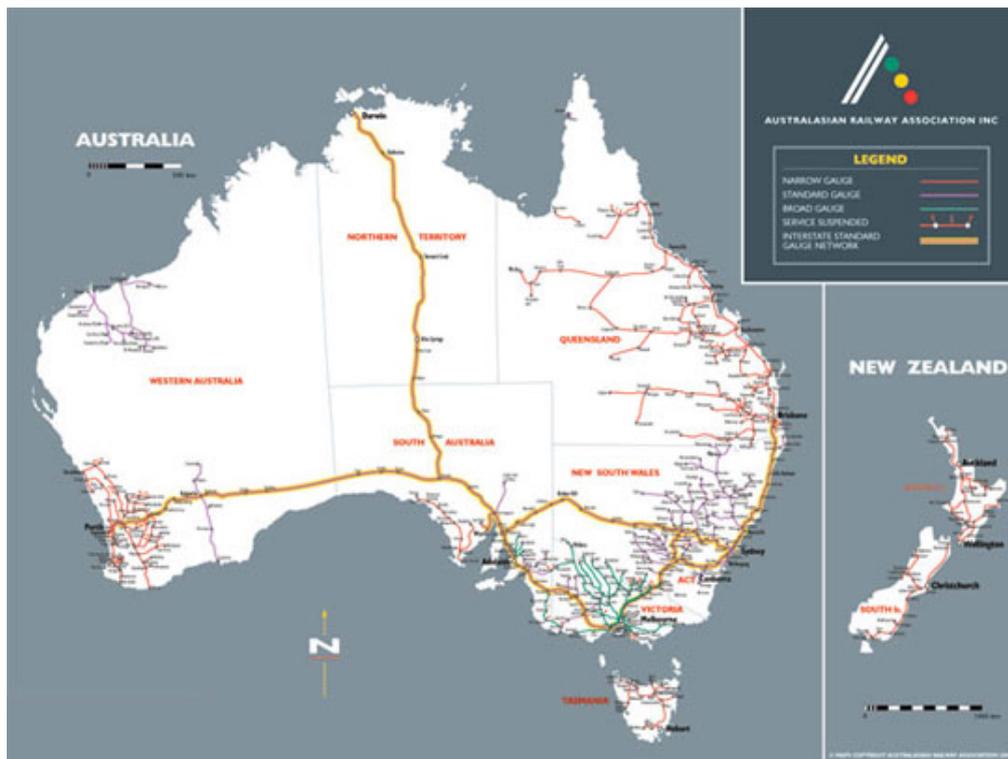


Figure 1. Map of Australia's rail network (source: Australasian Railway Association)

The Victorian Department of Transport's submission on the consultation draft regulatory impact statement included data from IBISWorld on the Australian transport and storage industry.² Rail comprises 12.6 per cent of the total transport and storage industry. Services

² Department of Transport submission, page 16

to all modes of transport comprise almost one third of the industry and rail comprises 31% of the land transport task (road and rail only). According to IBISWorld custom data, quoted in the Victorian Department of Transport submission, rail freight and passenger transport employed nearly 50,000 people in 2007 and contributed nearly \$4.8 billion in value to the Australian economy.

Nationwide, 40% of train kilometres are freight and 60% passenger. Australia's rail regions operations are largely confined to areas stretching from the east to the west coast along the south coast, through the country's centre and along the east coast. In each of the three areas, passenger travel comprises between 55% and 67% of kilometres travelled.³ According to the Australasian Railway Association, there were 677 million passenger journeys in 2007 and rail carried 590 million tonnes in freight. Using Australasian Railway Association data, the Victorian Department of Transport points out that rail travel has increased in terms of journey numbers and kilometres travelled, with the exception of heavy non-urban rail, in which passenger journeys have increased but overall kilometres travelled have decreased.

Railways tend to be situated in, or operate within, defined areas (metropolitan cities or regional areas such as the Hunter Valley, the Queensland coal fields or the Western Australian Pilbara mining region) or between capital cities and strategically important intermodal terminals.

NTC's freight rail productivity review draft position paper (2009) notes that in terms of net tonne kilometres, rail freight transport activity can be broken down according to the following:

Rail freight transport activity (intra- and inter-state)	Total per cent
Bulk freight intrastate	79%
Bulk freight interstate	2%
Intermodal intrastate	5%
Intermodal interstate	14%

Based on data from NTC freight rail productivity draft position paper(2009)

Apelbaum Consulting Group (2008) provides useful data with which to analyse rail passenger transport activity, in terms of passenger kilometres travelled and passenger journeys:

Passenger transport mode	Passenger kilometres	%	Passenger journeys	%
Light rail ⁴	.54 billion	5%	132 million	20.6%
Urban hire and reward ⁵	9 billion	80%	501 million	78%
Non-urban hire and reward	1.74 billion	15%	9 million	1.4%

³ NTC internal calculation.

⁴ Light rail includes trams in Melbourne and Adelaide and light rail in Sydney

⁵ Hire and reward refers to rail services that can be purchased

Passenger transport mode	Passenger kilometres	%	Passenger journeys	%
TOTAL (rounded)	11.35 billion		643 million	

Based on data from Apelbaum Consulting Group (2008)

Australia's rail industry has experienced an unprecedented period of upheaval and restructuring over the past decade, starting with the break-up and privatisation of Australian National in 1996. With few exceptions, the institutional and ownership arrangements that had long characterised Australian railways until the early 1990s are largely unrecognisable today.

In 2003 it was estimated there were approximately thirty rail operators in Australia.⁶ Recent analysis of accredited rail operators in the states and Northern Territory shows there are now around 84 commercial Australian rail operators, and 31 operators or 37% are accredited to operate in more than one jurisdiction. Operators with more than one accreditation hold an average of three or four accreditations. There are a further 83 tourist and heritage rail operators.

Governments' primary safety challenge is metropolitan public transport. Public transport operators are either government-owned or as in Victoria, fulfilling government franchises. The draft regulatory impact statement acknowledged that "*metropolitan passenger railways [are perceived to] pose the highest risks to public safety.*"

Operators such as Connex, CityRail, Transperth, TransAdelaide and Queensland Rail attract media and public scrutiny for a range of reasons, including but not limited to their safety record. By contrast, freight operations generally attract a lower public profile.

Rail safety is as important in cities as it is in regional areas or on railways between cities and intermodal terminals. Passengers and workers deserve the same high regard for their safety no matter their location. Some of the most expensive accidents in recent years have occurred in regional areas, and recent multiple-fatality crashes have occurred outside metropolitan areas.

1.6 Rail regulatory reform

The NTC received an expanded mandate to undertake rail regulatory and operational reform in 2004. Since that time, the NTC has undertaken a number of rail initiatives relating to safety and worker health, and productivity.

Model rail safety legislation approved by ATC in 2006 brings rail safety legislation in Australia into line with modern regulatory approaches for safety.

Governments developed model rail safety legislation to improve national consistency, but passage of Acts through Parliaments has been slow, and there are some inconsistencies between Acts and the model rail safety Bill. Some sectors of industry perceive that the pace of reform has slowed since ATC agreed to the reforms in 2006 and the slowing of reform is frustrating to industry. The Australian Railway Association argues that reforming the institutional arrangements underpinning the Bill would help deliver the safety and efficiency benefits contained in the Bill.

⁶ http://www.atcouncil.gov.au/documents/nrtc/nrtc_3.aspx

In conjunction with the preparation of the national model rail safety legislation, NTC initiated a Review of Institutional Arrangements for Regulation of Rail Safety, which was to be conducted in two phases. The first phase was concerned with the future of the 1996 Intergovernmental Agreement on Rail Safety (which will be repealed when all jurisdictions' legislation is implemented); processes for guidelines, compliance codes and industry standards; and formal processes for the monitoring, review and maintenance of legislation, regulations and guidance materials.

The second phase of the Review of Institutional Arrangements for Regulation of Rail Safety was to be concerned with:

- the case for and against a single national regulator and the alternatives
- the separation of regulatory powers, roles and functions
- operation of the interfaces between portfolios, policy makers and regulatory bodies
- collection, analysis and dissemination of rail safety data
- training and competencies necessary to support efficient and effective application of the rail safety regulatory system.

Of these matters, the second phase had only addressed data and training issues when ATC directed NTC to prepare the regulatory impact statement for the single, national rail safety regulatory and investigation framework.

1.7 Objective

This regulatory impact statement follows the important work undertaken by NTC and states and the Northern Territory governments in developing harmonised rail safety regulation. It considers the next step of this process; the best options for single national institutional frameworks to regulate and investigate rail safety.

The objective of this regulatory impact statement is to examine options and recommend the optimal rail safety regulation framework for Australia. A best possible rail safety regulation framework should:

- provide for improved rail safety performance
- be cost effective for governments, and
- be efficient for industry.

Positive safety outcomes are paramount in any system of safety regulation and regulation needs to be as efficient and effective as possible, provide certainty for industry and eliminate unnecessary regulatory compliance burdens.

It is envisaged that the scope of a single, national rail safety regulation framework would reflect the scope of current regulatory activities. The framework would apply to those matters and railways which jurisdictions currently regulate, as discussed in section 2.

Safety matters that are the responsibility of industry are outside the scope of a national regulatory and investigation framework and this regulatory impact statement.

1.8 Structure of the regulatory impact statement

This regulatory impact statement is broken up into four parts:

- Part A: rail safety regulation
- Part B: rail safety investigation
- Part C: conclusions and recommendations
- Appendices

Part A addresses rail safety regulation: the current situation; the problem; the options to address the problem and meet the objective; and the impacts, costs and benefits of the options for a single national framework.

Part B addresses rail safety investigation: the current situation; the problem; the options to address the problem and meet the objective; and the impacts, costs and benefits of the options for a single national framework.

Part C draws together the analyses from Parts A and B to conclude and recommend the next steps for rail safety regulation and investigation including transitional and implementation arrangements. It also discusses the consultation undertaken in preparing this regulatory impact statement.

The appendices are contained in volume 2 of this regulatory impact statement.

PART A – RAIL SAFETY REGULATION

Part A of this regulatory impact statement is concerned with rail safety regulation and comprises:

- an overview of the current rail safety regulation in Australia (section 2)
- an evaluation of the current situation in rail safety regulation, information on the problems and areas for improvement (section 3)
- The objectives of any change to rail safety regulation (4)
- the options to address the problem and meet the objective (section 5)

Section 6 evaluates the impacts, costs and benefits of the options for a single national framework.

2. THE CURRENT REGULATORY FRAMEWORK

2.1 History of rail safety regulation

Rail safety regulation is relatively new to Australia, having been around for approximately 15 years. Before that time, railways were government-owned and vertically integrated, so the railways were directly accountable to governments for safety.

The ownership and management of Australia's railways are now generally divided into 'below rail' (track and infrastructure management) and 'above rail' (rolling stock) operators, although urban rail passenger rail operations are generally integrated rail business (as is FreightLink and Queensland Rail). These arrangements vary depending on the state and rail network concerned.

In 1996 the Commonwealth, states and the Northern Territory signed an Intergovernmental Agreement on Rail Safety. The agreement was to establish a cost effective, nationally consistent approach to rail safety which ensured there was no barrier to the entry of third party operators. In accordance with the intergovernmental agreement, the parties undertook to legislate for rail safety, and more specifically, to include provisions in the state and territory legislation that is sufficient to meet the terms and conditions of the agreement.

NTC delivered a rail safety reform package for ATC approval in 2007. The package included model rail safety legislation and related projects and documents. The question of institutional arrangements was put to one side to be addressed after implementation of the reform package.

Rail safety is co-regulatory,⁷ which is a sophisticated form of regulation. It is neither prescriptive, nor self-regulatory.⁸ It relies on regulatory discretion even more than other forms of regulation, where rules and standards are prescribed by governments. According

⁷ The New South Wales Government submission suggested it was important for the revised regulatory impact statement to acknowledge that the national model legislation defines a new form of co-regulation for Australia.

⁸ NTC (2008d)

to Hopkins, “What is distinctive about the regulation of safety is that it is the regulation of risk.”⁹ This project does not revisit governments’ decision to pursue a co-regulatory approach to rail safety regulation. Governments’ co-regulatory approach is embodied in the national model rail safety legislation.

Malcolm Sparrow’s *The Regulatory Craft* illustrates how good regulatory practice is evolving beyond black letter law to an increasingly sophisticated, risk-based approach to regulation. Sparrow writes of “the operational work of reducing risks – results oriented, often highly analytical in identifying risk concentrations, but open as to the means employed to accomplish the goal.”¹⁰

Risk management by regulators of industry’s risk management requires the regulator to understand the risk problem, communicate what is required and facilitate the development of procedures to address and reduce risk over time, and lastly to develop an understanding between regulator and regulated of the risk and safety problem and capacity to deal with this jointly.¹¹

Above rail, risks to rail safety are aligned with the nature of the rail operation – passenger transport, freight, resources transport, tourist and heritage; and circumstances (location) – metropolitan, regional, remote. Below rail risks relate to different facets of rail operations – train control, maintenance and asset management, new infrastructure, complexity, interfaces and access issues. Current institutional arrangements in Australia inherently limit risk/ resource decisions to within state borders.

States and territories currently have different infrastructure, rolling stock and communication standards. The age of railway infrastructure in different states and territories also varies. Current regulatory arrangements allow for close monitoring of local conditions.

2.2 The current rail safety regulatory framework

“The most compelling reasons for the Commonwealth, state and territory governments to commit to national consistency in regulations are: the contribution that consistency can make to the effectiveness of the regulations; the efficiency of their administration and enforcement; and to the efficiency of the economy as a whole.”¹²

Australia’s rail safety regulatory framework comprises:

- The safety outcomes desired and the policies to achieve these outcomes
- The ‘rules’ by which participants abide
- The standards to which participants adhere
- The institution or institutions that administer the rules
- The quality and quantity resources (staff and financial) made available by governments to undertake the regulatory task.

⁹ Hopkins, p3

¹⁰ Sparrow, p84

¹¹ Haines

¹² PC, 2009, pp33

The safety outcomes desired by governments are succinctly articulated in the Victorian Department of Transport's submission as "to reduce risk to life and limb at affordable costs." To date, governments have best articulated their outcomes in the national model rail safety legislation. The objectives of the model rail safety Bill place a high value on the effective management and control of risk to improve safety in railway operations and to promote public confidence in the safety of rail transport.¹³

Industry is in the process of preparing a national rail safety strategy, which should articulate industry's desired outcomes.

This regulatory impact statement is primarily concerned with the unanswered questions of institutional arrangements. Of the components of the regulatory framework set out above, standards are industry responsibilities and governments have addressed the rules (legislation) extensively in recent years, although there is still room for improvement. Some work on institutional arrangements had been undertaken by the NTC, but was not concluded prior to commencing this regulatory impact statement.

Institutional arrangements in rail safety regulation have been examined before. In 1999 ATC engaged consultant Booz Allen Hamilton to review the 1996 intergovernmental agreement. The review recommended, amongst other matters, the introduction of a single national regulator. The recommendation was not endorsed by ATC at the time.

The 2006 Productivity Commission inquiry into road and rail freight infrastructure pricing found,

"There are efficiency gains to be obtained from a single institutional framework for safety regulation of rail. The adoption of nationally consistent rail safety regulation legislation by July 2007 is, therefore, a priority. Gains from harmonisation would be compromised if jurisdictions legislate based on differing interpretations of the nationally agreed draft bill."¹⁴

2.2.1 Institutional arrangements

All states and the Northern Territory have passed rail safety legislation and undertake rail safety regulation. Rail safety is regulated as per the following:

- in New South Wales by the Independent Transport Safety and Reliability Regulator, an independent statutory authority, in accordance with the *Rail Safety Act 2002*
- in Victoria by Public Transport Safety Victoria, which is headed by an independent office of the Safety Director, in accordance with the *Rail Safety Act 2006*
- in Queensland, by Queensland Transport, in accordance with the *Transport Infrastructure Act 1994*
- in Western Australia, by the Department of Planning and Infrastructure, in accordance with the *Rail Safety Act 1998*

¹³ <http://www.ntc.gov.au/filemedia/bulletins/NewNatRailSafeAnOverJul2006.pdf>

¹⁴ http://www.pc.gov.au/data/assets/pdf_file/0003/47532/freight.pdf accessed 23/09/2008

- in South Australia by the rail safety regulator, appointed by the Minister for Transport and is a senior official within the Department of Transport, Energy and Infrastructure, in accordance with the *Rail Safety Act 2007*
- in the Northern Territory by the Department of Planning and Infrastructure, in accordance with the *Rail Safety Act 1998*
- in Tasmania by the Department of Infrastructure, Energy and Resources, in accordance with the *Rail Safety Act 1997*.

The Commonwealth and the Australian Capital Territory do not regulate rail safety.

2.2.2 Inter-jurisdictional administrative arrangements

Currently for matters of concern to multiple regulators or industry operators operating across jurisdictional borders, there are two administrative arrangements; the Rail Safety Regulators Panel and the use of uniform administration in the absence of national mutual recognition in rail safety regulation.

2.2.2.1 The Rail Safety Regulators Panel

Regulators in all states, the Northern Territory and New Zealand comprise the Rail Safety Regulators Panel (“the Panel”). The Panel helps facilitate nationally consistent outcomes in a collegiate fashion by:

- making coordinated and consistent decisions to achieve the uniform administrative objectives of rail safety legislation
- developing guidelines and national operational regulatory policy
- developing and ensuring consistent application of key business processes
- assisting individual regulators with the administration of regimes and monitoring adherence to uniform administrative processes
- facilitating the development of national training packages for regulatory staff to meet agreed national competencies
- collectively advising on the operation of rail safety regulatory regimes and inputting into national forums through the Chair
- sharing national and international experience and knowledge and investigation findings
- analysing and evaluating investigation findings and recommendations, assessing their impacts on industry and regulators and making recommendations, where appropriate for improvements to regulatory frameworks or industry standards
- facilitating the collection and strategic analysis of rail safety data to inform regulatory decision making and improvement of regulatory systems.

The Panel meets approximately every 2 months and Panel decisions are made by consensus. If a consensus cannot be reached, reasons for this will be clearly documented and if necessary referred formally to departmental officials for direction or decision.

2.2.2.2 Uniform administration or mutual recognition of operator accreditations

Rail operator accreditation

Rail operators are accredited to operate by rail safety regulators. The purpose of accreditation is to attest that a rail operator has the competence and capacity to manage the risks to safety associated with the rail operations for which accreditation was granted.

Accreditation is a method by which rail safety regulators can give an assurance to the public that a rail operator has systematically considered the risks from their operations and has in place a system to eliminate or reduce those risks. Due to the potential hazards involved with railway operations, the assurance of accreditation is required before a person is permitted to operate a railway.

Mutual recognition and uniform administration

The purpose of mutual recognition is to promote economic integration and increased trade between participants. It is one method available to governments to reduce cross-border regulatory impediments to the movement of goods and provision of services.

The principle of mutual recognition in law is an administratively simple strategy, resulting in mutual recognition of regulatory standards of the states and territories relating to goods and occupations.¹⁵

In rail safety, formal mutual recognition of this sort does not operate Australia-wide.¹⁶ Mutual recognition might allow for efficient accreditation of interstate railways by acceptance of its safety management system so far as it is applicable to the management of rail safety risk in another jurisdiction, as the Western Australia regulator points out in its submission on the draft regulatory impact statement.

Alternatively, one jurisdiction would grant an operator accreditation by automatically recognising an accreditation granted by another jurisdiction. Most states do not have legislative provisions for formal mutual recognition.

Mutual recognition is difficult to implement in situations in which regulators use a high degree of discretion. Provisions of this sort are therefore not contained in the national model rail safety Bill.

Instead, ATC endorsed national rail safety guideline on uniform business rules for accreditation in late 2007.¹⁷ The guideline suggests that regulators contact other rail safety regulators if an applicant for accreditation is already accredited in another jurisdiction. The regulator should:

- determine which other rail safety regulators need to be consulted
- advise relevant rail safety regulator(s) of application

¹⁵ Information taken from the Council of Australian Governments' website

¹⁶ The Western Australian regulator suggests in its submission on the draft regulatory impact statement that formal mutual recognition has been superseded because New South Wales adopted a new Act without a mutual recognition clause or use of AS4292.1 and Victoria introduced a new Act without a mutual recognition clause.

¹⁷ http://www.ntc.gov.au/filemedia/Reports/NRSG_UniformBusinessRules_June20.pdf

- compare permissions being sought by the applicant with permissions granted or sought in other jurisdiction(s)
- make arrangements with other relevant rail safety regulators for joint assessment of the application if there are applications in multiple jurisdictions.

A lead rail safety regulator should be appointed on a case by case basis. Arrangements for correspondence with the applicant are to be established in consultation with other regulators and the applicant.

The guideline notes that while joint assessment of an application may be undertaken, each rail safety regulator remains obliged to satisfy itself that the applicant has met the requirements for accreditation in its jurisdiction. This is a decision for that jurisdiction only and is not taken by cross-jurisdictional committee.

2.2.3 Legislation – rail safety and other

The national model rail safety Bill 2006 and national model regulations were developed in conjunction with representatives of jurisdictions, the rail industry and rail unions, and are given legal effect when reproduced in each jurisdiction's legislation.

The major regulatory changes included in the national model legislation are:

- inclusion in most jurisdictions' rail safety legislation of general safety duties on all parties who can affect safety
- rationalisation of use of regulatory instruments
- power to declare certain codes of practice to have deemed to comply status
- expanding range of powers available to regulators
- hierarchy of enforcement and sanctions options
- strengthening regulators' powers of direction
- explicit appeals mechanisms
- explicit criteria for accreditation
- limiting scope of accreditation the parties that are required and are able to hold accreditation
- involving rail personnel in development of safety management systems
- interface co-ordination plans, and
- data publication requirements.

A revised deadline of December 2009 has been set by COAG for implementing the agreed legislative reforms in a nationally consistent and co-ordinated manner.

At April 2009, Victoria, South Australia and New South Wales had implemented legislation based on the model rail safety Bill, and legislation was before the Queensland Parliament. The legislation in Queensland is delayed by the resolution of policy issues surrounding the general duty to ensure safety. The status of the legislation in Western Australia is unclear and Tasmania and the Northern Territory aim to introduce legislation

as soon as possible. Tasmania was previously granted an extension by COAG until the end of 2009 and their legislation is on track.

NTC could commence a formal maintenance process for the national model rail safety Bill after a majority of jurisdictions implement the legislation. During the maintenance period NTC will develop any required amendments to the model rail safety Bill and regulations. NTC will also audit and monitor variations in legislation from the model rail safety Bill.

Like all forms of regulated activity, there are other related areas of legislation that affect rail operators and operations, and consequently safety. These laws include state-based road laws and compliance, state-based planning provisions (for instance, environmental overlay impacting on lines of sight around level crossing), occupational health and safety obligations and common law and other legal obligations.

2.2.4 Funding and staffing

In 2005 NTC prepared a regulatory impact statement for the national model rail safety Bill. At the time, NTC found that the total annual cost of rail safety regulation was approximately \$25 million and one jurisdiction (New South Wales) accounted for more than half of the total national expenditure¹⁸. By contrast, expenditure in five of the seven jurisdictions was less than \$1 million. Further, complementary research showed that of all regulatory staff in Australia, approximately 50% were deployed in one jurisdiction. Staffing numbers in the other jurisdictions varied between 2 and 33.

Research for this regulatory impact statement estimated the spend on rail safety regulation had risen only slightly to \$29 million. The research also found there are 176.5 full time equivalent (FTE) regulatory staff across Australia. The Australasian Railway Association has previously estimated that there are 154 regulatory staff.

Ministers noted in 2008 that in the options for a single, national rail safety regulatory framework would allocate no less resources allocated to the rail safety regulatory task. This decision sets a minimum resourcing benchmark.

2.3 Regulation theory

In regulatory literature the co-regulation of rail safety by governments and industry is thought of as meta-regulation, where the regulator sets safety goals and the regulated entity determines how it will achieve the goals.¹⁹ Gunningham describes co-regulation as government “*risk-manag[ing] the risk management of individual enterprises.*”²⁰ Regulated entities are best placed to look after safety in their operations, but governments have a legitimate interest in ensuring acceptable levels of safety that meet community expectations and maintain public confidence.

Co-regulation is generally thought of as a middle ground between highly prescriptive regulation, which is less flexible for industry and government, and self-regulation, which reduces industry attention to public goods such as safety.²¹ Safety outcomes are improved

¹⁸ National Transport Commission (2005)

¹⁹ Haines and Gunningham both use the term “meta-regulation”

²⁰ Gunningham, p11

²¹ Meta-regulation has considerable appeal in overcoming chronic challenges associated with regulation, problems of rigidity with an overabundance of prescriptive rules and alternatively the reduction in standards that accompanies a shift to self-regulation where both the procedures and the outcomes are under the control of the (self)regulated community.” (Haines, p29)

by increasing the extent to which the requirements of rail safety regulations are met or exceeded, and by improving the effectiveness of safety management systems in meeting the general duties/safety obligations to manage safety risks so far as is reasonably practicable.

Risk management by regulators of industry's risk management requires the regulator to understand the risk problem, communicate what is required and facilitate the development of procedures to address and reduce risk over time, and lastly to develop an understanding between regulator and regulated of the risk and safety problem and capacity to deal with this jointly.²²

Above rail, risks to rail safety are aligned with the nature of the rail operation – passenger transport, freight, resources transport, tourist and heritage; and circumstances (location) – metropolitan, regional, remote. Below rail risks relate to different facets of rail operations – train control, maintenance and asset management, new infrastructure, complexity, interfaces and access issues. Current institutional arrangements in Australia inherently limit risk/ resource decisions to within state borders.

States and territories currently have different infrastructure, rolling stock and communication standards. The age of railway infrastructure in different states and territories also varies. Current regulatory arrangements allow for close monitoring of local conditions.

Most people associated with rail would acknowledge that metropolitan passenger railways pose the highest risks to public safety, including where freight rail interacts with passenger rail. From an industry insurer's point of view,²³ the greatest risks are remote level crossing accidents, because of the high value of the economic damages sustained.

Model rail safety legislation developed by the National Transport Commission and approved by ATC in 2006 and 2007 provides for general safety duties that require all rail industry participants to ensure the safety of their railway operations. These statutory duties of care define the required level of safety and make clear which parties have accountabilities for rail safety. Some argue that in managing risks and ensuring safety in operations, "general duty legislation makes the task of the regulator (and industry) far less clear-cut than it was under prescriptive regimes."²⁴ Nevertheless, there are still rules to be followed, whether in the form of codes of practice, standards, guidelines or even notions of "good industry practice".²⁵

A number of parties have responsibilities for rail safety: industry operators, employees, employee unions, industry associations, regulators, investigators, regulatory and investigatory staff and government departments. Relationships between all of these parties contribute to rail safety.

The direct measure of the success of any regulatory arrangement is not the number of injuries or reportable occurrences (too many other factors beyond regulatory control can influence these small numbers), it is the timeliness and quality of decisions, the knowledge applied to provide guidance to industry and the extent of diversion of money, time and

²² Haines

²³ Pers. communication, Bottomley

²⁴ Hopkins, p17

²⁵ In practice, duty holders need guidance on how to comply, and various quite prescriptive codes of practice and standards have been developed to meet this need." (Hopkins, p6)

resources away from implementing safety outcomes towards negotiating the regulatory process.

The success of any regulatory arrangement is the extent to which it contributes to better compliance and better safety systems. A particular regulatory system (including institutions, rules and practices) delivers better safety outcomes to the extent that it:

- enhances compliance (either by making it easier for the regulated to comply by removing barriers to compliance, or by deterring non-compliance through more effective enforcement and sanctions); or
- assists regulators and industry in making better decisions as to how a given risk or combination of risks can be reduced so far as is reasonably practicable.

Allocation by industry of its resources to actions with the highest safety benefit is therefore paramount. Any system of rail safety regulation, including the institutions that underpin it, should ensure the rail industry's opportunity costs (delays in approvals, avoidable costs) in implementing business and safety improvements are minimised.

This project is concerned with institutions for the regulation of rail safety and for investigations of rail accidents. This regulatory impact statement examines the possibility that changes to institutional arrangements might contribute to better regulatory practice and hence enable improved safety in, on and around railways.

3. EVALUATION OF THE CURRENT SITUATION

This regulatory impact statement for a single, national rail safety regulatory and investigation framework is an opportunity to take stock of whether the current regulatory framework arrangements are what is desired for the future. Key considerations include safety, industry regulatory ‘compliance’ issues, questions of governance, data, resourcing, competition and practice in other modes and countries.

3.1 Safety

Rail in Australia is acknowledged to be a safe industry and mode of transport. Initial comparisons with road, the mode with which rail is usually compared, show far fewer deaths and serious injuries on railways. A 2008 Australian Institute of Health and Welfare and Department of Infrastructure, Transport, Regional Development and Local Government study²⁶ showed that in 2005-06 the risk of serious injury for passengers travelling by car was as much as 10.6 times greater compared with passengers travelling by rail.

External rail safety regulation only started relatively recently and governments and industry have accomplished a great deal in setting up the current rail safety regulatory and investigation framework.²⁷ Analysis used in the regulatory impact statement for the model rail safety legislation and in this regulatory impact statement shows incidents and fatalities have decreased between 2001 and 2008. Published level crossing data and analysis²⁸ reveals a similar picture:

- *“Nationally, there is no evidence of a temporal trend in the apparent rise in the rate of fatalities over time.*
- *Nationally, there is the suggestion of a decrease in annual numbers of collisions between train and road vehicles over the most recent seven years of data.*
- *National collision rates per crossing compare reasonably favourably with US and European railways.”*

The Australian Transport Safety Bureau²⁹ notes that since 1970, deaths resulting from crashes between road vehicles and trains at level crossings have reduced by about 70 per cent but that recently there have been an increasing number of crashes involving heavy road vehicles.

Between April 2006 and December 2007, the Australian Transport Safety Bureau investigated 12 level crossing crashes. Of those 12 crashes, nine have involved heavy road vehicles, four of which have been collisions with long-distance passenger trains. In addition, during the same period, state authorities have investigated a further three significant crashes between heavy vehicles and passenger trains.

²⁶ Australian Institute of Health and Welfare and Department of Infrastructure, Transport, Regional Development and Local Government (2008)

²⁷ The 1996 IGA and subsequent state and territory Acts, the inclusion of rail on the agenda of the National Transport Commission, the creation of independent regulators and investigators in a number of jurisdictions, the agreement in 2006 to national model rail safety legislation, the creation by industry and government of the Rail Industry Safety and Standards Board and finally the 2008 decision to examine a single, national regulatory and investigation framework.

²⁸ Rail Safety Regulators Panel (2008), page iv

²⁹ Australian Transport Safety Bureau (2008)

Those crashes have cost the lives of 19 people, 13 on board the trains and six occupants of the road vehicles. In addition, over 60 people have been injured and damage costs are estimated at well over \$100 million.

Although deaths and injuries resulting from crashes at railway level crossings are only a small proportion of the total deaths and injuries that occur on Australian roads each year, railway level crossing crashes, particularly when they involve heavy road vehicles, have the potential to be catastrophic or involve multiple deaths.

However, this state of safety is not to be taken for granted. As the Australian Government's aviation green paper notes, there is no room for complacency on safety in a dynamic operating environment and history is no substitute for robust safety systems. It says the best of safety records does not provide immunity from risk and safety systems are an essential tool in minimising and coping with safety issues as they occur.³⁰

3.2 Economic costs

Although a safe industry, rail accidents and incidents can have large costs when they do occur. In 2002 a Bureau of Transport and Regional Economics study³¹ into the costs of rail accidents found that:

- The total cost (including costs that will be incurred in the future) of rail accidents in Australia that occurred in 1999 has been conservatively estimated at approximately \$133 million (in 1999 dollars).
- The total cost of level crossing accidents was estimated to be \$32 million in 1999. About \$10 million (in 1999 dollars) of this is thought to be due to level crossing accidents involving motor vehicles.
- Rail-related suicides and attempted suicides were estimated to have cost \$53 million (in 1999 dollars).
- The total cost of all rail-related incidents was estimated at \$196 million (in 1999 dollars).

Anecdotally, stakeholders suggest that since the study was done, the costs of individual accidents may have risen, particularly when trucks and buses are involved. In the material issued for national rail safety week in 2008, the Australasian Railway Association included the following table to illustrate the increasing economic costs of level crossing accidents:

Table 1. Level crossing accident impacts

Location of accident	Effects of the accident
1. Kerang, Victoria (June 2007)	11 fatalities, cost impact unknown at present
2. Back Creek, New South Wales (March 2007)	1 fatality, \$5 million in damages
3. Ban Ban Springs, Northern Territory (December 2006)	8 wagons derailed, \$21 million in damages
4. Lismore, Victoria (May 2006)	1 fatality, 40 wagons derailed, \$25 million in damages
5. Trawalla Victoria (April 2006)	2 fatalities, \$400,000 in damages

³⁰ http://www.infrastructure.gov.au/aviation/nap/files/01_Aviation_Safety.pdf

³¹ Bureau of Transport and Regional Economics (2002)

Taken from the Australasian Railway Association's media kit³²

Recent accidents in Western Australia illustrate the economic costs of rail accidents. In the Pilbara, a derailment in January was estimated by unions to be costing the company \$10 million.³³ Another derailment was set to cost the affected passenger operator an estimated \$500,000 in revenue alone and interrupt passenger travel between the east and west coasts for around four to five days.³⁴

Costs of regulation

The Australasian Railway Association has commissioned research into the costs of rail safety regulation. The report, by Synergies Economic Consulting, estimated that industry's costs of direct rail safety regulatory compliance are around \$42 million per annum, and Booz and Company found that industry pays a further \$11 million per annum in accreditation fees. These figures indicate that direct costs to industry are modest, particularly when evaluated in the context of industry turnover – around \$8 billion per year.³⁵ Nevertheless, the \$42 million per annum figure has attracted commentary suggesting it is both too conservative and too high. The Synergies Economic Consulting report indicates that the direct costs of rail safety regulation are not great. However, the report's authors indicate that the economic costs of rail safety regulation are probably much greater, although they are unable to estimate this.

Competition within rail and between rail and other sectors

Some industry stakeholders argue the rail industry's competitiveness is constrained by a lack of uniformity, inconsistent approaches to accreditation, audit and compliance, and the requirement for interstate operators to deal with multiple regulators. Other transport modes and sectors have national regulatory and institutional arrangements governing safety, thereby potentially placing rail at a competitive disadvantage.

Operators have claimed that the additional regulatory costs arising from the inconsistencies associated with the current framework impact on rail industry's competitiveness, either:

- Within the rail industry: additional administrative requirements for dealing with each regulator may distort competition within the above rail freight market, by discouraging operators from expanding into other jurisdictions.
- Between freight rail and other comparable modes of commercial transport:

“Most customers are reluctant to accept the additional time taken for projects to be finalised due to regulator compliance complications. In some cases customers have looked at alternative modes of transport.”³⁶

- Between tourist and heritage rail and other tourist attractions. In its submission on the draft regulatory impact statement, the Association of Tourist and Heritage Rail Australia notes that tourist and heritage operators don't compete with other rail heritage operators but with heritage or tourism operators outside the sector that are not required to undertake compulsory accreditation in order to operate.

³² at http://www.ara.net.au/dbdoc/Rai_%20Safety_Week_Media_Kit08.pdf

³³ <http://www.abc.net.au/news/stories/2009/01/30/2478649.htm>

³⁴ <http://www.abc.net.au/news/stories/2009/02/01/2479333.htm>

³⁵ <http://www.austrade.gov.au/Railways-Overview/default.aspx>

³⁶ Synergies Economic Consulting, p. 35

A multi-jurisdictional regime is not necessarily consistent with the broader National Transport Policy Framework principle of a national market for transport which includes efficient pricing and regulation across all modes to deliver the right balance of mode choices and investment.³⁷

Transport safety regulators are not responsible for promoting industry growth. The incompatibility of these two roles was highlighted by the 1993 crash of a Piper Chieftain aircraft at Young, New South Wales. As documented by James Reason, the then-Australian Civil Aviation Authority's dual roles of industry promotion and safety regulation were split off into two organisations to avoid internal conflicts of interest.³⁸ Nevertheless, safety regulatory frameworks must be designed to take into account issues of efficiency and avoidable costs, to ensure the regulatory arrangement does not result in unnecessary and uneconomic outcomes.

3.3 Compliance burden

More than a third of the commercial rail industry is accredited to operate in more than one state or territory. Each of these operators must apply for accreditation in each state of operation, must develop a safety management system that satisfies those regulators and expects regulatory compliance and enforcement activities from all of their regulators. There are three tourist and heritage operators accredited in more than one state,³⁹ which is a small proportion of the number of accredited tourist and heritage operations.

This third of the commercial rail industry argues that dealing with up to seven regulators is unnecessarily burdensome. In their report on the cost of rail safety regulation, Synergies Economic Consulting estimated that industry's inter-jurisdictional costs are approximately 25% of the total compliance cost. Some operators suggest they face opportunity costs when constrained by multiple dealings in implementing new technologies that hold promise for improving productivity.

Consultation with operators has identified a range of concerns that arise when operators are regulated by more than one regulator for rail operations in different locations:

- Explicit differences in the laws and policies in different states – examples of these include different approaches to drug and alcohol testing in New South Wales and Victoria, fatigue in New South Wales and other states, and occupational health and safety in a variety of states.
- “Add ons” in one state, where one state imposes an additional requirement that other states do not. One example provided during consultation in South Australia was of operators being required to use training companies from one jurisdiction to train staff working in jurisdiction, even though the staff may be based in another state. This requirement may be of little consequence to operators only operating within that jurisdiction, but interstate operators would bear additional costs.
- Different regulatory approaches and cultures – as noted in the draft regulatory impact statement, operators perceive the South Australian and New South Wales regulators as being very different. The culture of a regulator influences the way in which its officers regulate operators. Different cultures across regulators contribute

³⁷ NTC 2008, p.1

³⁸ Reason, p165

³⁹ Information gleaned from 2008 consultation forum attendee

in part to difference regulatory approaches. The regulatory impact statement for the national model rail safety Bill noted that:

“... wide variations in regulatory resourcing clearly indicate that very different approaches to regulatory administration and enforcement are being taken in each jurisdiction.”⁴⁰

- Differing regulator requirements, such as for:
 - Audits – interstate operators expect one, national audit to be undertaken. However, it is understood that one audit is undertaken on each interstate operator on a range of matters on which all jurisdictions agree, and that jurisdictions also pursue separately matters of particular interest to them. This falls short of interstate operators’ expectations of one audit.
 - Annual reports – interstate operators would prefer to only submit one annual report. One operator with three accreditations suggested each regulator still required the annual report on different dates and another was quoted in the Synergies Economic Consulting report as saying, *“Accordingly, national operators (...) are faced with differing reporting requirements, which impose unnecessary costs to comply (...).”⁴¹*
 - Process variations – in situations where industry wants to adopt changes to their operations, one operator suggested that the process can vary, ranging from technical consideration, needing a variation to the operator’s accreditation, needing a new accreditation or no additional requirements.
 - Productivity impediments – some interstate operators have suggested that innovation and productivity gains are stifled or delayed by dealing with multiple regulators, which the Rail, Tram and Bus Union indicated would be of concern if it resulted in delays to related safety improvements occurring.

In 2006 the Bureau of Transport and Regional Economics found that despite the stipulation of the safety and interoperability intergovernmental agreements, regulatory inconsistencies in rail had increased. Unilateral safety regulations and the level of prescription in different jurisdictions cause regulations and safety principles to diverge rather than converge.

Tourist and heritage operators argue that the national model rail safety Bill, although intended to be scalable to organisations small and large, does not and will not deliver a form of regulation suited to the sector’s needs. Tourist and heritage operators are largely staffed by volunteers and have limited funds, which the sector argues makes a different approach necessary. Regulators devote resources to the tourist and heritage sector but it is a difficult balance for them as the sector, while small, still poses safety risks. For the sector it is also a difficult balance as rail safety accreditation requires the largely-volunteer staff to commit substantial resources, but a serious accident could result in the operator ceasing operations altogether.

⁴⁰ NTC 2005, p.33

⁴¹ Synergies Economic Consulting 2008, p.41

3.4 Governance

Rail safety regulation has come about in the last fifteen years and the current governance structures reflect the 1996 intergovernmental agreement that jurisdictions would introduce rail safety legislation.

Organisations' governance structures reflect to whom or what they are accountable. Currently in Australia, regulators are accountable to departmental heads and Ministers, who in turn are accountable to the public of each jurisdiction for many transport-related issues, including safety.

Independence and transparency are integral governance features for regulators and safety investigators. Both types of entities must be free to regulate and investigate without influence. Both types of entities must also exercise their regulatory powers or undertake safety investigations in a suitably transparent way.

Independence and transparency are important governance considerations in preventing or avoiding regulatory capture. 'Regulatory capture' is when a regulator and the entities in the industry it regulates build working relationships that have the potential to lead to the regulator becoming unwilling to perform its compliance tasks diligently and impartially in respect of the entities so as to avoid jeopardising those relationships.⁴²

The independence of rail safety regulators was a key issue arising from the McInerney inquiries into accidents at Glenbrook and Waterfall. To allow for independence, the McInerney inquiries emphasised that there must be clear lines of accountability and the regulator must have the power and capacity to fully discharge its responsibilities.⁴³

The United States, European Union, Norway, Japan, New Zealand and Canada have recognised that accident investigation must be independent of the regulatory bodies, because the conduct of the safety regulator itself could be a matter for scrutiny by the accident investigation body when it investigates an accident or serious incident.

Transparency contributes to open and accountable delivery of regulation, increases the effectiveness of co-regulation and allows for greater public confidence in rail safety.

Australia's institutional arrangements in rail safety regulation and investigation have come about for a variety of reasons. Most notably, Victoria and New South Wales established independent regulators and investigators in response to specific incidents or a general safety need.

In conjunction with the preparation of the national model rail safety legislation, NTC initiated a Review of Institutional Arrangements for Regulation of Rail Safety, which was to be conducted in two phases. The first phase was concerned with the future of the 1996 Intergovernmental Agreement on Rail Safety (which will be repealed when all jurisdictions' legislation is implemented); processes for guidelines, compliance codes and industry standards; and formal processes for the monitoring, review and maintenance of legislation, regulations and guidance materials.

⁴² Queensland Ombudsman, 63

⁴³ Special Commission of Inquiry into the Waterfall Rail Accident (2005)

Legislation

COAG's 2006 reform commitment hinges on the implementation of national model legislation. According to the Productivity Commission:

*"[The model legislation] approach allows jurisdictions to adapt the model to suit their circumstances ... without necessarily creating inconsistencies between jurisdictions. It tends to be favoured by the states because, relative to the template model, it retains a greater degree of autonomy ... The flexibility of the model approach can, however, result in inconsistencies. These can arise in the first instance when adapting the model, and over time as each jurisdiction sees fit to amend its own legislation, and do so in its own timeframe. ... Where regulatory inconsistencies emerge, the potential for cost sharing among the jurisdictions in administering the regulations would also be limited."*⁴⁴

A regulators' publication notes that model legislation is not uniform legislation and that, in model legislation, statutes reflect generally agreed principles and are generally consistent in substance to model legislation, but not necessarily identical.⁴⁵

Provisions of the national model rail safety Bill may be varied where necessary to conform to local legal policy requirements and legislative drafting practice. Also, some of the model provisions have been classified as 'non-core'. These were considered valuable and desirable provisions for inclusion in best practice national rail safety legislation but their implementation in all jurisdictions was not regarded as essential for nationally consistent rail safety outcomes. Maximum penalty levels for rail safety offences have not been specified in the model rail safety Bill due to the need for penalty levels to be consistent with each state and territory's monetary penalty policy.

South Australia and New South Wales legislation is closely aligned with the model legislation. Victoria's legislation was passed before the model rail safety Bill was approved and has evolved since the model legislation was agreed.

The COAG Reform Council noted in its March 2008 report that:

*"The COAG commitment to implement national rail safety legislation and a nationally-consistent rail safety regulatory framework by 1 July 2007 has not been met. ... This highlights [another] concern of the COAG Reform Council at the potential for the inability to implement one reform to have a cascading effect of delaying other reforms that are dependent on its implementation."*⁴⁶

To date, progress on a number of components of COAG's reform agenda has been stalled by delays in implementing model legislation. Those components not reliant on the model legislation have been completed or are underway.

The Productivity Commission notes that the experience in chemicals and plastics regulation suggests that the model approach can be sufficient to deliver nationally consistent outcomes, although consistency is not always achieved.

⁴⁴ PC, 2009, pp24-5

⁴⁵ Draft regulators' guideline issued for consultation

http://www.rsrp.asn.au/files/publications/15_33.Notification%20of%20Change%20&%20Variation%20of%20Accreditation%20Guideline%20for%20the%20Australian%20Rail%20Industry.pdf

⁴⁶ http://www.coag.gov.au/coag_meeting_outcomes/2008-03-26/docs/CRC_report_to_COAG_2008.pdf

Inter-jurisdictional administrative arrangements

The Rail Safety Regulators Panel operates on a consensus basis and this reportedly causes regulators and industry frustration. Operating on a consensus basis means all members must agree for a matter to be actioned. Bringing about such agreement can be quite resource intensive for Panel members.

Submitters provided an example with some bearing on the inherent difficulties under which the Panel operates. The example relates to the Australian Rail Track Corporation's national train communications project. Contrast the Western Australian regulator's comment that, "Australian Rail Track Corporation is dealing with this via the Rail Safety Regulators Panel to achieve a single approach. The Rail Safety Regulators Panel has established a multi-discipline team of discipline experts to facilitate the process. This demonstrates that the current regulation arrangements can cater with even major changes through a single point." Australian Rail Track Corporation contends that "it made a single presentation to all regulators in relation to its national communications (train radio) project, and had expectations that a single process for regulatory interface could follow, with Australian Rail Track Corporation's lead regulator (the South Australian Department of Transport, Energy and Infrastructure) managing any issues and communicating on behalf of the regulators. This has not been the case, and various regulators have subsequently sought to engage directly with Australian Rail Track Corporation in an unconnected and inconsistent way."

Absence of formal inter-jurisdictional mutual recognition

Mutual recognition is a tool often used to minimise businesses' compliance burden by allowing for the immediate (mutual) recognition of one jurisdiction's decision in other jurisdictions. The intent is that businesses should only need permission once to engage in an activity. The Productivity Commission, writing on chemicals and plastics regulation, notes that:

*"mutual recognition reduces the burden on businesses that operate in more than one jurisdiction by removing some of the **technical** (emphasis added) barriers they face. ... Broader mutual recognition of qualifications, accreditations and products that comply with regulations in one of the participating Australian jurisdictions would make a significant contribution to national consistency [in chemicals and plastics regulation]. Mutual recognition offers a workable but limited form of cooperation across independent jurisdictions. ... In Australia's domestic context however, it does not offer as 'complete' a solution as national uniformity."*⁴⁷

Mutual recognition was not included in the national model rail safety Bill. Some stakeholders have suggested this is a weakness of the model legislation, others that existing mutual recognition provisions in some states are working well, while others suggest that formal mutual recognition wouldn't work in every jurisdiction in Australia. One operator has observed that, "some reduction in the accreditation task was achieved as core material from home state accreditation could be used in the request in a further state. However significant additional material was also required."⁴⁸

⁴⁷ PC (2009), 27-28

⁴⁸ Synergies Economic Consulting 2008, p.38

3.5 Data

Regulators' and industry's ability to address rail safety risks relies on the proper collection and analysis of rail safety information. Better data provides a more useful resource for policy makers, regulators, and the rail industry to identify, assess and eliminate or control safety hazards and risks. Such data also support research, performance monitoring and local and, subject to the constraints of comparability, international benchmarking. Rail safety data is of use to industry and governments. National industry and government data is currently thought inadequate by many stakeholders.

Currently the collection, analysis and dissemination of data pose a considerable challenge for industry and regulators. In part, this challenge stems from the multi-jurisdictional regime, although the Australian Transport Safety Bureau already publishes high-level rail safety statistics, based on data supplied by regulators, which in turn is supplied by industry. The Australian Transport Safety Bureau was directed to take on the data publication role in the absence of another national agency, but few stakeholders think a rail safety investigator is the right organisation to be collecting and publishing regulators' data.

In 2006 the ATC recognised that there was no overarching strategy for collecting, accessing, analysing, publishing and using rail safety data in Australia and agreed on the need for a national, strategic approach to rail safety data.

In late 2008 the Australian Transport Council agreed to a *National Strategy for Rail Safety Data*. The strategy outlines the areas in which action is needed to improve rail safety data. The actions are for regulators and industry to develop and implement, and will go some way to addressing data deficiencies by providing the basis of a comprehensive and integrated national approach. When implemented the strategy will have progressed the collection, access, analysis, publication and use of rail safety data in Australia, but actions in the strategy will be inherently limited by jurisdictional data differences.

As part of the national data strategy, the Australasian Railway Association has committed to investigate options for a national industry rail safety database. A respondent to the Synergies 2008 survey (commissioned by the Australasian Railway Association), noted that:

“There currently exists no singular database which provides the necessary privacy, confidentiality and commercial integrity to each operator whilst allowing comparison on a like for like basis within each jurisdiction and nationally to operators with similar risk profiles.”⁴⁹

Previous studies have identified the issues concerning data collection, analysis and dissemination. ACIL Tasman emphasised that improvements can be achieved by investment in a common rail safety database. The report found that:

“It would improve the prospect of collection and dissemination of consistent and statistically significant amounts of predictive and incident data. This would help the effective analysis of the causes of incidents and trends, the assessment of rail operators and identification of priority areas for attention and resources.”⁵⁰

Further, it is notable that the United States railways recognised this issue almost a century ago:

⁴⁹ Synergies Economic Consulting 2008, p.41

⁵⁰ ACIL Tasman 2003, p.7

“Although the railroad industry in general was not in favour of reporting requirements, they did desire a standardized system of accident reporting rather than being forced to attempt to deal with a patch work of state laws on the subject. [In response, therefore] On May 6, 1910, the Congress enacted the Accident Reports Act of 1910.”⁵¹

The Rail Safety Regulators Panel also has a number of projects under way to improve rail safety data and has most recently published the review of national level crossing statistics referred to earlier.⁵²

3.6 Resourcing

Financial resources

Governments have different approaches to funding rail safety regulation. There are a variety of cost recovery arrangements in the jurisdictions. Some regulators claim to be 100% cost recovery, while others acknowledge they are supplemented by public funding in order to maintain each jurisdiction’s rail safety regulation. Tasmania, for instance, acknowledges in its submission on the draft regulatory impact statement that it is at the lower end of the cost recovery spectrum.

Regulation of the tourist and heritage sector is almost exclusively funded by governments, as evidenced by the low accreditation fees. The tourist and heritage sector has limited funds, small turnover and relies on largely volunteer labour. Regulation of the tourist and heritage sector is considered by some in industry as a governmental community service obligation.

The Australasian Railway Association has provided information claiming over-regulation in Australia compared to other international jurisdictions. The Australasian Railway Association’s example highlights the cost of rail safety regulation and investigation in one particular state as more than five times higher than the cost of the regulator and investigator in the United States of America on a per head of population basis. The Australasian Railway Association also indicate that regulation costs in Australia is four times higher than the United Kingdom’s Office of Rail Regulation when based on a review of staffing levels per million track kilometre.⁵³

In contrast, the New South Wales government’s submission on the draft regulatory impact statement notes that the Independent Transport Safety and Reliability Regulator was established after recognition that New South Wales devoted insufficient funds to regulation. The submission also suggests that with the exception of Victoria, there is no evidence to suggest other jurisdictions have taken a similar approach.

Staffing levels

Booz and Company examined regulatory resourcing while preparing the cost benefit analysis for this regulatory impact statement.⁵⁴

⁵¹ McDonald 1993, p. 15

⁵² http://www.rsrp.asn.au/files/publications/14_32..pdf

⁵³ Australasian Railway Association letter to the CEO, NTC, 1 September 2008

⁵⁴ Due to the “de-identified” and confidential nature of much of the information provided to support this analysis Booz and Company did not include in their final cost benefit analysis a direct comparison of the resourcing in each jurisdiction.

In order to assess whether there is a variation in regulatory staff levels across Australia, the staffing levels per million kilometres of train movement were assessed. Correlation tests were conducted in order to identify relationships around current rail safety regulation resourcing. This is shown in Table 2 below.

Table 2. Correlation of current rail safety regulatory resources

Correlations Prevalent at a Jurisdictional Level

Categories	Correlation (r)
Full time equivalent / train kilometres travelled	0.90
Full time equivalent / number of operators	0.87
Full time equivalent / track kilometres overseen	0.67

The strongest correlation exists between jurisdictional full time equivalent counts and train activity within that jurisdiction (measured by train kilometres travelled). There also appeared to be a strong positive correlation between jurisdictional full time equivalent counts and the number of operators accredited within each jurisdiction, whilst a moderate positive correlation existed between jurisdictional full time equivalent counts and track kilometres.

Booz and Company found that resourcing does not appear to be consistent across jurisdictions, particularly from the perspective of track kilometres regulated (although this should be considered in terms of the different track environments regulated).⁵⁵ Booz found some jurisdictions have considerably more staff than others; expressed another way, some jurisdictions have many fewer staff than others. Differences in resourcing mean some regulators are perceived by industry operators as ‘gold plated’ in comparison with others, while unions perceive some regulators as under-resourced in comparison with others.

Quality of staffing

The Western Australian regulator’s submission on the draft regulatory impact statement suggests that “it must be understood that there is a difference between staff quality and quantity. More is not necessarily better. Better quality staff is better.”

Both the quality and number of regulatory officers is vitally important for implementing effective regulation, not least because undertaking the regulatory task requires considerable judgement and expertise. Regulatory officers must have appropriate knowledge of regulatory and investigatory principles and technical knowledge relevant to the regulated activity, skills incidental to the appropriate knowledge and commitment to the regulator’s goals and the accepted standards of good regulation.⁵⁶

The current regulatory system is facing significant resource challenges. Forecasts show that Australia’s freight transport task will double between 2000 and 2020. In addition, the age profile of rail industry workers indicates that many experienced staff are likely to retire in the next decade.

In 2006, the Bureau of Transport and Regional Economics questioned regulators’ ability to cope with the clashing trends of industry growth and an ageing population, suggesting that “The diluted skill and experience base for scarce resources increases likelihood of

⁵⁵ As the data on jurisdictional resources was collected on a de-identified basis, it is not appropriate to discuss individual jurisdiction’s resourcing levels.

⁵⁶ Queensland Ombudsman (2007), p9

regulatory failure.”⁵⁷ The investigation report into the 2007 Mindi incident found that among other factors, “QT failed to achieve its objective of an increased compliance inspection program due to a perennial lack of appropriate resource.”⁵⁸

Information sharing between staff of different regulators

The current regulatory arrangements provide for collegiate information sharing through the Rail Safety Regulators Panel, but formalised knowledge sharing is more limited. Knowledge isolation may be a problem where jurisdictions lack expertise in particular fields but the expertise is known to exist in other jurisdictions. Consolidation of expertise may contribute to a more efficient system of knowledge management and creates an ability to learn from similar situations and practices.

The Rail Safety Regulators Panel represents the best means currently available to share knowledge among regulatory staff. Panel members share learnings from incidents and ensure the larger states’ human factors expertise is available to all jurisdictions. The larger states’ regulators publish information on their websites.

3.7 Comments and analysis – what is the problem?

The objective of this regulatory impact statement is to secure a safe, effective and efficient regulatory framework to support the rail industry and ensure community safety. In considering the current regulatory environment no individual state or territory regulatory system exhibited major problems for safety or industry. However there remains room for improvement in terms of support for national markets and improvements in safety outcomes.

During consultation some stakeholders suggested that the problems in rail safety regulation were not substantial and inconsistencies were being exaggerated. For instance, the Western Australian regulator’s submission suggested the Panel’s activities in relation to audits and annual reporting were sufficient to address inconsistencies in these areas.

No stakeholder representative has stated the current national situation is entirely adequate or delivering the best outcomes for the nation. ATC’s recent decision to examine a national regulatory framework presents governments and industry with an opportunity to create the right foundation for rail safety regulation into future.

COAG requesting the development of this regulatory impact statement has provided industry and governments with an opportunity to consider more than incremental ‘harmonisation’ improvements. This is a rare opportunity for all stakeholders to consider how a rail safety regulatory system, designed in 2009, where governments have recognised the importance of a seamless national market, might look to deliver the best productivity and safety outcomes.

A national regulatory framework is a chance to build on the strengths of the current system of regulation but also to recognise and potentially overcome its inherent drawbacks.

⁵⁷ BTRE (2006), p.247

⁵⁸ QT (2007), p.73

Table 3. Strengths and improvement opportunities presented by the current situation

Issue	Strengths of the current situation	Opportunities for improvement
Safety	Safe transport mode compared to road	Deaths and serious injuries still happen
Economic cost	-	High crash costs including deaths, serious injuries, infrastructure damage and loss of the use of the line for periods on time Higher compliance costs for interstate operators
Competition	Rail services compete well with other transport modes over longer distances	May result in barriers to rail operators from expanding into other states Freight customers may choose another transport mode due to compliance complications slowing industry response times
Compliance issues	Industry's efforts to improve safety Relatively good industry compliance	A third of rail operators need to deal with two or more regulators Differences in policies, approaches and culture between regulators
Governance	Some independence	Potential for regulatory capture Current inter-governmental governance arrangements are slow to respond to new safety information
Data	Some agreement and action on improving national data	Little national rail safety data Dissemination of rail safety knowledge and learnings across Australia is a mixture of formal and informal
Resourcing	Industry and government resourcing of rail safety regulation is low (\$40 million per year) compared with industry turnover (\$8 billion per year)	Duplication of some tasks across seven regulators Staff attraction and retention difficult for regulators
Practices in other modes, sectors and countries	The Australian rail industry has a good safety record compared with other sectors and overseas	Rail regulation is one of the few examples of national regulation where there is no national entity Complex regulatory arrangements are not warranted in Australia

Broadly, the problems with the current situation can be summarised as:

- untapped opportunities for safety and governance improvements
- seemingly unnecessary complexity in the current framework, and
- lack of an effective interstate regime.

NTC's detailed evaluation of the current regulatory framework found the following:

- Governments have agreed to national model rail safety legislation and it is being implemented. The model bill will improve consistency but not deliver a uniform regulatory environment.

As the Rail, Tram and Bus Union's submission to the draft regulatory impact statement suggests, the national model legislation was not designed to "remove [regulatory inconsistencies] entirely as it provided for core and non-core provisions or, in effect, "local" variations. In other words, the national model legislation process was not designed to create uniform national rail safety legislation."⁵⁹

- Some parts of COAG's reform agenda, designed to bring about greater consistency in rail safety regulation, have been delayed because of interdependencies on implementation of rail safety legislation, which has in turn suffered delays in some jurisdictions due to legislative drafting constraints and competing Parliamentary priorities.
- Over time, the national consistency promised by the national model legislation could be unwound through unilateral changes as each jurisdiction sees fit to amend its own legislation, and do so in its own timeframe.^{60,61}

The Australian Rail Track Corporation suggests that "[p]rogress towards national uniformity of rail safety laws has been slow and inconsistent. Each jurisdiction is exercising its right to modify the model rail safety Bill to reflect its own agenda and drafting conventions, with the result that Australian Rail Track Corporation now has serious doubts that the foreshadowed benefits of the model Bill will eventuate. Australian Rail Track Corporation questions the benefit of model legislation that is reworded and realigned in each state – the process of legislative compliance for the accredited operator is not markedly simpler than under the prevailing legislative landscape."⁶²

Reducing or eliminating inconsistency is important for safety because:

*"In principle, these inconsistencies are, in themselves, potential safety issues for operators to the extent they require firms to operate in different ways in different jurisdictions. Given these trends, once the regulations are in place, it is also then more difficult to achieve consensus on applying them in other jurisdictions."*⁶³

- There are problems with the administrative arrangements for inter-jurisdictional matters.

The Rail Safety Regulators Panel operates on consensus and cannot make binding decisions. The panel's decision-making capacity is protracted due to the need to reach consensus. The panel's efficacy is also constrained, as would be any group

⁵⁹ Rail, Tram and Bus Union submission, p5

⁶⁰ Productivity Commission (2009), page 24

⁶¹ "(...) jurisdictional safety regulators have continued to develop safety regulations on a unilateral basis. This trend is partially attributable to local responses to safety incidents. Regulatory responses to the Glenbrook, Waterfall and Port Botany accidents in New South Wales included regulators making unilateral decisions." (BTRE 2006, p.212)

⁶² Australian Rail Track Corporation submission, page 2

⁶³ Bureau of Transport and Regional Economics (2006), p.214

comprising individuals representing different organisations, with different accountabilities, by cultural differences and varying priorities and available resources.

In addition, the sort of formal mutual recognition provisions that might enable an operator to have one accreditation, regardless of how many states in which it operates, are not necessarily compatible with a regulatory environment in which regulators use a high level of discretion. Provisions to deliver formal mutual recognition of accreditations were not included in the model rail safety legislation. The alternative is a requirement that regulators consult with another regulator, which falls far short of the benefits a suitable mutual recognition scheme could provide.

In its submission on the draft regulatory impact statement, the Australian Rail Track Corporation notes that:

“For some years now the State-based regulators have been attempting to coordinate their activities with a view to eliminating inter-jurisdictional inefficiencies imposed on those industry participants required to hold multiple accreditations. Their approach rightly recognises the inherent problems with State-based regulation of interstate operations, but has been unable to make adequate progress to overcome these problems. Australian Rail Track Corporation and its customers have continued to face inconsistent or duplicated regulator demands in a way that diverts critical safety practitioner resources away from their core functions and undermines attempts to bed down a consistent safety culture across historically diverse networks.”⁶⁴

- An absence of effective inter-jurisdictional arrangements and the consistent, but not uniform, legislation means that the third of the commercial rail industry operating across two or more states suffer an unnecessary ‘compliance’ burden. Industry operators report this compliance burden is very real, although difficult to quantify. They also suggest that safety can be affected due to the assignment of additional resources to deal with multiple regulatory processes diverting efforts from risk mitigation.
- The peak body for the tourist and heritage sector reports an increasing dissatisfaction with regulation of the sector. The model rail safety Bill is designed for scalability, but operators within the sector are frustrated by what is perceived to be an onerous safety regulation regime.
- Queensland Transport suggests difficulties with the current arrangements are, “linked to the issue of accountability: as long as there are seven separate regulators, each accountable for rail safety in their own jurisdiction, there will inevitably be variations to legislation, interpretation and regulatory style in order to meet these accountabilities.”⁶⁵
- In some jurisdictions regulatory independence is potentially compromised by not ensuring a separation in regulatory and policy accountability.

⁶⁴ Australian Rail Track Corporation submission, page 3

⁶⁵ Queensland Transport submission, page 1

- There is variability in resourcing across the states and the Northern Territory. Some of this variability is attributable to different risk profiles (the two highest risk states have the greatest government funding of rail safety regulation), however some of the variability may also represent either under-funding or ‘gold-plating’ in some places.
- The activities of regional railways (urban, resources, passenger) probably occupy most regulatory effort. The Western Australian regulator indicates for instance that three regional railways occupy 70 per cent of the regulatory effort.
- Overall, industry’s perception of regulation is reasonably positive,⁶⁶ but Public Transport Safety Victoria’s submission suggested that “there appears to be no appetite for addressing the [industry’s] problems due to fears by some industry players that this will detract from the case for a single national regulator. This is a very unhealthy situation...”⁶⁷
- Safety is good, but fatal accidents and accidents with significant economic costs do occur and will continue to occur. Anecdotally, the economic consequences of rail accidents may be worsening.
- There is little national rail safety data, its value and meaning are limited and in the absence of a suitable body, are currently published by a safety investigator. There are few formalised means for the circulation of rail safety knowledge and learnings across Australia, other than through the Rail Safety Regulators Panel and regulators’ websites.
- There may be some duplication of tasks in different regulatory bodies.
- Staff attraction and retention is a problem for many areas of government, and rail safety regulators are no different. The rail industry generally has an older, ageing population and government pay is not on or near parity with industry. In addition, skilled resources are finite and are currently spread over several entities in different jurisdictions, although the Rail Safety Regulators Panel offers a mechanism by which this may be lessened.
- Cross-jurisdictional reform is time-consuming and costly. This often results in significant resources being devoted to policy, legislative and executive approvals in each state and territory.
- despite agreement to national model legislation, there are a number of policy issues in which governments have not yet agreed on a common framework for industry.

While governments are the main focus of projects relating to a regulatory framework, issues for industry consideration have also been identified during this project:

- Throughout consultation, operator representatives expressed frustration at inconsistencies in rule books, infrastructure and standards, below-rail dealings with above-rail operators and other matters.

The South Australian Department of Transport, Energy and Infrastructure submission on the draft regulatory impact statement noted that the move towards a

⁶⁶ Synergies Economic Consulting (2008), page 44

⁶⁷ PTSV submission, page 8

single, national regulatory framework will not in itself drive the national harmonisation of railway operations and the standards and systems that apply to these operations, because under a co-regulatory model these issues are the responsibility of industry.

Recently the Board of the Australasian Railway Association agreed to publish a national rulebook designed for use by all rail safety workers who ‘work on track’ throughout Australia. This project was first conceived more than ten years ago and has a second component, rules and procedures associated with operating trains on the rail network, which should be ready for approval in a year.⁶⁸

- Public Transport Safety Victoria noted in its submission to the draft regulatory impact statement that, “Rail safety regulators await (and have done so for some considerable time) for the Australasian Railway Association’s system of standards, an overall rail safety strategy and a national rule book to be realised. Progress has been slow in these areas and they are fundamental to addressing a range of inconsistencies which industry are concerned about. Under the co-regulatory system they are for industry (through the Australasian Railway Association) to provide.”⁶⁹ The South Australian Department of Transport, Energy and Infrastructure made a similar comment in their submission. Public Transport Safety Victoria also noted that “SPAD [signals passed at danger] trends are not improving in Australia and an industry strategy is required to address this issue. Understanding where the risks are and having a long term plan to address them is something which is currently missing for Australia’s rail safety work and under the co-regulatory model this is an industry responsibility.”⁷⁰

Australia’s rail transport system is currently facing some important challenges, with the expected doubling of Australia’s freight task between 2000 to 2020.⁷¹ Urban passenger rail networks have also seen unprecedented growth in passenger numbers in recent years⁷² and urban congestion is becoming increasingly problematic in major centres.

Sections 3.1 to 3.8 discussed a range of issues identified during the preparation of this regulatory impact statement. The legislative reforms currently underway will go some way to addressing some of the issues discussed.

However not all the issues are ones which the national model legislation set out to address. Separate issues with institutional arrangements were to be the subject of further, separate work as part of a review of institutional arrangements for regulation of rail safety.

The need for a review of institutional arrangements resulted from early recognition that best practice regulatory frameworks comprise a number of factors, including, but not limited to harmonised legislation.

While it could be argued that individually, each of the problems raised so far are not insurmountable for a rail operator, when considered cumulatively, there are substantial regulatory burdens being placed on some industry operators. To reduce this burden, the

⁶⁸ <http://www.rissb.com.au/linkdev/UserFiles/file/Articles/09-03-05%20Revolutionary%20Development%20for%20Rail.pdf>

⁶⁹ PTSV submission, page 8

⁷⁰ PTSV submission, page 6

⁷¹ National Transport Commission (2007)

⁷² PTSV’s Annual Safety Review: Rail patronage within Victoria grew 13.2% in 2007-08 – up from 187,440,000 to 212,209,000

options presented in section 5.2 aim to outline ways to address the issues of concern for industry and streamline the implementation of appropriate measures by governments.

The Synergies report, sponsored by the Australasian Railway Association, provides an estimate that the cost of rail safety regulation to industry is \$23 million per annum in compliance costs, which is scaled up to approximately \$42 million when whole of industry estimates are factored in.⁷³ These aggregate costs appear low when considering the annual turnover of the rail industry, estimated to be over \$8 billion.⁷⁴

Operators would share in up to 80 per cent of the savings from reduced costs of inter-jurisdictional compliance, allowing for the redirection of resources to operational safety activities. The rail industry also suggests indirect inefficiency costs of regulation, but there is extreme difficulty in measuring the impact of this on the industry as a whole.

While the efficiency and economic arguments outlined above are important, the potential safety benefit is also important. Governments nationally have indicated that there should be no reduction in safety for the sector, which allows the opportunity through this draft proposal to offer opportunities to streamline the mechanisms for delivery of regulation in a practical manner. A multi-jurisdictional regime allows the opportunity for inconsistent regulatory practices, limited reform, data constraints and the inefficient deployment of expertise. These issues create:

- a level of uncertainty by the operator as to what will be acceptable to all relevant regulators
- an opportunity for sub-standard risk assessment, decision making and consequently safety outcomes.

Following that, it could be argued qualitatively that:

- the current rail safety regulatory framework is sub-optimal because:
 - resources expended in reworking proposals for the differing demands of different regulators are resources not available for implementation or development of further safety measures
 - delays in committing to investment due to uncertainty as to the acceptability of proposals to different regulators equate to delays in the safety benefits of that investment being realised
 - regulators' expertise is not efficiently deployed to effectively identify and assess risks and provide guidance to industry as to how a given risk or combination of risks can be reduced so far as is reasonably practicable.
- the current framework hinders efficiency because:
 - unilateral regulatory decisions impact on industry's compliance cost. Industry has raised its concerns about additional costs arising from duplicated efforts
 - the reduced predictability of regulatory outcomes impacts on industry's opportunity costs. Operators have expressed their concerns about delays to investment and increases in the costs of making investment decisions, as a

⁷³ p.5

⁷⁴ <http://www.austrade.gov.au/Railways-Overview/default.aspx>

result of inconsistent regulatory practices. Consequently, potential productivity gains are put on hold or, in the worst case, not pursued

- jurisdictional regulatory boundaries do not ‘match’ the industry, which comprises a variety of urban, regional and national operators.

Operators have said:

“In addition to the costs imposed by the current multiple arrangements, the need to focus on complying with the differences between jurisdictions was seen as a distraction for management, away from a preferable focus on developing a company-wide culture of preventing injury and illness.”⁷⁵

“Focus of effort may be more focussed on risk mitigation if less procedural requirements did not require such heavy resourcing.”⁷⁶

More generally, increased costs impact on the individual operator, and some stakeholders suggest this may reduce rail industry’s competitiveness. Impeded growth in the rail sector is at odds with government commitments to improve transport safety and lower carbon emissions, which advocates argue can be achieved with increased rail use.

3.8 Practices in other modes, sectors and countries

In the draft regulatory impact statement, NTC analysed rail safety regulation practices in other countries and safety regulation arrangements in other transport modes and sectors in Australia.

A number of stakeholders commented on the analysis and the New South Wales Government’s submission suggested including in the revised regulatory impact statement an analysis of how the various (international, national and other modes) models might be suitable for achieving a single, national rail safety regulatory framework. Preliminary analysis of the US, Canadian and European regulatory arrangements suggests the differing legal, historical, operational and regulatory factors present in each case would make further analysis of only limited value, the results of which would be incapable of meaningful translation to the Australian context.

The following results are of an upgraded, high-level analysis. Detailed information from the draft regulatory impact statement, and additional statistical analysis of safety data, is available in the appendices.

It is apparent from examining other modes that national safety regulators face a different set of challenges.

Once a single, national regulator is in place, the matters of interest become issues of improving regulation and regulatory practice, rather than of trying to minimise inconsistency in an inherently inconsistent system, as is currently the focus in Australian rail safety regulation. Expressed another way, by deciding on a single, national regulatory approach the regulator, industry and governments can collectively focus on delivering the best possible regulation and achieving the desired safety outcomes.

⁷⁵ Productivity Commission 2004, p. 21

⁷⁶ Synergies Economic Consulting 2008, p.34

For instance, the most recent evaluation of air safety regulation was undertaken by the Senate Standing Committee on Rural and Regional Affairs and Transport. The committee recently completed an inquiry⁷⁷ into the administration of the Civil Aviation Safety Authority and related matters. The committee recommended that:

- the Australian Government strengthen the Civil Aviation Safety Authority’s governance framework and administrative capability by:
 - introducing a small board of up to five members to provide enhanced oversight and strategic direction for the Civil Aviation Safety Authority
 - undertaking a review of the Civil Aviation Safety Authority’s funding arrangements to ensure it is equipped to deal with new regulatory challenges.
 - the Civil Aviation Safety Authority’s regulatory reform program be brought to a conclusion as quickly as possible to provide certainty to industry and to ensure the Civil Aviation Safety Authority and industry are ready to address future safety challenges.
 - the Australian National Audit Office audit the Civil Aviation Safety Authority’s implementation and administration of its safety management systems approach.

Likewise, the recent review of the National Offshore Petroleum Safety Authority concluded that the authority had, “made good progress in building a safety regulatory regime and authority of world class calibre, and, as expected, there are still some aspects of the regime which can be improved on to achieve best practice regulation.”⁷⁸ Notably, the review team found that establishing a single regulator had lessened the complications in health and safety regulation of the offshore petroleum industry.

Resources – funding and people – are as important as institutions and laws. As the Rail, Tram and Bus Union’s submission on the draft regulatory impact statement suggests, the evidence from other modes such as aviation and the Canadian review are frank about the need for greater resources and increased funding.

Looking overseas, it is apparent that:

- Legislative approaches vary from prescriptive to co- or meta-regulatory. No trend towards particular institutional-legislative relationships was identified
- Moves towards greater consistency, harmony or uniformity in regulation are near universal.
- In some instances, but not rail safety, international treaties and conventions determine the legal and institutional arrangements for regulation.
- Following an international comparison, the Glenbrook and Waterfall Special Commissions of Inquiry stated that:

“In view of the mistakes of the rail industry in the past, such as different gauges, the time has also come for national regulation of rail operations. Such an approach is

⁷⁷ The inquiry report is at http://www.aph.gov.au/Senate/committee/rrat_ctte/casa/report/index.htm

⁷⁸ Commonwealth of Australia (2008c)

*consistent with the one adopted in the United States of America and Canada, and has been demonstrated to be effective and in the public interest.*⁷⁹

Complex arrangements also do not appear to be warranted in Australia. Australia's rail industry is small in comparison with Australian offshore petroleum⁸⁰ and shipping⁸¹ and rail in Europe and North America.⁸²

The rail industry here also has a good safety record in comparison with other sectors and overseas, although the European Union has witnessed rapid safety improvements subsequent to its expansion in 2004 to include 10 new countries.

There are national regulators in almost every country and mode examined. Indeed, rail safety regulation in Australia, along with heavy vehicle regulation, is one of the few examples of national regulation where there is no national entity.

⁷⁹ McInerney 2005, p.xxxix

⁸⁰ Offshore oil and gas production is one of Australia's largest marine industries with an estimated value of production of about \$8 billion each year. Offshore petroleum is a major industry in Australia and in the past 30 years more than 1,400 wells have been drilled offshore and 3,500 million barrels of oil, worth around \$120 billion, have been extracted. In the early 1990s the export of petroleum products was worth \$4.5 billion, equal to the value of meat exports. From <http://www.environment.gov.au/coasts/oceans-policy/publications/ocean-facts-figures-ch3.html>

⁸¹ In 2004–05, the maritime transport sector's share of Australia's international trade was 680.5 million tonnes valued at \$215.2 billion and 733.9 million tonnes of sea cargo was carried. From <http://www.bitre.gov.au/publications/50/Files/WP69.pdf>

⁸² The Western Australian regulator notes in its submission that the US rail industry is not particularly enamoured with the prescriptive regulatory model in that country and it is not considered economic.

4. OBJECTIVE

The objective of this regulatory impact statement is to examine options and recommend the optimal rail safety regulation framework for Australia. An optimal rail safety regulation framework should:

- provide for improved rail safety performance
- be cost effective for governments, and
- be efficient for industry.

Positive safety outcomes are paramount in any system of safety regulation. Good regulation theory indicates regulation needs to be as efficient and effective as possible, provide certainty for industry and eliminate unnecessary regulatory compliance burdens.

4.1 Principles for rail safety regulation

Good rail safety regulation should address the following principles for rail safety regulation:

Transparency: regulator(s) should have clear processes and methods in place to facilitate free flow of information on safety matters within the regulatory body and beyond.

Independence: regulator(s) should be independent of Ministers, funding bodies, operators, policy setters and investigators.

Relationship with Ministers responsible for rail safety: regulator(s) will maintain a relationship with each Minister responsible for rail.

Ministerial capacity to refer: a minister can ask the regulator(s) to investigate particular concerns in the jurisdiction, but cannot direct the regulator in those investigations or influence the outcome of those investigations.

Consistency of operation: regulator(s) should provide a consistent framework for regulation across jurisdictions, based on the national model rail safety Bill.

Responsiveness: regulator(s) should provide an acceptable level of responsiveness to safety concerns, regardless of location of incidents or concerns.

Best regulatory practices: regulator(s) should adopt modern regulatory approaches and good practice regulation. It should be neither 'gold plated' nor should it lead to a lowest common denominator approach to rail safety.

Risk-based regulation: the activities of the regulator(s) should be concentrated on the areas of the highest identified risk, which may change over time.

Sufficient capacity and expertise: regulator(s) should be sufficiently staffed and skilled so that safety is not compromised due to staff or expertise shortages.

Safety: maintain and improve safety outcomes on Australia's railways.

Efficiency: minimise red tape, duplication and inefficient practices.

Clear explanation of role and function: regulator(s) should have their role and industry's role in rail safety and accreditation clearly defined in legislation.

Co-regulation: government and industry share responsibility for rail safety and the regulator(s) role is to oversee industry's responsibility for achieving the safety performance goals set by government(s).

These principles were developed in conjunction with experienced investigators and regulators. The main feedback received was from Victorian government officials, who asked that safety be included as a principle. The principle about the relationship with Minister(s) was also clarified as previously it was described as a 'strong' relationship which could imply closeness. The co-regulation principle was slightly reworded in response to a suggestion in the South Australian transport department's submission. The safety principle was amended slightly in response to a comment in the Western Australian rail safety regulator's submission, to clarify that the word 'standards' was not used to mean 'industry standard', as is often the case. The principle was also amended to include 'outcomes' consistent with commentary in the Victorian Department of Transport submission.

5. OPTIONS TO ADDRESS THE PROBLEM

Transport Ministers directed the National Transport Commission to prepare a regulatory impact statement for all viable options.

Conceptually, the viable options for a single, national framework are to significantly enhance current state-based arrangements or adopt a national regulatory approach. The options for change were identified after researching current practice here and overseas. National approaches to regulation span a spectrum from coordinated administrative arrangements to referral of powers to the Commonwealth Government.⁸³ NTC's options for change fit somewhere in the middle of this spectrum. All three ATC regulatory impact statements – in rail safety, maritime safety and heavy vehicle regulation – include a national regulator as the final option for change.

Outlined in section 5.2 are the options for change that have been identified for a rail safety regulatory framework. Section 5.1 discusses the status quo options and 5.3 discusses non-viable options.

5.1 Versions of the status quo

It is necessary to describe two versions of the status quo in rail safety regulation. States and the Northern Territory are currently working towards a COAG deadline for implementation of rail safety legislation based on the model rail safety Bill. The COAG deadline was recently extended to December 2009.

To date, Victoria, South Australia and New South Wales have passed legislation based on the model rail safety Bill. Queensland legislation is before the Parliament. Other states are aiming for implementation as soon as possible.

⁸³ Productivity Commission (2009), page 18

Table 4. Options 1 and 2 – the status quo

Status quo:		Enhanced status quo or status quo (+):
	Option 1	Option 2
Number of regulators	Seven regulators	Seven regulators
Legislation	Various rail safety Acts from 1994 to 2008 Not all jurisdictions passed legislation based on national model rail safety Bill	All jurisdictions with legislation based on national model rail safety Bill Some variations between states remain
Coverage of industry by regulatory activities	All accredited operators, including passenger, freight, mining and coal, tourist and heritage and below rail operators.	<i>As per option 1</i> , including additional duty holders captured by national model legislation.
Governance	Current arrangements see two independent regulators and the remaining regulators in transport departments.	<i>As per option 1</i>
Resourcing (staff)	Resourced to current levels	All jurisdictions resourced to administer legislation based on the national model rail safety Bill
Funding	Current levels	Current levels or as otherwise determined by funding agencies and cost-recovery arrangements
Data	Collected by states and the Northern Territory, assisted by the Rail Safety Regulators Panel and reported by the Australian Transport Safety Bureau	<i>As per option 1</i>
Guidance materials	Guidance material available	All jurisdictions using national guidelines and standards : guidelines are provided under the model rail safety Bill and do not extend, add to or modify legislative obligations contained in the model rail safety Bill ⁸⁴
Inter-jurisdictional arrangements	Rail Safety Regulators Panel Memoranda of Understanding between jurisdictions Uniform administration/ “principal regulator” model in place of mutual recognition	<i>As per option 1</i>

5.2 Options for change

Research and consultation reveals that there are two main options for a single, national rail safety regulator framework: retain and significantly enhance the state-based regulation of rail safety, or establish a national regulatory body. These two options are discussed in sections 5.2.1 and 5.2.2.

⁸⁴Examples of guidelines include the national guidelines for accreditation of rail transport operators, national guideline for the requirements of a rail safety management system and the national guidelines for uniform administration of accreditation.

5.2.1 Enhancing the current state-based approach to rail safety regulation

In the draft regulatory impact statement, NTC suggested a model based on the Competent Authorities Panel in dangerous goods, the preferred option for the Victorian Department of Transport at that time.

During preparation of the draft regulatory impact statement and throughout the consultation process, the competent authorities panel's inapplicability to rail safety regulation attracted a lot of comment from government, industry and union stakeholders.⁸⁵ Mostly, the criticism suggested that such a model, while suitable in a prescriptive regime like dangerous goods, was not suitable in a highly discretionary environment like rail safety regulation.

A range of submitters suggested alternative approaches to enhancing the current state-based regulatory arrangements. NTC evaluated submitters' suggestions and updated the option to draw on:

- the Victorian submission in relation to the centrality of the national panel
- the Western Australian submission which accepts the benefits of simplifying arrangement for national operations and the acceptance of the proposition that local presence does not need to necessarily equate with final accreditation authority, and
- the New South Wales submission in relation to the purchaser provider model for resourcing regulatory activities directed towards nationally accredited operators.

Summary of revised option for enhancing the current state-based arrangements

The enhanced state-based option for change comprises a panel invested with statutory power to decide matters pertaining to rail accreditation. It would be established under the law of a host jurisdiction and be empowered to decide matters relating to the accreditation of operators undertaking rail operations in more than one jurisdiction. It would replace the existing mechanism in Part 4 Division 2 of the model rail safety Bill. For the sake of brevity it may be called the National Rail Safety Accreditation Panel ("the accreditation panel").

The benefits of the proposal would be maximised to the extent jurisdictions could agree for a single law to be applied for nationally accredited operators and the content of that law. It is suggested that at a minimum a single statement of the general duty and accreditation requirements would be necessary for the national system to function effectively.

The accreditation panel's jurisdiction would apply to a rail transport operator, at the operator's choice, accredited in more than one jurisdiction or seeking to become so

⁸⁵ In its submission on the draft regulatory impact statement, the Australian Rail Track Corporation suggested a cooperative body such as the Competent Authorities Panel model on which the Victorian Department of Transport's suggestion is based, is not a structure compatible with the rail industry co-regulatory model and is inappropriate for application to rail safety regulation. The Australian Dangerous Goods Code is a prescriptive regime and the scope for determinations by Competent Authorities is limited to a narrow and low-level range of matters by comparison to the broad spectrum of rail safety matters sought to be addressed in the regulatory impact statement. Australian Rail Track Corporation noted that a review of the Competent Authorities Panel's 'Decisions Register' and anecdotal evidence from dangerous goods industry participants supported their analysis. Australian Rail Track Corporation's view was that a Competent Authorities Panel model would not achieve industry's key objectives of efficiency, flexibility, cost savings to the industry, timeliness, reduction in regulatory costs, and the ability of the regulator to more effectively regulate.

accredited. This in essence would form the national rail safety regulation scheme, i.e. national operators holding national accreditation and regulated by the accreditation panel.

This would result in the existence of a two-tiered accreditation process with purely local operations being subject to the sub-national regulatory frameworks and national operators falling under the national system.

The jurisdiction of the accreditation panel and national regulatory system could be expanded over time as confidence in both develops, for example, to allow local regulators to migrate their local operators into the national system.⁸⁶

While the accreditation panel would technically represent a new legal entity, that entity would in reality comprise existing participating regulators exercising power in a collegiate statutory forum under the law which creates the entity, as applied in each jurisdiction.

The relevant legislation that applied to nationally accredited operators would simply be the model rail safety Bill law applied in each jurisdiction; presumably by incorporation (e.g. as was the case in the original dangerous goods legislation). A suitable legal mechanism could be developed to allow for the exercise of the powers contained in the local rail safety laws to monitor and enforce compliance with the national law. That mechanism, as well as the appropriately detailed model for hosting the accreditation panel and applying the single law, would be developed in conjunction with the Parliamentary Counsels Committee.

A national partnership agreement would be required to support the establishment of the system and determine the bases of participation. It may be appropriate to consider Commonwealth participation in the national partnership agreement to provide funding to support the participation of local regulators in the accreditation panel under a purchaser provider arrangement, as suggested in the New South Wales submission.

The proposal is different from the Canadian model in that it would necessarily be quite rigid in the single law to be applied to nationally accredited operators. The law would have to be applied with little scope for addition or derogation from those provisions (but not to the extent of precluding the accreditation panel from taking into account local conditions in the consideration of any matter within its jurisdiction as they relate to safety). The proposal also presumes a single national accreditation fee.

Because, under this system, decisions would be made by the national and local regulators with respect to bodies within their respective jurisdictions, it is possible that there could be variation in the conditions applied to each category of accredited operators in that jurisdiction in significant policy areas such as fitness for duty. However as a corollary, regulators could continue to impose local requirements for purely local operators. This would address the argument that the potentially adverse effect single national policies or standards may have on local operators is a grounds for precluding the application of those policies/standards to purely national operators (subject to uniform standards being capable of satisfying the relevant statutory criteria).

The mechanism for creating an accreditation panel would involve:

- The accreditation panel would have to be capable of having its decisions reviewed judicially and collegiate decision-makers would need to be subject to the appropriate levels of personal accountability (created by ATC vote and rules in the

⁸⁶ Local urban transit systems, for example, could stay under the direct purview of local regulators or, by agreement, fall under the national system.

same manner as the Competent Authorities Panel and the Fatigue Authorities Panel)

- The accreditation panel would have authority to determine multi-jurisdiction applications (this would require the rail safety law in each jurisdiction to recognise decisions made by the accreditation panel) in a binding, though reviewable manner.
- It may be necessary to allow the accreditation panel to be granted sufficient legal identity (through incorporation, but more probably by establishment by or under state law) to sue and be sued, and allow for the indemnification of participating regulators (in local laws)
- An appropriate court or tribunal would have to be invested with jurisdiction to hear reviews, in a single jurisdiction, for instance the Administrative Appeals Tribunal, the Victorian Civil and Administrative Tribunal or state District Courts
- It differs from the Western Australian proposal in that it is both constitutionally available and operates at a genuinely national, rather than bilateral, level
- Participation would be limited to regulators with statutory independence. As noted in a House of Lords Inquiry submission:

“The regulator may in fact be part of the ministry of transport which, of course, is likely to own the infrastructure as well as, in certain member states, the incumbent licensee. A regulator owned by the same organisation as the infrastructure and/or train operator cannot be independent.”⁸⁷

This independence would be crucial for the national accreditation panel given some current regulators would represent Ministers with shareholdings in the applicant rail operator or their competitor(s).

There would need to be automatic acceptance of the decisions of the national panel (subject to the quasi-judicial review above). Additional steps for validity (e.g. parliamentary scrutiny in each jurisdiction through a disallowable instrument) would present an insurmountable obstacle given the decisions would be at risk of fragmentation on a jurisdiction by jurisdiction basis.

It is recognised that the criteria for operators to enter the national system is a matter of critical significance; and given this represents an attempt to harmonise laws, albeit in a narrower setting of nationally accredited operators only, this option is a rehearsal of the previous reform process that led to the model rail safety Bill.

This approach may appeal to some as it would not require a referral of power or Commonwealth legislative involvement; it would also provide a ‘one-stop-shop’ for operators with operations in more than one jurisdiction with appropriate and relevant criteria applied in the accreditation process. However, the proposal would require two sets of laws operating in each jurisdiction.

⁸⁷ From Rail Freight Group submission to House of Lords European Committee Inquiry into the Recast of the First Railway Package, available at <http://www.parliament.uk/documents/upload/Rail%20Freight%20Group%20040209.doc>

Table 5. Option 3

Enhanced state-based regulation: Option 3	
Number of regulators	Seven regulators and an eighth ‘virtual’ regulator
Legislation	All jurisdictions with legislation based on national model rail safety Bill. Variations between states minimised ⁸⁸ Another piece of legislation to underpin the National Rail Safety Accreditation Panel
Coverage of industry by regulatory activities	<i>As per option 1</i> , including additional duty holders captured by national model legislation, allocated according to the following: <ul style="list-style-type: none"> ○ Sub-national operators regulated by states and Northern Territory ○ National operators regulated by National Rail Safety Accreditation Panel
Governance	All regulators would ideally be independent of Ministers, funding bodies, operators, policy setters and investigators
Inter-jurisdictional arrangements	National Rail Safety Accreditation Panel to regulate national operators Memoranda of Understanding between states and the Northern Territory
Resourcing (staff)	All jurisdictions fully resourced : regulators should be sufficiently staffed and skilled so that safety is not compromised due to staff or expertise shortages
Funding	Current levels or as otherwise determined by funding agencies and cost-recovery arrangements
Data	Collected by states and the Northern Territory, assisted by the National Rail Safety Accreditation Panel and reported by either the Panel or the Australian Transport Safety Bureau
Guidance materials	All jurisdictions using national guidelines and standards : guidelines are provided under the model rail safety Bill and do not extend, add to or modify legislative obligations contained in the model rail safety Bill
Administrative improvements	Improvements to the handling of accreditation matters would provide a one-stop-shop for national operators.

Stakeholders have suggested a range of alternative approaches to enhancing state-based regulation, which are discussed in the appendices. None of the institutional arrangements embodied in those suggestions are considered further.

5.2.2 A national rail safety regulator administering uniform legislation

A national rail safety regulator administering uniform legislation would undertake much the same functions as current regulators. NTC consulted with stakeholders on the functions they would expect a national regulator to undertake and compiled the following list:

- Accreditation – new and variations
- Audits, inspections and compliance investigations
- Data collection, analysis and publication

⁸⁸Some form of statutory oversight of legislative consistency could be introduced, for instance by enhancing the model rail safety Bill legislation maintenance program to identify legislative inconsistencies and work to address them.

- Education, projects and communication
- Service to Ministers and departments

Stakeholders also identified a new function, which was that the regulator would report on the implementation of investigation report recommendations. In addition, it was suggested by a number of stakeholders that a national regulator would take over the Australian Transport Safety Bureau's national data publication role.

The Rail, Tram and Bus Union has commented that regulators currently differ in the extent of their consultation with employee representatives. The Union would expect any national regulator to emulate the best-practice regulators' consultative approach.

There are a number of legal and governance issues to be addressed in implementing a model for the delivery of a single, national regulator. These issues are discussed in section 13.

Table 6. Option 4

Single national regulator: Option 4	
Number of regulators	One regulator with a head office and a local presence to reinforce the national outlook of a single national regulator, as well as adequately cater for local responsiveness
Legislation	One regulator administering one piece of legislation based on the national model rail safety Bill
Coverage of industry by regulatory activities	<i>As per option 1</i> , including additional duty holders captured by national model legislation
Governance	The regulator would have one board (if needed), one chief executive officer and report to the Australian Transport Council on administrative matters. In accordance with the principles identified at 4.1, the regulator would also maintain a relationship with Ministers responsible for rail safety. Ministers would also be able to ask the regulator to investigate matters of concern in the jurisdiction. The regulator would be independent of Ministers, funding bodies, operators, policy setters and investigators
Inter-jurisdictional arrangements	<i>Not relevant</i> A single regulator would have one set of processes and all activities in the regulatory portfolio would be undertaken in accordance with the one set of processes
Resourcing (staff)	Fully resourced: the regulator should be sufficiently staffed and skilled so that safety is not compromised due to staff or expertise shortages A single regulator would also promote one culture for regulatory staff throughout Australia
Funding	Additional investment would be required to set up a single national rail safety regulator, facilitate the transition process and to reinforce best practice regulation
Data	Collected by regulator and reported by the regulator or the Australian Transport Safety Bureau
Guidance materials	Regulator publishes national guidelines
Process improvements	A single regulator would have one set of processes and consequently process improvements would be simpler

5.2.3 How well do these options match the principles of good rail safety regulation?

Figure 2 contains a qualitative assessment of the status quo and options for change against the principles for good rail safety regulation set out earlier in section 4.1. An explanation of the symbols used can be found below the table.

	Status quo	Enhanced status quo	Enhanced state-based regulation	Single national rail safety regulator
	Option 1	Option 2	Option 3	Option 4
Transparency	+/-	+	+	+
Independence	-	+/-	+/-	+
Strong relationship with ministers responsible for rail safety	+	+	+	+
Ministerial capacity to refer	+	+	+	+
Consistency of operation	-	+/-	+/-	+
Responsiveness	+	+	+	+
Sufficient capacity and expertise	+/-	+	+	+
Efficiency	+/-	+/-	+/-	+
Safety	+	+	+/-	++
Clear explanation of role and function	+/-	+/-	+	+
Sound regulatory practices	+/-	+/-	+	+
Risk-based regulation	-	-	+/-	+
Co-regulation	+/-	+/-	+	+
Total	+/--	+/-	+	++

Figure 2. An assessment of the options against the principles for sound practice regulation

Legend	
-	principle insufficiently met or improved
+/-	principle sufficiently met in some states without achieving a level of consistent improvement in all jurisdictions
+	principle sufficiently met and/or improved

Figure 2 illustrates that options 1 and 2 do not sufficiently address the associated principles required for ensuring an optimal rail safety regulatory framework for Australia. In some jurisdictions these principles are largely addressed, due to the creation of independent regulators and the introduction of the national model legislation. However this is not the case uniformly across Australia, and questions of institutional best practice have not yet been formally addressed as part of the rail safety reform package.

Figure 2 also illustrates that enhancing the current state-based system of rail safety regulation or moving to a single regulator would be more successful at achieving an optimal single, national rail safety regulatory framework in Australia.

5.3 What alternative options were considered?

The three broadly conceptual options for rail safety regulation: government control, co-regulation and self-regulation, were previously examined in the regulatory impact statement for the model rail safety Bill. There was a very high level of support for the co-regulatory model, which regulatory theory suggests is likely to be appropriate where very complex regulatory tasks must be completed and there is a need to draw on industry expertise. Since that time some stakeholders have tempered their support for the co-regulatory model but most in industry and government still support it.

Consideration was given to part-regulation, which would separate parts of the rail sector to be regulated by a national body, leaving the remainder of the rail industry to be regulated by other, presumably state-based regulators. Suggestions were made that this separation of regulated entities could be undertaken on the basis of the type of rail activity (passenger and freight rail could be regulated separately) or geography (inter-state activity and inter-state activity could be regulated separately).

As noted earlier, most of the models in use overseas could be considered in Australia. However, only those options that could make a substantial contribution to improving the situation in Australia have been contemplated.

The Canadian model of national and state-based rail safety regulation is a useful case study here. The federal agency Transport Canada has overall responsibility for rail safety regulation. Railways have traditionally been viewed as an area of federal jurisdiction, but the sale or lease of track by the major carriers in the 1990s led to the creation of many short lines that fall within provincial jurisdiction. Provincial (state) rail safety regulation applies for railways operating entirely within a single province. Provincial governments are the regulators. Provinces with railways under their jurisdiction have taken steps to link their regimes to the federal Rail Safety Act.

A recent review of the Canadian rail safety arrangements noted that differences in regulation and enforcement among provinces, and between the provincial and federal regimes are inevitable.⁸⁹ Provinces in Canada had adopted a variety of approaches to the regulation of intra-provincial railways, ranging from adoption of the federal legislative regime through to the development of provincial legislation without reference to the federal legislation. Transport Canada inspectors undertake inspections and provincial officers undertake enforcement.

In advice to ATC in 1999, Booz Allen Hamilton commented that the interfaces between the urban and freight networks vary between cities. The networks in Perth and Adelaide are largely separate, in contrast to the Sydney conurbation, where there are serious interface issues and congestion. As a consequence, the Sydney urban network and to a lesser degree those in Melbourne and Brisbane, have their own significance in the issue of rail safety arrangements. The east coast of Australia has a heavy concentration of rail activity – New South Wales and Victoria have the highest passenger train kilometres travelled and New South Wales and Queensland have the highest freight train kilometres travelled.⁹⁰

Any attempt to separately regulate different types or locations of activity would create new or additional interfaces for regulators and regulated entities. There is no neat way to carve

⁸⁹ Transport Canada, p43

⁹⁰ Australian Transport Safety Bureau, 2008, pp15-16

up the regulation of Australia's railways so that multiple entities can be responsible for safety, without the creation of interface issues, and therefore potential safety hazards.

The suggestion of an additional body to regulate multi-jurisdictional operators was widely criticised by stakeholders during the consultation process. Given the complex nature of the industry, the result would be multiple operators potentially regulated by multiple regulators but using the same infrastructure, and this was not deemed an appropriate safety solution.

NTC also examined the possibility of subsuming rail safety into occupational health and safety regulation, currently imposed by each of the states and territory. This would assign statutory responsibility for general duty breaches to occupational health and safety and leave additional rail specific responsibilities with a regulator, which was identified in the model rail safety Bill. It was considered inappropriate to combine rail safety regulation with that of occupational health and safety as rail has specific safety measures that are fundamental to its operation, including reassuring the general public of their safety while using rail, comprehending the nature of the infrastructure and maintaining engineering standards for this unique industry.

The concept of a single body that would cover both regulation and investigation was ruled out because of the obvious conflict of interests.

6. COST BENEFIT ANALYSIS

This section discusses the costs and benefits of the options for a single, national rail safety regulatory framework. The analysis is qualitative and quantitative.

6.1 Methodology and limitations

NTC engaged Booz and Company to provide an independent cost benefit analysis for this draft regulatory impact statement. Booz and Company attended the consultation meetings with stakeholders and sought data from governments, industry operators and industry associations.

Early on, it became apparent the analysis would have a substantial qualitative component. Governments were forthcoming with data, which enabled Booz and Company to determine the costs to government of rail safety regulation. Industry associations and industry operators provided much less data. This appears to be the result of the difficulties in quantifying the additional compliance burden from dealing with multiple regulators. The Australasian Railway Association also provided NTC and Booz and Company with a report it had commissioned from Synergies Economic Consulting into the costs of rail safety regulation.⁹¹

Booz and Company undertook a similar exercise to Synergies Economic Consulting and on the basis of the data provided by industry operators, Booz and Company did not adjudge the Synergies conclusion about the costs of regulation.

Booz and Company's approach to the quantitative task was:

- to establish the costs to government of rail safety regulation
- to estimate (or evaluate) the costs to industry of rail safety regulation
- to calculate the net present value of the options for change.

In evaluating the qualitative benefits, Booz and Company attended stakeholder consultation meetings with a range of government and industry stakeholders and the Rail, Tram and Bus Union. Booz and Company also undertook a literature search to inform the qualitative analysis. The questions used to source data from stakeholders are included in the appendices.

In a co-regulatory environment, the operator's argument is that the safety risk sits with them. Therefore it should determine the manner in which risk is assessed and how it is managed. The role of the regulator is to satisfy itself (and governments) that operators have appropriate systems in place to identify and manage risks in line with their statutory

⁹¹ Synergies Economic Consulting used a survey format, which focussed on collecting information which could be used to construct an estimate of direct costs. Respondents were requested to provide significant supporting information to contextualise the data and examples of compliance costs. Respondents were also asked to provide qualitative information on the economic efficiency costs of rail safety regulation, given that these costs, in most industries, are commonly believed to be substantially greater than compliance costs. Synergies received eight survey responses from twenty-two sent out to Australasian Railway Association members. The eight respondents included most of the major above and below rail operators in Australia. Responses include operators focused on urban passenger transport, below rail operators providing infrastructure services, and above rail operators providing freight transport services.

obligations under rail safety legislation (and other relevant legislation and regulations including occupational health and safety). This is the framework from which the costs and benefits are assessed.

The benefits flowing from efficiency improvements to the operation of the co-regulatory system can largely be demonstrated in quantitative terms. Broader rail safety outcomes benefits sought relate more to the quality of regulators, the quality of investigators, and the ability to the regulators to appropriately target operators in the performance of their regulatory duties. These quality and standards issues are largely reviewed as qualitative benefits.

The qualitative benefits are discussed in section 6.2. A number of potential benefits to safety outcomes have been identified, as a result of improvements to compliance, administration and governance arrangements, as well as improved staff development and deployment, and general economies of scale benefits. The potential risks of a regulator are also considered including transitional risks, additional red tape, a reduction to regulator discretion and a potential overall impact on safety. Possible risks are discussed in section 6.3.

The quantitative benefits are considered in section 6.5. The data provided from government, regulators, investigators, the Australasian Railway Association and operators was assessed to determine current and likely output under the options being considered. The assessment focus is on duplicated costs both for operators satisfying multiple regulators, and for regulators and governments in performing the same function multiple times. It should be noted that this impact analysis is limited to the data made available by governments, regulators, and the rail industry during consultation, and key assumptions built on the qualitative analysis.

6.2 Qualitative analysis - potential benefits and risks

The arguments around the benefits of each of the regulatory framework options impact differently on the different stakeholder groups, but there are some common themes. In particular, a focus on how regulatory changes would improve safety outcomes is consistent across all stakeholder groups, as are the caveats that are put on how these benefits will be achieved. Generally, there is a view within the rail industry that the structure and leadership of a single national regulator will be a key determining factor on whether the expected benefits are realised.

The benefits are assessed in a manner consistent with the principle that there should be no diminution of safety and based on an assessment of how each option presents against the identified problems with the current regulatory arrangements.

At the suggestion of stakeholders, two new matters are included in this analysis:

- discussion of the risks of the options for change, and
- discussion of the benefits for different types of operators.

A discussion about the risks of no action – or the risks of maintaining the status quo – has also been included.

Booz and Company identified a number of issues that would potentially benefit from the options for a single, national rail safety regulatory framework. These issues are discussed in sections 6.2.1 to 6.2.5. Potential risks arising from the options for a single, national rail

safety regulatory framework are discussed in section 6.3. Both sections conclude with overall discussions in 6.2.6 and 6.3.5 of the potential impact on safety.

6.2.1 Compliance

The issue relating to compliance is that there are complications for industry, and for regulators, borne of the differences that apply between jurisdictions in operating and regulatory environments. There are a number of elements in which the potential benefits can be assessed, including risk based regulation, and culture.

In its submission on the draft regulatory impact statement the Australian Rail Track Corporation stated that, “a single governance structure facilitates delivery of more consistent regulatory and investigatory outcomes across the nation thereby assuring a higher standard of safety. Australian Rail Track Corporation presently deals with four state regulators and each has their own methods and priorities. Attempts to work through a single ‘principal’ regulator is frustrating for all ... as agreements reached to close out or move forward on issues are rarely universally endorsed by other regulators.”⁹²

This neatly outlines the ‘compliance’ problem for industry. Currently operators have their accreditation and conditions managed on a geographical basis that does not reflect their operating environment. In the Australian Rail Track Corporation’s case the nature of their operating environment presents consistent, if slightly different, risks across Australia, clearly demonstrating an example where the compliance burden on operators would reduce under a single national regulator, and possibly under an enhanced state based regulation model.

A single national regulator would apply one set of standards and require one interface between operator and regulator rather than the current multiple interfaces. Under an enhanced state based model the regulatory interpretations would still require multiple interfaces between the accredited party and the regulators. This change would make the compliance process more efficient for operators, especially those operators who hold multiple accreditations.

The Western Australian regulator has pointed out that three intrastate operators comprise nearly 70% of their regulatory task.⁹³ However, as 37% of the accreditation holders – including most of the larger operators – hold multiple accreditations, and as the state geographical boundaries do not reflect the operating boundaries of rail networks, it is considered that greater benefits from a national perspective will be realised under a single national regulator even in that case.

Risk-based regulation

It is argued by industry sources that reducing this compliance burden would increase the consistency of the application of risk-based regulation. Risk-based regulation is currently practiced by all regulators – however, there are industry arguments that this is handled inconsistently, and that this problem would be alleviated under a single national regulator.

⁹² Australian Rail Track Corporation submission

⁹³ Office of Rail Safety, Department of Planning and Infrastructure submission

The discussion around the likely benefits from risk-based regulation was similar to other 'economies of scale' arguments. Risk-based regulation is expected to improve in consistency and quality as the options move from the status quo to the single national regulator. The change would occur through the increasing cooperation or collaboration as the benefits from the national model legislation come to pass. A state regulator only has the capacity to target risk as it applies in its state. An enhanced state based regulation model does not substantially increase this capacity. The greatest benefits from a risk-based regulatory approach would be achieved by a single regulator.

Culture

In addition to the expected benefits of consistency of regulator behaviour for both rail safety standards and as anticipated by industry, it is argued that there may be behavioural or cultural changes to rail safety that must be considered in relation to the options.

These benefits can best be described in terms of rail safety culture. Over recent years regulators have noticed an increase in the maturity of the safety culture of the rail industry, which it considered may be a result either of improved regulation standards, or recognition within the industry of the theory that good safety practices make good business sense.

Safety culture is well defined on the Public Transport Safety Victoria website:

"Safety culture can be broadly described as the underlying values within an organisation that affect the beliefs and attitudes of its members and guides their safety behaviours. It is "the way things are done around here" with respect to safety.

An organisation with a poor safety culture will have an increased likelihood of experiencing accidents compared with, for example, an organisation whose leadership and staff hold shared beliefs about the importance of safety.

Safety culture has been implicated in a number of large scale organisational accidents both in Australia and overseas. In recognition of the importance of safety culture, the Rail Safety Regulations 2006 include a requirement for accredited rail operators to include in their safety management system methods to promote and maintain a positive safety culture."⁹⁴

From discussions with industry and regulators there appears to be a high degree of acceptance that the culture in relation to safety is improving in the Australian rail industry. This is borne out by the improvement to the safety statistics discussed in section 3.1. Therefore it is argued that a degree of culture or behavioural benefit will be realised under each of the options being considered.

There is a likelihood that these benefits will continue to increase. There is also a potential that any enhancements of the status quo or the move to a single national regulator could undermine some of these benefits, at least while a single national regulator is being established. It is most likely though, that over the period being considered by this analysis, the benefits to safety culture would be greater from a single national regulator than under the status quo.

⁹⁴<http://www.ptsv.vic.gov.au/web26/home.nsf/AllDocs/B002A5778951238CCA257336001AC8B7?OpenDocument>

It is argued that these benefits will be realised through the increased scope and coverage of a properly resourced regulator that performs in line with the principles established by the NTC, and is able to focus on education and development assistance to the industry as well as the regulation aspects that play a key assurance function in relation to safety culture.

6.2.2 Nature of industry operations

Currently, rail safety regulation is undertaken on a state by state basis. However, the state boundaries are not reflective of the boundaries for the industry. There is little or no relativity between state boundaries and rail operations. Many operators only operate within the borders of one state, although their operations are not dictated by the state's borders, they are determined by the needs of the organisation – rail to port in the Pilbara is a good example of this.

Other rail operators, such as RailCorp, operate in a defined corridor environment, between Brisbane in the north and Melbourne in the south – requiring three accreditations – with their overwhelming focus of operation within the CityRail network, which predominantly services the greater Sydney metropolitan area. This creates duplication and inefficiencies for the industry, which are considered in the quantitative analysis in section 6.5.

The current administrative arrangements do not allow every rail operator, no matter the scale of their operations, to hold one accreditation, provided by one regulator, based on a consistent and risk-based set of principles and assumptions.

6.2.3 Data

The importance of data gathering and analysis was highlighted by regulators and industry as an administrative benefit. It was the view of many stakeholders that this is a key rail safety performance measure and is something that is not done as well as it could be under the current system.

The perspective of regulators on data gathering and analysis varied across the country, although was unified in suggesting that current processes could be improved. The improvements sought were to the categories under which the data were gathered, and the central repository for holding the data and providing the analysis. The benefits sought were, broadly speaking, a more evidence-based and informed picture of rail safety in Australia. This would facilitate a more effective risk-based regulatory operation.

While the views of the regulators was shared by operators, in terms of wanting improved data collection and analysis, the reasons and method for achieving this were different from their perspective. Operators would seek improvements in the way data are collected and greater alignment between the data regulators seek and what industry collects in order to manage their own risk. The operator views were that providing one set of data to a regulator – whilst not alleviating the burden of providing the data – would be a more efficient process for them.

Asciano commented in its submission on the draft regulatory impact statement that operators providing data to multiple regulators must disaggregate the data – an inefficiency for their business – as well as a process that may result in data errors.⁹⁵ The Australasian

⁹⁵ Asciano submission, page 9

Railway Association has also acknowledged the issue of data collection and is, “committed to exploring options for the establishment of a rail industry safety database”.⁹⁶

An example of inconsistent methodologies provided during initial stakeholder interviews relates to ‘missiles thrown at train’ rather than ‘missiles striking train’. The data collected will vary significantly under these two measures meaning that without standardised measures it is not possible to conduct meaningful analysis of data.

There have been moves to standardise and improve data collection. The Rail Safety Regulators Panel has undertaken a range of initiatives to improve national data. In addition, ATC recently approved the National Strategy for Rail Safety Data. The national data strategy was developed by NTC, regulators and industry in the absence of a single body with responsibility for all facets of data collection, analysis and publication. Development of the data strategy was a time- and resource-intensive process for NTC and regulators, particularly. Unfortunately, the premise that minimising the inherent limitations in the current state-based system of data specification and collection will improve national data, constrains government adopting a genuinely ‘first principles’ approach to best practice national rail safety data.

6.2.4 Governance

Governance arrangements in all the jurisdictions are varied. The structure and organisation of the regulators varies, as does the legislative framework, the regulatory interpretation, and potentially the judicial interpretation.

These differences were pointed out during initial stakeholder interviews and identified in the submissions in response to the regulatory impact statement. These differences are in the degree of independence of regulators from transport departments and the degree of functional independence from governments.

Consistency and legislation

Regulatory consistency is strongly advocated by industry and operators. Consistency would provide certainty of the regulatory environment, allowing operators to focus on having a single safety management system, rather than a core safety management system with additional materials for each state and territory of operation. Consistency is also a likely benefit for regulators; however regulators expressed concern as to what that legislative interpretation might be.

The benefits of a nationally consistent legislative framework vary in the status quo options and in relation to the single regulator option. It is argued that the potential benefits will best be realised where the governance arrangements foster uniformity of regulation and consistency where discretionary interpretation allows. This structure is not present under the current system and would not develop under any of the status quo options. Moreover there appear to be significant opportunities for variation in all options other than the single national rail safety regulator.

The discussions with stakeholders identified that the greatest regulatory barrier, for some sections within the industry, is having to deal with up to seven different sets of legislation (currently) and with up to seven different interpretations of what the legislation means. Some within the industry have a clear expectation that this problem will not disappear once

⁹⁶ Australasian Railway Association submission, page 4

the national model legislation is adopted, and that the different regulatory interpretations are as great an issue as the different legislation. Some of the local variations are claimed to dramatically change the impact of the legislation, as per the example discussed below. The full extent that these variations will have are still not clear and will not become clear until the legislation is passed in all jurisdictions.

An example of local variations is the definition of what constitutes rail safety work in Victoria. The definition in the Victorian legislation provides at s.7 that rail safety work includes at (ca) “loading or unloading rolling stock”. The insertion of these terms is a variation on the national model rail safety bill. This variation, according to one operator, means that the addition to the definition of rail safety work would, if reproduced nationally, capture an additional 80,000 people, some of whom work in seasonal industries such as grain and may do as little as two weeks rail related work per year, and others who have no train operations exposure, such as forklift operators confined to loading platforms. It was argued that this imposes a cost on industry, and according to industry delivers no improved safety outcome.

(S. 7(ca) inserted by No. 69/2007 s. 55.)

In its submission on the draft regulatory impact statement the Western Australian regulator noted that it too agreed with concerns about this variation and expected Victoria to fix this provision that clearly takes rail safety into the occupational health and safety arena.

Overall, the assessment can be summarised as:

- While there are seven different regulatory interpretations applying for all rail safety issues, the full benefits of national consistency of legislation will not be realised.
- There may be some improvements to rail safety, and over time there may be increases in consistency, however the institutional arrangements prevent true consistency of legislative interpretation and regulation.

Consistent with this, it is anticipated that more of the benefits of the national model rail safety Bill will be achieved as each step is taken towards a single national regulator. The last step, from the enhanced state-based regulation option to the single regulator, is the largest step because it will provide fundamental institutional change as a means to this end.

The benefits of the single model legislation would best be realised under a single national regulator. Incremental benefits will be realised with the intermediate options, but the greatest benefits will be derived from having one consistent interpretation of the national model legislation when it is enacted.

Regulatory decision making

Clearer, more certain decision making was identified during stakeholder interviews as a potential benefit from a single national regulator. It is anticipated in the industry that as a regulator increases in scale, the processes for considering and deciding upon regulatory matters will improve. Currently, it has been claimed that there are no drivers to ensure regulators make decisions in a timely fashion. Operators suggest that overcoming delays in decisions on matters such as variation of conditions of accreditation would allow their businesses to operate more successfully.

In the current environment, the escalation pathway options for disputes are either legal remedy through the courts, or legislative intervention from the government hampering the efficiency of decision making. Both escalation pathways are not favoured by industry as they are viewed as extreme, and in the case of legislative intervention, slow.

Therefore the benefits sought from a single national regulator are clearer, more streamlined decision making processes. The submission provided by Asciano stated that, “the regulatory hurdles imposed by multiple jurisdictions delay rail’s response to market forces.”⁹⁷ This is largely consistent with the views shared by operators during interviews, although treated with some scepticism by regulators and the unions.

Some stakeholders have suggested that delays in decision making are caused by operators not providing evidence of, or possibly not performing, appropriate research and risk assessment of the issue they are seeking change on, or approval of. In this case any improvement to regulators’ ability to assist industry in improving its processes of risk assessment and reporting to streamline the regulatory decisions would benefit regulatory decision making through a greater understanding and improved consistency of expectations in industry. It is assumed that a single national regulator would continue the work done to educate and inform the industry that the regulators do now, and that a national regulator would improve the efficiency of providing these educative functions, leading to improved quality of applications from industry, facilitating greater certainty and improvements in decision making time from the regulator.

It has also been suggested that the current regulatory environment acts as a barrier to innovation from operators in the rail sector. The prescriptive nature of some regulators and the restrictive process for changing accreditations are cited as the causes of the perceived barrier. It is claimed by some within the rail industry that this barrier works as a disincentive to investment in improvements for rail operators, as the return on investment is diminished by the time it takes to have the changes sought approved. In some sections of the rail industry, where the competition between road and rail is close, it is argued that this places rail operators at a strategic disadvantage. This has, it is argued, led to a lack of innovation in the way rail operators work. Again, it should be noted that this view is not universal and is challenged by unions and regulators.

This argument is conceived, although themed differently in the Synergies Economic Consulting report. In this report the barriers to entry are discussed. The report provides an example that, “overly restrictive regulatory practices and associated increased costs lessen the competitive advantage between road and rail. Start up operations take longer due to more restrictive conditions... and approval to operate rolling stock and infrastructure.” (p. 35). This argument relates both to the decision making time and how prescriptive a rail safety regulator is.

It is also recognised that there is the potential for a single national regulator, if its processes are not designed to retain regulators’ existing discretionary abilities in their decision making, to provide a slower regulatory decision making environment. It is assumed in this analysis that a single national regulator’s processes and operations would be developed mindful of the risks of creating processes which are more bureaucratic and that would undermine the potential (and sought) benefits of improvements to regulatory decision

⁹⁷ Asciano Pty Ltd submission, page 6

making. This assumption is based on the principles of efficiency and responsiveness (and staff expertise) that were articulated by the NTC for any single national regulator.

It is also acknowledged that not all barriers or perceived barriers and delays are a result of interaction between operators and regulators. It is possible that some delays are a result of disagreements between operators and track managers. This is supported by anecdotal evidence.

6.2.5 Regulatory human resources and deployment

Having seven, separate, regulatory entities results in less-than-optimal allocation of the scarce and valuable human resources devoted to regulating rail safety in Australia. In addition it has been suggested that regulatory staff have fewer career opportunities within smaller regulatory offices.

There are also arguments that the Australian rail regulatory task is not of sufficient scope to allow the best outcomes to be realised through seven separate regulators. This is analysed in relation to the career path for staff, the allocation of resources and the opportunity to create an improved national system of regulation based on the pooling of the current resources.

In addition, there is a great degree of variability in resourcing and staffing arrangements between regulators – one regulator accounts for close to half of regulatory staff in all states. This resourcing issue may be related to the nature of the regulatory task in each jurisdiction and the differences in regulatory task for an urban passenger system compared with a long haul freight network, as is demonstrated by the correlation in the staff numbers per train kilometres travelled. The variability of resourcing levels is also considered as a possible factor influencing the way the regulatory task is performed by regulators. The performance of regulators is generally assessed as positive by industry; however it is considered that the greatest performance benefits could be achieved through a single regulator.

Regulatory performance and human capital development

A national system of regulation should strive for a quality of regulatory performance that is comparable with activities in other countries. This relates to the ability of regulatory staff to apply international learnings in their activities and to use scale to improve organisational performance. The expected benefit also relates to having a level of resourcing relative to risk and consistent processes throughout their head office and regional branches.

This issue of regulator performance is contentious amongst regulators, although it is acknowledged that there are different interpretations of co-regulation. Regulators have made the point that differences in applying co-regulation are, in part, based on the safety systems maturity of the operators and networks regulated, as well as variations in legislation. The contentious nature of this highlights the difficulty faced in attempting to quantify this as a benefit.

Improved regulatory performance is expected to improve safety through the risk-based regulation model. It is anticipated that a national regulator, using a risk-based approach, can more effectively use the resources at its disposal to target risks than what the current multiple regulators can achieve. Such an improvement in the effectiveness of regulators' performance would improve safety outcomes.

The benefit identified would therefore be higher under a single regulator than the other options being considered. The single regulator is the only option with the capacity to adopt a whole of Australia view on managing rail safety risks. The rating of the other options reflects the improvements to safety performance and outcomes being achieved under the current system. It is likely that these benefits will continue to flow at the current rate from the status quo options with little discernible difference being present between each status quo option.

The recognition that improved standards of regulatory performance are desired within the industry was borne out both by the discussions with stakeholders and in the Council of Australian Government's direction that a training course be developed for regulators.

Development of competencies and qualifications for rail safety regulators

The Government Skills Australia website contains information about training for rail safety regulators. The website notes that in response to a demonstrated industry need and sponsored by the National Transport Commission, a new qualification – the Diploma of Government (Rail Safety Regulation) was endorsed on 10 October 2008.⁹⁸

PSP52008 Diploma of Government (Rail Safety Regulation)

Qualification descriptor

This specialist qualification covers the competencies required by rail safety regulatory staff. It has been tailored to meet the needs of authorised government enforcement officers acting under the authority of rail safety legislation. Elective units should reflect the responsibilities of the individual and the job skills required for effective performance. Where a free choice of elective units is possible in the qualification packaging rules, electives may also be drawn from other Training Packages to reflect the work context and career plans of the individual.

The effectiveness of this training course could be influenced by the nature of the regulatory environment. Under a single national regulator, implementing a single legislative framework the course can be designed to meet the challenges that present in that environment. In the current environment of different legislation and different regulatory interpretations these differences could pose some challenges for developing an efficient and effective training course.

The analysis of this perceived benefit is not intended to reflect a judgment on the current performance of the regulators. It is widely reported that safety outcomes are improving in Australia under the current system, and this is represented in the analysis. What is sought is the optimal system where the greatest benefits can be realised.

The rating of the performance of regulators by the industry is generally positive. This is shown by the industry report on regulatory performance prepared by Synergies Economic Consulting. The Synergies report indicates that the overall view of the regulators is positive. "Regulation was seen as reasonably transparent, accountable, communicated effectively and enforceable".⁹⁹

⁹⁸ <http://www.governmentskills.com.au/content/view/174/553/>

⁹⁹ Synergies Economic Consulting, page 8

Efficient allocation of resources

A single national regulator provides two opportunities regarding resource allocation:

1. Streamlining back office regulatory functions – such as data analysis, policy development, human resources and corporate support – and providing a focus and a higher percentage of regulatory staff dedicated to the core rail safety functions of accreditation, audit and compliance inspection, safety promotion/education and enforcement.
2. Maximising the benefits of the skills and capacity of current regulatory staff through pooling the skills base.

Again, potential benefits increase under the enhanced state based regulator and single national regulator. This is considered both from regulatory and industry perspectives.

Within the status quo some scale benefits are realised through informal resource sharing arrangements. From discussions with regulators it appears that both Victoria and New South Wales undertake a more than proportionate share of tasks for the Rail Safety Regulators Panel (RSRP) on behalf of the jurisdictions with less regulatory resources. It is likely that the current level of benefit will continue to be achieved once the national model legislation is passed in all jurisdictions.

An increase in scale benefits is likely through the enhanced role of the national accreditation panel in the enhanced state-based regulation option. This may resemble the current Rail Safety Regulators Panel albeit with decision-making powers, and although these benefits are greater than under the other status quo options they would not be as significant as those possible from a single regulator.

The single regulator option would provide the greatest scale benefits, as it is the only option where all regulatory duplication is removed. This means that the entire expenditure on rail safety regulation is spent on providing risk-based regulation. There is no duplication of assessment of operators, and there is no need to have multiple organisational support systems (corporate services such as HR and IT systems) meaning resources can be deployed more effectively to ensure positive safety outcomes (bearing in mind the ATC's decision that there would be no net decrease in rail safety regulation resourcing).

The regulator's scale of operation would benefit from the efficiency gains; meaning that a greater deployment of regulatory, rather than backroom, staff could work to improve activities such as safety promotion, respond to specific sector needs nationally (i.e. passenger operations or the tourism and heritage sector), and to increases in audit and compliance functions that see regulatory activity matched to expected growth in the rail task over the next ten years.¹⁰⁰

Industry has argued that gains that could be expected relate to efficiency of regulation. This can also be considered from a regulatory perspective. For an operator, the benefit that could be derived is through not having to double up regulatory processes. If a variation to accreditation was lodged in one jurisdiction relating to a matter that applies across multiple states (such as a proposed change in technology or company practices) the process of approving the variation would only have to be performed once. This reduces the time a

¹⁰⁰ Australasian Railway Association submission, page 1

regulator spends dealing with the issue, allowing for a regulator to more effectively target risk from the same resources base.

From the operators' perspective, the benefit is either the direct saving of the cost of duplicated compliance functions, or through diverting these resources to other operational issues.

The efficient allocation of resources also allows a concentration of skills in the various regional offices based around the particular skills of the regional managers and the senior regulatory staff. This would provide the benefit of pooling and sharing the vast experience and skills of the current regulators in terms of rolling stock, signaling, track and systems safety, in a manner that most effectively takes account of their specialist skills.

The reduction in interfaces between regulators and operators would be greatest under a single regulator but would also exist under the enhanced state-based regulation option. However the enhanced state-based option maintains and potentially increases regulator-to-regulator interfaces, through the creation of a virtual 'eighth' regulator.

6.2.6 Safety

Under the status quo there are improvements to safety being achieved and these will continue through the delivery of current reforms.

The assessment of how the safety benefits of the regulator are affected by the different options considers the trends to improvements in safety performance, in terms of the number of incidents, over recent years. In light of this it is assumed that there will be safety benefits under each of the options. However, the assessment is that the benefits would be greater under an appropriately resourced single regulator.

Currently, there is a trend of decreasing fatalities per million kilometres of train movement. This trend has been consistent for a number of years and can reasonably be expected to continue. As has been pointed out by stakeholders and in the submissions in response to the draft regulatory impact statement, the nature of co-regulation and the safety responsibilities that come with rail safety accreditation mean that improvements in safety performance will always be pursued by industry as part of its standard business practices.¹⁰¹

However, the views expressed generally were that the better the regulatory system, the greater the regulator's ability to identify and target activities of operators and track managers on a risk basis, and therefore the greater the potential to improve rail safety outcomes. This general view is reflected in the assessment that safety increases will occur under each of the options, but that the greatest chance for safety performance improvement flows from having the best method for targeting risk and allocating resources, which would occur under a single national regulator.

¹⁰¹ It should be noted that the Rail, Tram and Bus Union submission did not agree with this assessment and noted that Gunningham, for example, refers to the notion of "bounded rationality" as presenting a barrier to improvements in safety in Gunningham N., BEST PRACTICE RAIL REGULATION, National Research Centre for OHS Regulation, Australian National University Working Paper No. 31, p.8

6.2.7 Impacts for different rail sectors

The impacts of the reform will be different for the rail sectors. While this proposal does not contain quantitative costs and benefits for each of the rail sectors (e.g. tourist and heritage, passenger, freight), some qualitative impacts can be described.

The benefits of nation-wide, independent, risk-based regulation will be felt by all operators. Similarly, all operators will benefit from more comprehensive national data and the safety promotion efforts of a national regulator.

Moving to a single national regulator should improve the exchange of rail safety knowledge and learning more broadly than the current regulatory system. This is expected to have an impact across all operators.

There will be an additional impact for the interstate operators than for intrastate operators. These interstate operators move mainly freight, whereas the intrastate operators are a mix of passenger, freight and tourist and heritage operators. Interstate operators will have only one accreditation and should see a measurable reduction in the ‘compliance’ burden currently arising from holding multiple accreditations.

6.3 Risks

A number of stakeholders suggested that the “disbenefits” or risks of the options for change receive greater attention in the final draft regulatory impact statement. The following section considers the risks that have been identified and the impact of each of option. The risks that have been identified relate to:

- Transition to an enhanced state-based approach or a national regulator
- Loss of local focus
- Increase in “red tape”
- Loss of flexibility/discretion for regulators at a local level
- The overall risk to safety outcomes provided by these risks.

6.3.1 Transition

The transition to a single national regulator, or to an enhanced state-based regulation model, present some risks. During the move toward the new governance arrangement there may be a loss of safety focus or a reduction in regulatory vigilance and either of these risks could comprise safety.

If senior regulatory personnel are forced to spend a significant component of their time in creating a new organisational structure and not performing their core business then it is reasonable to assume that their core business – regulating rail safety – may suffer.

Further to this and potentially tempering the consistency arguments supporting the option of a single national regulator is the risk that even a national regulator’s ability to achieve efficiency could be limited by local variations on the national model rail safety Bill. For example, a single national regulator without a wholly consistent Act could be faced with

the problem of having to adopt different interpretations in some states. This is a risk that would need to be managed.

Similarly the attention given to developing new administrative arrangements could result in the regulators focusing on managing the development and administration of a new regulator at the expense of safety. A transition team as discussed in this regulatory impact statement is anticipated to mitigate these risks.

The Association of Tourist and Heritage Rail Australia has summarised this potential risk and inconvenience to operators well. It argues that tourist and heritage operators in Victoria will all be re-accredited by the time a single regulator comes into being, and that any resultant changes will impose a significant impost on the sector, which does not have the resources to cope with these changes. Overall, the Association's view is well summarised in its statement that: "Any transition to a new system, substantially different to the model Bill... will be a problem."¹⁰² This is a transition risk that must be closely considered when determining what transitional arrangements will be set by a single regulator.

6.3.2 Loss of local focus

Another potential risk of moving to a single national regulator relates to knowledge of local conditions and operating environments. This knowledge of the operating environment is an important principle (which includes the principles of relationship with and access to local Ministers). An issue regularly raised (primarily by regulators and government representatives) during the stakeholder interviews was the ability of regulators to ensure that a local focus on rail safety was retained, regardless of the option.

The concerns expressed relate to state government accountability for the safety of the rail system within their jurisdiction. Currently, whilst performing independent functions, regulators are often asked for advice on rail safety issues by governments. State ministers are acutely concerned about rail safety because of community expectations, and parliamentary and media questioning. This is exacerbated by the ownership and operation responsibilities of some state government entities for passenger rail systems, as well as their regulators.

There exists a perception that a single, independent regulator poses a risk to a state Minister's ability to access information, and to request the regulator to review safety issues of concern. This concern may be lessened if the regulator were independent of state government funding (it is recognised that most regulators are currently independent in performing their duties). These arrangements may not always prevail; however, it is considered that in the short to medium term there is unlikely to be a reduction in government's involvement and perceived accountability for transport safety.

The current assessment assumes that a level of accessibility for State Ministers would continue under a single regulator option, although it is also assumed that this will lessen slightly from current arrangements. This is due to the stand-alone nature of a national regulator; that is, not within a state transport agency, and through the head office and branch office arrangements that will lead to some functions being more remote than at present for most jurisdictions.

¹⁰² Association of Tourist and Heritage Rail Australia, submission to the NTC pp 3-4.

The risk-based operation of the proposed single regulator should ensure that appropriate attention is given to the conditions in each jurisdiction. However, this may mean less attention is given to some issues than currently, where some regulators are claimed to be over-prescriptive in their approach.

Given the lack of definition of how a single national regulator would be structured institutionally and operationally, the assessment that the status quo and enhanced status quo provides the greatest level of accessibility could vary with changes to the governance arrangements. The assessment is therefore based on the concerns expressed by some stakeholders.

The variability between the status quo, enhanced status quo and enhanced state-based regulation option is based on the following:

- Under the status quo there is a question over the resource levels of all regulators and therefore the capacity to manage local issues is questioned
- The enhanced status quo provides some additional resourcing for all regulators and therefore provides the least risk to local responsiveness
- The enhanced state-based regulation option poses a degree of risk to the local focus of a regulator through the potential binding nature of regulators panel decisions, and
- The single national regulator poses a greater degree of risk through the potential loss of local environment knowledge and focus through the centralisation of executive decision making.

6.3.3 Increase in 'red tape'

One of the risks identified in relation to the move to a single national regulator is the potential for an increase in 'red tape' or bureaucratic procedures that could weaken the safety outcomes through reducing the focus of the regulator on their safety performance and functions.

This potential risk is acknowledged, however, overall this risk can be mitigated through instituting effective governance arrangements in a single national regulator. Equally, there is an argument that there is "red tape" currently and that under each of the options there is the potential for different forms of bureaucratic process. For example, there have been claims by operators that they are currently subjected to undue red tape, and there are also concerns from regulators that a national regulator would develop additional inefficient bureaucratic processes.

The concern around these potential increases to bureaucracy, expressed differently by industry, regulatory and union submissions, is that a national regulator could become hindered by process, at the expense of the performance of their core functions – the accreditation, compliance, promotion and enforcement roles.

There is a potential concern that processes such as approval of accreditation actions, or variations to accreditation, may be slowed if the national regulator is highly prescriptive and less efficient than a local regulator.

There is also an argument that slow approvals are not always the fault of the regulator or the processes in place, but may be contributed to through operators misunderstanding their

obligations or submitting requests and not providing a sufficient time period for the regulator to consider their submission.

The various viewpoints indicate that this risk is present in each of the options, although how the processes may apply would be different under each option. It is considered that the risks of change do not increase or decrease between the status quo options and the single regulator, but rather that they manifest differently under each option.

6.3.4 Loss of flexibility/discretion for regulators

Another potential risk identified in relation to the national regulator, or enhanced state-based regulation is that the processes and governance structures put in place could restrict the discretion of the local regulators to apply risk based regulation to the local environment.

If the national accreditation panel is provided with a binding decision making power under the enhanced state-based model, there is an equal risk that this option will impact on the flexibility and discretion of local regulators. Under such a model, decisions could be taken by the national accreditation panel that bind the operation of local regulators, leading to reduced local discretion under a majority rule structure that does not adequately manage risk on an operating environment basis.

This risk would equally present if a national regulator adopted a rigidly bureaucratic structure and operational policies were prescribed by a national office without regard for local regulatory discretion, as suggested by the Western Australian regulator comment that, “industry in Western Australia will not benefit from having decisions made by a CEO in Canberra”.¹⁰³

This risk is acknowledged, as is the valid concerns of regulators. However, it is anticipated that by being fully cognisant of this risk, developing appropriate structures and relying on the input of local staff for regulatory decision making, this risk could be successfully managed by a regulator which adopts the principles established by the NTC.

6.3.5 Risk to safety outcomes

The risk to safety outcomes is the overall assessment of how each of the identified risks combine. Some rail stakeholders have suggested there is potential for a single regulator to result in a safety disbenefit.

The Rail, Tram and Bus Union perspective is that “there are viewpoints in the rail industry that desire a regulatory model the Rail, Tram and Bus Union would regard as a backward step... this exercise of addressing the level of regulation may also become an exercise in diluting the regulatory framework.”¹⁰⁴ This is a noted risk, however, it is considered unlikely that a new regulator will allow the good regulatory practices that have been developed to be lost.

There is conjecture within regulators, industry and union over what the appropriate level of regulation would be. There is also argument that changes to the regulatory structure may impact on the safety outcomes, either through a lower level of regulatory vigilance as

¹⁰³ Western Australian submission

¹⁰⁴ Rail, Tram and Bus Union submission to the NTC p. 3

feared by the Rail, Tram and Bus Union, or a highly prescriptive level of regulation as feared by the industry.

Both concerns are valid, as the nature of the industry and co-regulatory model does not mandate a level of activity of the regulator – meaning there will always be a risk of both over- or under-regulation. Again, the risk that this poses is tempered by the principles set down that a single national regulator would embody, and the trend analysis that shows an improvement in safety outcomes under the current regulatory structure.

Similar risks are present under enhanced state-based regulation. This option could provide a more prescriptive approach to regulation and could result in either regulators relying on other regulators to manage risk or being directed to manage risks through the Rail Safety Regulators Panel.

6.3.6 Risk of doing nothing

The risks outlined in sub-sections 6.3.1 to 6.3.4 and summarised in 6.3.5 are risks of change.

A separate risk which presents under the status quo options is the risk of not acting, of maintaining the current system, and not realising any of the benefits to safety that may flow from a single national regulator. The submissions on the draft regulatory impact statement highlight a number of areas where there is potential for improvement to the current system, and these have been discussed earlier.

Failing to remove the inefficiencies, duplicated functions and inconsistencies in resourcing and funding in the current system results in a continuing burden on operators holding multiple accreditations to comply with these multiple regulations. It also results in a failure to provide a consistent regulatory structure based on the way the industry is structured and operates, rather than the current system which is governed by state borders.

Maintenance of the current system also fails to realise the potential benefits to deployment and regulator staff development and the potential economies of scale offered by a single regulator.

Overall, the risks of maintaining the status quo lend persuasive support to arguments of the benefits offered by a single regulator. The potential for a failure to make further gains in safety regulation in the rail industry, and the potential for rail to be the only segregated state based regulation model, should not be discounted when assessing these benefits. The consideration of this regulatory impact statement, and the similar processes underway in both the maritime and heavy vehicle sectors, must take this into account.

6.4 Conclusions

The benefits and impact from the discussion above is included in Figure 3. The figure shows from a qualitative perspective that the overall expected benefits to safety are greater under the single national rail safety regulator.

Benefits				
Options:	Do nothing		Change	
Function	Status Quo	Enhanced Status Quo	Enhanced state Based	Single National Regulator
Compliance	2	2	2	4
Administrative	1	1	3	4
Governance	2	2	3	3
Staff	1	1	2	3
Safety Outcomes	1	1	2	3

The table above represents the expected benefit under this criteria for the options considered. 0 represents the least expected benefit and 4 represents the greatest benefit.

Figure 3. Qualitative benefits – regulation

Figure 4 shows from a qualitative perspective that the overall risks to safety are spread across the various options for the status quo and for change, as shown below.

Risks				
Options:	Do nothing		Change	
Risks	Status Quo	Enhanced Status Quo	Enhanced State Based	Single National Regulator
Transition	0	0	1	2
Loss of Local Focus	1	0	1	2
Red Tape	2	2	2	2
Loss of flexibility / Discretion of Regulators	0	0	2	2
Risk to Safety Outcomes	1	0	2	2
"Do nothing risks"	4	4	2	1

The table above represents the potential risk under this criteria for the options considered. 0 represents the little or no potential risk and 4 represents the a higher degree of potential risk.

Figure 4. Qualitative risks – regulation

6.5 Quantitative analysis – introduction

6.5.1 Rail safety

As part of the assessment of the problem it is important to look at the current performance of the rail industry in terms of safety. For this study we have modelled the safety incident performance of the Australian rail industry from 2001-2008.

This period was chosen due to the availability of consistent data for these years. An additional benefit from considering these years is that significant increases to the resources

expended on rail safety occurred in these years (especially on the east coast), providing a comparison to the status quo.

It is well known that, as a result of massive competitive reform of the industry during the 1990s, the nature of rail safety regulation changed significantly, moving from self-regulation to a co-regulatory model.

6.5.2 Safety benefits explained

The benefits attributed to Australia's rail safety regulation function are difficult to quantify, as evidenced by the lack of literature that exists within the area. Studies on the costs of regulation have tended to appear more often.

In the interests of attempting to quantify all aspects of the rail safety regulation function as part of a cost benefit analysis, an approach was devised in order to quantify safety benefits of regulation.

Fundamentally, the approach is similar to that employed in the NTC's regulatory impact statement for the national model rail safety Bill in 2006. Safety occurrence data from 2001 to 2008 was analysed and a trend line fitted. The trend line chosen was of the logarithmic form to reflect the reality that rail safety incident trends will be asymptotic since some level of risk will inevitably remain, despite best efforts.

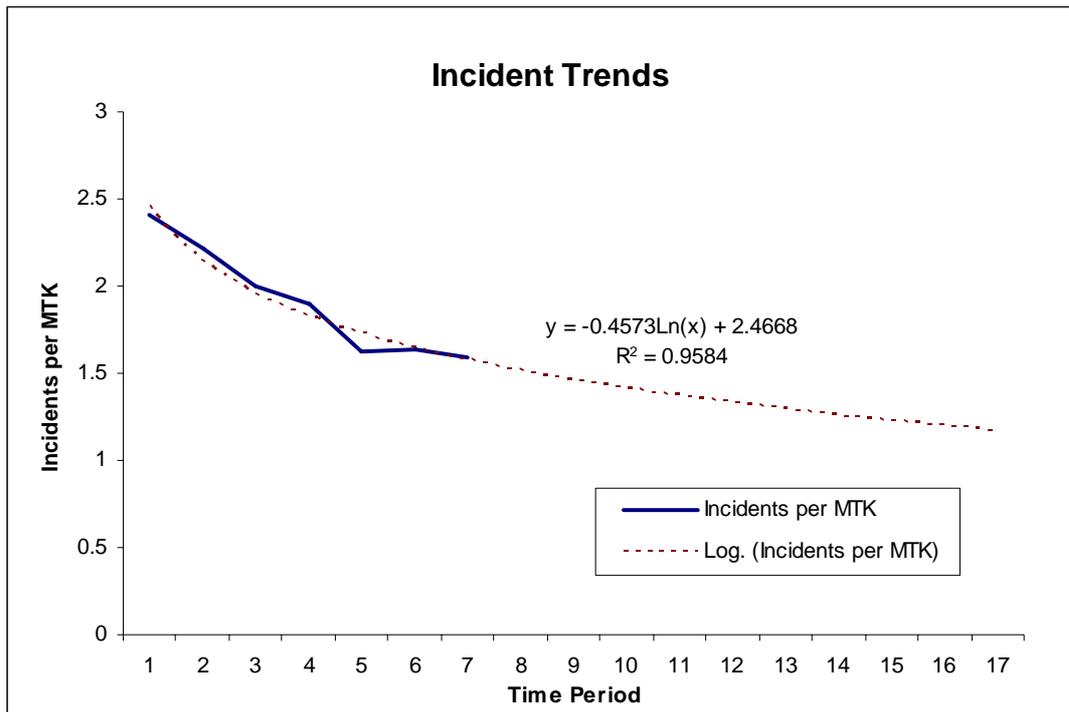


Figure 5. Rail incident trends

In order to determine the safety related benefits attributable to rail safety regulation under the status quo, it is necessary to establish a benchmark measure of the rail safety incident rate for comparison. Attempting to estimate the incident rate in the absence of the current regulatory setup is a speculative task.

For this purpose, the incident rate at 2001 has been taken as the base for comparison of safety improvements across all options. Using the trend line for incidents per million track kilometres, along with applying forward the 0.88% combined annual growth rate in million track kilometres over the last seven years, the number of incidents expected in each given year can be forecast. Using this approach, the number of incidents for the tenth forecast year can be estimated. Given this piece of data, a combined annual growth rate (or in this instance a combined annual decline rate¹⁰⁵) can be calculated, which represents the incident pattern ten years into the future. This decline rate is termed the safety improvement rate. This improvement rate is then used to determine the number of rail safety incidents expected to prevail in each year for ten forecast years.

The safety benefits are then quantified on a yearly basis by subtracting the predicted incident frequency from the baselined incident frequency, and multiplying by the cost per rail safety incident (derived using the costs of rail safety incidents from the 1999 BTRE report on rail accident costs in Australia¹⁰⁶, divided by the number of incidents in 1999 and inflated to 2008 figures using the appropriate CPI factors).

Incidents have been used rather than fatalities in order to calculate safety benefits. This is done due to the fact that all rail safety incidents, irrespective of whether or not there is a fatality or serious injury to humans, will have some costs associated with it (e.g. delay time, rolling stock damage). All of these must be considered as costs to society when conducting an economic analysis. For purposes of comparison, the fatality trend line is shown in Figure 6.

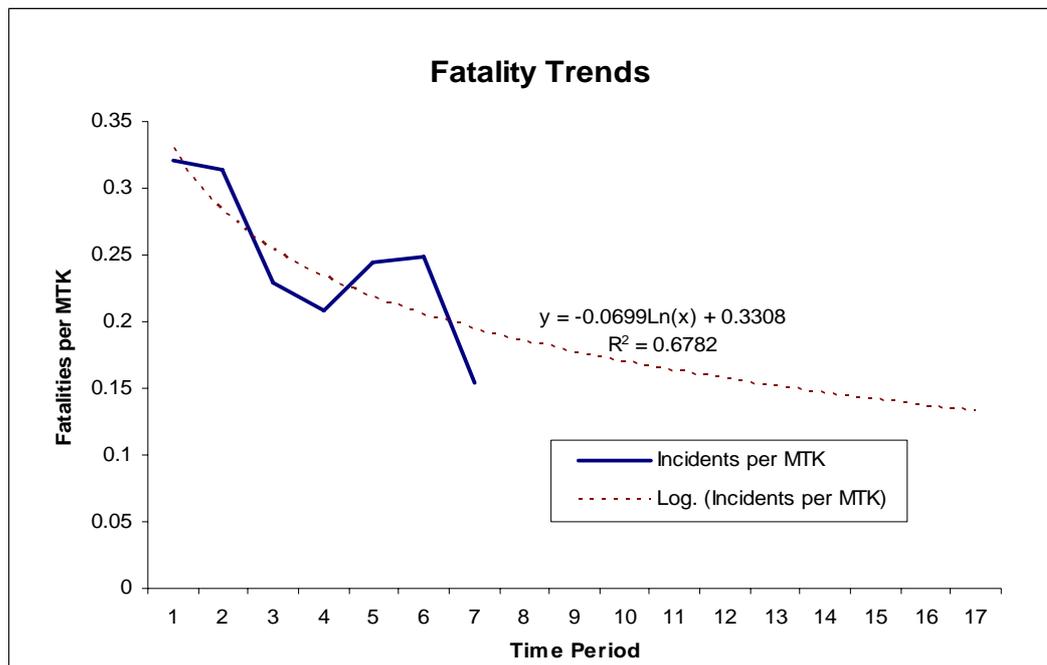


Figure 6. Rail fatality trends

¹⁰⁵ A combined annual decline rate is calculated to facilitate the application of a sensitivity analysis on the safety improvement rate. Points on the logarithmic function could also have been used to calculate the number of incidents in the forecast years, however this approach would not have allowed for a fluent sensitivity analysis due to there not existing one particular reduction rate to vary.

¹⁰⁶ Report 108

6.6 Considering the options – regulation

Having assessed that the costs of regulation are relatively insignificant compared to the annual operating costs of the rail industry, noting the current improvements to rail safety outcomes (under the status quo) and considering the comparative levels of resourcing in rail safety regulation across Australia, it is clear that solely financial arguments will not be the driver of reforming the regulation of rail safety. However, the information gathered does enable a financial cost benefit analysis on each of the options to be undertaken, particularly for regulators. The status quo options are considered together in this analysis as they are materially only different in relation to the consistency of the legislative frameworks operating in each jurisdiction. The appendices contain more information about the assumptions used.

6.6.1 Overview of the status quo

In general, under the status quo option, the costs of rail safety regulation are, for the most part shared between regulators and industry (with industry higher than regulators in terms of overall costs borne).

The costs and benefits in dollar terms (present value) are set out in Table 7.

Table 7. Total status quo costs and benefits – present value

Itemised Overall Costs of Rail Safety Regulation (over 10 year horizon, Present Value)	
Costs	
Costs of Regulating (Regulators)	\$218 million
Direct Costs of Regulatory Compliance (Operators / Industry)	\$291 million
Total Costs	\$509 million
Benefits	
Safety Benefits	\$609 million
Total Benefits	\$609 million

*Please note accreditation transfers totals \$85 million for this option. Transfers are not included in the costs and benefits shown.

The observed overall cost to regulators for the first forecast year (approximately \$29 million) as compared to the figure calculated in the 2006 regulatory impact statement¹⁰⁷ (which estimated total regulator costs of approximately \$25 million) is \$4 million higher. Given inflation and resource increases, this suggests the calculated regulator cost figures are generally comparable.

¹⁰⁷ National Transport Commission 2005, Model Rail Safety (Reform) Bill: Draft Regulatory Impact Statement for Consultation

6.6.2 Overview of the enhanced state-based regulation option

The modelled enhanced state based regulation option is quite similar to the status quo model, with the main difference being in the elimination of 50% of the \$10.5 million¹⁰⁸ inter-jurisdictional costs of compliance identified by industry in the Synergies Economic Consulting report. Additionally, setup costs of \$5 million have been factored into this scenario. With these reductions modelled in, the regulation costs in dollar terms are set out in Table 8.

NTC and Booz and Company have assumed here there would be no change in the safety outcome if this option were implemented, hence the incremental safety benefit in Table 9 is \$0. This assumption could be challenged on the basis that the additional institutional complexity created by way of a virtual 'eighth' regulator may be detrimental to safety, in which case the safety benefit would become negative. Stakeholder feedback suggested that a panel arrangement may result in some administrative benefit, but there was little or no stakeholder feedback to suggest safety would be improved by this option.

Table 8. Total enhanced state-based regulation costs and benefits – present value

Enhanced state-based regulation total costs and benefits (over 10 year horizon, present value)	
Costs	
Setup costs	\$5 million
Costs of regulating (regulators)	\$218 million
Direct costs of regulatory compliance (operators/ industry)	\$254 million
Total costs	\$477 million
Benefits	
Safety benefits	\$609 million
Total benefits	\$609 million

*Please note accreditation transfers totals \$85 million for this option. Transfers are not included in the costs and benefits shown.

Table 9. Incremental costs of enhanced state-based rail safety regulation over and above status quo

Incremental costs of rail safety regulation over and above status quo (over 10 year horizon, present value)	
Costs	
Setup costs	\$5 million
Direct costs of regulatory compliance (operators/ Industry)	(\$37 million)
Total incremental cost¹⁰⁹	(\$32 million)
Benefits	
Safety benefits	\$0 million
Total incremental benefits¹¹⁰	\$0 million

¹⁰⁸ Synergies Economic Consulting 2008, 'The Costs of Rail Safety Regulation'

¹⁰⁹ Definition of **total incremental cost** – the change in costs of the particular option over the status quo scenario. A negative incremental cost indicates a decrease in costs, whilst a positive incremental cost indicates an increase in costs.

6.6.3 Overview of the single national regulator option

6.6.3.1 Assumptions

The single national regulator differs from the status quo in a variety of ways. As with the enhanced state-based regulation, there is an elimination of inter-jurisdictional costs of compliance assumed. However, in this instance it is assumed that 80% of these costs can be eliminated under the national model. Furthermore, \$38 million worth of initial setup costs/ expenditure is factored into the model (in terms of sensitivity, it is worth noting that setup costs less than approximately \$62 million will not affect the ranking of options based on relative net present values). The other major changes under the national model centre around rail safety improvement assumptions, as well as a 100% assumed recovery rate through accreditation fees. The implications of these assumptions are discussed in the appendices.

6.6.3.2 Safety outcomes

Findings through statistical analysis, stakeholder engagement and international benchmarking suggest that a single national regulator would be *at least* as effective as a state-based system, and that over time, would be more effective, cost efficient and have a correspondingly higher net present value. The extent of the safety improvement that would result from creating a single national rail safety regulator can therefore be posited but not predicted with certainty ahead of time.

In order to present net present values for option 4, a single national rail safety regulator with uniform legislation, NTC and Booz and Company evaluate and illustrate the potential safety improvements from a national regulator across a range of possible outcomes. This in turn influences possible net present values of the option.

There is a wide range of possible safety outcomes that may result from a single national regulator. Within this range of possibilities the NTC and Booz and Company have considered three possible scenarios. We have termed these the low, medium and high scenarios for potential safety improvements. The low level includes 0-3 additional accidents or incidents reduced per annum over the status quo, medium includes 4-7 additional accidents or incidents reduced per annum over the status quo, and high includes 8-10 additional accidents or incidents reduced per annum over the status quo.¹¹¹ In its analysis Booz and Company used the expected values of the low, medium and high ranges (assuming a uniform distribution) between 2001/2002 and 2007/2008. More detail on the safety benefit (\$) for each accident or incident reduced is available in the appendices. The table below outlines the rationale behind each scenario.

¹¹⁰ Definition of **total incremental benefit** – the change in benefit of the particular option over the status quo scenario. A positive incremental benefit indicates an increase in benefits, whilst a negative incremental benefit indicates a decrease in benefits.

¹¹¹ Elsewhere Booz and Company calculated the current safety improvement at 4 fewer accidents and incidents per annum.

Table 10. Scenarios for safety improvement for quantitative analysis

NTC low, medium and high assumptions		
Scenario	No. of incidents reduced (above status quo)	Comment
Low	0-3	The low scenario includes the possibility of there being no change in safety benefits over the status quo, i.e. 0 incidents reduced. Whilst no improvement is unlikely, including such a possibility will ensure that the analysis has considered all outcomes and has not erred by over-stating possible achievements
Medium	4-7	The medium scenario is the possible range of safety improvements above the low scenario but below the high scenario.
High	8-10	NTC and Booz and Company chose 7-10 incidents per year as a high result. This is still a lower rate of reduction in accidents and incidents than has been achieved recently in the European Union. ¹¹²

Table 11 demonstrates the safety improvement benefits, and net present value results of a low, medium, and high level of safety improvement achievement.

Table 11. Incremental costs and benefits of national rail safety regulator over and above status quo - low, medium and high levels of safety improvement

Incremental costs of single national regulator over and above status quo (over 10 year horizon, present value)			
	Low (0-3 accidents prevented)	Medium (4-7 accidents prevented)	High (8 – 10 accidents prevented)
Costs			
Setup costs	\$38 million	\$38 million	\$38 million
Costs of regulating (regulators)	(\$9 million)	(\$9 million)	(\$9 million)
Direct costs of regulatory compliance (operators/ industry)	(\$58 million)	(\$58 million)	(\$58 million)
Total incremental cost	(\$30 million)¹¹³	(\$30 million)	(\$30 million)
Benefits			
Potential safety benefits	\$6 million	\$22 million	\$37 million
Total incremental benefit	\$36 million	\$52million	\$67 million

Table 11 demonstrates that a low level of safety improvement will result in safety benefits of \$36 million in present value terms. A medium level of safety improvement will result in

¹¹² This approach to scenario choices recognises that a number of cultural, institutional, structural and technological differences exist between countries, and correspondingly influence safety accomplishments.

¹¹³ \$30 million due to rounding. Please see Table 7 in the appendix for exact figures.

safety benefits of \$52 million in present value terms. Finally the high improvement scenario will result in safety benefits of \$67 million in present value terms.

The high level results of the analysis of options are included in Table 12.

Table 12. Cost benefit analysis of the regulation options

NPV of Cost/Benefit Analysis Options		
Options	NPV	Incrementally Expressed
Status Quo	\$100 million	-
Enhanced State Based Regulator	\$131 million	\$31 million
Single National Regulator	\$136 million to \$167 million	Between \$36 million and \$67 million depending on safety outcome scenario

6.7 Summary of impacts in tabular form

An overall summary of costs, benefits and impacts can be found in Table 13. This table demonstrates that, in the case of the regulator that both the quantitative and the qualitative assessments have indicated that a net benefit would flow from the move to a single national regulator.

Table 13. Regulator costs, benefits, risks assessment

Option	Impacts, costs and benefits			Overall impacts
(non regulatory and regulatory)	Business (small, medium and large)	Government Australian, state/territory, local governments	Other stakeholder groups (rail safety workers, passengers, freight customers)	
Status quo options: status quo and option A – enhanced status quo (relative to status quo)				
Benefits	<i>Status quo:</i> Improvements to operations through one set of rules being prescribed in the legislation.	<i>Status quo:</i> Individual jurisdictions retain control of expenditure on rail safety regulation and policy within their state. State Ministers responsible for government transport providers have safety regulators to refer concerns to for action.	<i>Status quo:</i> Rail safety improvements resulting from the model legislation and from improved rail safety generally continues on current trend.	The benefits expected are those which flow from having a uniform legislative framework, less the costs caused by “local variations” to the national model legislation.
	<i>Enhanced status quo:</i> Benefits as per status quo – theoretical benefit only as local variations to the model legislation undermine some of the positives it would provide.	<i>Enhanced status quo:</i> Benefits as per status quo	<i>Enhanced status quo:</i> Benefits as per status quo	
Costs	<i>Status quo:</i> As currently incurred – compliance costs estimated to be \$42 million per year and total accreditation fees estimated to be \$11 million. Some cost inefficiencies for all parties due to duplication of functions between parties – industry estimates these costs to industry to be in the order of \$10 million. <i>Enhanced status quo:</i> Costs as per status quo	<i>Status quo:</i> As currently incurred – total spend on rail safety regulation is estimated to be \$29 million (\$11 million of which comes from accreditation fees). Some cost inefficiencies for all parties due to duplication of functions between parties. <i>Enhanced status quo:</i> Costs as per status quo Costs of passing legislation based on the model rail safety Bill, in those jurisdictions that have not yet done so.	<i>Status quo:</i> Inequalities in expenditure on rail safety regulation between jurisdictions, based on operating environment and policy. <i>Enhanced status quo:</i> Costs as per status quo	Cost incurred as a result of local variations (business) and costs of preparing, passing and implementing legislation (government).

Option	Impacts, costs and benefits			Overall impacts
(non regulatory and regulatory)	Business (small, medium and large)	Government Australian, state/territory, local governments	Other stakeholder groups (rail safety workers, passengers, freight customers)	
Option B – Enhanced state-based regulation (relative to status quo)				
Benefits	A notional ‘one stop shop’ for national operators.	Benefits as per status quo Greater clarity about the governance arrangements applying to regulatory matters for national operators. Improvements to the gathering of data and information.	Ability to achieve some national rail safety outcomes including improved recognition of other jurisdictions’ accreditation through enhanced decision making powers given to the regulators’ panel, meaning more of the benefits of the model legislation will be achieved. Improvements to the gathering of data and information.	Net benefits under this option (\$31 million) would be more consistent processes and some scale benefits through the cooperative regulatory structures to be implemented.
Costs	Reduced capacity of all regulators from creation of virtual ‘eighth’ regulator from existing resources. Costs of interjurisdictional compliance estimated to reduce to 50% of current costs, due to national operators interacting with a virtual ‘eighth’ regulator . From the data gathered (largely provided by the industry) the costs to industry under the enhanced state-based regulation option would be \$36.3 million (status quo less \$5.2 million in eliminated duplicated costs) plus approximately \$11.2 million in accreditation fees. Total costs of approximately \$47.5 million.	Costs as per status quo Costs of developing the second piece of legislation required for the accreditation panel. Costs of passing legislation based on the model rail safety Bill, in those jurisdictions that have not yet done so. Costs of administering the new governance arrangements that would be required to support the accreditation panel’s decision making abilities. The regulatory impact statement is predicated on no fewer resources for states. Administrative savings have not been quantified. They are not thought to be great, as some jurisdictions are under-resourced relative to other jurisdictions.	Potential drawbacks for safety from having two forms of regulation in operation.	Reduction in inefficiencies for industry, some potential for an increase in costs to governments through the new structures that distinguish the enhanced state based model from the current situation.

Option	Impacts, costs and benefits			Overall impacts
(non regulatory and regulatory)	Business (small, medium and large)	Government Australian, state/territory, local governments	Other stakeholder groups (rail safety workers, passengers, freight customers)	
Option C – Single national rail safety regulator (relative to status quo)				
Benefits	<p>Improvements for industry operators currently holding more than one accreditation, arising from interacting with staff of a single regulator.</p> <p>Reduced regulatory burden for industry generally, arising from greater certainty as reforms are completed.</p> <p>High-quality regulatory environment for industry, due to concentration of resources into a single regulator.</p> <p>More information and data</p>	<p>Full realisation of the benefits of the national model rail safety Bill.</p> <p>Increased capacity of regulators through a critical mass in one organisation.</p> <p>Efficiency gains provided by a single regulator to reforms and operations, through increased percentage of field staff and information-sharing.</p> <p>Better targeted resourcing for rail safety across Australia.</p> <p>Improved career path for regulatory staff.</p> <p>Unified and streamlined data collection.</p> <p>Single national perspective on rail safety issues.</p> <p>Recognised independent specialist body and potential ‘safety champion’.</p> <p>Improved potential to learn from international best practice.</p> <p>Culture and attitude will become uniform to match legislation.</p>	<p>Rail safety improvements maximised, leading to better safety, possible efficiency dividends and potential cost savings for customers.</p>	<p>The overall impacts are expected to be positive benefits from an economic perspective and are influenced by the extent of the potential safety improvement (\$36 - \$67 million) as well as the social benefits of harnessing as many of the possible improvements to rail safety that are impacted by regulatory performance and structures.</p>

Option	Impacts, costs and benefits			Overall impacts
(non regulatory and regulatory)	Business (small, medium and large)	Government Australian, state/territory, local governments	Other stakeholder groups (rail safety workers, passengers, freight customers)	
<i>Costs</i>	<p>Costs of interjurisdictional compliance estimated to reduce to 20% of current interjurisdictional costs, due to operators interacting with one, national regulator.</p> <p>Industry compliance costs with a single regulator may increase, as the accreditation fee recovery rate may be higher under a single national regulator than it is now.</p> <p>From the data gathered from industry for this analysis the industry costs under this option would be \$33.2 million (status quo less \$8.3 million in eliminated duplicated costs) plus approximately \$25.6 million in accreditation fees (under a 100% cost recovery assumption).</p> <p>This would lead to the total industry costs being up \$59 million (under a 100% cost recovery assumption).</p>	<p>Establishment of a new regulator:</p> <ul style="list-style-type: none"> • systems • staffing and recruitment • new accommodation • revised legislation • creation of new entity. <p>Ongoing running costs</p> <p>The regulatory impact statement is predicated on no fewer resources for states. Administrative savings have not been quantified. They are not thought to be great, as some jurisdictions are under-resourced relative to other jurisdictions.</p>	<p>Potential cost increases for customers if the costs of accreditation (as a direct cost through fees) increases for industry.</p>	<p>Potential increase in direct costs to industry through accreditation fees offset by a removal of the costs of dealing with the multiple regulators and the associated duplication functions. Potential to make some efficiency savings for government.</p>

PART B – INVESTIGATION

Part B of this regulatory impact statement addresses rail safety investigation:

- the objective of government action (section 7)
- background to current rail safety investigation arrangements in Australia, overseas and in other transport modes and sectors (section 8)
- key considerations for a national investigatory framework (section 9)
- the options to address the problem and meet the objective (section 10).

Part B concludes with section 11, which evaluates the impacts, costs and benefits of the options for a single national framework.

There is universal acknowledgement among rail safety stakeholders that rail safety investigations are an important and necessary part of rail safety. This regulatory impact statement is concerned only with investigations undertaken after an incident or accident has occurred. These investigations have important lessons for industry, regulators and government:

“At its best, incident investigation aims to identify the system failures that allowed an incident to occur. Good incident investigations ask a series of ‘why’ questions that link the incident back to management failures and aspects of organisational culture. Such investigations are time consuming and resource intensive and are usually only carried out following an incident where there has been significant injury or damage .. They are essentially reactive investigations, after the event of concern.”¹¹⁴

7. OBJECTIVE

The objective of this regulatory impact statement is to examine options and recommend the optimal rail safety investigation framework for Australia. It is envisaged that the scope of a single, national rail safety investigation framework would not change from the scope of current investigatory activities. The framework would apply to those matters and railways which jurisdictions currently investigate, outlined in section 8.

Good rail safety investigation should address the following principles:

Safety: maintain and improve safety outcomes on Australia’s railways.

‘No-blame’ investigations: investigator(s) should undertake systemic, ‘no-blame’ investigations, analysis of accident cause and complementary safety research.

Independence: investigator(s) require an acceptable degree of independence, in terms of:

- investigator(s) should be effectively separate from the regulator to ensure the regulator itself is subject to independent scrutiny

¹¹⁴ Hopkins p9-10

- investigator(s) should not be under direct control of any Minister or government agency
- there should be no capacity for any external body to have direct influence on the content of reports
- investigator(s) should have sufficient legislated power in relation to obtaining and protecting investigation evidence.

Transparency: investigator(s) should be subject to an acceptable degree of transparency, in terms of:

- investigator(s) should consult parties with a direct interest in reports and should be given a chance to contribute to the content of these reports
- Ministers should be given the opportunity to receive a copy of the reports in advance
- The final report published should be freely available to any party with a direct interest in the report.

Ministerial capacity to refer or initiate investigations: Ministers should have the capacity to ensure an investigation occurs, in situations of direct public/government concern, but cannot influence the outcome of investigations.

Best investigatory practices: investigator(s) should have a robust system of accident and incident notification, classification and data aggregation with appropriate supporting legislation, to ensure best practice investigation and to enhance rail transport safety more generally.

Sufficient capacity and expertise: investigator(s) should have sufficient appropriately trained and experienced investigators available for deployment at short notice to respond quickly to accidents (**responsiveness**).

Sound legislative basis: investigator(s) should have their role defined in legislation, including their reporting requirements.

Consistency of operation: investigator(s) should provide a consistent framework for investigation across jurisdictions, based on comprehensive legislation reflecting no-blame/just culture investigation.

These principles were developed in conjunction with experienced investigators and regulators. The main feedback received was to clarify the use of “best practice” and it is noted here that “best practice” and “good practice” are used interchangeably here. One submitter also suggested the inclusion of a safety principle, similar to that inserted into the principles for good regulation.

8. THE CURRENT SITUATION

This section provides an overview of the current situation in independent rail safety investigation.

Independent rail safety investigation is a small and specialised field. Collectively, about \$5 million per annum is spent on independent rail safety investigations. The Australian Government employs eight dedicated rail investigators and the New South Wales and Victorian Governments employ fifteen investigators who investigate accidents in all relevant transport modes in those states.

The Australian Transport Safety Bureau's website indicates it has twelve active investigations at the time of writing – four in Western Australia, three in South Australia and Victoria, and one in New South Wales. Bureau staff are chairing two investigations in Queensland. The Office of Transport Safety Investigations in New South Wales has ten investigations in progress at the time of writing.¹¹⁵ The Victorian Chief Investigator's website does not report on investigations in progress.

8.1 Rail safety investigation and railway track access

Access to most parts of the interstate rail network, or Defined Interstate Rail Network, is controlled by an Australian Government-owned corporation called the Australian Rail Track Corporation. Access to other parts of the railway network is controlled by various state-based bodies.

In the event of an accident or incident on the Defined Interstate Rail Network, the Australian Government's Australian Transport Safety Bureau will generally investigate an accident there. If the Bureau declines to investigate an accident or incident on the Defined Interstate Rail Network, state investigative agencies may undertake the investigation.

Accidents or incidents on parts of the rail network owned or controlled by the states are investigated by state investigators, unless the Australian Transport Safety Bureau is invited to investigate.

8.1.1 Current arrangements

New South Wales and Victoria have independent state-based investigators: in New South Wales the Office of Transport Safety Investigation and in Victoria the Chief Investigator, Transport and Marine Safety Investigation.

The Office of Transport Safety Investigations is responsible for rail, bus and ferry incident and accident investigations in New South Wales. Its investigations identify why an occurrence took place and make recommendations to prevent recurrence. To support this style of investigation, a 'just culture' approach is used. The Office of Transport Safety Investigations is an independent statutory body. Its head, the Chief Investigator, reports directly to the Minister for Transport.

Investigations undertaken to determine what caused a public transport incident in Victoria are undertaken by the Chief Investigator, Transport and Marine Safety Investigations. The Chief Investigator conducts 'no-blame' investigations in order to identify issues that may

¹¹⁵ <http://www.otsi.nsw.gov.au/rail/investigations.php>

require review, monitoring or further consideration. These investigations are conducted independently of the rail safety regulator, Public Transport Safety Victoria. The Chief Investigator is an independent position under the legislation and is required to report the results of investigations to the Minister for Public Transport and/or the Minister for Roads and Ports.

In addition to investigating accidents and incidents on the Defined Interstate Rail Network, the Australian Transport Safety Bureau is also responsible for safety investigations in the aviation and marine sectors. In all cases, the Australian Transport Safety Bureau is funded to undertake a finite number of investigations.

In other jurisdictions there are no dedicated independent rail incident investigators; the regulatory, investigative and policy function reside in the one body:

- Queensland has a robust process for undertaking independent no-blame investigations.
- In Queensland, Western Australia, South Australia, the Northern Territory and Tasmania, rail regulators can appoint independent investigators. Ministers can also direct that investigations be done. According to KPMG the operational separation of the functions of an investigator from the role of the regulator is not clearly defined in each jurisdiction.¹¹⁶
- It was noted during consultation that the Australian Transport Safety Bureau undertakes most independent investigations in South Australia and all independent investigations in the Northern Territory.

In the event of rail incidents or accidents, separate investigations are often done by the rail safety regulator, police, WorkSafe, the coroner and other parties. These investigations are not the subject of this regulatory impact statement.

Further, rail safety regulators also undertake compliance inspections (or investigations) to ascertain that industry operators are complying with the terms of their accreditation. These inspections (or investigations) are also not the subject of this regulatory impact statement.

In 2007 the Victorian Department of Infrastructure commissioned KPMG to prepare a report into rail safety investigation arrangements. The report recommended improvements to the current system of rail safety investigation. It did not recommend a single national investigator. The report also noted that officials consulted in the preparation of the report did not support a single regulator. The report is in a final draft form and has not been published. Excerpts from the KPMG report has been used here with permission from the Victorian Department of Transport.

8.1.2 Legislation

In most states and the Northern Territory, legislative provisions relating to rail safety investigations can be found in the rail safety legislation.

In Victoria, the Chief Investigator is established under the *Transport Act 1983*.

In New South Wales, the Office of Transport Safety Investigation is established under the *Transport Administration Act 1988*.

¹¹⁶ KPMG (2007) unpublished

In both instances, the investigators administer investigation provisions in the rail safety Acts in their respective states.

In Queensland, investigations are conducted in accordance with the legal framework defined by the *Transport Infrastructure Act 1994*.

The Australian Government's Australian Transport Safety Bureau is established by and administers the *Transport Safety Investigation Act 2003*.

8.1.3 Investigation 'philosophy'

Often reference is made to two types of safety investigation – 'no blame' and 'just culture'. A no blame investigation seeks to find the reasons why something happened and prevent it happening again. No blame investigators work on the basis that culpability is dealt with by a parallel regulatory agency or the police. As with no blame investigations, just culture investigations seek to establish what occurred and prevent its recurrence. Unlike no blame investigations, if a just culture investigation discovers a safety incident or accident was caused by a deliberate and malicious act, the matter is handed over to the appropriate regulator or enforcement agency. Just culture investigations recognise that occasionally people choose to cause harm to others or disobey processes they know exist to protect themselves and others.

For the purposes of this document, the phrase 'independent safety investigation' is used throughout. Independent safety investigations are important because they try to ensure the prospect of blame does not deter anyone from fulfilling their safety responsibilities to themselves, rail employees and passengers.

8.1.4 Funding and staffing

In the three jurisdictions which employ dedicated investigators, the number of staff varies according to the following:

- The Australian Transport Safety Bureau employs 95 personnel including 60 investigators who investigate aviation, marine and rail incidents, of whom eight are dedicated to rail.
- The New South Wales Office of Transport Safety Investigations employs 13 personnel consisting of nine investigators who investigate bus, ferry and rail incidents.
- The Victorian Chief Investigator employs seven personnel consisting of six investigators who investigate rail (train and tram), bus and marine incidents.

All other jurisdictions provide ad hoc investigatory services subject to incident investigations. For example, in Queensland over the course of a year approximately one full time equivalent staff member was seconded to assist in an independent safety investigation.

8.1.5 Analysis of situation overseas

Rail safety investigations in countries such as the United States of America, Canada, European Union member states and Norway are built on the principle of independence and operate primarily as national bodies. Independence is considered paramount to allow for unbiased processes. In the European Union, there are dedicated criteria governing the

independence of the investigating body. In addition, specific transparency and timeliness requirements must ensure best practice investigation. Given the current arrangements in Australia it is appropriate that these models are evaluated in line with establishing any national framework around investigation practices.

The Rail Accident Investigation Branch is the independent railway accident investigation organisation for the United Kingdom. It investigates railway accidents and incidents on the UK's railways to improve safety, not to establish blame. The website www.raib.gov.uk forms the Rail Accident Investigation Branch's primary channel for sharing the findings from its investigations, as well as providing the railway industry and general public with a means of finding out about the Rail Accident Investigation Branch.

As part of its wide-ranging rail safety regulatory oversight role, the Federal Railroad Administration conducts formal investigations of select railroad accidents and incidents in the United States of America. The National Transportation Safety Board is an independent United States Federal agency that investigates every civil aviation accident and significant accidents in the other modes of transportation, conducts special investigations and safety studies, and issues safety recommendations to prevent future accidents. If the National Transportation Safety Board decides to investigate an accident, by law it assumes primary responsibility for managing the investigative process with Federal Railroad Administration performing a concurrent supporting role. Federal Railroad Administration does not typically release its own report about an accident until the National Transportation Safety Board has issued its findings.

The Transport Safety Board is the independent railway accident investigation organisation for Canada. Accidents and incidents are investigated for cause by the Transport Safety Board and by rail safety directorate staff when the Transport Safety Board has chosen not to investigate. When the Transport Safety Board has chosen to investigate, rail safety directorate staff may also investigate to identify threats to safety or non-compliance with the Railway Safety Act and regulations, and Transport Canada may appoint a railway safety inspector to act as a 'Minister's Observer'. In addition, rail safety directorate staff investigate employee accidents and incidents as safety officers under the Canadian labour code.

In the European Union it is a requirement for each Member State to establish a permanent safety authority which is independent from railway undertakings, infrastructure managers, applicants for certificates and procurement entities. This body decides whether or not an investigation of such an accident or incident should be undertaken, and determines the extent of investigations and the procedure to be followed. The investigations are carried out with as much openness as possible, so that all parties can be heard and can share the results. In addition, its duty is to respond promptly to requests and applications, communicate its requests for information without delay and adopt all its decisions within four months after all requested information has been provided.

In its submission on the draft regulatory impact statement, the Rail, Tram and Bus Union notes that a look at international experience shows the use of an independent investigator generally at a national level and, in the majority of instances, on a multi-modal basis. Some, such as the National Transportation Safety Board in the United States also conducts special investigations and safety studies.

9. KEY CONSIDERATIONS FOR A NATIONAL RAIL SAFETY INVESTIGATORY FRAMEWORK

There are a number of key considerations in evaluating current rail safety arrangements and the options for change in rail safety investigation.

9.1 Investigator independence

The importance of independent accident investigations is widely acknowledged. The argument is summarised in the report into the English Ladbroke Grove accident dating back to 1999, in which the support for an independent investigator was described as “overwhelming”:

“9.22 The principal argument which was advanced in favour of this proposal was that of structural conflict: it was inappropriate for the safety regulator to carry out the function of investigation since it might be necessary for the investigation to examine the decisions and activities of the safety regulator itself. As the Rail Regulator observed in his statement of case:

‘ ...a safety investigator should be free, where necessary, to criticise the safety regulator if shortcomings on its part have contributed to the accident or its consequences. If the investigator and the regulator are one and the same, it may be difficult to convince the public that this aspect of the investigation will be pursued with the necessary vigour.’

Other parties emphasised that the independent activity of the investigating body would provide a positive check on the functions performed by the safety regulator.

9.23 It may be noted that the consultation document issued by the Transport Safety Review (TSR) team of the DETR stated at para 2.22, when discussing the proposition of an independent cross-modal transport accident investigation body:

‘ The reason for an accident may lie in flawed policy-making or in failings in either the setting or policing of safety standards. Accident investigators must not feel constrained in considering such possibilities.’ ”

In the European Union, independent accident investigation bodies of the kind recommended in the Glenbrook Inquiry report are now mandatory. Directive 2004/49/EC of the European Parliament and of the Council, of 29 April 2004, mandates:

“A safety investigation should be kept separate from the judicial inquiry into the same incident and be granted access to evidence and witnesses. It should be carried out by a permanent body that is independent of the actors of the rail sector. The body should function in a way which avoids any conflict of interest and any possible involvement in the causes of the occurrences that are investigated; in particular, its functional independence should not be affected if it is closely linked to the national safety authority or regulator of railways for organisational and legal structure purposes.”¹¹⁷

¹¹⁷ McInerney 2005, p.204

Independence of investigators ensures integrity and rigour is maintained throughout the process of evaluating each serious rail incident around Australia. This independence provides jurisdictions and governments alike the opportunity to obtain information and recommendations for the improvement of the rail safety management systems within their state or territory without fear of bias or conflict of interest.

9.2 Transparency of investigation reporting

Transparent rail safety investigation provides an opportunity for all stakeholders to assess information about their industry via formalised communication channels, which assists in building a safer rail sector.

There are a range of requirements for disclosure of incidents and reporting:

- Investigation reports undertaken by the Australian Transport Safety Bureau and investigators in Western Australia and the Northern Territory must be provided to the public
- Investigation reports undertaken by investigators in New South Wales and Queensland must be tabled in the state Parliament by the Transport Minister
- The relevant Ministers in Victoria, South Australia and Tasmania have discretion over the release of reports to the public
- In Victoria the Chief Investigator has the power to disclose information acquired by him or her if he/she considers that information necessary or desirable for the purposes of transport safety. Thus the Chief Investigator is not restricted by the Minister or any other person or body as to what information is released.¹¹⁸

In addition, in those states in which final reports are released, there are inconsistencies in the release of investigation reports to Ministers:

- The Australian Transport Safety Bureau is not obliged to provide the Commonwealth Transport Minister with a copy of the investigation report before releasing it to the general public. Furthermore, in consultation it was noted repeatedly that relevant state Ministers do not always receive Australian Transport Safety Bureau reports before they are issued.
- In New South Wales, Victoria, Queensland, Western Australia and the Northern Territory finalised investigation reports must be provided to the Transport Minister before public release.

Variations in reporting systems compromise governments and industry's ability to learn from investigation outcomes. Reduced transparency withholds important safety messages from reaching interest groups that are affected by rail safety. The Rail, Tram and Bus Union noted in its submission on the draft regulatory impact statement that in those situations where reports are not released, transparency is simply not attainable.¹¹⁹

9.3 Timeliness in producing investigation reports

With regard to the investigation process, no jurisdiction has a publicly stated goal for the time in which final investigation reports are produced. This takes into consideration the

¹¹⁸ Chief Investigator submission, page 2

¹¹⁹ Rail, Tram and Bus Union submission, page 18

unique nature of each incident and the differing timing required for the investigation. As the Victorian Chief Investigator noted in its submission, the time taken to complete reports relates to several factors, including resources available, number of other occurrences and their effect on the availability of resources, the complexity of the investigation and the level of cooperation of those involved in the occurrence.¹²⁰

However, it could be considered that there are several associated risks with either lengthy or inconsistent reporting timeframes.

There is a possibility that during an investigation a similar incident could occur again. To this end, investigators will issue interim reports identifying any safety actions that require immediate attention. In relation to the final investigation report, for the relevant parties to learn from the incident and act according to the recommendations, timeliness of the investigation has an impact. The sooner an investigation report is available, the more inclined operators and others will be to address the matters raised.

Over the course of an investigation process, infrastructure conditions, industry's composition, rail safety technologies, rules and standards may be liable to change. Consequently, in order for investigatory recommendations to be contemporary this requires relatively efficient reporting and release mechanisms. This also allows regulators and operators the opportunity to forecast the resources required to address any changes in safety management.

This issue was particularly raised by a representative union, which emphasised the importance of investigation reports for the safety for their members. In its submission on the draft regulatory impact statement, the Rail, Tram and Bus Union noted that in the United States, the National Transport Safety Board has reduced the average time for reporting to 15 months and is aiming to reduce that time further to 12 months. The National Transport Safety Board also provides a factual report to the public within 6 months of the accident.

The Australian Transport Safety Bureau completed twelve investigations in 2007-08, with a median completion time of 456.5 days, higher than the target of 365 days.¹²¹ The Australian Transport Safety Bureau's website indicates active investigations going back as far as 2007. The Office of Transport Safety Investigations indicates in progress investigations going back as far as 2005.

Queensland Transport's investigation arrangements involve an independent Chair appointed to conduct investigations in accordance with published terms of reference and Queensland legislation. Dedicated resources, usually two Queensland Transport rail safety officers and the chair, are assigned to investigations. Queensland Transport notes that investigation terms of reference set out the time in which the report should be submitted to the department's Director General. Terms of reference for the department's three most recent published investigation reports included timeframes ranging from three to six months.

9.4 Quality of investigation reports

High quality safety investigation reports are the prime medium to communicate causes and recommendations to parties affected by rail safety.

¹²⁰ Chief Investigator submission, pages 2 and 3

¹²¹ Australian Transport Safety Bureau, 2008 Annual Review, page 7

Poor reports can distribute inappropriate messages that may not address the causes of the incident to an extent that is considered adequate. Given that affected parties are likely to act upon those messages, investigation therefore may fail to enhance the system as a means to avoid future incidents. The Australasian Railway Association suggested in its submission to the draft regulatory impact statement that poor quality reports bring the investigator into disrepute, and consequently the investigator's reports may not be treated as important or as indicators of real safety problems or worthy of action.

The Rail, Tram and Bus Union noted in its submission on the draft regulatory impact statement that investigation reports vary in quality and that the training and skill of the investigators also varies. The union noted that a number of reports either do not address all of the causes of the accident or do an inadequate job. Further, it suggested some investigations fail to address or adequately address the role of the regulator and policy settings within the particular jurisdiction. The union commented that in some cases it is debateable whether a no blame or just cause approach was effectively applied. Finally, the union suggested that the role of human factors in an accident is not always adequately considered, very few look at other national or international occurrence or reports for assistance, and in some cases the range of effective recommendations appeared lacking.

9.5 Collaboration between investigators

Currently there is a variety of administrative and informal arrangements to facilitate collaboration and resource-sharing between investigators. In the event of an incident some jurisdictions rely on resources provided by other jurisdictions on an ad hoc basis or by requesting assistance from the Australian Transport Safety Bureau. Some jurisdictions choose to contract investigators from outside government.

The Victorian Chief Investigator noted in its submission that at the time of the multiple-fatality crash at Kerang in northern Victoria, the Victorian investigator was offered and sought assistance from the Australian Transport Safety Bureau, that in other more recent incidents on the Defined Interstate Rail Network in Victoria the Chief Investigator has assisted the Australian Transport Safety Bureau and the Chief Investigator has chaired an independent investigation into a Queensland level crossing accident.

The Australian Transport Safety Bureau has entered into memoranda of understanding with all of the state and territory government rail regulators with the exception of Western Australia. In addition, the regulators in New South Wales and Victoria have established dedicated memoranda of understanding with their state's investigator. In Victoria there are is a memorandum of understanding between the rail and marine regulators that sets down, amongst other things, how each will act if both parties investigate the same event. Memoranda of understanding outline the joint roles and responsibilities of each party in relation to the notification or investigation of transport incidents. As such, these memoranda address cross-party investigation to some degree.

However, the 2007 KMPG report suggested current arrangements do not provide all jurisdictions with formalised investigatory resources:

“The investigative powers differ between jurisdictions ... may contribute to difficulties in sharing resources and undertaking other collaborative activities.”¹²²

¹²² KPMG 2007, p.3

Consultation on this issue revealed that government stakeholders are broadly satisfied with arrangements, however the KPMG report points to the possibility that the situation could be improved with greater legislative or institutional consistency.

9.6 Staffing of investigators

Investigations are undertaken on a jurisdictional basis, which allows investigators to be physically closest to the area of rail incidents and therefore deploy to investigation in a timely manner.

The current investigatory arrangement may result in some duplicated efforts. The 2007 KPMG report noted that:

“(...) feedback received from stakeholders suggests that there are potential risks associated with the potential lack of coordination of investigator resources from a national perspective. These include, the duplication of some resources; the inefficient use of resources in corporate administration and managing relations between investigators in each jurisdiction; and difficulties experienced by some jurisdictions in accessing resources and expertise.”¹²³

However, the Victorian Chief Investigator suggested in its submission there is unlikely to be any duplication of the type of investigation conducted by the Australian Transport Safety Bureau, the Office of Transport Safety Investigation or the Chief Investigator in Victoria.

Informal communication between investigators takes place but there are currently few formal means by which investigators around Australia communicate with one another. This stifles the ability for investigators to learn from experiences in other jurisdictions and the development of the investigatory process as a whole.

During consultation it was apparent that existing investigators undertake a great deal of training and skill development, which are important factors in ensuring investigation reports articulate safety learnings for all relevant parties.

9.7 Comments and analysis – what is the problem?

Australia already has an Australian Government rail safety investigator, but its activities are prescribed and it is not a national body. The scope of the Australian Transport Safety Bureau's activities are limited to the Defined Interstate Rail Network but it can investigate off the Defined Interstate Rail Network if invited to do so. The Bureau is also only resourced to do a finite number of investigations. As a result, the Bureau must be choosy about the investigations it undertakes. The Bureau is not currently independent of the Commonwealth Department of Infrastructure, Transport, Regional Development and Local Government.

New South Wales and Victoria have also established their own transport safety investigators. In contrast to Australian Transport Safety Bureau, these investigators are independent and resourced to investigate what needs to be investigated.

Australia's remaining states and territories do not have independent investigators, presumably because the rail accident and incident activity in those jurisdictions does not

¹²³ KMPG 2007, p.3

warrant setting up a separate investigation body. South Australia and the Northern Territory, with a high proportion of Defined Interstate Rail Network track, already use the Australian Transport Safety Bureau for investigating many accidents and incidents, with Tasmania and Western Australia doing so to a lesser extent. Queensland, which has very little Defined Interstate Rail Network track, chooses independent Chairs for their investigations into accidents and incidents from a range of sources.

A number of potential problems have been identified in consultation:

- The Australian Transport Safety Bureau and the Australasian Railway Association have noted that many serious rail safety matters are currently not independently investigated.

Regulators' National Rail Occurrence Data published by the Australian Transport Safety Bureau for 2007-08 shows a total of 198 fatalities, running line derailments and collisions. The Australian Transport Safety Bureau and the Australasian Railway Association suggest less than ten percent of these more significant occurrences are the subject of a systemic no-blame safety investigation.

Independent investigations contribute to safety improvements. The Victorian Department of Transport's submission on the draft regulatory impact statement that the Victorian investigation regime's explicit objective is to "...improve public transport and marine safety by providing for the independence of public transport safety matters and marine safety matters."¹²⁴

If more independent investigations were undertaken, fewer would be undertaken by operators. This would probably improve investigation outcomes overall, as independent investigations can look more broadly at what may have contributed to an accident or incident. As the Rail, Tram and Bus Union notes, together with the notion of investigating oneself, the value of operator investigations as a public policy tool can be problematic. The Victorian Chief Investigator noted in its submission that one of the main reasons the Chief Investigator position was created in Victoria was that operators' own reports were variable in quality. The Australasian Railway Association also suggests there has to be a suitable volume of safety investigations sufficient for staff to maintain their competence.

The Rail, Tram and Bus Union commented that it has been urging governments to increase investigator independence for some years. The union noted that in two instances, following the deaths of railway workers in separate incidents in South Australia and Tasmania, the Rail, Tram and Bus Union wrote to the relevant Minister requesting an independent investigation in the case of both incidents, but that in both instances, the request was denied.

- Investigator independence is therefore vital to ensure quality outcomes. Two of the three existing investigators are already independent and the third investigator will become operationally independent as of 1 July 2009.¹²⁵

¹²⁴ Victorian Department of Transport submission, page 43

¹²⁵ The Australian Government has recently announced the Bureau will become a separate statutory agency with a full-time Chief Commissioner and two part-time Commissioners from 1 July 2009.¹²⁵ The Bureau will have operational independence from the Infrastructure Department with respect to the exercise of its investigation powers and administration of its resources. [see http://www.minister.infrastructure.gov.au/aa/releases/2009/March/AA068_2009.htm]

- Public release of reports varies across the country. There are good reasons why safety investigation reports should generally be made public. However this is only guaranteed in certain states. There may be some instances in which the public interest is not served by releasing the report, however it is expected that these would be few.
- Currently, the protections for witnesses and evidence vary. Not all states have the same high standard of protection, which means investigations might have difficulties collecting evidence, it might be used in prosecutions or people will be reluctant to provide evidence. These all affect the quality of the investigation and its recommendations to prevent recurrence.
- Implementation of investigation report recommendations is an important activity to hold parties to account for possible improvements identified in investigation reports. The Independent Transport Safety and Reliability Regulator in New South Wales monitors implementation of recommendations arising from the Waterfall accident south of Sydney. Recent changes to the Commonwealth's Transport Safety Investigation Act will result in the Australian Transport Safety Bureau having new powers to compel agencies and operators within the aviation industry to respond to its formal recommendations within 90 days, giving the public greater confidence that the lessons from past accidents will be acted upon in a timely manner. Investigation reports produced for Queensland Transport include a requirement that the regulator monitor and report on operator implementation of report recommendations.
- When the Australian Transport Safety Bureau is invited by a Minister to investigate matters off the Defined Interstate Rail Network, the Bureau does so in accordance with the legislation of that jurisdiction. The Bureau reports that the inconsistencies between jurisdictions' legislation and the Bureau's own makes the task harder and in some instances prevents the Bureau from conducting investigations in its usual way.

9.7.1 Conclusion

In all industries, it is recognised that safety improvements result from the objective analysis of accidents, incidents and safety deficiencies, and applying the lessons learned from that analysis in a timely manner.

Open and independent investigation of safety occurrences is accepted internationally as the most effective system in terms of safety outcomes and the public interest¹²⁶.

More generally, sound recommendations and thorough analysis result from the effective use of investigator resources and the presence of sound governance arrangements.

The current arrangements are acknowledged as working in a reasonable manner, with Commonwealth, New South Wales and Victoria investigators collaborating where appropriate to cover most incidents across the country.

However, there are a range of possible administrative, informational, resourcing and legislative and institutional improvements that could be made to improve rail safety investigation from a national perspective.

¹²⁶ Transport Safety Investigation Bill 2002

In addressing the problems raised earlier, it is possible to improve investigation standards for Australia as a whole by addressing the legislative inconsistencies, communications protocols, concerns about some organisations' investigation quality and a general lack of understanding of how the Australian Transport Safety Bureau – utilising the provisions of the *Transport Safety Investigation Act 2003* – links with other jurisdictional investigators.

While there are a few issues to be dealt with in evaluating the investigation processes, there are also some institutional arrangements to be addressed. Current investigatory arrangements in some jurisdictions could variously be improved in terms of independence, transparency, quality and timeliness of reports and staffing. International practice suggests that national multi-modal investigators are the norm, and Australia has not yet fully achieved this aim.

As the Australian Transport Safety Bureau notes, any national solution would want international links, data and sharing of best practice investigation. The Bureau has these as Australia's member of the International Transportation Safety Association and notes that McInerney underlined the importance in the Waterfall reports.

As with regulation, it would be possible to enhance the current approach, rather than move to a national regulator. Such an approach would involve improving legislative consistency, whether through a legislative review or the creation of model legislation, as suggested by the Victorian Department of Transport in their submission and the KPMG report commissioned in 2007.

Any national solution would require representation in the biggest states. The New South Wales government noted in its submission that the Australian Transport Safety Bureau has representation in a number of capital cities throughout Australia but does not have representation in the areas of highest risk or traffic, due no doubt to the presence of state investigators.

Any national solution would also require a full review of Commonwealth and state legislation, rather than simply utilising the provisions under the Commonwealth *Transport Safety Investigation Act 2003*. It would not be appropriate without a review to assume that any one piece of legislation is uniformly superior to any other.

10. OPTIONS TO ADDRESS THE PROBLEM

This section outlines the options that could improve the rail safety investigation situation in Australia. The opportunity is described by the Rail, Tram and Bus Union in its submission on the draft regulatory impact statement thus:

“The Rail, Tram and Bus Union envisages a rail safety investigatory process that is transparent, independent, well resourced with people with the relevant expertise, publishes high quality reports in a timely manner, has a research arm and consults with all interested parties.”

10.1 Options for rail safety investigation

Section 10.1.2 outlines the viable options that have been identified for a rail safety investigation framework, including the status quo, an enhanced status quo and a single national rail safety investigator. Non-viable options are discussed at section 10.1.4.

10.1.1 Status quo

Unlike rail safety regulation it is only necessary to describe the status quo once in rail safety investigation.

Table 14. Status quo for rail safety investigation

Status quo: Option 1	
Number of investigators	Multiple investigators (Australian Transport Safety Bureau, the New South Wales Office of the Transport Safety Investigator, the Victorian Chief Investigator) A variety of arrangements in other jurisdictions
Legislation	Various Acts from 1983 to 2008
Coverage	Accidents and incidents on most parts of the Defined Interstate Rail Network are investigated by the Australian Transport Safety Bureau, in the first instance. Elsewhere, jurisdictions have their own arrangements, including state-based investigators, panels chaired by independent individuals or inviting the Australian Transport Safety Bureau.
Investigation philosophy	Independent safety investigations, based on principles such as just culture and no blame
Resourcing (staff)	Resourced to current levels
Funding	Australian Transport Safety Bureau funded for a finite number of investigations Investigations in most other states and the Northern Territory funded by governments Investigations in Queensland funded by industry

Status quo: Option 1	
Inter-jurisdictional arrangements	Australian Transport Safety Bureau investigates accidents and incidents on the Defined Interstate Rail Network Australian Transport Safety Bureau Memoranda of Understanding with jurisdictions
Other	Australian Transport Safety Bureau publishes rail incident data provided by regulators and collected from industry

10.1.2 Options for change

Research and consultation reveals that there are two main options for a single, national rail safety investigation framework: retain and significantly enhance the current investigation arrangements, or establish a national investigation body. These two options are illustrated in the Table 15.

Table 15. Options for change

	Enhanced status quo: Option 2	Single national investigator: Option 3
Number of investigators	Multiple investigators (as per status quo)	One investigator with a central base of operations, from which investigations across jurisdictions will be managed, along with regional representation, based on risk, to adequately respond to local needs
Coverage	As per status quo	Ultimately, one investigator for Australia
Governance	Independent investigators or investigations in every jurisdiction (as per principle)	One independent investigator
Legislation	All jurisdictions administering comprehensive legislation embodying the highest standards of independent safety investigation. This would form the basis of more formalised resource sharing and cost recovery arrangements between jurisdictions as part of a more integrated approach to no-blame investigation	Administering one piece of comprehensive legislation embodying the highest standards of independent safety
Investigation philosophy	Independent safety investigations, based on principles such as ‘just culture’ and ‘no blame’ as above	Independent safety investigations, based on principles such as ‘just culture’ and ‘no blame’ as above
Resourcing (staff)	Formalised arrangements for resource sharing: optimal utilisation of resources by adequately addressing skill, resource and cost requirements at a national level, to enable fast and comprehensive investigation	Fully resourced: the investigator should be sufficiently staffed and skilled so that safety is not compromised due to staff or expertise shortages

	Enhanced status quo: Option 2	Single national investigator: Option 3
Funding	Formalised arrangements for cost recovery: adequate funding arrangements that would apply when one jurisdiction provides resources to another	Additional investment would be required to set up a national rail safety investigator, facilitate the transition process and to reinforce best practice investigation New ongoing costs for the Queensland government
Inter-jurisdictional arrangements	Formalised arrangements as above for resource sharing and cost recovery	<i>Not applicable.</i>
Other	<i>Not applicable.</i>	Maximises potential operational synergies: all activities in the investigation portfolio are underpinned by single systems and supported by one set of processes A single investigator would also promote one culture for regulatory staff throughout Australia

Note: There are a number of legal and governance issues to be addressed in implementing enhancements to the current situation or a single, national investigator. These issues are discussed in section 13.

10.1.3 How far do these options go towards addressing the problems and meeting the principles of good rail safety investigation

Figure 7 contains a qualitative assessment of the three options against the principles for good rail safety investigation set out earlier in section 7. An explanation of the symbols used can be found below the figure.

	Status quo	Enhanced status quo	Single national rail safety investigator
Transparency	+/-	+	+
Independence	+	+	+
Independent safety investigations	-	+	+
Ministerial capacity to refer or initiate	+	+	+
Consistency of operation	-	+	++
Best investigatory practices	-	+	++
Sufficient capacity and expertise	+/-	+	+
Sound legislative basis	-	+	+
Total	+/--	+	++

Legend

- principle insufficiently met or improved
- +/- principle sufficiently met without improvement
- + principle sufficiently met and/or improved

Figure 7. An assessment of the options against the principles for sound practice investigation

Figure 7 illustrates that qualitatively, only a single rail safety investigator best contributes to an optimal rail safety investigation framework for Australia.

A qualitative analysis of the options against the problems identified earlier has also been undertaken. A more detailed discussion of this assessment can be found in the appendices. Figure 8 is the outline of the problems with each option's effectiveness ranked out of 5.

Problems	Options			Overall Impact
	Status quo	Enhanced status quo	Single, national rail safety investigator	
Independence	2 Not independent in all jurisdictions	4 Requires independence	4 Requires independence	Independence encourages frank and fearless advice to address problems
Transparency	2 Variations in reporting and auditing requirements	2 Requires implementation of comprehensive legislation to manage processes	4 Act in accordance with single body principles	Transparency precipitates open and accountable service delivery
Governance	2 Different in each jurisdiction	3 Comprehensive legislation, resource sharing and cost recovery arrangements	4 Central point optimises operational synergies	Improved governance allows for more efficient and comprehensive processes
Timeliness	2.5 Varying approaches to timeliness	3.5 Streamlined approach to resource sharing may assist	4 A single coordinated approach may streamline timing possibilities	Consistent timing arrangements allow for more efficient planning and delivery of any required improvement
Collaborative activities	2 Three dedicated bodies, remainder is ad hoc with assistance from the Australian Transport Safety Bureau	4 Allows for comparison of activities	5 One body to manage process and resources	Collaboration of views and experiences encourages development of best practice investigation
Resourcing	1 Duplication across each jurisdiction	3 Formalised resourcing arrangements	5 Removes duplication and allows for coordination based on risk	Adequate resourcing ensures the best possible investigation process
Data collection and analysis	2 Australian Transport Safety Bureau publishes data with assistance from jurisdictions	2 Australian Transport Safety Bureau publishes data with assistance from jurisdictions	2 Consideration should be given to reallocating the data publication function to a regulatory body.	Consolidated data collection provides consistent opportunity to consider how the system is working

Legend

- 1** Current arrangements not effectively addressing the problem
- 2, 3, 4** are the varying levels of effectiveness through to...
- 5** Proposed arrangement effectively addresses the problem

Figure 8. Ranking out of 5 of the likely effectiveness of the options in addressing the associated problem

Figure 8 shows that of the options presented a single national rail safety investigator is most likely to address the problems associated with the existing investigatory arrangement in an effective manner. The enhanced status quo delivers independence of the investigator and allows for resource sharing by creating formalising arrangements. It therefore

addresses the issues associated with collaboration and coordination to some extent. However, a single national rail safety investigator more fundamentally addresses processes that may require a streamlined approach by creating one central point for investigation with proper on the ground representation. This is more likely to facilitate timeliness, collaborative activities, resourcing, and data collection and analysis practices, and the principles for best practice investigation more generally.

10.1.4 What other options were considered?

The concept of a single body that would cover both regulation and investigation was incorporated in the process, however ruled out because of the obvious conflict of interests.

Given the nature of rail safety regulation and investigations, it would be inappropriate to consider industry self-regulation as a possible conceptual alternative to current investigation arrangements.¹²⁷

Queensland, which does not support a national investigator, suggests instead that jurisdictions have access to an independent panel of investigators, with members experienced in rail safety investigation, which could be utilised by jurisdictions without their own independent investigative body to achieve the same results currently being attained in Queensland. Queensland also suggests a single national legislative framework for investigation should consider the Queensland model. As the Western Australia regulator noted in its submission on the draft regulatory impact statement, this would allow jurisdictions the opportunity to retain flexibility to appoint an independent investigator, establish its own investigation unit in future or assign investigation to another jurisdiction.

The draft regulatory impact statement sought comment on whether the regulatory impact statement should consider a single, multi-modal transport safety investigator. Such an investigator would investigate accidents and incidents in rail, public transport and maritime, including ferries. Consultation revealed a range of views on this suggestion – some suggested it should not be considered; others thought it a sensible idea given that all three current investigators cover more than just rail. The New South Wales government's submission suggested the regulatory impact statement should consider this as an option. Moving directly to a transport safety investigator with the scope of the current investigators would result in the existing state multi-modal investigators being absorbed into the national investigator, rather than being broken up to separate out the rail and other investigation functions. After evaluating the range of views presented, NTC considered that a multi-modal transport investigator, covering rail, public transport and maritime, including ferries, should ultimately be governments' preferred outcome, and that in the first instance, as part of the recommended option in this regulatory impact statement, states should be given the chance to opt in and direct that a national safety investigator be resourced to undertake safety investigations in public transport and maritime, including ferries, if desired by that jurisdiction.

¹²⁷ Only in the most exceptional circumstances can self-regulation alone protect the public interest. Rail safety is certainly not one of those exceptions. (Gunningham, p10)

11. COST BENEFIT ANALYSIS

This section discusses the costs and benefits of the options for a single, national rail safety investigation framework.

The analysis is entirely qualitative due to the difficulties in quantifying the benefits from reactive investigations. Identifying and quantifying direct benefits from rail safety investigations proved particularly challenging. This is not to suggest that rail safety investigations do not have safety benefits, because they do. Unfortunately, for the purposes of financial/economic cost benefit analysis, such benefits are difficult to meaningfully quantify.

11.1 Benefits

11.1.1 Improved standards of investigation

The first potential benefit to be assessed is improved standards of investigation. This was a key issue identified in the stakeholder consultation process and relates to the benefits of scope and the consistency of process arguments considered below. However the standards of investigation are considered separately in order to allow a focus on the output from the regulator, such as the various investigation reports produced by investigators.

The expected benefits were largely derived from the concept of scale for the rail safety investigator. The consultation process identified a concern as to whether there is sufficient scale of work within Australia to justify three independent investigative bodies. The most commonly held view in this regard was that one investigator would be best placed to ensure the experience and competency of the investigation staff was maintained.

Another argument in support of a single national investigator was that a single body, with the capacity to provide a larger team to investigate accidents, would provide an improvement in the quality of investigations undertaken. The hypothesis is that improved investigations would result in improved reports, outcomes and recommendations, with the lessons learned from the improved process and outputs providing safety benefits.

It is also assumed that a single investigator would, by virtue of the capacity increase provided to it, be able to provide the same standards of investigation on all rail systems in Australia, not only the Defined Interstate Rail Network and the states where an independent operator exists.

The standard of investigation mandated by legislation, and including clear terms of reference and reports to be made publicly available, is another benefit that would be provided by a single national investigator. This assessment is consistent with the independent safety investigation, best practice techniques and fully resourced principles identified for a single investigator.

The single investigator is expected to deliver the greatest benefit in terms of investigator standards, with an enhanced investigator also delivering some benefit when compared with the status quo.

This expected benefit could come with a cost. This cost is likely to be a cost to government, although there may be some costs of responding to investigators to industry. The costs would however be distributed between all states and territories, with all states

and territories benefiting from the improved standards. This overall benefit is considered to outweigh the potential cost increase to governments generally, although the Queensland government's circumstances would require special consideration as industry funds investigations in that state.

11.1.2 Consistency of investigation process

The next potential benefit to be assessed is consistency of the investigative process. This relates to the discussion of the quality of investigative services above. However, the arguments for consistency in the investigative process are considered separately as they are broader than the general view that a larger resource can look in more detail at all the aspects that present in a rail incident. Similarly, the consistency of process analysis reflects the independent safety, best practice investigation and consistency of operation principles identified by the NTC.

Consultation identified an improvement that could flow from a single investigator through improved process. There is currently a perception that the quality of investigators' processes, and the standard of their reports, is variable. The argument in favour of a single investigator is that the consistency and quality of the investigation process and reports would be improved through the existence of one system with an internal staff development model and quality control mechanism. It is assumed the outputs from this investigator would be of a higher standard and that this would provide an overall rail safety benefit. Again, it is likely that some costs would be incurred by government to realise these potential benefits, although these costs are anticipated to be a lesser impact than the potential benefits of the improvements sought.

There was not a great deal of discussion of how the processes of an enhanced investigator would work and how this would differ from the status quo. The views expressed during the consultation undertaken indicated that the only way to achieve a consistent process for investigating rail safety incidents was through a single investigator.

11.1.3 Timeliness of investigations

The issue of timeliness of investigations undertaken relates to the scope and capacity arguments above, but should be considered separately. The benefits relating to timeliness of investigation is a benefit that could be realised through having statutory provisions governing the length of time investigations take. This relates to the quality of investigation, legislative basis and best practice principles for a single investigator.

An issue raised during consultation was that currently investigations into rail accidents sometimes take considerable time, meaning that there is a lag between incidents and the production of reports and recommendations. The time lag between incidents and recommendations was considered by some parties to have a detrimental impact on safety outcomes. The impact of this could be assessed in a number of ways. One of which is that the later recommendations are made the greater the chance a situation that was the cause of the investigation could be repeated – a negative safety outcome. This risk would be reduced if greater resources could undertake investigations and produce reports in a timelier manner enabling the lessons from investigations to be learned more quickly.

In addition, some within the industry argued that under a co regulatory system operators and regulators have their own processes to review accidents and learn lessons from incidents. These internal processes may not be as complete as an independent safety investigation but do provide many of the same lessons that flow from these investigations.

If these lessons are learned prior to an investigator reporting, then the industry argues that the benefit of having the investigator is partially negated, at least for the operator and regulator directly interested in the investigation. The benefits for the rest of the industry will still be derived from the publicly available report.

Based on this analysis it is argued that any improvement to the time taken to finalise reports will improve rail safety outcomes. However, it is expected that a fully resourced national investigator will have a greater capacity to produce reports in a timelier manner.

11.1.4 Increased scope of investigator

The arguments about the increased scope of the regulator relates to the capacity of an expert investigator to investigate all rail incidents across Australia. It also relates to the scale benefits that flow in areas such as career pathway within Australia for rail safety investigators, and maintenance of rail investigation competency.

It has been argued that currently having three investigators with relatively small rail safety investigation capacity, performing a limited number of rail safety investigations, is detrimental to individual career and public safety outcomes. Firstly, industry stakeholders have argued that to maintain a rail investigative capacity a reasonable number of rail investigations need to be completed. The hypothesis presented was that rail in Australia presents an environment where one such reasonably resourced regulator would just conduct enough investigations to maintain rail safety investigation competency for their staff.

As well as the competency argument, it is argued that there is no obvious career development path for rail safety investigators and aspiring investigators to develop their skills. It is recognised that this is a specialist area, albeit one where investigators can have a wide range of backgrounds prior to becoming rail safety investigators. It is also thought that this is a strength and weakness for current investigators. There is a range of different training and knowledge bases, but at the same time a lack of career development/enhancement programs.

An argument put forward is that the safety investigation process and the outputs of that investigator will improve if a career development pathway for investigators is provided to reinforce rail safety investigation as its own specialist domain, not a hybrid of other investigatory roles. Again, the number of rail accidents and investigations, and scope of the investigator indicates that this rail safety speciality discipline could best be achieved through a national body.

As well as these scope related operational and process improvements, there was a general view that the data collection and analysis role could be successfully played by a single regulator, building on the role currently performed by the Australian Transport Safety Bureau. This argument relates to the scale of an organisation providing an opportunity for a data collection unit and database, and the single set of data collected and analysed providing a framework for improved benchmarks and some international comparison.

Generally, the arguments put forth regarding the potential benefits of scope provided a high degree of support for a single national investigator.

11.2 Risks

11.2.1 Cross-modal investigation capacity

The issue of cross-modal investigatory capacity is one which arises predominantly in New South Wales and Victoria. Under the current system, both New South Wales and Victoria have dedicated investigators who conduct rail safety, as well as bus and ferry or marine safety investigations.

During the consultation process the loss of capacity was raised as an issue. It is the view of the jurisdictions that this capacity is an important aspect of independent investigators' business. In line with the ATC decision that there should be no diminution of safety standards in any jurisdiction, any move to a single national investigator would need to address the cross-modal issues for New South Wales and Victoria.

Although this issue predominantly relates to New South Wales and Victoria, consideration of an investigator established for rail specific purposes, without investigative capacity for bus and ferry or marine accidents, could be viewed as a disadvantage of a single investigator, in comparison to both the status quo and the enhanced investigator options.

11.2.2 Local access to investigative capacity

The issue of local access to investigative capacity is of paramount importance to governments and is one of the key principles that would be embodied by a single investigator.

Comments made by the various government departments during consultation indicated concerns of Minister's regarding their own capacity to instigate investigations into safety incidents of concern to them.

The views about the current situation were that although not all jurisdictions have investigators within their State or Territory, through the various contracting arrangements that are in place, all Ministers can initiate an investigation when they are of the view one is required. This capacity to instigate investigations would be increased by the enhanced investigator as there would be additional resources available, under a largely locally controlled model.

A concern was raised that with a single investigator, the capacity of state Ministers, and government generally, to initiate investigations was potentially reduced, even if the investigator was deemed to provide greater capacity for investigation compared to what currently exists. In light of these concerns, the enhanced investigator option is favoured in relation to the local access to investigative capacity criteria.

Assessing the local capacity to initiate investigations, it is recognised that following large, typically passenger fatality, incidents, governments have had a tendency to hold Royal Commissions, or Special Commissions of Inquiry. These investigations tend to be far reaching, long term, and very expensive. The existence of a single national investigator may overcome the need for a Royal Commission into a rail accident.

It is unclear as to whether this would be the outcome, as the Queensland, New South Wales or Victorian provisions for a Royal Commission-style investigation, have not been utilised to date. However, it is assumed that a single investigator would have a similar function that could be called upon by Ministers to override the need for a Royal Commission.

However, the potential to have a standing, more cost efficient process which delivers similar or improved safety benefits to those which flow from Royal Commissions, may deliver safety benefits in a more cost efficient manner.

11.2.3 Conclusions – investigation

The overall assessment of the options favours the single national investigator as the outcome expected to deliver the greatest benefit to rail safety. These potential benefits are anticipated to deliver sufficient value to offset the risks identified and to cover any cost increases that flow to governments and industry from the scale increases to investigation that would occur.

The assessment in favour of the single investigator is largely based on the expected improvements to investigative capacity, the standard of the investigation reports produced, the ability to produce reports in a more timely fashion and through the development of a specialist career pathway for rail safety investigators.

These arguments are tempered by the risks of a potential reduction in cross-modal investigation capacity in New South Wales and Victoria, reduction in choice of investigators in Queensland and a potential loss of capacity on the part of state Ministers to instigate rail safety investigations. This analysis is reflected in 0 and Figure 10.

Benefits of improving the rail safety investigation framework					
Expected Benefits					
	Improved investigation standards	Consistency of investigation process	Timeliness of investigations	Benefits from increased scope of a national investigator	Total
Status Quo	0	2	2	1	2
Enhanced current arrangements	1	2	2	1	2
Single National Rail Safety Investigator	4	3	3	4	3

The table above represents the expected benefit under this criteria for the options considered. 0 represents the least expected benefit and 4 represents the greatest benefit.

Figure 9. Qualitative benefits – investigation

Risks of changes to the Rail Safety Investigation framework			
Options			
	Cross modal investigation capacity	Local Access to investigator capacity	Total
Status Quo	1	1	1
Enhanced current arrangements	1	1	1
Single National Rail Safety Investigator	2	2	2

The table above represents the expected benefit under this criteria for the options considered. 0 represents the least expected benefit and 4 represents the greatest benefit.

Figure 10. Qualitative risks – investigation

11.3 Quantitative analysis

The analysis of options for the harmonisation of investigation has been undertaken in a predominantly qualitative sense. However, to provide some context for quantitative costs, a simple cost estimation was undertaken for status quo investigation costs, and single national investigator costs. It is expected that costs for enhanced state-based investigation would fall somewhere within the range of values estimated for these two options.

Given no change in resourcing requirements (and the application of an average cost per full time equivalent figure of the current three investigators as the cost per full time equivalent figure of any potential single national regulator), coupled with up to \$10 million in setup costs, any net present value over a ten year horizon of a single national investigator or enhancing the current Commonwealth and state arrangements would be lower than the status quo, highlighting that the options for change are more expensive than the status quo.

11.4 Summary of impacts in tabular form

An overall summary of costs, benefits and impacts can be found in Table 16. In the case of the national investigator, the quantitative analysis does not indicate that government would benefit from a move to a single investigator, as the costs of the investigator will continue to be borne predominately by governments alone. However, the qualitative analysis does indicate that some benefit would be accrued from a move to a single national investigator.

Table 16. Investigator benefits and costs, impacts

Option	Impacts, costs and benefits			Overall impacts
(non regulatory and regulatory)	Business (small, medium and large)	Government Australian, state/territory, local governments	Other stakeholder groups (rail safety workers, passengers, freight customers)	Net of transfers
Status quo				
Benefits	Some benefits of investigation are realised through the learnings provided by the independent safety reports produced.	<p>State jurisdictions retain capacity to determine when investigations occur.</p> <p>Benefits to other modes of transport in Commonwealth of having an independent investigator for air and maritime accidents and incidents.</p> <p>Benefits to other modes of transport in New South Wales and Victoria of having an independent investigator for bus and ferry or marine accidents and incidents.</p> <p>Some benefits of investigation are realised through the learnings provided by the independent safety reports produced.</p>	Some benefits of investigation are realised through the learnings provided by the independent safety reports produced.	<p>Overall the status quo provides a benefit to rail safety through the investigative function performed in each jurisdiction.</p> <p>The costs of this option are those incurred by governments in funding the three investigators that exist and in providing investigations services on a case by case basis in all jurisdictions.</p>
Costs	-	<p>Current costs to Commonwealth, New South Wales and Victoria for maintaining their own investigation agencies.</p> <p>Current costs to Queensland, Western Australia, South Australia, Northern Territory and Tasmania in contracting in investigation services where required.</p> <p>Inefficiencies through lack of scale in the current operations.</p>	-	

Option	Impacts, costs and benefits			Overall impacts
(non regulatory and regulatory)	Business (small, medium and large)	Government Australian, state/territory, local governments	Other stakeholder groups (rail safety workers, passengers, freight customers)	Net of transfers
Option B – enhancing the status quo (state-based approach to investigation) (relative to status quo)				
Benefits	<p>Some improvements to the ability to access and learn from the incidents investigated.</p> <p>Some improvements to rail safety through more lessons learned through more investigations being undertaken.</p>	<p>Improved capacity for independent safety investigations to occur in all jurisdictions</p> <p>Some improvements to the ability to access and learn from the incidents investigated.</p> <p>Some improvements through number of investigations undertaken for the skills of investigators.</p> <p>Some improvements to rail safety through more lessons learned through more investigations being undertaken.</p> <p>Existing investigators still have capacity to investigate accidents and incidents on other modes of transport (e.g. bus and ferry or marine).</p>	<p>Some improvements to the ability to access and learn from the incidents investigated.</p> <p>Some improvements to rail safety through more lessons learned through more investigations being undertaken.</p>	<p>Some benefits are expected through the improvements to investigative capacity and resources.</p> <p>These benefits will be funded directly by governments, meaning that government will pay for (or bear the cost burden of) achieving these costs.</p>
Costs	<p>Rail industry in most states bear no direct cost burden</p> <p>Industry only bears the burden of these costs in Queensland</p>	<p>Costs as per status quo</p> <p>Additional costs in updating legislative provisions in those jurisdictions without independent investigators.</p> <p>Inefficiencies through lack of scale in the current operations.</p> <p>Costs to government are expected to increase as the costs of providing investigative services increase.</p>		

Option	Impacts, costs and benefits			Overall impacts
(non regulatory and regulatory)	Business (small, medium and large)	Government Australian, state/territory, local governments	Other stakeholder groups (rail safety workers, passengers, freight customers)	Net of transfers
Option C – Single national rail safety investigator (relative to status quo)				
Benefits	<p>Full realisation of the potential benefits of an investigator in terms of incidents investigated – increase in national coverage.</p> <p>Improved potential to learn from incidents through the national focus of the investigation framework and improved outward communications</p> <p>Improved industry perception of investigator as independent and competent.</p>	<p>Full realisation of the potential benefits of an investigator in terms of incidents investigated – increase in national coverage.</p> <p>Standardisation and improvements of investigatory practice and reports standards</p> <p>Improved skills development and career pathways for the investigators</p> <p>Improved potential to learn from incidents through the national focus of the investigation framework and improved outward communications</p>	<p>Full realisation of the potential benefits of an investigator in terms of incidents investigated – increase in national coverage.</p> <p>Improved potential to learn from incidents through the national focus of the investigation framework and improved outward communications</p>	<p>The benefits under this option are the improvements to rail safety that would flow from having a single national investigator.</p> <p>These benefits are assessed on a qualitative basis and rely on assumptions that the quality of investigations, the processes of the investigators and the reach and capabilities of the investigators would increase (from a whole of Australia perspective).</p>
Costs	-	<p>Establishment costs of new investigation organisation:</p> <ul style="list-style-type: none"> • systems • staffing and recruitment • office refits • enabling legislation <p>Increased running costs compared to the status quo through increased capacity and role of investigator.</p> <p>Costs incurred to cover the operating costs of the investigator.</p>	Loss of coverage/ investigative capacity for bus and ferry or marine accidents and incidents	<p>The costs under this option would override the benefits if viewed solely from a financial perspective as the costs would be an increasing burden on the government that is not offset by any fee recovery of tangible financial saving.</p> <p>From a qualitative perspective this option would also impose a cost on the capacity (and potentially the quality) of the investigations undertaken into other passenger transport modes in New South Wales and Victoria.</p>

PART C – CONCLUSIONS, RECOMMENDATIONS AND APPENDICES

Part C of this regulatory impact statement summarises the conclusions of the qualitative and quantitative cost benefit analysis of the options for a single, national rail safety regulatory and investigation framework. It also recommends changes to rail safety regulation and potentially to investigation in Australia. Part C addresses the governance and ‘transition’ issues that have been raised during consultation.

12. CONCLUSIONS AND RECOMMENDED OPTIONS

This section concludes the analysis of options for change and recommends different courses of action for rail safety regulation and investigation.

12.1 Rail safety regulation

12.1.1 Summary of cost benefit analysis

Overall, the analysis of regulator options indicates that, from a qualitative and quantitative perspective, the single national regulator option is superior. Of particular importance is that this outcome prevails with the preservation of the current full time equivalent headcount. Furthermore, this option still prevails relative to the status quo even if safety (as measured by incidents per year) were to remain the same, as it is under the status quo setup. For investigators, the small quantitative gap in net present value costs between the different options suggests that if a single national investigator is able to provide even modest benefits (greater than or equal to \$8 million) over a ten year horizon then there is merit in its implementation from a quantitative perspective.

When compared against total rail industry turnover of \$8 billion, the relative costs to industry of complying with regulation under all options are modest. This indicates that current compliance costs, whilst sub-optimal and definitely material, are not as large a problem as some within the industry indicate.

The analysis also illustrates an inconsistency in safety regulation resourcing across jurisdictions, particularly when normalised relative to rail activity (train km) travelled within each jurisdiction. As such, this adds further support for the notion of a single national regulator, given that it would allow for more efficient allocation of resources.

Either way, from a quantitative perspective the status quo is the least appealing of all options presented. Even though in present value terms there are significant net benefits attributable to retaining the current setup, other options appear to have the potential to provide even greater net benefits.

The options for rail safety regulation that have been assessed in this impact analysis are:

- Two status quo options
- Enhanced state -based regulation
- Single national regulator

These options were analysed for what they would cost and how they will benefit rail safety. The quantitative analysis undertaken indicates that a benefit will be attained (from a cost/benefit analysis perspective) for each of the options.

However, both the ATC decision and principles established through the NTC's workshops have clearly identified financial costs as secondary to the rail safety outcomes. This view is generally accepted by the industry, which see both a cost benefit and a safety outcomes benefit as desired outcomes from a single national regulator.

The safety focus and the difficulty in obtaining activity data from regulators and industry has meant that this analysis relies on a high degree of qualitative information.

The analysis indicates that the improved safety outcomes observed over recent years are likely to continue under all of the options.

The status quo will continue to deliver some safety benefits but these benefits will provide the lowest relative return in terms of improved rail safety outcomes. Both the enhanced status quo and enhanced state-based regulation options will deliver some additional increase in safety benefits compared to the status quo, but less than would flow from a single national regulator.

12.1.2 Status quo options

The status quo is the current situation. In short it can be described as seven separate regulators administering seven different acts. Rail safety improvements have occurred under the status quo over the past seven years. It is expected that these benefits will continue to flow despite the duplication of regulatory functions that exist and the resultant inefficiencies for business.

The status quo has some support amongst stakeholders. This support appears to be based on provincial sensitivities regarding access to regulators for government, concern about possible changes to fee recovery rates, and a general resistance to changing a functional system.

This reticence to change is understandable considering the time and effort that has been invested in establishing new regulators such as the Independent Transport Safety and Reliability Regulator and Public Transport Safety Victoria and the focus that these regulators have on improving safety. There will be further resistance to change (from some jurisdictions) if fee recovery rates change and increase the cost of rail safety regulation to governments.

Many of the arguments in support of the status quo are not restricted to the status quo, rather they are arguments put forth against a single regulator generally.

Overall, the status quo is considered the outcome least likely to drive further improvements in rail safety outcomes. The strengths of the status quo are the local environment knowledge and responsiveness, the proven performance in terms of improved rail safety outcomes (over recent years) and the ability of Ministers to refer concerns to a local regulator. Whilst these matters were assessed as more beneficial under the status quo, the governance arrangements put in place to support a single regulator may neutralise any advantage the status quo has.

The enhanced status quo option is similar to the status quo. There are seven different rail safety regulators, although these regulators are all regulating legislation based on the national model legislation.

The majority of the arguments that apply to the status quo are directly transferable to the enhanced status quo option. The costs structures under these two options are also considered to be largely identical. The primary difference is, as indicated above, the similarity of the legislation that the regulators are guided by. As all jurisdictions have committed to implementing the national model legislation, this option can be considered as the future status quo.

Legislation based on the national model rail safety Bill is in place in Victoria, South Australia and New South Wales and has been introduced to the Queensland Parliament. Other jurisdictions are still preparing their legislation with a view to introducing this legislation in line with the COAG commitments.

The greater benefits provided by the enhanced status quo environment relate to the benefits that flow from having a single national bill, the increase in resources to improve regulatory standards and data gathering and analysis when compared to the status quo. These benefits will provide additional rail safety benefits, but will not realise the potential benefits to the same level as would occur under a single national regulator.

There is a degree of support for the status quo and enhanced status quo options. The support for the current system is based on a perceived risk (in the mind of some) that the move to a single regulator will not benefit rail safety. It has been argued that the current levels of resourcing currently deliver improved rail safety outcomes and will continue to do so irrespective of the regulatory system.

12.1.3 Enhanced state-based regulation

The benefits that would flow from the enhanced state-based regulation are similar to the benefits assessed in the options discussed above, with the costs likely to be larger but offset by efficiency improvements. These benefits (\$31 million) increase slightly in terms of the benefits that flow from the single system of regulation and the information sharing and risk-based regulation improvements that are expected from the creation of a national rail safety accreditation panel.

There was not a high degree of discussion of the enhanced state-based regulation and neither the quantitative or qualitative analysis favours this option. The enhanced national rail safety accreditation panel and its one-stop-shop for accreditation would deliver some of the scale and harmonisation benefits sought, without delivering the full suite of benefits that could be realised by the single regulator.

This option again does not produce the benefits that a single regulator would as it does not completely realise the compliance, governance, administration benefits of a single regulator – there would still be seven regulatory interpretations, meaning the full scale benefits of systems and processes would not be realised.

12.1.4 Single national rail safety regulator

The analysis undertaken indicates the greatest degree of benefit is likely to be attained under a single national rail safety regulator. This argument is supported by the quantitative

analysis which shows that a single national regulator would deliver an incremental benefit in net present value terms of between \$36 and \$67 million compared with the status quo over the ten years modelled.

Some of the other arguments in favour of a single national regulator are the eradication of duplicated functions and the resultant efficiency gains for both government and industry.

The arguments supporting a single regulator, both from this analysis and previous work undertaken, recognise the efficiency benefits that would flow both to industry and government from having a single regulator. However, these arguments are not solely relied upon in this analysis.

In this analysis, both from a quantitative and qualitative perspective, a single national regulator is supported as the option that will deliver the best overall safety benefits – through improved and consistently applied regulatory standards, better data gathering and analysis and the scale benefits (including the career development pathway for regulatory staff).

12.2 Rail safety investigation

There were three options identified for the investigation framework. These are:

- Status quo
- Enhanced status quo, and
- Single national rail safety investigator.

These options were assessed, similar to the options for the regulator, on expected benefits to rail safety outcomes based on the analysis undertaken.

12.2.1 Status quo

Under the current system there are three independent rail safety investigators operating. They are the Australian Transport Safety Bureau (on the Defined Interstate Rail Network and by invitation), the Chief Investigator in Victoria, and the Office of Transport Safety Investigations in New South Wales. The state investigators are small investigative bodies with cross-modal responsibilities. The Australian Transport Safety Bureau is a larger investigator that can provide services to jurisdictions on an as needs basis. Not all jurisdictions have a consistent legislative basis for investigations, but all jurisdictions have the capacity to access investigation resources.

This investigatory framework is considered to deliver some benefits to rail safety through the reports produced and made publicly available. These benefits are largely limited to the jurisdictions where independent investigators exist and are tied to the performance levels of the investigators.

There are also views that the status quo does not deliver the optimal outcome for an investigative framework.

12.2.2 Enhanced state-based investigation

Under this option there would still be multiple investigators. Additionally there would be a legislative basis for independent safety investigations in all jurisdictions supported by cost

sharing and fee recovery arrangements. This would provide extra investigative capacity as well as improved institutional arrangements for investigations.

Consistent with the status quo, there will be benefits to rail safety through the existence of investigators and by virtue of the lessons learned from their analysis. The increase in capacity assessed in relation to the institutional arrangements is considered to provide an increased benefit compared to the status quo.

Again, there are perceived risks in this system that the same issues of variable investigator performance between jurisdictions and the lack of scale benefits would remain when compared to a single national investigator.

No estimate of the cost in net present value terms of this option was made, however like the other investigator options, it would also be negative.

12.2.3 Single national investigator

A single national rail safety investigator would involve an investigation body performing the current functions of the Australian Transport Safety Bureau for the Defined Interstate Rail Network, the Office of Transport Safety Investigations for the New South Wales rail industry and the Chief Investigator for the Victorian rail industry. This single national body would also perform the same function of independent safety investigations for rail accidents and incidents on all Australian railways. This investigator would administer national legislation, would be independent and would report to one parliament.

The analysis indicates that the single national investigator option would deliver benefits to rail safety, if the investigator was developed in line with the principles established by NTC, regulators and investigators.

There is a reasonable assumption that benefits to rail safety would flow from a single national investigator. The expected benefits would be increased investigative capacity, uniform processes and improvements in consistency, as well as the establishment of an improved career path for investigators and the scale benefits in terms of performance and maintenance of skills and expertise within the investigator. The risks are based on the potential impact on cross-modal (bus and ferry or marine) investigative capacity in New South Wales and Victoria and a concern that, depending on final governance arrangements, state Ministers may have less access to investigative resources under a single national investigator.

In quantitative terms, a single national investigator would not, under any of the options modelled, deliver a benefit when compared to the status quo. The net present value is negative for both the status quo and for a single national investigator. The status quo provides an outcome that would provide an \$8 million positive outcome in net present value terms when compared with the single national investigator.

12.3 Recommended options

12.3.1 Rail safety regulation

The success of a regulatory arrangement is the extent to which it contributes to better compliance and better safety systems. The direct measure of this success is not the number of injuries or reportable occurrences (too many other factors, beyond regulatory control can influence these small numbers), it is the timeliness and quality of decisions, the

knowledge applied to provide guidance to industry and the extent of diversion of money, time and resources away from implementing safety outcomes towards negotiating the regulatory process. In addition, it is not a regulatory objective to contribute directly to industry growth. However, regulatory deficiencies that impact on industry efficiency and competitiveness should be minimised.

Four options for a regulatory arrangement were identified, each of which has been evaluated to ascertain its possible success:

- Status quo: the ‘no change’ option. To retain the current regulatory arrangement, with seven regulators, of which only two states have implemented the model rail safety Bill.
- Enhanced status quo: to endorse changes to the current regulatory arrangement, including implementing the model rail safety Bill and adopting national guidelines and standards by all jurisdictions, as well as all regulators to be fully resourced.
- Enhanced state-based regulation: to endorse rigorous changes to the current regulatory arrangement, including those as outlined in the enhanced status quo as well as changes in process and governance.
- Single national rail safety regulator: one regulator administering an Act based on the model rail safety Bill.

The NTC recommends a single national rail safety regulator. The qualitative assessment strongly indicates that a national regulator would bring about improvements in safety regulation unmatched by the status quo or by creating a virtual ‘eighth’ regulator to supplement existing regulators and regulate national operators. The quantitative assessment shows that with a reasonable safety improvement (estimated here as a reduction of between 7 to 8 accidents per annum) a net benefit would flow from the move to a single national regulator. Based on the information currently available, it is apparent that a single national rail safety regulator will deliver improvements to rail safety and industry efficiency.

12.3.1.1 Safety benefits

The success of any regulatory arrangement is the extent to which it contributes to better compliance and better safety systems. A particular regulatory system (including institutions, rules and practices) delivers better safety outcomes to the extent that it enhances compliance by industry and assists regulators and industry in making better decisions as to how a given risk or combination of risks can be reduced so far as is reasonably practicable.

Independence along with transparency are key aspects of sound practice regulation. Under the current arrangements, in some jurisdictions the investigation, policy and regulation functions reside in the one body. This provides for unnecessary opportunities for ill-conceived regulation due to the possibility of regulatory capture. A single national regulator would deliver acceptable independence and transparency arrangements along with appropriate levels of responsiveness to state and territory governments.

A single national rail safety regulator will enhance the quality of decisions to the extent that it can use knowledge and expertise around the nation, build on data compiled nationally and use this knowledge to identify risk profiles and allocate resources accordingly. Sound decisions allow the opportunity for improved risk assessment as to how a given risk or combination of risks can be reduced so far as is reasonably practicable.

Rail safety is a highly specialised area; as such there is a limited number of trained staff from which to draw. Ministers have already indicated they do not intend any changes in arrangements to reduce the overall number of staff. However, a single national regulator, through the efficient deployment of resources, would make better use of the limited pool of specialised staff. Duplication will be reduced and capacity building encouraged. Collective efforts enable the establishment of critical mass that is required to undertake certain tasks (e.g. to develop and maintain linkages with best practice bodies internationally). A national single regulator would be better able to encompass the extensive range of specialities and new developments relevant to the regulatory task. It would allow for the efficient process of accreditation and variation applications. Lastly, it allows the opportunity to properly reassess the adequate level of resourcing according to risk for the system as whole.

High quality data is essential for identifying and managing rail safety risk. A single national regulator would improve uniformity in definitions, utilisation of (state-based) data and validity of results. More specifically, it would improve the prospect of collection and dissemination of consistent and statistically significant amounts of predictive and incident data. This would help the effective analysis of the causes of incidents and trends, the assessment of rail operators and identification of priority areas for attention and resources.

Australia has a vast rail network that varies greatly in terms of the risks posed. Risk-based regulation specifically caters for factors of risk and the associated requirements and allows resources to be allocated accordingly. Under a single national regulator there will be an improved ability for the quick and efficient deployment of resources to the areas of greatest risk and need.

At the event level, responsiveness refers to regulators' capacity to adequately respond to an incident or accident, regardless of magnitude or location. More generally, responsiveness refers to regulators' capacity to develop best practice responses to safety nationwide. That is, the ability to effectively scrutinise change/reform across jurisdictions. A single national rail safety regulator would progress change more quickly and is more likely to identify trends that may require action or attention on a broader scale.

Delays in committing to investment due to uncertainty about the acceptability of proposals to different regulators equate to delays in the safety benefits of that investment being realised. Resources expended in reworking proposals for the differing demands of different regulators are resources not available for implementation or development of further safety measures. A single national rail safety regulator will reduce uncertainty by building on consistent measures and requirements across Australia and by providing one agency for industry to deal with.

A single, national regulator would deliver consistent regulatory business processes, accreditation and audits. It would also have the greatest chance of creating a consistent culture among staff, with the attendant benefits in the administration of rail safety regulation. At present, inherent to state-based regulation, each jurisdiction takes its own view on risk and how to manage risk, causing operational inconsistencies. A single national rail safety regulator would minimise operational and cultural inconsistencies by using one system supported by one set of processes.

The co-regulatory system is strongly supported by stakeholders and has a demonstrated track record of sound, improving safety performance. However, based on the consultation process, NTC has observed that co-regulation is inconsistent across jurisdictions. This provides for an unstable regulatory environment for those operators who function in more than one jurisdiction. A single national rail safety regulator would seek to build a

framework and provide a consistent form of co-regulation, and therefore would reduce sources of confusion and non-compliance.

12.3.1.2 Cost benefits

A multi-jurisdictional regime duplicates costs for operators in satisfying multiple regulators and for regulators and governments in performing the same function multiple times. It is anticipated that a single national rail safety regulator will reduce industry and jurisdictional costs.

A consistent regulatory regime would encourage (interstate) rail operators to invest in long-term safety management systems with certainty. A consistent regulatory regime, both in terms of accreditation and auditing, reduces duplication and the costs for operators to ensure compliance in multiple jurisdictions. It is anticipated that even at cost recovery rates of 100%, the overall benefits to industry of the single national regulator model would be highly likely to significantly outweigh the costs observed under the status quo or enhanced state-based regulation options.

The cost-benefit analysis shows that the cost of regulation for the first forecast year under a single national rail safety regulator are lowest; \$25 million compared to \$29 million for the status quo and the enhanced state-based regulation option. Further modelling indicates that this efficiency trend will continue in following years after a single regulator is established.

12.3.2 Rail safety investigation

Rail safety investigation requires specific and unique processes in order to gain useful information about the cause of any incident. In order to address these requirements the NTC compiled the following options with the aim of ensuring best practice investigation continues and where appropriate, improvements can be made to the system as a whole:

- Status quo: the 'no change' option. Investigators in different jurisdictions subject to a variety of legislative frameworks and practices
- Enhanced status quo: optimise the status quo by facilitating nationally consistent rail investigation legislation between jurisdictions, providing for independent investigators and formalising resource sharing and cost recovery arrangements, and
- Single national rail safety investigator: one investigator operating under nationally consistent rail investigation legislation.

The importance of independent safety investigations has been emphasised by successive incident inquiries overseas and in Australia. Two independent investigators have been established by New South Wales and Victoria.

In the case of the national investigator, the quantitative analysis does not indicate that government would benefit from a move to a single investigator, as the costs of the investigator would be borne by the governments alone, offset only in Queensland, where industry accreditation fees fund investigations. The qualitative analysis does indicate however that some benefit would be accrued from a move to a single national investigator.

Streamlining investigation frameworks would ensure investigation techniques improve and become more consistent, therefore providing the best possible evaluation of incidents. Improved rail safety investigation arrangements would contribute to better rail safety through:

- **Improved governance:** by ensuring independence of investigators, integrity and rigour is maintained throughout the process of evaluating each rail incident. This independence provides governments with the opportunity to obtain objective information and recommendations for the improvement of the rail safety management systems within their state or territory.
- **Consistent, best practice investigation processes:** There is currently no consistent application of investigation good practice irrespective of location or magnitude. A single national rail safety investigation framework would seek to provide a consistent form of investigation, ensure investigation findings are evidence-based and provide a sound basis on which decisions and actions can be taken by stakeholders to address local and systemic safety issues.
- **Efficient resourcing:** expertise in investigating rail incidents tends to vary across investigators, affecting the quality of investigation on the ground. To ensure a high standard investigation irrespective of location, the investigatory regime should allow for the efficient and most tailored deployment of expertise. A single national rail safety investigation framework would make better use of current expertise. Duplication would be reduced and capacity building enhanced. Collective efforts and resource sharing enable the establishment of a critical mass that is required to undertake certain tasks effectively. A single national investigator is better able to encompass the extensive range of specialities and accommodate new developments relevant to the investigatory task. By providing a consistent framework there is an opportunity to use the best available investigation techniques and allocate appropriately the best resources currently available in Australia.

The three options formulated for the rail safety investigatory framework are conceptually similar to those in rail safety regulation – the status quo, an enhanced approach to the status quo based on best practice and a national approach.

However, where transport safety investigation differs from transport safety regulation is in the existence in Australia of three multi-modal transport safety investigators. These three bodies investigate variously:

- accidents and incidents in aviation, maritime and rail (the Australian Transport Safety Bureau)
- buses, ferries and rail (the New South Wales Office of Transport Safety Investigations), and
- public transport (including rail) and maritime (the Chief Investigator, Victoria).

Transport Ministers directed NTC to prepare a draft regulatory impact statement into a rail safety regulatory and investigation framework. As such, NTC focussed its energies on rail-specific options for improving on current arrangements.

On the basis of the qualitative arguments about safety improvements, the best of the three rail-specific options is a single national rail safety investigator. However, there is no quantifiable support for this option, unlike in rail safety regulation. In addition, creating a separate, single, national rail safety investigator would necessarily involve transferring twelve rail investigators from their current employers and creating a dedicated body. This would result in reduced investigation capacity in the extant investigators.

Of the remaining rail safety-specific options, option 2 (enhanced status quo) would go some way to address the problems identified earlier by targeting problems with legislative inconsistencies. Capacity issues would be partially addressed with formalised cost recovery and resource sharing arrangements.

Some states have suggested that as in rail safety regulation, governments' next logical step in rail safety investigation should be model legislation, as per option 2. There are a number of logical flaws with this argument:

- Model legislation is intended to deliver consistent outcomes; it cannot ensure uniform outcomes. The differences in legislation identified by KPMG and during consultation on the draft regulatory impact statement require uniform legislation to overcome them.
- There is no direct “compliance” burden on industry from operating in multiple jurisdictions, as there is in rail safety regulation:
 - industry does not experience duplication of independent safety investigations – accidents and incidents will be investigated once, by an investigator from the Commonwealth, New South Wales or Victoria, or by the person appointed by governments in Queensland and Western Australia.
 - industry does not suffer a direct “compliance burden” from differences in legislation, except potentially indirectly due to minor differences in the actions of investigators in different areas.
 - the impact of inconsistencies in legislation is primarily experienced by the Australian Transport Safety Bureau when investigating under the legislation applying in the requesting state or territory.
- Collectively, around \$5 million per annum is spent on independent safety investigations. Developing the model rail safety legislation took many years and considerable hours of government officials' and stakeholders' time. Careful thought should be given to whether the public and private costs of developing model legislation are worthwhile for an activity with a relatively small annual outlay.

A range of views were expressed during consultation about a national rail safety investigator and a multi-modal investigator.

Some stakeholders believe option 3 should be re-interpreted as a single national rail safety investigation ‘function’, rather than a separate single national rail safety investigation ‘entity’. The Australian Transport Safety Bureau, as the largest and best-resourced investigator, would be the superficially obvious choice for a single function; however stakeholders have identified a number of issues with such a choice, listed in Figure 11.

- | |
|---|
| <ul style="list-style-type: none"> • The Australian Transport Safety Bureau is resourced to undertake a finite number of investigations, unlike investigators in New South Wales and Victoria which are resourced as demand requires. • The Bureau's “as-of-right” activities are confined to most parts of the Defined Interstate Rail Network. • The Bureau investigates different accidents and incidents to those investigated in New South Wales and Victoria and the difference is not explained entirely by the Bureau's jurisdiction over the Defined Interstate Rail Network. New South Wales |
|---|

and Victorian investigators have flexibility (apparently primarily due to the resourcing differences) to investigate a greater range of accidents and incidents from which safety lessons might be learned.

- The Bureau, while perceived as independent, is currently not administratively and structurally independent from the Commonwealth Department of Infrastructure, Transport, Regional Development and Local Government. The investigators in New South Wales and Victoria have statutory independence and are separate from regulators and policy-making departments.
- In the 2007/08 financial year, the Bureau had a median completion time of 456.5 days for reports, which according to stakeholders in industry, unions and some states is too long.¹²⁸
- The Bureau is unable to monitor the progress of governments and industry in implementing or otherwise addressing recommendations arising from the Bureau's safety investigation reports.
- Some stakeholders suggested during consultation that the Commonwealth might want to evaluate other jurisdictions' legislative frameworks to ensure the *Transport Safety Investigation Act 2003*, under which the Bureau operates, reflects best practice from all jurisdictions.

Figure 11. Stakeholder feedback on the Australian Transport Safety Bureau

However, the benefits of the Australian Transport Safety Bureau assuming a single national rail safety investigation function include:

- There is a body of research and overseas practice which supports consideration of a national, multi-modal investigatory body. In Australia, a national, multi-modal investigatory body could investigate safety incidents in all the transport modes currently investigated by the three independent investigators – aviation, maritime, rail and public transport.
- The Bureau will become an independent Commission on 1 July 2009 and will also be legislatively equipped to better monitor progress against its recommendations.
- Of the three government investigators, the Australian Transport Safety Bureau is widely acknowledged to have the best laboratory resources in Australia. The Bureau also notes it has excellent networks with national investigators overseas.
- There are indirect benefits to Bureau investigations in rail and maritime from the substantial resources directed at the Bureau's aviation investigations. These benefits include access to complementary human performance, technical analysis and data recorder specialist investigators and a highly developed, nationally accredited investigator training regime.

Other stakeholders suggested during consultation either that a single national multi-modal investigator was an excellent idea or one that should not be considered in this regulatory impact statement. The submissions and consultation were not conclusive enough to warrant progressing the idea of a national, comprehensive multi-modal investigator at this time.

¹²⁸ In the previous financial year, 2006/07, the Bureau's median completion time was shorter at 369 days.

Victorian submissions opposed a single national rail safety investigator (entity or function) on the grounds that incremental improvements would be sufficient to address the modest problems identified, that there would be little or no benefit to Victorians and that investigation costs for the state would increase. The Queensland government also opposed a single national rail safety investigator as it believes the arrangements in that state are superior to those that could otherwise be delivered.

Finally, there was little support for a separate, single national rail safety investigator, but a great deal more criticism of the idea.

NTC argues that ultimately, Australian governments should be aiming for one national multi-modal safety investigator, to match overseas best practice. In the first instance, NTC recommends the expansion of the role of the Australian Transport Safety Bureau to encompass investigations and resources in all jurisdictions.

The risks of a potential reduction in cross-modal investigation capacity in New South Wales and Victoria, or of a reduction in choice of investigators in Queensland or any potential loss of capacity on the part of state Ministers to instigate rail safety investigations may be addressed in a way similar to recent amendments to the Australian Transport Safety Bureau's Transport Safety Investigation Act, which will make the Australian Transport Safety Bureau an independent statutory agency on 1 July 2009.

Governments in New South Wales, Victoria and Queensland, in particular, are encouraged to consider assigning primary investigation responsibility and resources to the Australian Transport Safety Bureau if and when they are satisfied an enhanced Australian Transport Safety Bureau can provide the same, or superior, safety investigation outcomes as their current processes.

In the short term, NTC recommends that the Commonwealth government should continue to examine and address the concerns of other jurisdictions with a view to moving towards formalising arrangements to expand the role of the Australian Transport Safety Bureau, taking into account the matters listed in Figure 11. Governments in New South Wales, Victoria and Queensland would be encouraged to assign primary investigation responsibility and resources to the Australian Transport Safety Bureau when the Commonwealth satisfies those states that an enhanced Australian Transport Safety Bureau will provide the same, or superior, safety investigation outcomes as their current processes.

12.3.3 Additional comments

The NTC acknowledges that moving towards a single national rail safety regulatory and investigatory framework has a number of implications. In the context of significant reform there will always be short-term considerations for managing the change, and the following are some issues that may arise in this case:

- resources – deployment of current staff
- governance – ministerial capacity to refer or initiate
- operational – local responsiveness
- financial – impact on current costs of jurisdictions and industry, cost distribution across governments and cost recovery arrangements for industry.

Many of these issues are considered in section 13.

Some stakeholders also suggested that moving to a national rail safety regulator and rail safety investigator collectively would provide additional synergies in a modern regulatory environment for rail, compared to only one of the proposals being approved.

13. STAKEHOLDER ISSUES: GOVERNANCE AND TRANSITION

This section discusses the governance and transition issues raised throughout stakeholder consultation.

As discussed previously, NTC has concluded that based on current information, a single, national rail safety regulation and investigation framework would deliver safety and efficiency benefits.

The greatest benefits would arise from the creation of a single national rail safety regulator and enhancing the Australian Transport Safety Bureau.

13.1 Moving forward with change in regulation and investigation

This regulatory impact statement represents the first in a series of steps towards the creation of a national rail safety regulator. There are three phases in the establishment of the national rail regulator:

1. COAG approves the preferred option in the final draft regulatory impact statement, which is in effect a draft proposal. This is the current phase.
2. Development and approval of a final proposal. This phase takes COAG's preferred option from phase 1 and turns it into a final proposal. This phase includes development of a national partnership agreement, legislation, funding arrangements, governance, a transitional plan and resolving residue policy issues.
3. Transitioning from the current regulatory arrangements to the national regulator. This phase includes establishing the national regulator (e.g. appointment of board and CEO) and ensuring rail safety during this period. A transition team will be required to make this happen.

The final proposal will comprise agreed:

- legal frameworks for the regulatory entity and the law to be administered
- governance arrangements for Ministerial accountability and oversight and for the regulator's executive
- funding arrangements
- safety policy framework for the future, which requires:
 - resolution of outstanding policy issues, including those arising from accident investigations or contemporary regulatory practice
 - identification of additional matters for inclusion in the legal framework
- minimising any safety risks that may arise during preparation of the final proposal and anticipating risks that may arise during transition.

These issues need to be resolved for the final proposal. This section contains further discussion of these issues at 13.2. Further work in finalising the proposal, including stakeholder consultation, is required.

As part of the finalising the proposal, a transitional plan will need to be developed to outline how a transition to a single regulator will be managed. Establishing a transition team will be critical and it would be timely to set up this team while finalising the proposal.

A series of transitional issues will require consideration, including:

- risks to safety during transition
- a ‘people strategy’ to staff the regulator and assist current regulatory staff with transition
- the importance of local representation
- organisational structure and location arrangements
- information technology, human resources and other corporate systems
- resolution of ‘residual’ issues arising
- consequential changes to legislative and administrative arrangements elsewhere, and
- agreement to review the national regulator’s operations after a suitable period of time.

The regulatory impact statement recommends that the Australian Government’s Australian Transport Safety Bureau could be enhanced to undertake a national role. This draft regulatory impact statement represents the first in a series of steps towards improvements in current rail safety investigatory arrangements. NTC suggests that this could take the following phased approach:

1. COAG approves the preferred option in the final draft regulatory impact statement, which is in effect a draft proposal. This is the current phase.
2. Development and approval of a final proposal. This phase takes COAG’s preferred option from phase 1 and turns it into a final proposal. This phase includes making legislative amendments, securing additional funding and finalising the legislative framework.
3. Transitioning to new investigation arrangements. As there is an existing investigator, transition to new arrangements could presumably begin immediately after the final proposal is approved.

Since the Australian Government’s existing investigator is the subject of these actions, it would be appropriate for the Department of Infrastructure, Transport, Regional Development and Local Government to lead the development of a final proposal.

13.2 Developing a final proposal for a national rail safety regulator

13.2.1 Legal frameworks

The legal and legislative issues which arise when considering a national rail safety regulator include questions of what law the regulator will administer; the law which will establish the regulator, if different from the former; the inter-governmental agreement underpinning the regulator; and which parliament the law or laws will pass. The underlying issues are those of coverage, accountability and control.

An important principle is that law of the same content would apply across all jurisdictions and be administered by one body, a national regulator. It would not necessarily involve one piece of law or even that the uniform national law be enacted in one jurisdiction.¹²⁹

13.2.1.1 Possible legal models for establishing a national regulator

There are a number of legal frameworks by which a single, national rail safety regulator can be established:

- The regulator is established by Commonwealth legislation which sets out the rail safety rules to be administered by the regulator. The Commonwealth relies solely on its legislative powers i.e. corporations, interstate trade and commerce, territories etc.
- The regulator is established by the law of a host state or territory to administer the rail safety rules (the Commonwealth not being involved). The host state or territory also enacts the rail safety rules in legislation adopted by the other states and territories with those laws conferring powers on the regulator.
- The regulator is established by Commonwealth legislation to administer the rail safety rules which are also set out in that legislation. The Commonwealth relies on a reference of powers from the states.
- The regulator is established by Commonwealth legislation to administer the rail safety rules. A host state or territory enacts the rail safety rules in legislation adopted by the other states and territories. Those laws confer powers on the Commonwealth regulator.
- The regulator is a body-corporate owned by the Commonwealth, state and territories and exercises powers conferred on it by the rail safety rules in state and territory law (possibly enacted under the template approach outlined above).

There is substantial discussion of the possibilities presented by template law in the consultation regulatory impact statement for a National Framework for Regulation, Registration and Licensing of Heavy Vehicles (“the heavy vehicle consultation regulatory impact statement”).

The decision on a legislative model would be the subject of further work. To resolve a range of legislative issues pertaining to both the legal structures of the new entity and the legal functions of such an entity, central agencies in each jurisdiction will need to be involved in the development of a legislative model to underpin a national regulator. It would also be necessary for a National Partnership Agreement to be established reflecting legal and funding arrangements. It is proposed that the jurisdiction hosting the legislation take the lead role in establishing the National Partnership Agreement.

13.2.1.2 Law which the regulator would administer

The national rail safety regulator would regulate rail safety for all accredited railways, including exclusively state-based operations such as mining, urban passenger rail and tourist and heritage operations.

¹²⁹ Commonwealth of Australia (2008a)

The national rail safety regulator would administer legislation based on the national model rail safety Bill. There are a number of matters the model law would need amending to address.

The national model rail safety Bill is silent as to the composition, legal identity and governance arrangements for a rail safety regulator. Additionally, the Bill requires further development to allow for the effective performance of the regulator's functions. While the bulk of the provisions contained in the Bill do not require revisitation in light of the proposal, the movement to a national regulator will require consideration and resolution of the following matters:

- the transfer of any responsibilities between levels of government (for example, the requirement the consent of Minister be obtained by the regulator to institute proceedings against the Crown or a statutory body representing the Crown for an offence¹³⁰)
- underlying inconsistencies in the substantive law that remain at the time the national regulator is established (these may be present in unreformed law of jurisdictions yet to implement the national Bill or laws implementing it which retain local provisions creating inconsistency), and
- governance provisions that form part of the local laws relating to a local regulatory authority that were not incorporated in the development of the model law (for example, s.28 of the *Rail Safety Act 1998* (Western Australia) which provides the Director General power to require an accredited person to install safety or protective systems, devices, equipment or appliances specified in the notice).

The Bill would require changes to include governance arrangements for the chief executive officer and any Board; set national penalties, fees and charges; and ensure state powers to set up Special Commissions of Inquiry in the event of accidents are not overruled.

The Victorian Department of Transport also commented extensively in its submission on new matters to be considered for any law, suggesting that key principles be included. The Victorian Department of Transport and the New South Wales Government commented on the need to include additional duty holders. Victorian commentary focussed on utilities' duty to ensure safety be addressed.¹³¹ Of all jurisdictions Victoria has the most experience administering the model rail safety legislation, and also suggests matters to be addressed include the definition of a rail safety worker (whether a rail safety worker includes those doing loading and unloading); coverage of labour hire activities; and dispute resolution for safety-based disputes between track managers and rolling stock operators and road authorities and rail agencies.

13.2.1.3 Inter-governmental agreement or other partnership arrangement

Common to all the legal frameworks is the importance of having an agreement between governments that is clear on: the mechanisms by which the framework is to be established;

¹³⁰ Clause 122 national model rail safety Bill

¹³¹ The Victorian Department of Transport notes in its submission that utilities are not directly addressed by the national model rail safety legislation. The department's submission points out that in implementing the national model legislation, Victoria has included provisions to cover the activities of road, gas, water and electricity utilities as well as the other accountable parties identified by the Bill. The submission also suggests including telecommunications, although noting that Victoria's Rail Safety Act 2006 does not cover this utility.

how any amendments to legislation are to be made and what the parties undertake to do (and not to do) so as to sustain the cooperative scheme over time. The ease of amendments, the mechanism for that to occur, the level of participation in that process, the speed with which issues can be resolved (and legislation amended if necessary) will all impact on the maintenance of political commitment and therefore the success of the scheme. These issues might be relevant to the legal framework chosen.¹³²

The draft heavy vehicle consultation regulatory impact statement lists the following as matters that might be covered in a national partnership agreement:

- the amendment of some parts of the legislation may require unanimous support in the Ministerial Council, others only majority support, and (possibly) some minor matters may be amended by the host jurisdiction without reference to the Ministerial Council
- consultation might be required with specific groups or agencies in the development of any draft amendments
- draft amendments may have to be publicly circulated before and/or after consideration by the Ministerial Council
- members of the Ministerial Council might have to be consulted if amendments are proposed to amending legislation while it is in the Parliament of the host jurisdiction
- timeframes within which any future amendments might come into operation might be set out
- the capacity (if any) for any state or territory to make laws inconsistent with the template law (or determine not to have any future amendments apply in the jurisdiction)
- an undertaking by the states and territories not to introduce inconsistent legislation.

The inter-governmental agreement would also include provisions for review and termination (with appropriate notice).

13.2.2 Governance arrangements

Corporate governance describes the processes by which organisations are directed, controlled and held to account. Good corporate governance principles can be satisfied where the responsibilities of all participants in an organisational system are clear and well understood, and carried out consistently and with full accountability in the public interest; the underlying public interest, in this case, being an effective national rail safety regulation system.

An effective system of corporate governance can facilitate decision-making and appropriate delegation of accountability and responsibility within and outside the regulator. This should ensure that:

- the varying interests of stakeholders are appropriately balanced

¹³² From Commonwealth letter (19 December)

- decisions are made in a rational, informed and transparent fashion, and
- those decisions contribute to the overall efficiency and effectiveness of the organisation.

The respective powers, roles and responsibilities of the elected and appointed participants in the public sector tend to result in greater management complexity (in terms of stewardship and accountability) than is the norm in the private sector. An effective governance framework for the national rail safety regulator must clearly identify and define the powers, roles and responsibilities of the relevant Minister and executive management. Without such definition, clear accountability for the achievement of the relevant objectives cannot be achieved

In giving consideration to these matters, NTC investigated:

- the composition of other national safety regulators and investigators
- the arrangements in place in states and territories for rail safety regulators; and
- the principles and recommendations set out in the *Review Of The Corporate Governance Of Statutory Authorities And Office Holders* ('the Uhrig Review'), and developed by the Australian National Audit Office.

State and territory Ministers have a justifiable need for a responsive and accountable independent regulator. These expectations can be met while ensuring that a national regulator is properly independent of all parties.

Regardless of which form the national regulator takes in the final proposal, the terms of the relationships between the regulator and key stakeholders, including those with Parliaments and governments, should be formally recorded in legislation or inter-governmental agreement as appropriate.

13.2.2.1 Regulator form

A primary governance consideration to be resolved in the establishment of the regulator is the selection of the appropriate form of government agency. Generally the choice is between a departmental entity subject to Ministerial control and an entity that is statutorily delegated powers. The latter are generally known in Australia as 'independent statutory authorities'.

Establishment as an independent regulator is common in many domestic and international industrial safety regulators in Australia, and two of Australian rail safety regulators. In the first instance, the legislative provisions underpinning Australia's two independent regulators in New South Wales and Victoria will provide guidance. In establishing a regulator these matters should be considered the minimum acceptable standard in relation to independence. The provisions for the regulators in New South Wales and Victoria relate to situations in which there is only one responsible Minister.

In the case of a national rail safety regulator, the Australian Government, state and Northern Territory Ministers for Transport will have an interest in rail safety regulation. The National Offshore Petroleum Safety Authority already operates in this type of environment, being accountable to Australian Government, state and Northern Territory Ministers responsible for offshore oil and gas safety, and lessons may be learnt from examining the National Offshore Petroleum Safety Authority's governance and legislation framework.

The independence of an unelected statutory office holder is generally counterbalanced by mechanisms to ensure Ministers are able to effectively discharge their own accountabilities to Cabinet, Parliament and the electorate.

13.2.2.2 Board and external advisory groups

Consideration has been given to whether the authority should provide for a board of management to complement the statutory office holder (and chief executive) of the regulator. The perceived benefits of this approach lie in the board's responsibility to direct management on strategy and cultural factors, leaving the CEO to focus on the central operational function – the proper exercise of demanding statutory functions. While there has been an increasing adoption of the private sector 'boards of management' model in the public sector in Australia, alternative approaches have been developed to better reflect the public stewardship and accountability principles that are not the norm in the private sector.

Some existing Commonwealth and state regulatory agencies, for example the Independent Transport Safety and Reliability Regulator and the National Offshore Petroleum Safety Authority, and as has been recommended for the Civil Aviation Authority, fulfilling functions similar to a national rail safety regulator, are governed by a Board to which the chief executive and management are accountable. The Board is in turn accountable to the responsible Minister(s). Comparable Australian and overseas safety regulators follow a similar approach except in the United Kingdom (which has a considerably larger and more complex rail system than Australia, and a more complex and onerous regulatory burden for the regulator to discharge).

It is arguable that a governing board of this type would represent a suitable arrangement for the national regulator. A national rail safety regulator will require mechanisms to address the interests of key state and territory stakeholders absent from a mainstream jurisdiction-specific regulator.

However, it is also common for agencies to operate within more transparent and simplified administrative frameworks, with management having more flexibility, less hierarchy and greater devolution of authority. The Uhrig Review concluded that, "With a few notable exceptions, boards in statutory authorities are likely to be an unnecessary layer in the accountability framework."¹³³

Consideration could also be given to creating an advisory board, council or committee. Such a group would have one of three roles:

- Ministerial advisory board – providing advice to the Minister on all matters relevant to the management of an authority but the Minister retains unfettered right to control and direct the board and the chief executive; or
- chief executive advisory board – advising the chief executive in a non-binding manner or within a relationship where it is subordinate to the chief executive; or
- advisory council, committee, etc – these bodies have little or no policy determination or operational executive functions and are established primarily to provide advice to a portfolio Minister on policy or operational issues.

¹³³ Uhrig Review, page 66

An effective regulator could accommodate an advisory board structure where the board advises the chief executive in a non-binding manner or within a relationship where it is subordinate to the chief executive. Neither of the Ministerial forms of advisory bodies mentioned above is thought to be appropriate for the national rail safety regulator.

An effective governance framework must start with the powers, roles and responsibilities of the relevant Minister(s), governance body (where appropriate) and chief executive being clearly defined. The Uhrig Review explicitly recommended the avoidance of structures which detract from accountability in the following terms, “the presence of a board which does not have full power to act, [has] the effect of confusing and diluting accountabilities between the Minister, the board and the chief executive”.¹³⁴

When agreeing to establish the National Offshore Petroleum Safety Authority, Ministers agreed that decisions on Board composition and membership, and the initial chief executive officer to the authority, would be undertaken by all participating governments.

In the recent review of the National Offshore Petroleum Safety Authority, the independent review team found that the Board assisted the authority during the establishment period in a very positive manner and gave the chief executive valuable advice. After the authority became operational the role of the Board became unclear to stakeholders. Some thought it was a governing board; some looked at it as an access door to Ministers. Some did not see the need for a Board. As a result, the independent review team recommended:

“The role of the advisory Board, namely to give advice to Ministers and NOPSA when asked, should be made clear to Board members and all stakeholders. The Board and NOPSA should consider the need for a clear description of who does what based on the legislated responsibilities of the NOPSA CEO.”¹³⁵

13.2.2.3 Appointment of chief executive officer

Examples of suitable provisions for the appointment of a chief executive officer to a regulator can be found in:

- the legislation for existing Australian Government authorities such as the Civil Aviation Safety Authority and the National Offshore Petroleum Safety Authority
- the legislation for the New South Wales rail safety regulator or in Victoria, where an independent office holder is appointed.

There are currently a variety of approaches to rail safety regulation. The optimal regulatory approach is not one that can be prescribed. It is informed by continually improving regulatory practice, the maturity of the industry regulated and changing societal concerns and expectations. The chief executive officer of the regulator is responsible for an optimal regulatory approach (within the defined limits of legislation) and for the parties to whom the chief executive officer is accountable to be satisfied with this performance (otherwise, the chief executive officer should be replaced). The regulatory approach is one which should be determined by the chief executive officer, in consultation with relevant stakeholders and based on contemporary good regulatory practice. It would be expected that the chief executive officer of the national regulator would, as an early transitional project in the establishment of the regulator, assess the existing approaches across the state

¹³⁴ Uhrig Review, page 53

¹³⁵ Commonwealth of Australia (2008c), page 8

offices, identify areas of inconsistency and (over time) adopt the best practices across the various offices.

When agreeing to establish the National Offshore Petroleum Safety Authority, Ministers agreed that decisions on the authority's initial chief executive officer would be undertaken by all participating governments.

13.2.3 Funding arrangements

A fundamental component of a single national system for rail safety regulation will be sourcing the necessary funding for the interim establishment and ongoing requirements of any new body.

At their meeting in July 2008, Transport Ministers noted that no less resources should be allocated to each jurisdiction, so that response rates and the priority accorded to incidents would not be reduced. This agreement establishes a threshold for funding arrangements for a safety regulator.

Only two jurisdictions (Queensland and Western Australia) currently have arrangements close to 100% cost recovery from industry. With rates of cost recovery averaging 40% but varying currently across jurisdictions, significant consideration will need to be given to maintaining standards in well-funded jurisdictions and in balancing industry operator fees. It is also important to note that tourist and heritage operators pay little or no fees and would expect that to continue under a national regulator.

To the extent that Ministers participate in the governance of the national regulator (and given their interest in its local performance) it would be appropriate to provide for funding of the regulator to be determined in relation to a formula approved by the Australian Transport Council. Such a formula would be for Ministers to decide, but would presumably be reflective of the intensity of rail operations, demand for regulatory services in each jurisdiction and the Commonwealth's identified interest. Where funding of the regulator's activities is intended to be recovered from regulated persons, a useful basis for the determination of the relevant fees may be the *Proposed Regulatory Agency Guidelines* prepared by the Productivity Commission through its inquiry into *Cost Recovery by Government Agencies*, however this should be explicitly addressed in a national partnership agreement. These and any other well-established principles for cost recovery will need to be considered in establishing the resourcing, funding and fees arrangements for a single regulator.

Consultation with employee unions has revealed a preference for resourcing levels consistent with that of New South Wales currently; this would require significant increases of funding in some jurisdictions.

Given considerations of current arrangements with partial cost-recovery, supplemented by public funds in a majority of jurisdictions, it may be necessary for an initial contribution from the Australian Government to establish any new body, while jurisdictions are managing the effects of such a change. The redistribution of the regulatory burden from each jurisdiction and operators' requirement to meet one set of compliance costs will reduce the overall funding required to maintain the system.

In establishing the National Offshore Petroleum Safety Authority, Ministers agreed that it would be fully funded on a cost recovery basis by an industry safety fee. It was also agreed that a new fees agreement be developed by the Australian Government, states and the

Northern Territory ensuring the amount designated authorities receive in revised industry fees, once the safety regulation function is transferred to the safety authority, is no less than they received during 2001-02 and determined on the basis of cost recovery principles.

13.2.4 Safety policy framework for the future

An agreed safety policy framework is an important component of any national regulator proposal. Despite agreement by ATC to national model rail safety legislation, jurisdictions have adopted different policy positions on some matters. In some states, particular policies have resulted from accident investigations or from contemporary regulatory practice. In some instances there continue to be substantive policy differences between jurisdictions; in others it may be a case of different implementation choices for the same policy position. These issues include but are not limited to drug and alcohol testing of rail safety workers, fatigue management, occupational health and safety regulation and various ancillary statutory power and responsibilities of relevant Minister(s) in each jurisdiction. Their resolution may be necessary to allow the national regulator to effectively function, particularly where the regulator is to administer a single, national law.

The national review of occupational health and safety laws will determine the way forward for rail safety regulation. The review reported earlier in 2009 to the Workplace Relations Ministerial Council on the optimal structure and content of a model occupational health and safety Act that is capable of being adopted in all jurisdictions.

Development of a national rail safety policy framework may result in additional matters needing to be considered for the legal framework of the national regulator.

13.3 Transitional issues arising in the change to a national regulator

In establishing a national regulator it is necessary to develop an appropriate transitional plan which maintains the integrity of the current regime, for implementation after agreement by all jurisdictions and which minimises adverse impacts on staff, industry and regulatory responsibilities and liabilities to the designated authorities. In the case of the National Offshore Petroleum Safety Authority, the Commonwealth, states and the Northern Territory agreed to jointly take responsibility for managing the transition and any costs incurred by the states and territories on a cost sharing basis.

13.3.1 Risks to safety during transition

Public Transport Safety Victoria suggests consideration be given to the safety risks that might arise as changes to institutional arrangements are being made.

In developing the transition plan, consideration should be given to the arrangements required to ensure sufficient resources are devoted to keeping state-based rail safety regulation going while the transition to a new regulator takes place.

13.3.2 People

The national regulator must be staffed by well-trained, highly competent individuals. To ensure this occurs, particular attention must be paid to staffing the new body.

There are a number of issues relating to current regulatory employees and their involvement in the new national regulator. These issues include:

- security of tenure – for those staff who work in the new regulator and those who opt to remain in state government employ
- the employment options in a new regulator
- pay maintenance and equity considerations. There is some variability in the pay scales of regulatory staff in different jurisdictions, and
- training and career opportunities in a national regulator.

At their meeting in July 2008, Transport Ministers noted that no less resources should be allocated to each jurisdiction, so that response rates and the priority accorded to incidents will not be reduced. The Community and Public Sector Union would be consulted in relation to staffing matters.

A key component of developing and implementing quality safety regulation relies heavily on the staff working for the regulator. Currently there are state-based arrangements in place to manage the ongoing development of the expertise required to work in this field, due in part to the specialised nature of the rail sector. There are currently 176.5 full time equivalent staff around Australia, based in each capital city.

It is appropriate for the single, national regulator to maintain current staffing arrangements during the interim and establishment phases of implementing the new body; following this period it would be up to the chief executive or equivalent to manage these resources.

Industry stakeholders support local representation, most appropriately by current regulatory staff, who would be easily accessible if required.

With the new rail safety regulatory reform package about to be implemented, all rail regulatory staff must have a high level of relevant skills to ensure that the national rail safety objectives are achieved. There should be nationally consistent competencies for regulators, with particular attention given to safety management plans, human factors and safety system engineering.

The issues of staff recruiting, retention, experience and quality have been consistently raised throughout the consultation process. A single, national body with representative offices would offer regulatory staff the opportunity to build their expertise using the experiences of other jurisdictions and provide them access to expert training and career development in a national system.

Consideration will need to be given to which tier of government would employ the safety regulators. The most efficient options for the management of these arrangements is to consider having the regulatory arrangement fully cost-recovered or have all staff employed by one entity, regardless of their location.

The Community and Public Sector Union would be consulted in relation to staffing matters.

13.3.3 Local representation

Throughout consultation stakeholders have been keen to emphasise the importance of local representation. Analysis of the rail industry early in the regulatory impact statement emphasises the importance of a strong presence in regions with significant public transport, which is most mainland cities. Given the presence of significant light rail in Victoria, local staff with expertise in trams would be particularly important in Victoria. The bulk of

freight operations are in Queensland, Western Australia and New South Wales which means staff will be needed in these states to regulate those operators. During consultation in Tasmania, attendees were in agreement about the importance of a continuing regulatory presence in the state.

13.3.4 Residual issues

Current independent regulators have a range of responsibilities other than rail safety regulation. The New South Wales regulator has reliability and other public transport regulatory functions and the Victorian regulator also regulates other modes of public transport. Consideration would need to be given to how governments would administer the non-rail safety regulation functions from the independent regulatory bodies. Similar consideration would be required for the remaining states in which regulatory staff are departmental officers.

It is also important to consider the need for an ongoing policy function. Setting and maintaining a split between rail safety policy development and regulation is vital for effective regulation. There are three possible approaches to national rail safety policy: the nomination of 'portfolio' agency where one department does national policy; a jurisdictional approach involving policy staff from jurisdictions and a hybrid model, involving jurisdictions and a coordinating body such as the National Transport Commission.

13.3.4.1 Interfaces with other regulators and legislation

In its submission on the draft regulatory impact statement, Public Transport Safety Victoria notes that the draft did not address the relationship between the regulator and (state) funding agencies prioritising capital spending on safety initiatives on government-owned track or in government-owned operators. Public Transport Safety Victoria asks whether a national regulator would make decisions that place significant costs on rail organisations and/or state and territory Governments.

Public Transport Safety Victoria's suggestion is very valid and raises an interesting question of equity. The regulator's decisions should be taken with the benefit of a cost benefit analysis (as is the case with Public Transport Safety Victoria's decisions affecting government funding agencies) but during consultation, an industry operator suggested that regulators' decisions about private operators could be subject to similar analysis.

There are other significant regulators (electrical safety regulators, dangerous goods regulators, security regulators) with mandates that affect safety.¹³⁶ The requirements of economic regulators may indirectly influence safety. The actual and potential interactions with these other regulators and agencies such as police and coroners should also be identified and coordinated.

13.4 Transition team

Should Ministers pursue the recommended option in the regulatory impact statement, phase 2 would commence immediately. The development of a detailed transition plan could be developed cooperatively between policy experts in the jurisdictions. However,

¹³⁶ In New South Wales, it is expected that Independent Transport Safety and Reliability Regulator and the Road Traffic Authority and other road authorities will strengthen their relationship in light of proposed obligations on such authorities to enter into interface coordination plans.

there will be very limited experience in actually creating a new body and the ability to identify and resolve specific issues in a sensible order would be valuable. Individuals with experience in establishing institutions in other industries would provide part of the skill set needed.

It is proposed that at the outset of phase 2, a transition team be established. The transition team will comprise approximately three high level professionals capable of developing a strategic transition plan and overseeing its implementation. The members will be appropriately skilled professionals from industry and government selected on the basis of their capacity to bring about the reform. The team will operate on a part-time basis with remuneration arrangements to be determined. The Transition Team will need a full time secretariat service.

A terms of reference for the transition team will be developed and endorsed by ATC. The transition team will report regularly to ATC and consult relevant stakeholder groups.

13.5 Review of the new regulator after three years

In early 2008 the National Offshore Petroleum Safety Authority's first three years of operation were reviewed by an independent panel of experts. The review examined progress in bringing about improvements in the occupational health and safety of the offshore oil and gas industry since the authority commenced operations on 1 January 2005. The Australian Government is currently responding to the report in consultation with key stakeholders.

In its submission on the draft regulatory impact statement, the Australasian Railway Association suggested that three years after the Rail Safety Regulator and Investigator functions are operational, a review should be conducted to assess the efficacy of these arrangements, involving all stakeholders including industry.

13.6 Rail safety investigation

As suggested earlier, since the Australian Government's existing investigator is the subject of these actions, NTC believes it would be appropriate for the Department of Infrastructure, Transport, Regional Development and Local Government to take the lead in developing a final proposal for change and managing any transitional issues.

There are fewer issues involved in enhancing an existing investigator and some of these are discussed briefly following.

13.6.1 Policy implications of change

While there is already an existing national rail safety investigator, a number of policy changes would be required before it could undertake the tasks required of it:

- The scope of activities would need to be broadened from the Defined Interstate Rail Network to all railways in Australia. For incidents on the non- Defined Interstate Rail Network, the Australian Transport Safety Bureau must be invited to investigate before being able to do so.
- The resources made available must be increased so that the Australian Transport Safety Bureau has discretion to investigate as many accidents as required. New South Wales and Victoria's Chief Investigators have the discretion to choose which transport safety occurrences they will investigate.

- The basis of the Australian Transport Safety Bureau's resources must be changed from a finite number of rail investigations to an as-required basis.
- Ministers in all States must be able to direct that an investigation occur into any matter in which they are interested.
- If satisfied with the increases in the Australian Transport Safety Bureau's scope, funding and Ministerial powers to direct an investigation, governments in New South Wales and Victoria's Chief Investigators could be encouraged to merge their State-based rail investigators with the Australian Transport Safety Bureau.

In the event of accidents or incidents, representatives from police, the coroner, WorkSafe and the regulator will attend, in addition to safety investigators. Often police and emergency services and representatives of the rail operators are the first trained personnel to arrive at accident or incident sites. Formal and informal arrangements would be updated to accommodate a change in institutional arrangements.

13.6.2 People

As is the case with the regulator, a key component of developing and implementing quality investigation processes relies heavily on the staff working for the investigator. There are minimal arrangements in place to manage the ongoing development of the expertise required to work in this field, due in part to the unique nature of the rail sector.

It is appropriate for the single, national investigator to maintain current staffing levels, with the addition of provisions for state-based offices to make for efficient geographic deployment in the event of an emergency.

The issues of staff recruiting, retention, expertise and experience have been consistently raised throughout the consultation process. These matters have been discussed in relation to the single, national rail safety regulator at section 13.3.2 and can be resolved in a similar manner in establishing the single, national rail safety investigator.

The Community and Public Sector Union would be consulted in relation to staffing matters.

13.6.3 Legal issues

The Australian Transport Safety Bureau administers the *Transport Safety Investigation Act 2003*.

However, the draft KPMG report into rail safety investigation arrangements found that there are material differences in the scope of investigative powers afforded to investigators in each jurisdiction. Consideration should be given to using the best parts of the legislation that underpins independent investigation arrangements in the Australian Government, New South Wales, Queensland and Victoria.

It is suggested that consideration be given to introducing some consistency between jurisdictions in relation to:

- appointment of an independent investigator, by parties including but not limited to the regulator
- investigation provisions relating to evidence and witnesses

- transparency and public reporting.

In two jurisdictions the practice is to choose from a range of investigators. Consideration may need to be given to ensuring flexibility for these jurisdictions. In other jurisdictions there are other dedicated independent investigators or it is usual practice to use the Australian Transport Safety Bureau.

The *Transport Safety Investigation Act 2003* would require some amendments, for instance to include provisions for Ministers to direct the investigator to undertake an investigation would be required. The provisions for investigators to collect and preserve evidence would be reviewed to ensure they are as comprehensive as possible.

13.6.4 Cost for industry and governments

Investigators are almost exclusively government-funded and it would be appropriate to provide for additional funding for the Australian Transport Safety Bureau to be determined in relation to a formula approved by ATC. Such a formula would be for Ministers to decide, but would presumably be reflective of the intensity and risks of rail operations, demand for investigatory services in each jurisdiction and the Commonwealth's identified interest.

A primary factor of developing and implementing improvements to the current arrangements or creating a single, national rail safety investigation system would be sourcing the necessary funding.

The current arrangement has two jurisdictions having independent investigation services and the Australian Transport Safety Bureau providing assistance to other jurisdictions as required. Operating requirements are currently supplemented by public funds and it may be necessary for an initial contribution from the Australian Government to establish any new body, while jurisdictions are managing the effects of such a change.

14. CONSULTATION

This section describes the affected and consulted parties, the consultation undertaken in preparing this regulatory impact statement and summarises the range of views expressed during consultation.

14.1 Affected parties and consulted parties

Table 17 sets out the parties with a stake in rail safety regulation and the nature of their interest.

Table 17. Parties with a stake in rail safety regulation and investigation

Party	Nature of interest
Australian Transport Safety Bureau	<ul style="list-style-type: none"> Undertake transport accident investigations, including on the Defined Interstate Rail Network
Department of Infrastructure, Transport, Regional Development and Local Government	<ul style="list-style-type: none"> Provision of advice and support to Commonwealth Minister for Transport
Commonwealth Minister for Transport	<ul style="list-style-type: none"> Chair of Australian Transport Council (Ministerial Council) Shareholding Minister in Australian Rail Track Corporation – 100% Commonwealth owned below rail operator
State Departments of Transport	<ul style="list-style-type: none"> Provision of advice and support to state Ministers for Transport In Queensland, Western Australia, South Australia, Northern Territory and Tasmania, responsible for rail safety regulation (whether under delegation or not) Undertake or commission rail safety investigations in some situations
State Ministers for Transport	<ul style="list-style-type: none"> Members of the Australian Transport Council Accountable to the public of the state for transport In some instances, will be a shareholding Minister in a state-owned rail operator
Independent Transport Safety and Reliability Regulator (New South Wales)	<ul style="list-style-type: none"> Regulates rail safety in New South Wales
Public Transport Safety Victoria	<ul style="list-style-type: none"> Regulates rail safety in Victoria
Office of Transport Safety Investigations (New South Wales)	<ul style="list-style-type: none"> Undertakes transport safety investigations in New South Wales

Party	Nature of interest
Chief Investigator, Transport and Marine Safety Investigations (Victoria)	<ul style="list-style-type: none"> Undertakes transport safety investigations in Victoria
Rail unions: <ul style="list-style-type: none"> Rail, Tram and Bus Union Other rail unions were invited to attend formal consultation sessions. 	<ul style="list-style-type: none"> Union members are employees of rail companies
Rail operators <ul style="list-style-type: none"> Interstate freight operators Interstate passenger operators Intrastate passenger and freight operators Tourist and heritage railways Contractors Pilbara (mining) railways 	<ul style="list-style-type: none"> Commercial imperatives Provision of public passenger transport services, including community service obligations Tourist attractions and preservation of rail heritage (tourist and heritage only) Infrastructure maintenance (contractors)
Australasian Railway Association	<ul style="list-style-type: none"> Industry body representing rail industry interests.
Association of Tourist and Heritage Rail Australia	<ul style="list-style-type: none"> Tourist and heritage sector is concerned to ensure that rail safety regulatory activities are undertaken in recognition of the challenges posed by the sector, with a large volunteer workforce, limited financial resources and largely non-commercial focus.
Community and Public Sector Union	<ul style="list-style-type: none"> Union members work in regulators and Departments of Transport.
Association of Professional Engineers, Scientists and Managers, Australia (APESMA)	<ul style="list-style-type: none"> Members work in regulators, investigators and Departments of Transport.
Central agencies	<ul style="list-style-type: none"> Policy and financial implications for governments
Officers and employees of government departments, regulators and investigators	<ul style="list-style-type: none"> Concerns about job security
Road authorities	<ul style="list-style-type: none"> Issues relating to level crossings, where roads and railways intersect.

The parties described in Table 17 were targeted in various ways during the formal consultation period.

NTC initiated an information bulletin series to ensure stakeholders were kept informed about the project. Bulletins continue to be released regularly.

14.2 Observations arising from consultation prior to the preparation of the draft regulatory impact statement

NTC's initial consultation identified a number of factors about the current situation:

- Philosophical approaches to the idea of co-regulation vary across governments, and between government and industry. These differences will always arise in the inherent tension between regulators and regulated, but the extent to which governments' philosophies differ was noteworthy.
- Regulators' levels of intervention vary. This may result from the risks in each jurisdiction and may reflect the differences in resourcing too.
- It is difficult to quantify the extent to which different approaches result in safety benefits (or disbenefits). Unions strongly support more interventionist approaches.
- Safety data for governments: NTC and regulators have already recognised the difficulties of state-by-state approaches to data collection, producing a National Strategy for Rail Safety Data to achieve greater consistency in data collection, analysis and publication. Regulators have also recently revised ON-S1 (the standard for occurrence categories and definitions).
- Shared safety data for industry purposes: the Australasian Railway Association has recognised the need for sharing by industry of safety data with a commitment in the above strategy to explore options for an industry database.
- The Australasian Railway Association's claims of inefficiency are treated with scepticism by regulators. It is important to undertake an independent and open analysis of the claims.
- Opinions on the Australian Transport Safety Bureau vary, and concerns appear to be about the investigations they choose to take on, and keeping Ministers in the state concerned informed, particularly with advance copies of final reports. Generally speaking, Australian Transport Safety Bureau reports are regarded as of a high quality.
- The importance of timely, high quality investigation reports was raised repeatedly. Industry and union(s) believe the reports can be valuable for lessons learnt, but they have to be released within a reasonable timeframe to be useful.
- The Rail Safety Regulators Panel adopts a collegiate approach to national consistency, which should be recognised. However, there are limits to the panel's ability to achieve national consistency.

Stakeholder views can also be grouped according to the following:

- The need or case for institutional change:
 - There is widespread agreement that the regulatory impact statement focus strongly on maintaining or improving **safety** outcomes. All parties agree safety outcomes are important; the industry peak body believes a single regulator will deliver improved safety outcomes while some in government are concerned a single regulator will diminish safety outcomes. None of these claims have been substantiated by proponents.
 - Industry and some in government also believe it is important to reduce unnecessary regulatory inefficiencies affecting industry.

- The principle of **risk** is considered very important and the principle that, “Regulators, and the regulatory system as a whole, should use comprehensive risk assessment to concentrate resources on the areas that need them most,” is one to which most parties generally subscribe.¹³⁷ Currently, risk assessment in Australian rail safety regulation, and consequently allocation of resources, is undertaken on a state-by-state basis.
- The **Australasian Railway Association** supports very strongly the setting up of a national rail safety regulator and a national rail safety investigator. On behalf of members, it advocates that a single regulator (in particular) will improve safety, reduce the regulatory compliance and administrative burden on business and lessen government spending on rail safety regulation.¹³⁸ The Australasian Railway Association has provided qualitative, anecdotal and aggregated information and data to support its claims about the costs of business and regulation.
- A single national regulator appeals to **interstate rail operators** (generally freight, but also passenger) because they would deal with one body, not several.
- **Intrastate** (generally metropolitan) **passenger rail operators** express a range of views on a single, national rail safety regulator. Some have commented that a single regulator would not make much difference, as they currently only deal with one regulator. One operator did note however that things could be different for them if the style of a national regulator was markedly different from the style to which they are accustomed. However, two **metropolitan passenger operators** in Victoria have reservations about a single national regulator or do not support a single national regulator. One operator stated that their experience with the development of road rules (in which states all have a say) led them to conclude a Victorian-focussed rail safety regulator would continue to be to their (the operator’s) benefit. The second regulator couldn’t perceive safety or commercial benefits from a single regulator. In addition, this operator was concerned about particular policy positions in Victoria being modified by a national regulator.
- The **Rail, Tram and Bus Union** recognises the potential benefits and possible drawbacks of a national regulator, and is aware of the many benefits for employees that would result from a national approach to matters affecting staff.
- Like the Rail, Tram and Bus Union, the **Community Public Sector Union** supports a better-resourced regulator.
- A number of stakeholders commented on whether the **timing** for change is right, given that COAG has committed to introduce harmonised rail safety legislation in each jurisdiction. The views expressed here range from believing jurisdictions should be given the opportunity to implement legislation before further changes are contemplated, to frustration at delays in implementing legislation and suggestions that the delays indicate another course of action should be pursued.

¹³⁷ Hampton Report <http://www.hm-treasury.gov.uk/media/7/F/bud05hamptonv1.pdf>

¹³⁸ A Victorian submission noted however that “..industry itself often struggle to reach consistent views because of the varying operating environments and the different interests of its constituent operators..... it needs to be acknowledged that a national rail safety regulator or enhanced cooperative arrangements are not a panacea for these problems.”

- Resolving what style of regulation a national regulator would adopt.
 - Currently the style of each state regulator is different. These differences arise from historical factors, any major accidents, financial and other resources available (whether through accreditation fees or from consolidated revenue), staff (personalities, experiences, outlooks, even demographics) and the nature of the rail operations in that state. New South Wales' rail safety regulation today results from the response to serious rail accidents at Glenbrook and Waterfall. In recent years Victoria has moved to improve rail safety regulation after benchmarking poorly against other states. During consultation the view was expressed that in other states, regulation is done with a lighter touch and governments would change that if a serious accident occurred. The Australasian Railway Association puts regulators on a spectrum from most acceptable (least interventionist) in South Australia, through to least favoured (most interventionist and bordering on prescriptive) in New South Wales.
 - The question of regulator style seems of disproportionate interest to all stakeholders because rail safety regulation is co-regulatory. Rail safety regulation is relatively recent (around 15 years) and occupies a middle ground between prescriptive regulation and industry self-regulation. Co-regulation recognises that governments have a legitimate interest and right to regulate and that industry has expertise and knowledge to identify and manage its own safety risks. There is an inherent tension between rail operator and regulator which is arguably exacerbated by the seeming complexity of co-regulation.
- What would a national regulator look like?
 - There is a lot of interest in what a single regulator might look like, how it might be structured, even where it would be located.
 - It is assumed by most stakeholders a national regulator would be an Australian Government entity based in Canberra.
 - NTC maintains that any regulator would be either a state or Australian Government entity, with a head office in one capital city of a jurisdiction with a rail system and branch offices in most other capital cities.
 - The legislative provisions relating to the regulators in Victoria and New South Wales would be of most direct relevance here, as the legislation pertains to independent rail safety regulation.
- The options for a single, national rail safety regulatory framework
 - Feedback about the options has primarily focussed on option 4 for a single, national regulatory body.
 - Option 3 (enhanced state-based regulation) is the optimal state-based model of regulation, although feedback on it could generally be characterised as lukewarm. The Australasian Railway Association does not support option 3 at all. Option 3 is favoured by state officials who do not support a single regulator.

- Frustration with model legislation

A number of industry stakeholders expressed frustration with the slow pace at which legislation based on the model rail safety Bill is being implemented. Industry is also frustrated with the local variations permitted in the model rail safety Bill.

14.3 Stakeholder views arising from consultation on the draft regulatory impact statement

The draft rail safety regulatory impact statement was issued for comment last year. Submissions were received from the following organisations and individuals:¹³⁹

- Australasian Railway Association
- Asciano
- Public Transport Safety Victoria
- Chief Investigator, Transport and Marine Safety Investigations, Victoria
- Department of Planning and Infrastructure, Western Australia
- Office of Rail Safety, Department of Planning and Infrastructure, Western Australia
- Association of Tourist and Heritage Rail Australia
- Roads and Traffic Authority New South Wales
- Dr Philip Laird
- Department of Transport, Energy and Infrastructure, South Australia
- Tourism and Transport Forum
- Department of Transport
- Rail, Tram and Bus Union
- Australian Rail Track Corporation
- Department of Infrastructure, Energy and Resources, Tasmania
- Ministry of Transport, New South Wales
- Department of Planning and Infrastructure, Northern Territory
- Queensland Transport
- Melbourne Tramcar Preservation Association

There was also one confidential submission.

¹³⁹ Submissions can be viewed on the National Transport Commission's website at <http://www.ntc.gov.au/RFCCommentsView.aspx?DocumentId=01790>

During November and December 2008 NTC conducted a series of consultation forums in Melbourne, Sydney, Brisbane, Adelaide and Perth and additional forums in Darwin, Launceston and Melbourne. Feedback from the consultation forums focussed on:

- the importance of ‘local’ – the importance of local representation, local knowledge, local relationships and local understanding; but also the suggestion that a national regulator would be less susceptible to political interference. Little of what Ken Henry calls “stubborn parochialism” was experienced
- frustration with industry and regulatory inconsistencies
- use in the draft regulatory impact statement of comparisons with other modes, sectors and countries. As indicated earlier, many stakeholders wanted better analysis of the comparisons
- stakeholder preferences for any national regulator and views on how any transition to a national regulator might unfold
- understanding who is affected by the problem and the magnitude of the problem. Attendees suggested the problem statement in the draft regulatory impact statement needed revising to be more convincing and use more data in support of the arguments, where available
- suggestions that the revised regulatory impact statement discuss the relationship between a national regulator and investigator
- feedback on the performance of the Australian Transport Safety Bureau. There was some support for a separate, national rail safety investigator, more support for a national investigator similar to the Bureau and almost as much support again for a national, multi-modal investigator that investigates accidents in all modes.

Submissions on the regulatory impact statement closed in late December 2008. Twenty submissions were received, from state and territory governments, two regulators, an investigator, industry and tourist and heritage peak bodies, the Rail, Tram and Bus Union, and from operators and an individual.

NTC has elsewhere summarised consultation and submitters’ feedback on the draft regulatory impact statement as including:

- support by many in industry for a single regulator and to a lesser extent, a single investigator
- desire by many stakeholders for greater detail about how any single regulator would be implemented and funded
- varying acceptance by stakeholders of the case for change in regulation and investigation, however little support for the status quo in regulation
- acceptance that the Australian Transport Safety Bureau is an obvious choice for any national investigator, however, stakeholders do not believe the Australian Transport Safety Bureau is currently sufficiently enabled or resourced to be a single investigator
- concern in Victoria, and to a lesser extent New South Wales, about the potential for a loss of locally-focussed resources arising from any national regulator or investigator

- desire by the tourist and heritage sector for a regulatory approach that is matched to the sector's needs
- interest in the role of the Australian Government in relation to any national regulator.

NTC also summarised the keywords or key phrases emerging from the submissions analysis as including case for change, problem statement, comparisons used, options for change, staffing, benefits and potential drawbacks, legal issues, governance issues and transition.

- Rail safety investigation

Industry and union stakeholders are strongly in agreement about the importance of lessons learned from rail safety investigations. Rail safety investigations therefore need to be timely and of a high quality. Rail safety investigation stakeholders identified during consultation a number of opportunities for improvement in the current arrangements:

- more independent safety investigations
- more resources for independent safety investigations
- consistently high-quality reporting
- improved, more consistent public reporting
- monitoring of the implementation of investigation recommendations
- the provision of more resources, or a more efficient allocation of existing resources
- if maintaining current arrangements, the Australian Transport Safety Bureau would like improved legislative consistency for when it is invited to investigate a matter for other jurisdictions
- better protection for witnesses and evidence
- publication of more status data on investigations underway
- if changing the current arrangements:
 - Retention in Victoria and New South Wales of the flexibility and the high level of local knowledge within the existing investigators
 - Assurance that the smaller accidents currently investigated in Victoria and New South Wales would not be overlooked by any national investigator
 - A solution for the cross-modal issues in New South Wales and Victoria
- both the Australian Transport Safety Bureau and the Australasian Railway Association suggested NTC has misinterpreted its mandate and should consider a national rail safety 'function', not necessarily a stand-alone entity.

Rail accidents will often be investigated by a number of parties. Police, the coroner, WorkSafe, the rail safety regulator and sometimes an independent investigator will examine the scene and collect evidence for their own ends. Industry wants to see fewer investigations on site, however even a single, national rail safety investigator will not replace investigations by other, unrelated bodies with different accountabilities.

Investigations are undertaken for a range of reasons and by a range of parties. Not all incidents warrant an independent investigation – many investigations are undertaken by operators or regulators themselves. Likewise, some states will want to retain the option of choice of investigator, or a Royal Commission or board of inquiry in the event of a major accident.

14.4 How have stakeholders' views been taken into account?

Although only twenty submissions were made on the draft regulatory impact statement, many comments were matters that required substantive attention in the revised regulatory impact statement. Accordingly, NTC made the following changes to the regulatory impact statement:

- included more information about the industry
- updated the problem section with information gleaned during consultation
- re-worked the problem statement in response to suggestions it needed to be clearer and better expressed
- reduced repetition
- improved analysis of practice overseas in relation to rail safety regulation
- clarified discussion of ‘no blame’ and ‘just culture’ in investigation – using independent safety investigation
- included analysis of alternative suggestions put forward in submissions
- inclusion of risks
- included discussion about industry issues that changes in rail safety regulation will not address
- discussion of benefits for different types of operators
- revised option 3 (regulation) and provided some detail (stakeholders wanted more detail on option 3)
- included commentary on suggestions from submitters for alternative option 3s in regulation.
- altered national investigator option to be a national rail safety investigation ‘function’, rather than stand-alone investigator.

There is still a lot of interest in what a national regulator might look like. Some of the discussion relates to detailed operational matters that cannot be resolved until after any decision to pursue a single national regulator is made, a final proposal is developed and a transition period entered into. Many of these issues were highlighted in section 13.

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