REPORT OUTLINE

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Abstract: This regulatory impact statement assesses the likely costs and benefits attributable to the adoption of the Model Rail Safety (Amendment No. 2) Bill by all States and Territories across Australia. The Model Amendment No. 2 Bill makes provision for the introduction of obligations on rail transport operators and road managers to co-operatively identify, assess and manage risks to safety associated with rail/rail interfaces and road/rail interfaces.
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The National Transport Commission (NTC) is an independent body established under Commonwealth legislation and an Inter-governmental Agreement and funded jointly by the Commonwealth, States and Territories. The NTC has an ongoing responsibility to develop, monitor and maintain uniform or nationally consistent regulatory and operational reforms relating to road, rail and intermodal transport.

The Inter-Governmental Agreement for Regulatory and Operational Reform in Road, Rail and Intermodal Transport made it a specific task of the NTC to develop:

“A framework to improve and strengthen the co-regulatory system for rail safety including the application of mutual recognition (Clause 5.1 (b))”

In accordance with its duties, the NTC developed a nationally consistent, model Rail Safety Bill 2006 for the regulation of rail safety that was approved by the Australian Transport Council in June 2006, and associated model regulations, which were approved by the ATC in November 2006. A set of minor amendments to the model Rail Safety Bill (contained in the model Rail Safety (Amendment No 1) Bill 2006) were endorsed by Transport Agency Chief Executives on behalf of the ATC, in November 2006.

This Regulatory Impact Statement evaluates the foreseeable impacts of a set of proposed amendments to the model Rail Safety Bill (the model Rail Safety (Amendment No. 2) Bill 2007) and a number of consequential amendments to the model regulations (the model Amendments Regulations 2007 (Rail Safety)). A draft regulatory impact statement that included an evaluation of the impacts of these proposals was released for comment during July and August 2006.

The model Rail Safety (Amendment No. 2) Bill 2007 refines the existing obligations on rail transport operators to co-operatively manage any rail/rail interfaces; and sets out proposed amendments to the national model Rail Safety Bill to provide obligations on rolling stock operators, rail infrastructure managers and road managers to jointly manage risks arising from level crossings and other road/rail interfaces.

These provisions were developed at the request of Australian Transport Ministers, who, in approving the model Rail Safety Bill on 2 June 2006, also determined that further provisions be developed to impose obligations on road managers in relation to road/rail interfaces.

The NTC thanks members of the Rail Safety Package Steering Committee for their assistance in developing the provisions. Special thanks goes to the sub-group involving Phil Sochon, Derek Heneker, Natalie Pelham and Catherine Herriman for their work on the model information requirements which will support implementation of the new provisions, pending their approval by ATC. I also wish to once again express my appreciation to the Victorian Office of Chief Parliamentary Counsel for the services of Rowena Armstrong QC in the drafting of the model Rail Safety (Amendment No. 2) Bill.

The NTC would also like to acknowledge the efforts of the following NTC officers: Paul Salter, Kirsty McIntyre and Ben Piper.

Michael Deegan
Chairman
SUMMARY

In approving the model Rail Safety Bill on 2 June 2006, which included obligations on rail infrastructure managers and rolling stock operators to jointly manage safety risks arising from rail/rail interfaces, the Australian Transport Council also determined that further provisions be developed to impose complementary obligations on rail infrastructure managers and road managers to jointly manage safety risks arising from road/rail interfaces.

This regulatory impact statement describes the proposed amendments to the model Rail Safety Bill (‘model Bill’), considers the potential impacts and assesses the likely costs and benefits attributable to the adoption of these obligations. The regulatory impact statement is intended to inform the decision making of the Australian Transport Council in relation to the Amendment Bill.

Problem

It has been identified that there is not sufficient commercial incentive, or legislative emphasis, on road and rail infrastructure managers ensuring that they have an understanding of observed safety risk (what has happened, e.g. crash statistics) and latent safety risk (what could happen) at road/rail interfaces. As a consequence, there is insufficient information to support rational decision making regarding the management of risks to safety at road and rail crossings. In addition, there are no established means by which risk controls (which often involve joint, or coordinated action) can be agreed and implemented.

Separately, there is need to make some technical amendments to the model Bill and to redraft the obligation in the model Bill pertaining to interface agreements between rail transport operators, so that it is drafted in consistent terms to those used to express the proposed complementary obligations on road and rail infrastructure managers.

Proposal

The NTC and the majority of stakeholders agree that a precursor to improved safety management at road and rail interfaces is enforcement of the ‘common sense’ requirement for both the relevant rail infrastructure manager and road manager to get together and systemically identify and assess jointly held safety risks. It is on the basis of this type of information that both the rail and road infrastructure managers can make rational decisions about investment in risk controls, and the management of interfaces over time (as risk factors change).

The Amendment Bill includes provisions that are required to give effect to this change. The Amendment Bill also incorporates the proposed technical amendments to the model Rail Safety Bill 2006 and the redrafting of the provision pertaining to interface agreements between rail transport operators.

Consideration of options

Relative to the status quo, consideration has been given to the following series of threshold questions.

- is an additional regulatory requirement needed?
is a nationally consistent regulatory requirement needed or should there be provision for local variation (jurisdiction by jurisdiction)?

what level of prescription is required in articulating the requirements?

which words most accurately express the requirement which is intended?

are there any arguments for exemptions from all, or part, of the requirements (or is one rule for all appropriately applied in the circumstances)?

Options were identified at each level and assessed. This regulatory impact statement highlights some of the key decisions that led to the development of the Amendment Bill, as drafted.

Impact assessment

The estimated cost of implementing the legislative requirement for interface agreements between rail infrastructure managers and road managers (across Australia) over the period from 2008 to 2020 is between $11m and $14.2m in present value terms. Assuming the worst case ($14.2m), for the initiative to be of net benefit, level crossing occurrences will need to reduce by more than 5% (in total) over the next twelve year period. How much over 5% will depend on the ratio of benefits to costs for risk controls that are implemented as a result of better information (risk assessment) and improved framework to give effect to action (interface agreements).

Assuming the worst case, and assuming that the average benefit cost ratio of risk control projects that are implemented are between 2 and 1.5, a 10% to 15% reduction in level crossing accidents will be needed in order for the proposed reform and consequential implementation of risk controls to be of net social benefit in aggregate.

The NTC’s judgement is that a 15%+ reduction in accidents at road and rail crossings can be achieved over the period from 2008 to 2020.

The undertaking of risk assessments and the establishment of means to agree and jointly implement risk controls are unavoidable costs that must be incurred in order to gain access to any available benefits (in the form of accident avoidance). Stakeholders strongly believe that there is merit in seeking to reduce the observed risk and latent risk of accidents at road and rail crossings.

Consultation

The proposed model amendments are a product of a lengthy policy development process that has included substantial consultation at all stages. A shortcoming of the consultation that has been undertaken is the level of engagement with managers of non-public roads. The NTC is confident however, that stakeholders engaged in the process (e.g. local councils) have raised the type of issues for consideration that managers of non-public roads would have raised. Moreover, the obligations demonstrate that special consideration has been given to minimising the potential regulatory burden on managers of non-public roads.

Consultation has revealed that there are some residual concerns being expressed by local government interests in NSW, but all local government interests have gained comfort from the revised content of the Amendment Bill (relative to earlier drafts) and the proposed three year transitional period that will apply to implementation of the requirements.
Implementation, Maintenance and review

The Australian Transport Council will vote on the proposed legislative reform package in November 2007. Each State and Territory will then enact the model legislation.

Interface Agreements between road authorities and railway infrastructure managers need to be in place three years following the commencement of the new State and territory law based on the Amendment Bill.

It is recognised by NTC that an important aspect of national regulatory reform is ensuring that reforms are kept up to date and effective. Maintenance refers to the amending and updating of existing national reforms as need arises. Pending their approval, provisions contained in the Amendment Bill will be maintained as part of an ‘agreed reform’ in accordance with established processes.

In addition to the maintenance of implemented reforms, there is also a need for the periodic and comprehensive review of the reform to ensure its continued relevance and effectiveness. In relation to this reform, the NTC proposes to undertake a minor review of the effectiveness of jurisdictional law based on the model Bill and Regulations within five years of ATC approval of model legislation, and a comprehensive review within ten years.
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1 INTRODUCTION

Rail safety legislation in all States and Territories is based on co-regulation. Key characteristics of the ‘co-regulatory’ approach are as follows:

- Responsibilities for regulatory development, implementation and enforcement are shared between industry participants, industry associations and governments.

- Government’s role is to establish performance based obligations and specific duties necessary to achieve acceptable levels of safety, meet community expectations and maintain public confidence.

- Rail industry participants accept accountability for achieving required safety outcomes in return for the flexibility to identify and implement the most effective and efficient means of addressing risks to safety.

- Rail industry associations serve to represent industry interests in the regulatory development process, facilitate implementation of safety reforms and to provide guidance to industry in the form of codes and standards indicating effective and efficient means of compliance.

- The rail safety regulator’s role is to provide oversight. In the rail safety context this includes:
  
  - assessing the capacity and competence of rail organisations to be safe;
  - ensuring that safety management systems are in place;
  - monitoring the activities of, and safety outcomes achieved by, individual rail organisations;
  - educating rail organisations on potential opportunities to improve safety performance; and, if necessary
  - enforcing compliance with performance based obligations and duties using available powers and sanctions.

In support of co-regulation, legislation in all States and Territories is based on application of process-based regulation. Process-based regulation focuses on ensuring regulatory outcomes are achieved via the implementation of systemic management processes based on risk identification, assessment and control. Process regulation is widely used in contexts in which there are multiple risk sources and various means of addressing those risks. The system of process-based regulation used in the rail safety context is based around the accreditation of rail organisations. Rail transport operators are required to gain accreditation before they are allowed to operate. Accreditation is granted by the rail safety regulator.

A review of the rail safety co-regulatory framework was undertaken by the NTC in 2004. The review found that rail is a relatively safe mode of transport. There is little evidence available (e.g. indications of poor or worsening safety outcomes) to warrant major changes to the existing regulatory approach (e.g., a change towards adopting a more prescriptive regime). Moreover, the outcomes of inquiries into rail accidents and rail regulatory
structures indicate that the capacity of governments to deal with complex organisations and complex safety problems through rules alone is very limited. General regulatory best practice principles also support this view. Consideration of best practice approaches suggested a continuation of a co-regulatory approach. It was recognised, however, that there is room for improvement.

In relation to current rail safety regulation there is presently a risk of regulatory failure owing to the following problems:

1. lack of, or insufficient definition of, the outcome the regime seeks to deliver;
2. uncertainty (or at least inconsistency) regarding the intended balance between ex-ante assurance mechanism (accreditation) and on-going regulatory oversight (audit and inspection);
3. regulator training deficiencies, skill shortages and resource constraints;
4. limited range of sanctions and enforcement powers (at least in some jurisdictions);
5. insufficient checks and balances on regulatory decision making;
6. multiple regulatory authorities leading to increased transaction costs for those rail transport operators that undertake business in multiple jurisdictions; and
7. potential for inconsistent regulatory judgements and practices.

In response to identified problems, it was agreed to proceed with a package of rail safety reform. The reform package comprises the following elements:

- nationally consistent, model ‘primary’ legislation for regulation of rail safety (the model Bill);
- associated model regulations for regulation of rail safety (the model regulations to which this regulatory impact statement relates);
- a review of institutional arrangements to determine what changes are required (essential) to support operation of the nationally consistent regulatory scheme for rail safety; and
- development and approval of ‘nationally approved guidelines’ to support consistent regulatory practice across jurisdictions.

The model Bill and model Regulations have been approved by ATC and are in the process of being implemented by jurisdictions. The approved national reform package:

- incorporates rail safety duties in rail safety legislation for the purpose of, amongst other things, defining the level of safety that is required to be achieved - this addresses problem 1 listed above;

• more clearly defines the purpose of accreditation in legislation and defines a corresponding logic about when variations of accreditation are required (i.e. when the proposed change exceeds the limits of the ‘permissions’ that the rail transport operator has already been granted via accreditation) - this addresses problem 2 identified above;

• provides a hierarchy of sanctions and enforcement powers that can be utilised as appropriate by rail safety regulators - this addresses problem 4;

• requires regulators to make decisions within time limits and to give statements of reasons and provides applicants with appeal rights in relation to all regulatory decisions or sanctions - this addresses problem 5;

• requires regulators to coordinate their decision making on applications for accreditation or variation of accreditation when the applicant operates in multiple jurisdictions or proposes to do so - this partially addresses problems 6 and 7;

• provides national guidelines to support consistent interpretation of regulatory requirements by rail transport operators and regulators, with some guidelines to specify business rules for regulators to follow with a view to further enhancing coordination between rail safety regulators across Australia - this partially addresses problems 6 and 7.

This regulatory impact statement, pertaining to Rail Safety (Amendment No. 2) Bill, follows on from the regulatory impact statements prepared in relation to the model Rail Safety Bill 2006 and the model Rail Safety Regulations 2006.
2 BACKGROUND

Road and rail interfaces pose risks to safety that need to be systematically identified, assessed and controlled, with a view to achieving acceptable safety outcomes, meeting community expectations and maintaining public confidence.

References to road and rail interfaces include level crossings, road over rail intersections and road under rail intersections. Level crossings are the intersections of most concern. There are approximately 9,400 public railway level crossings in Australia, of which approximately 2,650 (30%) have 'active' protection, 6,060 have 'passive' protection and the remainder have other control or protection. Additionally, there are numerous private, occupational and cane railway level crossings.

There are approximately 100 crashes between a road vehicle and a train in Australia each year, and about 8% of these result in deaths (Ford and Matthews, 2002). Level crossings are the single biggest source of death and injury associated with railway operations. Pedestrians accounted for 64 per cent of fatalities from level crossing accidents in Australia in 1997-2000, car occupants 29 per cent, and all other categories accounted for 7 per cent. The BTRE (2003) reported that in a selected year (1999) the estimated cost of level crossing accidents across Australia (excluding suicides) was $32 million. The management of level crossings is thus a key issue for governments, industry and the community.

Governments, the rail industry and others have been applying a variety of countermeasures for many years to improve railway level crossing safety. These actions are substantial and have resulted in a decrease in crossing crashes. For example, 82 crashes occurred between a road vehicle and a train in 2006, down from the 100 crash average in the preceding period. However, it is the severity, as much as it is the frequency of the occurrences that is of importance.

ATC approved a National Railway Level Crossing Safety Strategy in 2003. This strategy generally targets new and additional actions, beyond those that were already being implemented. The objective of the strategy is to reduce the number, cost and trauma of crashes between trains and any road users by the most cost-effective means. The strategy recognises that railway level crossing crashes have the potential to be catastrophic. Several possible railway level crossing crash scenarios representing major community disasters are foreseeable, some of which are:

- a crash involving a train carrying many passengers;
- a crash involving a goods train or truck carrying dangerous goods;
- a crash involving a bus; and
- a derailment which closes a major freight or passenger line for many days.

Tragically, the accident at Kerang, in Victoria’s North-west has demonstrated the potential for a major community disaster to arise. Sadly, 11 persons died and many others were seriously injured as a consequence of a laden semi-trailer colliding with a passenger train at a level crossing. The accident at Kerang was the fifth occurrence of a truck colliding with a train at a level crossing in Victoria in the last 15 months. While care should be taken in interpreting the statistical significance of this grouping of occurrences (due to the low frequency, high consequence nature of these accidents), there is a broadly held view that more should be done to control risks to safety arising at level crossings.
3 PROBLEM STATEMENT

The process of developing national rail safety reforms has identified that there is not sufficient incentive or legislative emphasis on road and rail infrastructure managers to understand and respond to observed safety risk (what has happened, e.g. crash statistics) and latent safety risk (what could happen) at road/rail interfaces. The NTC and the majority of stakeholders agree that a precursor to improved safety management at road and rail interfaces is enforcement of the ‘common sense’ requirement for both the relevant rail infrastructure manager and road manager to get together and systemically identify and assess jointly held safety risks, determine appropriate risk controls and implement those that are justified. It is on the basis of the information provided via the risk assessment process that both the rail and road infrastructure manager can make rational decisions about investment in risk controls, and the management of interfaces over time (as risk factors change). Moreover, it is through the proposed interface agreements that risk controls can be agreed and progressively implemented (as measures are funded).

Level crossing accidents are often very costly to rail infrastructure managers and their customers both in terms of direct damage to infrastructure and indirect costs in the form of freight and passenger delays (for which the rail infrastructure manager is held accountable). In addition to the commercial incentive, the rail infrastructure manager has (will have) a statutory duty to ensure safety, so far as is reasonably practicable. Accordingly, the rail infrastructure manager has a strong incentive and existing obligation to identify, assess and control (within the limits of what is feasible) the risks to safety arising from the undertaking of its railway operations. The obligation, however, is limited to management of safety risk arising from the undertaking of its railway operations. It is implicit that the activities of others are outside of its control.

Road managers have no contractual relationships with road users and as a consequence do not internalise the costs of accidents (beyond any damage to the road infrastructure itself). The road manager also does not owe a statutory duty of care to achieve an objective level of safety (e.g. to ensure safety, so far as is reasonably practicable), but instead, owes a duty to take reasonable care to ensure that its road infrastructure is maintained such that it is not dangerous to traffic (e.g. see section 105(1) of Victorian Road Management Act 2004). The emphasis of this duty is on maintenance to a standard set by the road manager, with the aim of avoiding danger to traffic rather than an obligation to achieve a safety outcome. The implication is that improvements to road infrastructure to increase safety (by changing the standard) is discretionary, depending on policies adopted and incorporated into road management plans, provided that such policies are not unreasonable (e.g. see section 103 of Victorian Road Management Act) and are based substantially on factors or constraints which are financial, economic, political, social or environmental (e.g. see section 39 of Victorian Road Management Act). In practice it is observed that a road manager’s duty amounts to a requirement to do the best it can with the resources that are made available to it. This places an emphasis on prioritisation of activities to ensure that returns from expenditure are being maximised.

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2 Following implementation of the model Rail Safety Bill 2006 in State and Territory law.
3 In most cases a rail infrastructure manager has no right or capacity to place obligations on road users as a means of controlling identified risks to safety. In some cases (very few) the rail infrastructure manager controls the right of way and therefore has the option to close the road. In circumstances where this is not the case, the rail infrastructure manager has little scope to control identified risks to safety without the support of cooperation of the road manager.
Fatalities at railway level crossings are equivalent to a very small proportion of the deaths that occur on roads each year. This fact, in part, explains the reluctance of road managers to pay particular attention to reduction of risks to safety at level crossings. This is understandable to a point. As indicated above, the duties owed by road managers force them to focus their expenditure on safety in those areas which generate the highest returns. There is a perception (from the perspective of road managers) that improvement of safety at road/rail interfaces does not rate highly in the list of relative priorities. This logic, however, does not in any way excuse road or rail infrastructure managers from:

- better understanding what the potential returns are from investing in the safety of road and rail intersections (i.e. road managers shouldn’t be making decisions purely on the basis of ‘perceptions’);
- agreeing how safety risks should be managed, including the delineation of communication protocols between the parties; and
- agreeing what risk control measures should ideally be put in place and committing themselves to implement agreed measures conditional on funding and benefit cost thresholds.

To make decisions about the application of risk control measures without giving due consideration to both the observed and latent risks at road and rail interfaces amounts to making decisions ‘in the dark’. Furthermore, to not establish a mechanism for joint management of safety indicates a willingness to allow safety at road and rail crossings to ‘fall between the cracks’.

The obligation proposed to be established and applied to road managers and rail infrastructure managers is fundamental in its nature. It is proposed to make explicit the implicit requirement for these parties to jointly identify, assess and control safety risks in a controlled and coordinated way.

Consultation has revealed that there is broad support for the proposed obligation to be established in legislative form.

As is explained in this regulatory impact statement, the proposed obligation does not prescribe what risk controls should be put in place. The level of risk controls and number of controls to be applied is to be agreed between the parties relative to the level of identified risk. In forming such an agreement, both parties will give due regard to statutory duties applicable to each in rail safety or road management legislation (whichever being applicable) and apply corresponding decision making criteria using appropriate decision making tools (e.g. cost benefit analysis).

Please note that the Amendment Bill is not wholly concerned with the proposed provisions relating to the management of road/rail interfaces. The Amendment Bill includes a number of technical amendments that are being proposed to avoid the potential for existing provisions included in the model Bill and Regulations to be misinterpreted or inappropriately applied. These amendments are not intended to change the substance of the provisions previously approved by the ATC. In section 6, these provisions are explained and contrasted to the status quo. The regulatory impact statement makes comment on the virtue of these amendments but does not assess impacts on the grounds that either (a) the provisions do not represent a substantive change from the status quo; or (b) the case has already been made for these provisions in preceding regulatory impact statements relating to the model Bill and the model Regulations.
4 STATEMENT OF OBJECTIVES

The primary objective of the proposed amendments is to improve transport safety performance in Australia through the improved management of risks associated with rail/rail and rail/road interfaces.

A secondary objective is to enhance the cost-effectiveness of the regulatory structure by facilitating regulatory harmonisation, thereby reducing a range of regulatory related costs for rail organisations and government regulators.
5 IDENTIFICATION AND ANALYSIS OF ALTERNATIVE OPTIONS

Section 8 of this regulatory impact statement outlines the processes by which the proposed legislative amendments have been developed. In the course of this development process, a range of alternative approaches to achieving the objectives of the model amendments were considered. This section of the regulatory impact statement discusses the options identified and evaluated as part of this process.

Conceptually, the consideration of options can be considered at a number of levels. The first is that of the broad shape of the regulatory framework to be employed. That is, given the nature of the rail industry and the safety risks being managed, is self-regulation, co-regulation or full government regulation the preferable regulatory structure? This range of options was considered in relation to the development of the model Rail Safety Bill.

Second, within the context of the co-regulatory structure that has been determined to be the preferred approach, should regulators adopt requirements for an *ex ante* demonstration of safety management capacities – through an accreditation system – or rely on the establishment of regulatory duties and responsibilities, supplemented by *ex post* monitoring and auditing. Again this range of options was considered in relation to the development of the model Rail Safety Bill.

Third, within the context of the specific regulatory approach that has been adopted – relying on a co-regulatory structure and implemented using substantial elements of process-based regulation via an accreditation structure – there are several discrete areas in which alternative approaches to major specific regulatory issues can be identified and must be weighed. This is the level where consideration of options for the model amendments commences.

This section considers the following series of threshold questions, highlighting the options identified at each level and some of the key decisions that led to the development of the Amendment Bill, as drafted:

- Is an additional regulatory requirement needed?
- Is a nationally consistent regulatory requirement needed or should there be provision for local variation (jurisdiction by jurisdiction)?
- What level of prescription is required in articulating the requirements?
- Which words most accurately express the requirement which is intended?
- Are there any arguments for exemptions from all, or parts, of the requirements (or is one for all appropriately applied in the circumstances)?

Before considering these questions, it is useful to firstly articulate what the status quo arrangements are.

5.1 Status quo arrangements

Existing States’ and Territories’ rail safety law explicitly places an obligation on rail infrastructure managers to identify interfaces with road infrastructure and to develop interface coordination plans, or, safety interface agreements (different terminology is used in the different jurisdictions). *Australian Standard 4292*, or alternatively, the *National Accreditation Package* is currently mandated in all the States and Territories using
regulatory powers. Section 7 of *AS4292.1* requires rail infrastructure managers and rolling
stock operators to identify interfaces which could result in a risk to safety and assess the
need to establish whether specific controls are needed. *AS4292.1* explicitly requires
consideration of **interfaces between rail organisations and other organisations or infrastructure as follows:**

i. grade separation;

ii. at-grade crossings;

iii. joint and alternative use facilities and shared transport corridors such as dual use roadways and bridges.

The *National Accreditation Package* is less specific but effectively requires the same.
Both go on to require rail infrastructure managers and rolling stock operators to, in
circumstances where an interface needs to be managed, develop an interface coordination
plan identifying the relevant responsibilities of each party. Both *AS4292.1* and the *National Accreditation Package* require the establishment of processes for the evaluation,
review and maintenance of interface coordination plans. *AS4292.1* requires, as is
appropriate in the circumstances, plans to include significant detail. The National
Accreditation Package does not do so explicitly.

As has been indicated here, there is a long standing requirement for the identification of
interfaces and the development and implementation of interface coordination plans. As a
consequence, interface coordination plans between rail transport operators are common
practice. The same cannot be said so definitively for interface coordination plans between
rail infrastructure managers and road managers. Submissions to the draft regulatory impact
statement were able to confirm that at present, in practice, only a ‘level of coordination’
between rail infrastructure managers and road managers is being achieved.

In most jurisdictions there are level crossing committees that aim to identify priority safety
issues at level crossings and motivate the introduction of and/or refinement of risk controls.
It is through these committees that ‘a level of coordination is being achieved’. Participation in the committees is voluntary and no party is bound by anything discussed or agreed (in principle) at the meetings. The level of coordination that is being achieved via this mechanism has tended to focus on the administration of government funded programs to undertake Australian Level Crossing Assessment Model (ALCAM) assessments and the establishment of behavioural programs that focus on educating road users. Both initiatives are important but do not achieve coordination in respect to how to address identified, location specific, risks to safety. i.e. the results of the ALCAM assessment need to be acted on (or otherwise planned to be acted on, subject to the availability of funding). As indicated above, this is not being done effectively at present.

Part of the reason for this is that there is no corresponding on-going obligation on road
managers to do so (other reasons are referred to in section 3, e.g. lack of commercial incentive). Under road use planning requirements, road managers typically have a
requirement to consult, work with affected parties and determine appropriate risk controls
in circumstances where a new road/rail interface is being established. However, the
obligation to manage this interface over-time, as risk factors change, is lacking.

It should be emphasised that the assessment of risks at road and rail crossings and the
‘level of coordination’ between road and rail infrastructure managers that is currently being
achieved can be attributed to, at least in part, substantial government investment in risk
assessment programs using ALCAM. In the absence of such programs, it is doubted whether the existing level of risk assessment and coordination of action between the parties would have been achieved (discussed in more detail in section 7.2.4).

5.2 Is an additional regulatory requirement needed?

5.2.1 Rail to rail interfaces

As indicated above, the requirement to identify interfaces between rail transport operators and to consequently develop and implement interface coordination plans is an existing requirement under the status quo arrangements. This, however, was not taken to imply that the requirement for interface identification and/or interface coordination plans should be taken as a given. Instead, consideration was given to the extent to which existing commercial incentives, and/or existing provisions in the model Bill created an implicit requirement to identify interfaces, agree risk controls between parties and put them into place.

The concept of risk management is embedded in the rail safety duties included in the model Bill. The duties established in the model Bill are to ensure safety, so far as is reasonably practicable, of the duty holder’s railway operations. Clause 7 of the model Bill elaborates on this duty making it clear that the obligation is to eliminate risks to safety; or if it is not reasonably practicable, to reduce those risks so far as is reasonably practicable. The provision goes on further to say that in determining what is ‘reasonably practicable’ regard must be had to:

- the likelihood of the risk concerned eventuating;
- the degree of harm that would result if the risk eventuated;
- what the person concerned knows or ought reasonably to know, about the risk and any ways of eliminating or reducing the risk;
- the availability and suitability of ways to eliminate or reduce the risk; and
- the cost of eliminating or reducing the risk.

As a means of ensuring safety, a rail transport operator is required to have a safety management system for its railway operations. Clause 57 requires the safety management system to:

- identify and assess any risks to safety that have arisen or may arise from the carrying out of the railway operations;
- specify the controls that are to be used by the rail transport operator to manage the risks to safety and to monitor the risks to safety in relation to its railway operations; and
- include procedures for monitoring, reviewing and revising the adequacy of those controls.

Given the above, it can be argued that interface identification is implicit in risk identification. It would follow that the presence of mutually corresponding risk identification obligations on rail transport operators should provide sufficient incentive to ‘work together’, develop and implement interface coordination plans and fulfil their
statutory duties. Technical legal viewpoints on this point differed, citing the fact that the duty is limited to the safety of the rail transport operator’s own railway operations, that is, it does not owe a duty to ensure the safety of other operators’ railway operations. This observation suggests potential for there to be a regulatory gap if the specific regulatory requirement was not separated maintained. Moreover, it was observed that a process requirement was necessary to bring the parties together to ensure that risk identification and assessment was effective. Unilateral action to identify, assess risks and determine controls applicable to the interface would foreseeably be less than optimal, due to the absence of full and complete information about the operations of the interfacing party. The information sets of the interfacing parties need to be ‘brought to the table’ and considered jointly if the risk identification and assessment is to be effective in providing a sound basis for the determination of risk controls. It is for these reasons that the retention of the specific requirement for interface coordination plans or agreements between rail transport operators is recommended.

It should be noted that consideration was given to whether it was necessary to require interface coordination plans or agreements between rolling stock operators using the same rail infrastructure. It was determined that while such agreements should not be precluded as a means of managing identified risks, it is not necessary to require them. It was envisaged, as is the case at present, that the interface coordination plans or agreements that exist between rolling stock operators and rail infrastructure managers will articulate the rules and procedures governing railway operations on the rail infrastructure in question. Such rules and procedures dictate how rolling stock operators interact with each other on the rail infrastructure of the rail infrastructure manager. Accordingly, if the interface coordination plan or agreement between the rolling stock operator and the rail infrastructure manager is followed by the rolling stock operator, then risks that exist between its operations and that of other rolling stock operators will be sufficiently managed.

5.2.2 Rail to road interfaces

The potential limits implied by the duty to ensure the safety of only one’s own railway operations was seen as a key reason for maintaining the obligation on rail infrastructure managers to identify interfaces with road managers and to seek to jointly develop and implement interface plans or agreements.

The lack of commercial incentive to avoid accidents and incidents and the potential limits of statutory duties on road managers (discussed in section 3) provides, in principle, the justification for establishing the new requirement on road managers (pending impact assessment in section 7). Consideration was given to not establishing a new requirement on road managers but it was during the course of this consideration that questions were raised about the limits of the statutory duties owed by road managers. Moreover, the virtue of ensuring that the information sets of the interfacing parties are ‘brought to the table’ and considered jointly is considered a compelling rationale for the proposal to establish the new process-based obligation applicable to road managers.

Consideration was given to whether the new regulatory requirement should be established in road safety or rail safety legislation. There are two options:

i. Establish an obligation on road managers in State and Territory road management legislation that corresponds with the obligation placed on rail infrastructure managers in State and Territory rail safety legislation (based on the model Bill); or
ii. Establish an obligation on road managers in State and Territory rail safety legislation (based on the model Bill).

Option 2 was recommended on the basis that there is not an ‘independent’ safety regulator, providing regulatory oversight of road manager activities, in the road management sector. The majority view is that the obligation on rail infrastructure managers and road managers should be enforced in an integrated way by the one regulator - the rail safety regulator - rather than adopting a piecemeal approach administered by two regulators. The pre-existing reluctance of road managers to give sufficient attention to initiating, developing and implementing ICPs, due to the perception (justified or otherwise) that level crossing safety does not rate highly among competing road safety priorities, suggests that road managers are unlikely to enforce this requirement on themselves.

It should be noted that consideration was given to the extent to which rolling stock operators should be required to establish interface coordination plans with road managers and vice versa. The view that was adopted was that this was unnecessary, as any agreement between the rail infrastructure manager and the road manager regarding the implementation of risk controls at an interface (potentially involving the rolling stock operator) would be reflected in the interface coordination plan or agreement between the rail infrastructure manager and the rolling stock operator.

5.3 Is national consistency needed or should there be provision for 'local variation'?

Given that the model Bill is ‘model’, consideration has to be given to whether nationally consistent law in relation to some matters is needed or practicable. Model law is desirable when there are potential benefits arising from regulatory harmonisation. However, where a particular risk based concern is localised within a jurisdiction, jurisdictions should have the capacity to address it, and other jurisdictions should have the freedom to ignore it (given that it is not relevant to them).

The observation is that interfaces between rail transport operators, and interfaces between road and rail infrastructure managers are not a localised concern, limited to one jurisdiction.

The requirement for interface coordination between rail transport operators is a core safety management system requirement. To the extent to which the regulatory harmonisation argument is compelling with respect to all the other safety management system requirements included in the model Bill and Regulations, then the argument is as equally compelling here.

A similar argument exists for the requirement for interface coordination between road and rail infrastructure managers. A consistent approach has the benefit of providing a stable business environment in which rail infrastructure managers can operate (recognising that their tracks can and do cross State borders). A consistent specification of the requirement imposed on road managers is also of virtue given the context of differing statutory duties imposed on road managers. The existing Victorian legislation referred to in section 3 was chosen for the purposes of illustration because it is recognised as best practice and most clearly articulates the duties owed by road managers. In other jurisdictions, the gap between the duties owed and the need to ensure that interfaces are managed is more apparent. Further still, in some jurisdictions there are uncertainties about what are the statutory duties owed by road managers (if any). In this context, the specification of a
nationally consistent (process-based) legislative requirement provides greatest support to achievement of the policy objectives.

It should be noted that the Amendment Bill does provide for local variation in the drafting of certain provisions. This is thought to be necessary in circumstances where there is a foreseeable need for the new law to interface with existing State and Territory laws. ‘Local variation’ is permitted in such circumstances to ensure that the new provisions do not result in legislative inconsistencies within a jurisdiction.

5.4 Consideration of level of prescription that is required

It is foreseeable that interfaces between rail transport operators and interfaces between road and rail infrastructure managers will differ markedly in respect of scale, size and level of complexity. Accordingly, the objective of those involved in developing the interface management obligations has been to make the regulatory requirements scaleable such that the key determinant of the compliance effort required is the identified level of, and number of, risks associated with the relevant interfaces. In this way, the model amendments can be considered as having been designed with due attention to the need to ensure that disproportionate impacts are not imposed. This approach is also consistent with the key tenet of co-regulation, being that rail transport operators takes on accountability in exchange for the maximum degrees of freedom to determine the most practical and cost effective means of controlling identified risks.

Options considered at this level have been determined with regard to the need to trade-off regulatory certainty and enforceability against the need to maximise scalability and an organisation’s freedom to determine the most fit for purpose form of risk control.

It is noted, for example, that a deliberate choice has been made to not prescribe in detail the contents of interface agreements. This differs from the status quo (refer to AS4292.1, section 7.3 for contrast).

5.5 Options for expressing the requirements

The lowest level of detail at which options have been considered is at the drafting level. Five drafts of the Amendment Bill has been prepared by the NTC and considered by the advisory groups involved in the development process. For each draft, due consideration has been given to alternatives for expression of the requirement, with a view to avoiding unintended interpretations of terms used. This has often involved seeking the opinion of those outside the development process and using the knowledge and experience of advisory group members to reality test the expression of the requirement relative to foreseeable scenarios. An example of this (to be discussed in more detail in section 6) was the potential for road managers to interpret the new provisions as placing a statutory duty on them to ensure safety at the identified interfaces, so far as is reasonably practicable. As indicated in section 3, the duty owed by road managers is different (a deliberate choice by governments). The objective of the provision is not to change the statutory duty but rather to require a process to be undertaken (identify risks and assess) with the ultimate decision about risk controls to be implemented being a negotiated outcome between the parties in light of the differing statutory duties owed by each. It is for this reason that the following sub-section (3) was added to proposed model Bill clause 61C:
(3) Nothing in this section authorises or requires a road manager to act inconsistently with, or without regard to, the functions, obligations or powers conferred on it by or under an Act other than this Act.

To the extent to which other State and Territory law specifies a road managers’ functions, obligations or powers, this provision makes it clear that road managers are not being required to act inconsistently with those functions, obligations or powers.

5.6 Consideration of arguments for exemptions

The requirement imposed on road managers applies to public and non-public roads, recognising that the interfaces between roads and rail infrastructure of any sort, irrespective of ownership and limits placed on use of that infrastructure, pose potential risks to safety that need to be identified, assessed and controlled. While all involved in the development process have been mindful of this fact there has been consideration of the extent to which the burden of adhering to the process requirements implied by the provisions can be minimised on parties such as private road owners and local government organisations. Other factors influencing these considerations include the potential for the road manager to not have sufficient risk management capabilities to adequately participate in the risk identification and assessment process.

A number of options were considered, including the option to exempt certain identifiable types of road owner from having to meet the requirements. In all such circumstances, a problem is that there is not necessary a correlation between the type of road and the level of risk. It was not possible to identify a sub-group of roads and/or road owners for which interfaces with rail infrastructure could be anticipated to be low risk. Ultimately it was determined (in relation to non-public roads) to manage this issue by placing the obligation on the rail infrastructure manager to identify the interface as being in need of an interface agreement (due to the level of risk it poses) and to notify the non-public road owner as such. This notification would act to trigger the application of the regulatory requirement on the non-public road owner. This provision is discussed in more detail in section 6.
6 DESCRIPTION OF PROVISIONS OF THE AMENDMENT BILL

6.1 Definitions

The Amendment Bill includes a number of definitions that are proposed to be included in the model Bill in order to give effect to the new proposed provisions. Two are of particular importance: the definition of ‘road and rail crossing’; and the definition of what constitutes an ‘interface agreement’.

The definition of ‘road or rail crossing’ defines the scope of the interfaces to which the regulatory requirements apply. The proposed definition is as follows:

- definition of ‘road or rail crossing’ means a railway crossing, a bridge carrying a road over a railway or a bridge carrying a railway over a road [and includes parallel road/rail – local variations];

Under the status quo arrangements, the National Accreditation Package does not define the scope of interfaces that require an interface agreement but instead leaves this as a matter of judgement on the part of the duty holders. In contrast, AS4292.1 explicitly defines the scope of circumstances where there is a need for interface agreements in much the same terms as the above definition does (as indicated in section 5.1). Given that a primary rationale for having a specific regulatory requirement relating to interface agreements arises from the benefit in ensuring that shared risks are identified and assessed jointly (see section 5.2), it was determined that a more explicit description of scope is required, hence the ‘road or rail crossing’ definition is proposed.

It should be noted that the definition allows for local variations to the definition, specifically, jurisdictions are at liberty to determine whether they will apply the proposed regulatory requirements in circumstances where there is not a crossing, but instead, parallel operation of both road and rail. Most jurisdictions indicated that, in practice, the proximity of such operations relative to one another were not such to give rise to concern. However, at least in Western Australia, there are examples of metropolitan train lines operating in the median of urban freeways. In such circumstances, there is an obvious need for the relevant road and rail infrastructure managers to identify, assess and control risks to safety. For the same arguments as expressed in section 5.2, it is thought necessary to make this requirement enforceable by the rail safety regulator.

A suggestion made by one road authority to extend the approach of rail infrastructure manager-initiated development of interface agreements to public roads was not considered to be consistent with the Australian Transport Council’s decision that road managers have obligations that are complementary to those of rail transport operators. The triggered mechanism applicable to private road managers was included after much discussion and consultation, as a necessary qualification on the application of the obligations to private road managers only.

The definition of an ‘interface agreement’ is important in setting expectations about the types of matters which are expected to be the subject of agreements and dealt with in a documented form. However, it should be noted when reading the definition that the primary requirement is that the ‘interface agreement’ be about managing risks to safety identified and assessed in accordance with the process requirements proposed in the Amendment Bill. The proposed definition is as follows:
**Interface agreement** means an agreement in writing about managing risks to safety identified and assessed under Division 4 of Part 4 that includes provisions for—

(a) implementing and maintaining measures to manage those risks; and

(b) the evaluation, testing and, where appropriate, revision, of those measures; and

(c) the respective roles and responsibilities of each party to the agreement in relation to those measures; and

(d) procedures by which each party to the agreement will monitor compliance with the obligations under the agreement; and

(e) a process for keeping the agreement under review and its revision;

Matters specified in sub-sections (a) to (e) might be included in the interface agreement, but need not be. The content of the interface agreement will be dependent on all the risks identified and assessed and the determination of the parties as to how to manage identified risks.

Three other definitions, two of which are established in the Amendment Bill, are important in defining the parties who are affected by the proposed obligations. They are the definitions of the parties that are proposed to hold the obligations, i.e. rail infrastructure managers, public road managers, non-public road managers.

The model Bill defines a rail infrastructure manager as being the person who has effective management and control of the rail infrastructure, whether or not the person: (a) owns the rail infrastructure; or (b) has a statutory or contractual right to use the rail infrastructure or to control, or provide access to it. In practice there is a mix of ‘persons’ who meet this definition, some private (e.g. Pacific National), some government owned (e.g. RailCorp).

The Amendment Bill proposes the inclusion of definitions in the model Bill for what constitutes a public road, public road manager etc with reference to definitions contained in the Victorian Road Management Act 2004. ‘Local variations’ in the definition of these terms is permitted in recognition of the need to dovetail proposed definitions with those that are existing within the law of the jurisdictions in which the proposed obligations are being implemented. The fact of the matter is that these definitions differ between jurisdictions. The aim of the Amendment Bill is simply to make it clear that ‘public road managers’ are the organisations responsible for State and Territory roads (e.g. Vicroads, NSW RTA, Queensland Main Roads, etc) and the organisations responsible for local government roads (e.g. councils). All other road managers are defined as non-public road managers (e.g. crown lands department access roads, forestry department access roads, land owners who have access roads crossed by rail lines, etc).

Please note that many of the definitions proposed allow for local variation in their implementation. This is necessary to enable consistency with existing definitions for such terms that are used in existing State and Territory law.

### 6.2 Technical amendments

Clause 4 of the Amendment Bill is intended to resolve a drafting error established as a consequence of a previous amendment bill that was approved by Transport Agency Chief Executives (TACE) on behalf of the ATC. Under delegated decision making arrangements approved by the ATC, TACE members have the power to approve of changes to the model Bill in circumstances where the changes are minor and non-contentious. A set of proposed
changes of this type were approved by TACE members in November 2006. Clause 4 is as follows:

Section 46 of the Principal Bill, as amended by the Amendment No. 1 Bill submitted to the Transport Agencies Chief Executives (TACE) on 17 November 2006 and subsequently approved by them, is further amended as follows:

(a) for "(e)" substitute "(d)"; and

(b) for "(f)" substitute "(e)".

Clause 5 of the Amendment Bill is intended to make it clear that the rail safety regulator has the power to place conditions on the registration of private sidings that requires the owner/operator of private sidings to comply with specific requirements (at the regulators discretion) in Divisions 4, 5 and 6 of the model Bill (to which private siding operators are normally exempt from). The proposed provision is as follows:

"(1) A rail infrastructure manager of a private siding -

(a) is not required to be accredited under this Part in respect of railway operations carried out in the private siding; and

(b) except to the extent that the regulations or a condition referred to in subsection (2) otherwise provides, is not required to comply with Division 4, 5 or 6 in relation to the private siding."

(2) After section 56(2) of the Principal Bill insert-

"(3) Conditions and regulations referred to in subsection (2) may establish requirements that are the same as, or similar to, any provisions of Division 4, 5 or 6."

The provision of this power to the rail safety regulator had always been intended but in the process of implementation by State and Territories legal interpretations have differed as to whether the rail safety regulator’s power was sufficiently clear (or otherwise subject to challenge). The rationale for the power is that what constitutes a private siding is somewhat of a ‘grey area’ despite best attempts to specify this via definitions incorporated into the model Bill. It is foreseeable that facilities which meet the definition of private siding might actually provide the environment for quite a complex set of railway operations of relatively high risk (if not controlled effectively). In such circumstances, specific safety management system requirements (such as those specified in Divisions 4, 5 and 6 of the model Bill) may be warranted in order to prompt appropriate risk identification, assessment and control. Given the foreseeable of this circumstance, it is necessary to enable the rail safety regulator to attach conditions to registration of private sidings which apply relevant parts of Divisions 4, 5 and 6 to individual private siding owner/operators (should need dictate). It should be noted that this is regarded as a minor and non-contentious amendment that could have been addressed through the delegated approval process (i.e. approved by TACE).

6.3 Provisions relating to interface coordination

To put the proposed provision in context it is necessary to firstly consider some key components of the regulatory construct established via the model Bill.

The safety management system of the rail transport operator is the means of compliance with rail safety duties specified in section 28 and is both a requirement of accreditation and
a means of evidencing the competency and capacity to manage risks to safety. Part 4, Division 4 of the model Bill requires rail transport operators to have a safety management system, comply with it and review it periodically. In particular, section 57 requires rail transport operators to have a safety management system for its rail operations that identifies and assesses risks, specifies the controls, includes procedures for the monitoring, reviewing and revising the adequacy of those controls and specifically requires inclusion of:

- interface coordination plans;
- security management plan;
- emergency management plan;
- health and fitness management program;
- alcohol and drug management program; and
- fatigue management program.

Section 61 of the model Bill (as it is currently) requires rail transport operators to:

- identify potential risks to safety caused by the railway operations of other rail transport operators; and
- develop and implement one of more interface coordination plans to minimise or eliminate the risks to safety that have been identified.

Rail transport operators are also required to prepare and keep a register of current interface coordination plans.

On 2 June 2006, the ATC approved the proposal to develop additional provisions for inclusion in the model Bill that place complementary obligations on road managers to manage safety risks associated with road/rail interfaces jointly with rail infrastructure managers. Clause 7 of the Amendment Bill proposed changes to section 61 of the model Bill to give effect to the decision of the ATC in June 2006.

6.3.1 Interface coordination – rail transport operators

Clause 7 proposes to substitute the following for the existing provision (section 61) that exists in the model Bill:

(1) A rail transport operator -

   (a) must identify and assess, so far as is reasonably practicable, risks to safety that may arise from railway operations carried out by or on behalf of the operator because of, or partly because of, railway operations carried out by or on behalf of any other rail transport operator; and

   (b) must determine measures to manage, so far as is reasonably practicable, those risks; and

   (c) must, for the purpose of managing those risks, seek to enter into an interface agreement with the other rail transport operator or rail transport operators.
(2) Except to the extent that the regulations otherwise provide, subsection (1)(c) does not apply if none of the rail transport operators is a rail infrastructure manager.

The proposed provision differs from the existing in two ways.

Firstly, the new provision does not require the rail transport operator to implement the interface agreement and it does not attach a penalty to a failure to implement interface agreement. This is not a change of substance but moreover represents an elimination of duplication of penalty provisions. The interface agreements form part of the safety management system of the rail transport operator. There is already a requirement to implement the safety management system and a penalty applies for non-compliance. Accordingly, it has been determined that there is no need to have a specific penalty.

Secondly, the new provision (in sub-section (2)) makes it clear that rolling stock operators using the same infrastructure are not required to have interface agreements between each other. It was determined that while such agreements should not be precluded as a means of managing identified risks, it is not necessary to require them. It was envisaged, as is the case at present, that the interface coordination plans or agreements that exist between rolling stock operators and rail infrastructure managers will articulate the rules and procedures governing railway operations on the rail infrastructure in question. Such rules and procedures dictate how rolling stock operators interact with each other on the rail infrastructure of the rail infrastructure manager (in much the same way that road rules work to coordinate the activities of car and truck drivers). Accordingly, if the interface coordination plan or agreement between the rolling stock operator and the rail infrastructure manager is followed by the rolling stock operator then risks that exist between its operations and that of other rolling stock operators will be sufficiently managed. This change is seen as necessary to avoid confusion.

As argued in the regulatory impact statement for the model Bill, the establishment of the requirement for interface coordination between rail transport operators merely acts to codify existing practice and enable enforcement where practice is lacking. It does not actually represent a new regulatory requirement because the requirement is established in AS4292.1 and in the National Accreditation Package. Through various means the States and Territories have made compliance with the requirements specified in these documents mandatory. Section 61 therefore does not represent a change from the status quo.

6.3.2 Interface coordination – rail infrastructure manager – public roads

Clause 7 proposes to add to section 61 by including the following as section 61A:

A rail infrastructure manager-

(a) must identify and assess, so far as is reasonably practicable, risks to safety that may arise from railway operations carried out on or in relation to the manager's rail infrastructure and that may so arise because of, or partly because of, the existence or use of any rail or road crossing that is part of the road infrastructure of any public road; and

(b) must determine measures to manage, so far as is reasonably practicable, those risks; and

(c) must, for the purpose of managing those risks, seek to enter into an interface agreement with the responsible road manager in relation to that road.
The effect of provision 61A is to place an obligation on rail infrastructure managers to go through the process of developing an interface agreement with managers of public roads with which it has ‘road or rail crossings’. As indicated in section 5.1, this is an existing requirement under the status quo law. The argument for its retention is made in section 5.2.

It should be noted that specific provision has been made for the Northern Territory to not to have to implement this provision in the Territory law. The rationale for this is that there are existing provisions contained in the Australasia Railway (Special Provisions) Act which give effect to what is intended. The retention of these provisions in the Northern Territory is necessary to ensure that there is not a perceived or real change to the legislative arrangements under which the private public partnership was established for the provision and operation of the Alice Springs to Darwin railway. To make a change to these arrangements may introduce sovereign risk and give rise to claims of damages (a potential concern for the Northern Territory Government). The NTC is willing to support the retention of the provisions in the Territory law as an alternative on the basis that it is confident that these provisions will achieve the same intent.

6.3.3 Interface co-ordination – rail infrastructure manager – roads other than public roads

Clause 7 proposes to add to section 61 by including the following as section 61B:

A rail infrastructure manager-

(a) must identify and assess, so far as is reasonably practicable, risks to safety that may arise from railway operations carried out on or in relation to the manager's rail infrastructure and that may so arise because of, or partly because of, the existence or use of any rail or road crossing that is part of the road infrastructure of any road, other than a public road; and

(b) must consider whether it is necessary to manage those risks in conjunction with the road manager in relation to that road and-

(i) if the rail infrastructure manager is of the opinion that it is necessary that those risks be managed in conjunction with the road manager, must give written notice of that opinion to the road manager and must determine measures to manage, so far as is reasonably practicable, those risks; or

(ii) if the rail infrastructure manager is of the opinion that the management of those risks does not need to be carried out in conjunction with the road manager, must keep a written record of that opinion; and

(c) unless paragraph (b)(ii) applies, must, for the purpose of managing those risks, seek to enter into an interface agreement with the road manager in relation to that road.

Note: Local variations for NT to recognise protocols made under the Australasia Railway (Special Provisions) Act

The effect of this provision 61B is the same as proposed provision 61A expect that it applies to the management of interfaces with managers of ‘non-public’ roads (road managers other than State or Territory road agencies and local government authorities). This is an existing requirement under the status quo law, however, it differs from 61A in
that it places the burden on rail infrastructure managers to determine whether the interface, given the potential risk to safety it poses, requires an interface agreement. If the rail infrastructure manager determines that an interface agreement is required, then it is the responsibility of the rail infrastructure manager to notify the manager of the non-public road and inform them of their obligations under proposed provision 61C. In practice, the past arrangements have also placed this burden on rail infrastructure managers. In the past it has been the rail infrastructure manager, which has had a real commercial interest in the safety of the interface (and a regulatory requirement to manage it), that has sought to drive the development of ‘interface coordination plans’ or interface agreements as a means of managing safety risks. From a practical perspective this has required the rail infrastructure manager to identify priority interfaces and seek to commence a dialogue with the other party. In effect, the proposed variance that exists in 61B (relative to 61A) requires no more than this.

6.3.4 Interface coordination - road manager – public roads and other roads

Clause 7 proposes to add to section 61 by including the following as section 61C:

(1) The responsible road manager in relation to a public road—
   (a) must identify and assess, so far as is reasonably practicable, risks to safety that may arise from the existence or use of any rail or road crossing that is part of the road infrastructure of that public road because of, or partly because of, railway operations carried out on or in relation to any rail infrastructure; and
   (b) must determine measures to manage, so far as is reasonably practicable, those risks; and
   (c) must, for the purpose of managing those risks, seek to enter into an interface agreement with the rail infrastructure manager of the rail infrastructure.

(2) If, under section 61B(b), a rail infrastructure manager gives a written notice to a road manager in relation to a road that is not a public road of an opinion that certain risks need to be managed in conjunction with the road manager, the road manager—
   (a) must identify and assess, so far as is reasonably practicable, risks to safety that may arise from the existence or use of any rail or road crossing that is part of the road infrastructure of the road because of, or partly because of, railway operations; and
   (b) must determine measures to manage, so far as is reasonably practicable, those risks; and
   (c) must, for the purpose of managing those risks, seek to enter into an interface agreement with the rail infrastructure manager.

(3) Nothing in this section authorises or requires a road manager to act inconsistently with, or without regard to, the functions, obligations or powers conferred on it by or under an Act other than this Act.

Note: Subject to local provisions (if any) that provide protection from civil liability for road managers – e.g. NSW Civil Liability Act 2002 s. 45

Provision 61C represents the most significant change relative to the status quo arrangements. As indicated in section 5.1, road managers have not previously been subject to a requirement to enter into interface agreements. Road planning requirements have
required a process to be followed but this mainly relates to the initial design of road and rail crossings whether they be ‘at grade’ or vertically separated (bridge or tunnel). The ongoing management of risk between the parties is something that road managers have not been required to give consideration to. Indeed, road managers have tended to shy away from doing so on a formal basis on the grounds that it may create expectations of investment in risk controls, in circumstances where it is possible that such investment may not be optimal given other competing demands. Instead, road managers have tended to only become engaged in addressing interface issues when there are tangible indicators of a safety problem (i.e. a crash history) which on face value would indicate a potential to achieve good returns on an investment in effort.

In accordance with 61C, road managers will now be required to identify and assess the risks to safety and seek to enter into a interface agreement with the relevant rail infrastructure manager(s) with whom they share interfaces with (in the form of road and rail crossings). The significance of this is that road managers will no longer be able to be ignorant of the potential risks to safety at road and rail crossings and will no longer be able to ignore attempts by rail infrastructure managers to formalise risk management arrangements. These statements are not meant to imply that all road managers have been deliberately ignoring risks at road and rail crossings, nor is it meant to imply that all road managers have deliberately avoided formalising risk management arrangements with rail infrastructure managers. As indicated in section 2, submissions have indicated that a level of coordination is being achieved between road and rail infrastructure managers. However, the evidence is that experiences differ and that a more systematic approach is needed to underpin rational decision making on the part of both the road and rail infrastructure managers.

Provision has no effect on statutory duties of road or rail infrastructure managers

It is important to emphasise that the obligations contained in 61C only require a process to be followed, it does not alter the respective decision making criteria to be applied by either party nor does it require a particular form of risk control to be applied at any particular road or rail crossing. The significance of this is that road managers will continue to make decisions based on the perspective that their obligation is to maximise safety returns within the limits of the resources that are made available to them. The information made available by complying with the process requirements articulated in 61C will inform the road manager’s prioritisation of investment in safety projects but will not change the way the road manager has (and does) make the decision. In practice, if the benefit cost ratio of safety projects at road and rail crossings does not rate in the relative priorities, then the investment expenditure will be directed elsewhere. To summarise, the intention of 61C is not to change the order of the list of safety projects, it is merely meant to ensure that safety projects pertaining to road and rail crossings are on the list from which choices can be made.

Sub-section (3) of 61C is intended to make it clear that sub-sections (1) and (2) do not affect, change or modify road manager duties and obligations (and the associated decision making criteria that is applied). Submissions received in response to the draft regulatory impact statement indicated there was some confusion as to what was implied by the provisions. In particular, there was concern about the obligation to determine measures to manage, so far as is reasonably practicable, those risks (the risks to safety identified at the road or rail crossing). The provisions have purposely been drafted such that there is not an obligation to implement measures, recognising that the obligation to implement (which implies use of scarce resources) should be governed by the respective statutory duties that
each party has. Nevertheless to avoid any doubt, sub-section (3) was drafted and incorporated into 61C. In addition, a drafting note advises jurisdictions (when implementing the model law) to make it clear that any protections from civil liability that are afforded to road managers will also apply in the case of road and rail crossings.

Obligation on manager of non-public road triggered by notice from rail infrastructure manager

It should be noted that sub-section (2) has been drafted such that it complements proposed provision 61B. In effect, the obligations placed on non-public road managers are triggered by the written notice from the rail infrastructure manager which indicates a judgement that an interface agreement is required (due to the potential risks to safety posed by one or numerous road or rail crossings that exist between the respective infrastructures of the parties).

At the time of the release of the draft regulatory impact statement for consultation the NTC sought comment on whether the proposed obligation for interface coordination plans should apply to non-public (private) road managers. The feedback received has been mixed. On one hand there is a broad acknowledgement that interfaces between private roads and rail infrastructure can be as high risk or as low risk as any interface with a public road. It follows that a systematic approach to risk identification, assessment and control is desirable. On the other hand, the sheer number of potential interfaces between rail infrastructure and private road owners suggests a compliance cost burden that is very significant. For some of these interfaces the time and effort that would need to be afforded to the establishment of an interface coordination plan is simply not justifiable.

The construction of 61B and 61C(2) address these issues by providing that the obligations on private road managers will not be triggered until advised in writing by the rail infrastructure manager of the rail infrastructure manager’s opinion that an interface agreement is needed to manage the risks associated with the relevant private road/rail interface.

6.3.5 Identification and assessment of risks

Clause 7 of the Amendment Bill proposes the addition of section 61D to make it clear that the risk identification and assessment can be undertaken in a number of ways. The proposed provision is as follows:

A rail transport operator, rail infrastructure manager or road manager which is required under section 61, 61A, 61B or 61C to identify and assess risks to safety that may arise from operations carried out by another person may do so-

(a) by itself identifying and assessing those risks; or
(b) by identifying and assessing those risks jointly with the other person; or
(c) by adopting the identification and assessment of those risks carried out by the other person.

Ideally, the risk identification and assessment should be undertaken jointly, but in practice there a number of reasons why the risk identification and assessment process might be undertaken differently, for example, both parties may have recently, but separately, undertaken a risk assessment in relation to a road or rail crossing (or a class of crossings, etc.) and wish to use this as the basis for discussions regarding how best to manage risks rather than duplicate the risk identification and assessment process. An alternative
example could be that there is a disproportionate level of expertise and resources to undertake the risk identification and assessment on one side relative to the other. In such circumstances there may be virtue in adopting the risk identification and assessment of the other party and interrogating it rather than undertaking a whole new exercise. In any case, the rationale underpinning the regulatory requirement is not defeated, provided there is a point at which the parties to the agreement discuss the risk assessment (bring their respective information sets to the table) and determine the measures required to manage the risks.

The intention of 61D is to enable the most practical and least cost method of undertaking the risk identification and assessment. Submissions received indicated an understanding of this (and supported it) but instead, raised other concerns. Concerns were raised about the form of risk assessment implied by the provisions. There was also concern that the obligations implied a need to undertake entirely new risk assessments, rather than utilise a pre-existing risk assessment that has been documented.

**Form of risk assessment**

The apparent fear is that the provisions imply a highly formalised, complicated and resource intensive form of risk assessment. This is not the case. The provisions are deliberately silent on the form of risk assessment that is to be applied with the intention that it be left to the judgement of the parties as to what is an appropriate risk assessment methodology to apply given: all the relevant characteristics of the circumstances; and given the differing statutory duties that each party needs to be in a position to show that it has fulfilled.

Ultimately the choice of risk assessment methodology is a matter of judgement but it is anticipated that in circumstances where the interface poses a low potential risk and is relatively straightforward in its nature then a relatively straightforward form of risk assessment can be applied. In contrast, in situations where traffic levels on both the rail and the road infrastructure are high and there concerns about sight distance, driver behaviour, track and road geometry, etc, then a more sophisticated form of risk assessment may be most appropriate. The road and rail infrastructure manager(s) that are parties to an interface agreement need to be able to demonstrate the choice of risk assessment methodology as being ‘reasonable’.

An issue raised in submissions is the extent to which a risk assessment methodology can be adopted and applied to a whole class of road or rail crossings. Submissions, for example, queried whether grade separated road or rail crossings (bridges and tunnels) could be assessed as a class. The observation made is that risks primarily arise from lack of maintenance on structures and inappropriate provision of access to vehicles that (due to their mass) could cause the bridge or tunnel to collapse (‘catastrophic failure’). There is also a risk that a vehicle could fall from the top level (road or rail bridge) onto the infrastructure of the other party. It was foreseen that a generic risk assessment could be undertaken in relation to these risks and that generic risk controls (including communication protocols between the parties) could be determined and agreed. The NTC can see no impediment to this. Again, the parties to the agreement need to be able to demonstrate that the choice of risk assessment methodology is ‘reasonable’ in light of the circumstances.

A key requirement, in practical terms, is for the parties seeking to enter into an interface agreements to have a shared view that the risk assessment methodology applied is suitable. If there is not agreement in relation to this then the parties will not be able to talk about the
matters to which the interface agreement relates in a common language, with a common understanding.

Admissibility of pre-existing risk assessments

There is a view, held by a fair proportion of those that made submissions, that the proposed provisions imply a completely new risk identification and assessment in relation to all road and rail crossings. This is not the case. A pre-existing risk assessment undertaken by either or all of the parties to a proposed interface agreement can be used to inform the determination of risk control measures that should be applied. The key question is whether all parties believe it to be suitable (form of risk assessment?) and sufficiently up to date, such that it reflects the level of risk that exists at the time of the assessment.

The NTC’s expectation is that many pre-existing risk assessments can be used to underpin the development of interface agreements required by the provisions contained in the Amendment Bill. Some revisions may be required but there is no reason (or implied requirement) to start with a ‘clean slate’ and reproduce something that may, for all intensive purposes, already exist.

6.3.6 Scope of interface agreements

Clause 7 of the Amendment Bill proposes the addition of section 61E to make it clear that the scope of the interface agreement can be as broad or as narrow as necessary to serve the intended aims of the parties to the agreement. The proposed provision is as follows:

An interface agreement under this Division-

(a) may be entered into by two or more rail transport operators or by one or more rail transport operators and one or more road managers;

(b) may include measures to manage any number of risks to safety that may arise because of, or partly because of, any railway operations;

(c) may include measures to manage any number of risks to safety that may arise from any railway operations because of, or partly because of, the existence or use of any road infrastructure;

(d) may make provision for or in relation to any matter by applying, adopting or incorporating any matter contained in any document;

(e) may consist of two or more documents.

The original concerns that gave rise to this provision related to the potential compliance burden associated with preparing an interface agreement in relation to each and every road or rail crossing. It was always envisaged that as a means of minimising the compliance burden, there would be an opportunity to prepare an interface agreement such that it addressed (in sufficient level of detail depending on the circumstances), all the interfaces that existed between a rail infrastructure manager and a road manager. Indeed, if it is practical to do so, 61E makes it possible for an interface agreement to be between a rail infrastructure manager and a collection of individual road managers (for example, local government authorities). Equally the reverse might apply.

The key issue is the extent to which an interface agreement remain workable. It is desirable to minimise the amount of agreements and maximise the amount of interfaces which an interface agreement can address. However, there is a limit to the level of aggregation that can be achieved before an interface agreement becomes unworkable. This
again, is left as a matter of judgement for the parties. The incentive to make a good judgement is the need to be able to demonstrate that each party is fulfilling its statutory duties. If the interface agreement is so aggregated that it has become meaningless then each party is potentially exposed, should there be an audit by the regulator or should an incident occur and be followed by a compliance investigation.

6.3.7 Appointed person may give directions

The complementary obligation contained in section 61, 61A, 61B and 61C is to seek to enter into an interface agreement. This is deliberate. Legislation cannot force parties to reach agreement, but it can require parties to try, and can provide the parties with an incentive to reach agreement. In this case, the incentive to reach agreement is the potential for either party to request that ‘appointed person’ to take action to address a situation where the appointed person is satisfied that a rail transport operator, rail infrastructure manager or road manager referred to in section 61, 61A, 61B or 61C-

(a) is unreasonably refusing or failing to enter into an interface agreement with another person as required under this Division; or

(b) is unreasonably delaying the negotiation of such an agreement.

The new proposed provision, section 61F, places procedural controls on how the appointed person must act:

(3) The appointed person may issue a written notice to the rail transport operator, the rail infrastructure manager or the road manager, as the case requires, and the other person that-

(a) warns of the appointed person's powers under this section, including the power to issue a direction under subsection (4) at any time after a specified date; and

(b) includes a copy of this section; and

(c) may contain suggested terms for inclusion in an interface agreement.

(4) If the appointed person issues a notice under subsection (3) to a rail transport operator, rail infrastructure manager or road manager, the appointed person may, in writing, request the manager to provide such information as the appointed person reasonably requires for the purposes of making a direction under sub-section (5).

(5) If a notice is issued under subsection (3) and an interface agreement has not been entered into by or on the date specified in the notice, the appointed person-

(a) may determine the arrangements that are to apply in relation to the management of risks to safety referred to in section 61, 61A, 61B or 61C, as the case requires; and

(b) may direct either or both persons to whom the notice is issued to give effect to those arrangements; and

(c) must specify by when a direction must be complied with.

(6) A person to whom a direction under subsection (5) is given must comply with the direction.

Penalty: In the case of a natural person:

In the case of a body corporate:

Note: local variations
As indicated, the appointed person has the power to determine the arrangements at the road or rail crossing to which the interface agreement applies. The potential for the determination of risk control measures to be taken out of the hands of the parties provides an incentive for all parties to a particular agreement to be reasonable in all their dealings with each other. In the most extreme of situations the ‘appointed person’ provides the means of dispute resolution.

It should be noted that the Amendment Bill provides for local variation in relation to the identity of the appointed person.

### 6.3.8 Register of interface agreements

The final provision in the Amendment Bill (and final element of Clause 7) is the proposed provision pertaining to the requirement (61G) to have a register of interface agreements. This is a purely administrative task with compliance cost implications of a very minor nature. However, the provision is of critical importance in ensuring that the combination of provisions under section 61 are able to be enforced via actions of the rail safety regulator. The register is the starting point of any audit or compliance investigation. It is essential that the provision requiring the register is sufficiently compelling, hence the rationale for it to be a penalty provision. The proposed provision is as follows:

(1) A rail transport operator must maintain a register of-
   (a) interface agreements to which it is a party; and
   (b) arrangements determined by the appointed person under section 61F-
       that are applicable to its railway operations.

(2) A road manager must maintain a register of-
   (a) interface agreements to which it is a party; and
   (b) arrangements determined by the appointed person under section 61F-
       that are applicable to any road in relation to which it is the road manager.

Penalty

   In the case of a natural person:

   In the case of a body corporate:"

The next section of the regulatory impact statement considers the expected costs and benefits associated with the changes to the status quo that are proposed in the Amendment Bill.
7 EXPECTED BENEFITS AND COSTS OF PROPOSED CHANGES

This section identifies and evaluates the benefits and costs expected to arise from the adoption of the model amendments. The approach adopted constitutes a combination of incremental analysis and break even analysis. That is, the analysis firstly focuses on differences between the status quo and the model amendments and assesses the likely direct compliance costs in circumstances where the adoption of the model amendments would imply a change. Secondly, the analysis assesses the necessary quantum of available benefits that would have to be attributed to the reforms contained in the Amendment Bill in order to at least offset the total estimated compliance costs. The latter part of this constitutes the break-even analysis.

The break-even analysis is the only comparative analysis that is feasible given the nature of the reform. The primary outcome of the reform is better information to inform decision making about risk control measures that should be applied by both parties at road and rail crossings. The reform itself, without other inputs that are necessary to give effect to risk control measures, has no safety benefits. In practice, the reform (better information) will be combined with investment in risk control measures (at additional cost) to produce improved safety outcomes. However, there is no way of knowing ex-ante what investment in risk control measures will be made, and how effective these risk controls will be in improving safety outcomes. This will be assessed as a product of the process that the proposed amendments require to be undertaken.

7.1 Changes made relative to the status quo

Preceding sections of the regulatory impact statement (e.g. section 5.1) have indicated that the proposed provisions relating to interface agreements between rail transport operators do not represent a change from the status quo. Similarly, the proposed obligation on rail infrastructure managers to seek to enter into interface coordination plans with road managers does not represent a change to the status quo. The primary change proposed is to establish a complementary obligation on road managers to seek to enter into interface agreements in relation to road and rail crossings that exist between the infrastructures of the parties. Provisions 61D to 61G are new but do not propose new obligations. These provisions, as indicated in section 6, are intended to clarify uncertainties (61D and 61E), provide incentives for compliance and provide a means of dispute resolution (61F) and otherwise support monitoring of compliance and enforcement (61G). Accordingly, the analysis of compliance cost impacts can be justifiably limited to a consideration of the costs associated with developing interface agreements between road and rail infrastructure managers.

7.2 Direct compliance cost implications

The direct compliance cost implications of the Amendment Bill are those that relate to the identification of road and rail crossings, the assessment of risks posed at the crossings identified and the development of interface agreements. There is also the on-going cost of monitoring the effectiveness of the interface agreement and the underlying risks on which it is based. The draft regulatory impact statement estimated the direct compliance costs as being within the range of $1.35m and $5.9m in present value terms. The compliance costs associated with on-going maintenance of risk assessments and interface agreements was not considered. Based on new information obtained during the period of public consultation, the estimated range has been revised. The following sections explain the methodology that has been adopted and the assumptions that have been made.
7.2.1 Number and type of road or rail crossings

The National Railway Level Crossing Safety Strategy reported in 2003 that there are approximately 9,400 public railway level crossings in Australia, of which approximately 2,650 have 'active' protection, 6,060 have 'passive' protection and the remainder have other control or no protection. Additionally, there is a similar amount of level crossings with non-public roads (the majority of these being occupational crossings).

Based on a recent inventory produced for the ‘behavioural coordination group’, the following is a State and Territory breakdown of level crossings in Australia. Please note that definitions regarding what constitutes a public level crossing have been clarified over time. This accounts for much of the difference between the figure quoted in the strategy and the figure indicated in Table 1.

Table 1. Level crossing by State and Territory and by road type: public or non-public

<table>
<thead>
<tr>
<th>State or Territory</th>
<th>Public Road</th>
<th>Non-public road</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>1500</td>
<td>1800</td>
</tr>
<tr>
<td>Victoria</td>
<td>2270</td>
<td>*</td>
</tr>
<tr>
<td>Tasmania</td>
<td>322</td>
<td>*</td>
</tr>
<tr>
<td>South Australia</td>
<td>1246</td>
<td>*</td>
</tr>
<tr>
<td>Western Australia</td>
<td>1251</td>
<td>1800</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>317</td>
<td>*</td>
</tr>
<tr>
<td>Queensland</td>
<td>4300#</td>
<td>2300#</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11,206</strong></td>
<td><strong>5,900</strong>*</td>
</tr>
</tbody>
</table>

Notes:

*No actual figures available, but it can be expected that there are numerous occupational and private road crossings in these jurisdictions that are not otherwise accounted for in the figures provided.

#Queensland figure of 3932 reported to behavioural coordination group includes 1774 crossing of non-public roads and excludes proportion of 3000 cane railway level crossings with public roads. Adjustments have been made assuming 2500 of cane railway crossings are with public roads.

The number of grade separated railway crossings are not known. Submissions indicated that there are ‘a lot’. The only known figure comes from Western Australia where there are 92 grade separated crossings. For reasons explained in the sections to follow, the low level of knowledge regarding the number of grade separated road and rail crossings does not impede the analysis.

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4 'Active' railway level crossings have signals and/or boom gates which operate automatically when a train is approaching.
5 'Passive' railway level crossings have signs and/or pavement markings.
Identification of crossings with non-public roads that require interface agreements

As indicated in Table 1 there is lack of information regarding the number of crossings between rail lines and non-public roads. The main uncertainty relates to the number of occupational crossings. A key task therefore is to identify these crossings. The provisions in the Amendment Bill essentially place responsibility on rail infrastructure managers to undertake this task, and make a judgement about whether an interface agreement will be needed at all in light of the apparent risks associated with the crossing. In the case where the judgement is that no interface agreement is required then the rail infrastructure manager is required to develop a record of this judgement. In the case where an interface agreement is thought necessary, then the rail infrastructure manager must notify the road manager that this is the case. It is thought reasonable to set aside 100 days of staff time, across all rail infrastructure managers, to undertake this task (identification, initial judgement, notification or development of record).

7.2.2 Type and cost of risk assessment

Having identified road and rail crossings, there is a continuum of risk assessment approaches that could be adopted. As indicated in section 6.3.5, the road and rail infrastructure manager are at liberty to choose the form of risk assessment that they regard as being reasonable in light of the circumstances (e.g. traffic levels on both the rail and the road infrastructure, sight distance, pre-existing history of road user behaviour, track and road geometry, etc). For purpose of the analysis, two types of risk assessment approaches are assumed. In situations when the risk environment is quite complex because of factors such as traffic levels, sight distance, poor history of road user behaviour, etc. then it is assumed that the road and rail infrastructure manager(s) use the Australian Level Crossing Assessment Model (ALCAM) for purpose of the risk assessment. In circumstances where the road or rail crossing is expected (on face value) to pose low risks to safety, then it is assumed that the risk assessment is undertaken by applying professional judgement. It is noted that application of ALCAM itself is scalable relative to the complexities of the circumstances, accordingly, it is thought reasonable to assume a bias towards using ALCAM rather than relying purely on the professional judgements of the officers representing the road and rail infrastructure managers in the process of assessing risks and developing the interface agreement(s).

Bearing in mind the choice that needs to be made regarding the form of risk assessment that is applied, it is envisaged that there will be five possibilities:

- new risk assessment (using ALCAM);
- new risk assessment (using professional judgement);
- revised risk assessment (using ALCAM);
- revised risk assessment (using professional judgement); and
- reliance on pre-existing risk assessment (based on judgement that existing risk assessment was reasonably applied and is sufficiently up to date).

The above listed possibilities recognise that the status quo is not a ‘blank sheet of paper’. Many road and rail crossings have been the subject of risk assessments, some using ALCAM or similar tools and others using professional judgement. Some of these risk assessments may be sufficiently up to date, such that they can be relied upon to inform the
development of interface agreements while others can be expected to need revision. In some cases it will be clear that a risk assessment was done in the past but the records of this are insufficient or missing, in other cases, it will not be clear whether a risk assessment was ever undertaken. In the absence of any collection of factual information which characterises the status quo, assumptions regarding the number and type of risk assessments that need to be undertaken are explained in the following section on ‘scenarios’. Table 2 indicates the steps to be taken and the resources involved in undertaking the different types of risk assessment.

For sake of simplicity it is assumed in the analysis that the time cost of those involved in the risk assessment process and the development of the interface agreement can be valued at a flat rate of $400 per day. Based on an 8 hour day this equates to a salary of approximately $100k per year with a 10% overheads allocation. Such a salary is typical of the group of professionals involved in undertaking such tasks. Making this assumption will tend to underestimate the cost of specialist risk management expertise that may or may not be required depending on the circumstances. However, the assumption of this value as an input variable will tend to over-estimate the cost of undertaking the numerous administrative tasks involved (which will often be delegated to administrative support staff).
**Table 2. Type and cost of risk assessment: assumed input variables**

<table>
<thead>
<tr>
<th>Steps in process</th>
<th>New risk assessment (ALCAM)</th>
<th>New Risk assessment (professional judgement)</th>
<th>Revised risk assessment (using ALCAM)</th>
<th>Revised risk assessment (using professional judgement)</th>
<th>Reliance on pre-existing risk assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial research and analysis done separately by representatives of the road and rail infrastructure manager.</strong></td>
<td>1 days x 2 people</td>
<td>0.5 day x 2 people</td>
<td>0.5 day x 2 people</td>
<td>0.25 day x 2 people</td>
<td>0.25 day x 1 person</td>
</tr>
<tr>
<td><strong>Consistent with current practice, risk assessment and determination (in principle) of appropriate risk control measures is undertaken in a workshop/meeting involving representatives of both parties (from differing technical backgrounds and perspectives) and specialist in application of ALCAM (if applicable).</strong></td>
<td>0.5 day x 7 people</td>
<td>0.25 day x 2 people</td>
<td>0.5 day x 3 people</td>
<td>0.25 day x 2 people</td>
<td>Agreement that reasonable and up to date</td>
</tr>
<tr>
<td></td>
<td>0.75 days x 2 people</td>
<td>0.25 days x 2 people</td>
<td>0.5 day x 2 people</td>
<td>0.25 day x 2 people</td>
<td>0.125 day x 2 people</td>
</tr>
</tbody>
</table>

It should be noted that the above table implicitly assumes that the risk assessment is undertaken jointly. 61D makes it possible for one party to adopt the risk assessment of the other party and use this to inform its decision making in relation to what it will not agree to in the interface agreement. It is expected that due to lack of resources and limited access to risk assessment skills, private road managers, owners of occupational crossings and even some local government organisations will choose to adopt the risk assessment of the rail infrastructure manager rather than either separately preparing a risk assessment or actively participating in a joint assessment. As a consequence the adoption of the input variables listed in the table are likely to systematically over estimate the costs. Given the imprecision of some input variables and the inherent generalisations that have been made, this is accepted as a ‘built in’ conservatism to ensure that costs are not understated.
7.2.3 Assumed approach to development of interface agreements

During the development of the proposed legislative provisions it has become increasingly apparent that road and rail infrastructure managers will not choose to have interface agreements for individual road and rail crossings, but instead, will opt to develop interface agreements at an organisational level. Questions seeking clarification as to whether this would be permissible prompted the inclusion of provision 61E to make it clear that there is no particular limitations on the scope of matters that can be dealt with in an interface agreement, nor are there any limitations on the number of parties to an interface agreement.

In recent discussions with peak local government associations it has been suggested that collectives of local government road managers will seek to enter into interface agreements with relevant rail infrastructure managers. As indicated in section 6.3.6 there are practical limits to which aggregation of interface agreements can occur. There is no particular impediment to developing an interface agreement at this level, however, it is inappropriate to assume that this will occur to a high degree across the board.

For the purpose of this analysis, it is assumed that road and rail infrastructure managers will choose to seek to enter interface agreements at an organisational level.

Following the undertaking of the risk assessment for the one or many road or rail crossings that exist between the proposed parties to an agreement, the steps involved in developing an interface agreement are as follows:

- internal consideration of risk assessment and risk control measures that are recommended. Development of a recommended position;
- negotiation between representatives of the proposed parties to an agreement regarding the risk control measures that are to be applied;
- determination by decision makers (e.g. CEO, Council or Board) regarding what the organisation is willing to commit to as part of the interface agreement; and
- formalisation of the agreement via an iterative process between two representatives of the respective organisations. Signed off by the appropriate executive.

The above list of steps assumes the interface agreement will be developed at an organisational level and that it will be an agreement between a rail infrastructure manager and a State or Territory road manager or a local government road manager. In the circumstances where the proposed interface agreement is between a rail infrastructure manager and a non-public road manager it is likely that the steps will be somewhat simplified and less formalised as follows:

- joint consideration of risk assessment and risk control measures that are recommended. Negotiation (at same meeting) between representatives of the proposed parties to an agreement regarding what each are willing to commit to;
- subsequent confirmation of agreement to proposed content of interface agreement by phone or email; and
- formalisation of the agreement by rail infrastructure manager on behalf of both parties. Signed off by each.
Table 3 indicates the assumed resource cost implications associated with the development of the interface agreement taking into account the difference between the processes required for public versus non-public roads.

Table 3. Type and cost of developing interface agreement: assumed input variables

<table>
<thead>
<tr>
<th>Steps</th>
<th>Resources</th>
<th>Steps</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface agreements with managers of</td>
<td>0.25 day x 4 people (2 from each,</td>
<td>Joint consideration and negotiation</td>
<td>0.25 day x 2 people</td>
</tr>
<tr>
<td>public roads</td>
<td>discussing separately)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal consideration, develop organisational position on both sides.</td>
<td>0.25 day x 4 people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiation between parties</td>
<td>0.25 day x 4 people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determination by decision makers</td>
<td>0.125 day x 16 people</td>
<td>Confirmation of agreement</td>
<td>0.125 day x 2 people</td>
</tr>
<tr>
<td>Formalisations of the agreement</td>
<td>1.5 day x 2 people</td>
<td>Formalisation of the agreement</td>
<td>0.5 day x 1 person</td>
</tr>
</tbody>
</table>

Content of interface agreements is likely to be conditional

It is important at this point to make the observation that the content of interface agreements is likely to be conditional. It is highly likely that while there will be agreement to what risk control measures ‘should’ be applied to a particular road or rail crossing, one of the parties will not be able to commit to funding the implementation of the risk control measures due to budgetary constraints.

In the case of the rail infrastructure manager the duty to ensure safety (by doing everything that is ‘reasonable’ and ‘practicable’ and in their control) is not excused by the lack of financial resources. In this case, depending on what is in the control of the rail infrastructure manager, the rail infrastructure manager would either have to close the road or close the rail line on the basis that it is not possible to be commercially viable and fulfil its statutory duties at the same time.

In the case of the road manager, the duty is to maximise safety benefits from the funding that is made available. As discussed in the regulatory impact statement, the decision to implement a risk control measure at a road or rail crossing will therefore be dependent on potential returns associated with implementing the control and where this sits in the relative priorities of the road manager. If it does not rate sufficiently high enough, it will not be funded within the available budget.

In either case, this should not impede agreement between the parties regarding the risk control measures that should be implemented. It should also not impede a commitment to implementing such risk control measures, conditional on the availability of funding.
Grade separated road and rail crossings

In section 7.2.1 it was stated that the lack of information regarding the number of road and rail crossings of a grade separated nature is not an impediment to making a reasonable estimate of the compliance costs implied by the requirement for interface agreements. The reason for this is that there is a strong view (that emerged during consultation) that generic risk assessments can be undertaken and used to determine generic risk controls. Section 6.3.5 of this regulatory impact statement identified that risks associated with this type of road or rail crossing primarily arise from lack of maintenance on structures, inappropriate provision of access to vehicles that (due to their mass) could cause the bridge or tunnel to collapse (‘catastrophic failure’) and potential for a vehicle to fall from the top level (road or rail bridge) onto the infrastructure of the other party. The primary risk controls are maintenance practices, access control and integration of certain features into the infrastructure (e.g. guard rails). It is envisaged that in interface agreements, parties will make commitments regarding maintenance practices and protocols, make commitments about how they will manage access arrangements, make a commitment to progressively consider the design features of the crossings, and importantly, establish communication protocols to consider individual grade separated crossings in more detail should there be a perceived need to do so in the future.

For the sake of this analysis, it is assumed that an additional input cost to the development of an interface agreement is to generically discuss and reach agreement on the issue of how to manage grade separated road and rail crossings and document these agreements and commitments in the interface agreement. The observation is that there are economies of scope, such that the fulfilment of this task can be readily incorporated into the steps articulated in Table 3. There is not thought to be any need to make specific provision for the cost involved in dealing with this issue during the development of the interface agreement. It is thought reasonable, however, for the analysis to assume that the rail infrastructure managers (across the country) will collectively devote 100 days of staff time to the identification of grade separated road or rail crossings as an input to the development of interface agreements.

7.2.4 Factors to consider in estimating the range of compliance cost impacts

Is a new risk assessment required? Or is a revision of a previous risk assessment all that is needed? or perhaps a pre-existing risk assessment is sufficiently up to date such that it can be relied upon. The factors relevant to the determination of a reasonable set of assumptions (which are later referred to as being scenarios) are:

1. The pre-existing level of control applied to level crossings. This can be taken as an indicator of the level of complexities associated with the operational environment and the relative level of risk factors at the level crossing. For example, the presence of active protection would indicate a relatively high level of risk and complexity such that active protection was judged as being warranted. This, in turn, indicates that an ALCAM type risk assessment is required.

2. The recent history of expenditures on ALCAM assessments overseen by State and Territory level crossing committees and/or government agencies. The observation to be made is that since the occurrence of a number of serious level crossing accidents involving heavy vehicles (Kerang being a notable example), State and Territory governments have made funding available to undertake risk assessments (mainly using ALCAM). However, the reality of the situation is that government
funded activities in this area have occurred for quite some time, but it is only in recent history that these programs have benefited from the injection of significant resources.

In regards to the second factor, it is observed that:

- Victoria has committed $1.84 million over the period 2005 to 2007 to undertake ALCAM assessments of all 3100 level crossings with public roads in that jurisdiction (includes pedestrian crossings as well). This work is on-track for completion at the end of 2007. On the basis of this information it can be taken as a given that Victorian level crossings on public roads will either require no further risk assessment or will only require minor revisions.

- A similar investment has occurred in South Australia over the last four years such that there is a base line ALCAM assessment for all level crossings in that jurisdiction. Arrangements in South Australia are such that the program is ongoing, meaning that revisions of risk assessments are set to occur on a four yearly basis.

- In NSW, a baseline assessment of all public level crossings was completed in 2001/2 using an earlier version of the ALCAM model. There is a program of revising these assessments with the current version of ALCAM but the timeframe over which this is occurring is not as clearly defined as is the case in South Australia.

- In Western Australia, the Department of Main Roads is provided with funding to undertake ALCAM assessments on all public level crossings. Main roads have been administering this program for two years and have been successful in undertaking an assessment of approximately 150 level crossings within Western Australia. The intention is to complete ALCAM assessments on all 1250+ public level crossings. The proposal is that these risk assessments be revised approximately every 4 years to support ongoing management of level crossing issues.

- In Queensland, the assessment of all public level crossings (using ALCAM) is nearing completion. This assessment has occurred over the period from 2001 to 2007, meaning that some of assessments completed in the earlier phases of this work are now (arguably) out of date, assuming that reliance on a 4 year old risk assessment is on the extremities of what could be regarded as being reasonable.

- In Tasmania, there is no established program for undertaking assessments using ALCAM. Recently however, government officers have undertaken training such there is now a greater capacity to undertake such assessments. A small proportion of public level crossings (5%) have already been subject to an ALCAM assessment over the last 12 months.

- In the Northern Territory, the rail itself is a relative recent advent, with the assessment of risks at level crossings informing the design of those that exist. As indicated in the regulatory impact statement and noted in the Amendment Bill itself, the establishment of complementary obligations on road managers has already been achieved through provisions contained in the Australasia Railway (Special Provisions) Act. In the case of the Northern Territory, the amendment Bill does not propose a change from the status quo. Accordingly, it is appropriate to
exclude the estimation of compliance cost implications in the Northern Territory from the analysis.

**Status quo in practice**

The observation to be made from the above information is that the status quo is characterised by a situation where:

- there is no regulatory requirement on road managers to undertake the risk identification and assessment and very limited commercial incentive to do so (lack of cost internalisation) in the absence of any regulatory intervention. Hence the argument for the regulatory intervention in the interests of safety; but

- in most jurisdictions the status quo situation is that there are substantial government programs funding the systematic assessment of risk at level crossings with public roads. Arguably it is these programs that have motivated road managers to participate in risk assessments and make a contribution towards the level of coordination that is currently being achieved between road managers and rail infrastructure managers.

In contrast, rail infrastructure managers are motivated by the existing regulatory requirement to seek to enter into interface agreements and the strong commercial incentive to avoid accidents or incidents (due to the fact that rail infrastructure manager will internalise a high proportion of the foreseeable cost)\(^6\).

Based on these observations in respect to the status quo, two key questions emerge:

- Given the presence of government programs funding the identification and assessment of risk, what is the true incremental effect of the proposed reform?

- Is it reasonable to assume that these government programs will (or would have) continued in the absence of the regulatory requirement that is proposed?

In answer to these questions:

- The true incremental effect of the proposed reform is:
  
  - the undertaking of risk assessments in relation to public road crossings where there is no established government program at present;

  - the undertaking of risk identification and assessment on crossings with non-public roads. There is little evidence to suggest this is occurring at present\(^7\); and

  - the formalisation of management of interfaces between road and rail infrastructure managers in the form of an agreement. This is important because it provides the framework to act on the results of the risk assessment. There is little evidence at present to suggest that this framework exists under the status quo.

\(^6\) It is noted that the presence of the above list of government funding activities significantly reduces the compliance cost burden that is faced by the rail infrastructure managers.

\(^7\) Note that in accordance with the regulatory provisions it is left to the discretion of the rail infrastructure manager to trigger this requirement on relevant non-public road managers. The rail infrastructure manager has the strongest commercial incentive to ensure that risks are appropriately managed.
• It not reasonable to assume that a program funded by governments will continue indefinitely, but, at least in the case of some jurisdictions it is possible to assume that these programs would have continued in the absence of the proposed regulatory requirement. The implicit assumption being made here is that those governments that have made a judgement to intervene to ensure that risk assessments are undertaken would continue to intervene in the absence of the proposed obligation being established. The more generalised assumption being made (which does not concern itself with the question of who pays?) is that these activities are already occurring under the status quo and that these activities would have continued irrespective of the proposed change. The importance of the last point is that it is not necessary to assume that government funded programs cease or continue, just that the activities (risk assessment and revisions) are already occurring and would have continued and that the costs and benefits of undertaking these activities cannot be attributed to the regulatory proposal.

7.2.5 Cost of revising risk assessments and maintaining interface agreements

There will be a need to review risk assessments periodically and as risk factors change. This, in turn, can and will mean changes to interface agreements are necessary. The legislative provisions do not mandate a maximum time limit on the revision of risk assessments and interface agreements. Instead it is left to the judgement of the parties to incorporate into interface agreements agreed protocols and/or timeframes pertaining to their review and revision. As a consequence, accounting for this cost is purely speculative. However, it is reasonable to assert that the one-off initial investment in risk assessments and interface agreements will establish a framework which limits the resource costs involved in maintenance.

Consistent with existing practice, it is assumed that risk assessments are revised every four years and that interface agreements are revised accordingly at no cost (50% of cases) and at a cost of establishing an interface agreement between rail infrastructure manager and non-public road manager (in the remaining 50% of cases). The rationale for assuming this is as follows:

• It is assumed that the initial up-front cost of developing the interface agreements will establish a robust framework meaning that only ‘organic’ changes to interface agreements need to be made in the future, without having to revisit the entire approach that has been adopted to coordination between the parties. Hence the cost of foreseeable revision to the interface agreements will not require significant time or resources.

• The decision to make investment in certain types of risk control at road and rail crossings is guided by the assessed level of risk. ALCAM and other similar models recommend forms of risk control based on whether the assessed level of risk falls into one risk range or another (e.g. ranges A, B,C, etc.). It can be expected that in many cases, over a four year period, risk factors would not have changed such that the assessed level of risk exceeds the upper bound of the risk range at which it was previously assessed. Hence, in this circumstance there would be no need to reconsider controls and make changes to the interface agreement. It can not predicted, ex-ante, how often this would occur. For sake of simplicity therefore it was assumed that 50% of the time no action will be necessary, 50% of the time further consideration will be required.
In relation to estimating the cost of revising risk assessments in future periods the relevant parameters in Table 2 are applied.

7.2.6 Scenarios

The implications of assumptions made in sections 7.2.4 and 7.2.5 are taken into account in constructing the following scenarios.
### Table 4. Assumptions relevant to the construction of the scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| Best case      | Risk assessments on all public level crossings in Victoria are regarded as being suitable and sufficient. As there is no on-going commitment to continue with the program of risk assessment in Victoria, the costs of future revisions to risk assessments are attributable to the regulatory proposal.  
25% of risk assessments on public level crossings in NSW need revision, the rest are regarded as suitable and sufficient. These revisions would have occurred under the status quo and cannot be attributed to the regulatory proposal.  
25% of risk assessments on public level crossings in QLD need revision, but revisions occur as part of existing government funded program (not attributable to the regulatory proposal). In year 1, 75% of risk assessments for public level crossings are regarded as suitable and sufficient.  
Risk assessments on all public level crossings in South Australia are regarded as being suitable and sufficient. In next 4 year period all revision for public level crossings are undertaken as part of an existing program (not attributable to the regulatory proposal).  
80% of public level crossings in Western Australia require a new ALCAM assessment. In next 4 year period all new public level crossings ALCAM assessments (and future revisions) are undertaken as part of an existing program (not attributable to the regulatory proposal).  
90% of public level crossings in Tasmania require a new ALCAM assessment. Remaining 10% are regarded as being suitable and sufficient. In the absence of a formalised program, all future assessments and revisions are attributable to the regulatory proposal.  
The judgement by rail infrastructure managers is that only 1 in 10 non-public road or rail crossings require an interface agreement. It is assumed that this translates into a need for interface agreements with 300 different organisations.  
200 non-public crossings require a new ALCAM assessment  
200 non-public crossings require a new risk assessment based on professional judgement  
200 non-public crossings require only revision of professional judgement. Remaining 5300+ non-public road crossings are left as is without any further consideration.  
Currently there are 673 councils. It is estimated that approximately 400 of these have road or rail crossings within their jurisdiction. Some metropolitan councils will need interface agreements with the rail infrastructure manager for the passenger network and the manager for the freight network. It is assumed that this will give rise to a need for 600 interface agreements overall between rail infrastructure managers and local government road managers.  
Each rail infrastructure manager has crossings with State and Territory road authorities. This will give rise to a need for approximately 20 interface agreements overall at this organisation to organisation level. |
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most likely</td>
<td>Risk assessments on all public level crossings in Victoria are regarded as being suitable and sufficient. As there is no on-going commitment to continue with the program of risk assessment in Victoria, the costs of future revisions to risk assessments are attributable to the regulatory proposal.</td>
</tr>
<tr>
<td></td>
<td>50% of risk assessments on public level crossings in NSW need revision, the rest are regarded as suitable and sufficient. These revisions would have occurred under the status quo and cannot be attributed to the regulatory proposal.</td>
</tr>
<tr>
<td></td>
<td>50% of risk assessments on public level crossings in QLD need revision, but revisions occur as part of existing government funded program (not attributable to the regulatory proposal). In year 1, 50% of risk assessments for public level crossings are regarded as suitable and sufficient.</td>
</tr>
<tr>
<td></td>
<td>25% of risk assessments on public level crossings in South Australia need revision, but revisions as part of existing government funded program (not attributable to the regulatory proposal). In year 1, 75% of risk assessments for public level crossings are regarded as suitable and sufficient.</td>
</tr>
<tr>
<td></td>
<td>80% of public level crossings in Western Australia require a new ALCAM assessment. In next 4 year period all new public level crossings ALCAM assessments (and future revisions) are undertaken as part of an existing program (not attributable to the regulatory proposal).</td>
</tr>
<tr>
<td></td>
<td>90% of public level crossings in Tasmania require a new ALCAM assessment. Remaining 10% are regarded as being suitable and sufficient. In the absence of a formalised program, all future assessments and revisions are attributable to the regulatory proposal.</td>
</tr>
<tr>
<td></td>
<td>Judgement by rail infrastructure managers that only 20% of non-public road or rail crossings require an interface agreement. Assumed that this translates into a need for interface agreements with 600 different organisations.</td>
</tr>
<tr>
<td></td>
<td>400 non-public crossings require a new ALCAM assessment</td>
</tr>
<tr>
<td></td>
<td>400 non-public crossings require a new risk assessment based on professional judgement</td>
</tr>
<tr>
<td></td>
<td>400 non-public crossings require only revision of professional judgement. Remaining 4700+ non-public road crossings are left as is without any further consideration.</td>
</tr>
<tr>
<td></td>
<td>Currently there are 673 councils. It is estimated that approximately 400 of these have road or rail crossings within their jurisdiction. Some metropolitan councils will need interface agreements with the rail infrastructure manager for the passenger network and the manager for the freight network. It is assumed that this will give rise to a need for 600 interface agreements overall between rail infrastructure managers and local government road managers.</td>
</tr>
<tr>
<td></td>
<td>Each rail infrastructure manager has crossings with State and territory road authorities. This will give rise to a need for approximately 20 interface agreements overall at this organisation to organisation level.</td>
</tr>
<tr>
<td>Scenario</td>
<td>Assumptions</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Worst case</td>
<td>Risk assessments on all public level crossings in Victoria are regarded as being suitable and sufficient. As there is no on-going commitment to continue with the program of risk assessment in Victoria, the costs of future revisions to risk assessments are attributable to the regulatory proposal. 50% of risk assessments on public level crossings in NSW need revision, the rest are regarded as suitable and sufficient. These revisions would have occurred under the status quo and cannot be attributed to the regulatory proposal. 50% of risk assessments on public level crossings in QLD need revision, but revisions occur as part of existing government funded program (not attributable to the regulatory proposal). In year 1, 50% of risk assessments for public level crossings are regarded as suitable and sufficient. 25% of risk assessments on public level crossings in South Australia need revision, but revisions occur as part of existing government funded program (not attributable to the regulatory proposal). In year 1, 75% of risk assessments for public level crossings are regarded as suitable and sufficient. 80% of public level crossings in Western Australia require a new ALCAM assessment. In next 4 year period all new public level crossings ALCAM assessments (and future revisions) are undertaken as part of an existing program (not attributable to the regulatory proposal). 90% of public level crossings in Tasmania require a new ALCAM assessment. Remaining 10% are regarded as being suitable and sufficient. In the absence of a formalised program, all future assessments and revisions are attributable to the regulatory proposal. Judgement by rail infrastructure managers that only 30% of non-public road or rail crossings require an interface agreement. Assumed that this translates into a need for interface agreements with 900 different organisations. 600 non-public crossings require a new ALCAM assessment 600 non-public crossings require a new risk assessment based on professional judgement 600 non-public crossings require only revision of professional judgement. Remaining 4100+ non-public road crossings are left as is without any further consideration. Currently there are 673 councils. It is estimated that approximately 400 of these have road or rail crossings within their jurisdiction. Some metropolitan councils will need interface agreements with the rail infrastructure manager for the passenger network and the manager for the freight network. It is assumed that this will give rise to a need for 600 interface agreements overall between rail infrastructure managers and local government road managers. Each rail infrastructure manager has crossings with State and territory road authorities. This will give rise to a need for approximately 20 interface agreements overall at this organisation to organisation level.</td>
</tr>
</tbody>
</table>

These assumptions are summarised in Table 5.
**Table 5. Summary of input values for scenarios**

<table>
<thead>
<tr>
<th>Activity / Jurisdiction</th>
<th>Number of crossings</th>
<th>Scenario 1 (best case)</th>
<th>Scenario 2 (most likely)</th>
<th>Scenario 3 (worst case)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>New</td>
<td>Revised</td>
<td>Use existing</td>
</tr>
<tr>
<td>Risk assessments on public level crossings (assumed that all are undertaken using ALCAM)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New South Wales</td>
<td>1500</td>
<td>0%</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Victoria</td>
<td>2270</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Tasmania</td>
<td>322</td>
<td>90%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>South Australia</td>
<td>1246</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Western Australia</td>
<td>1251</td>
<td>80%</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td>Queensland</td>
<td>4300</td>
<td>0%</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Risk assessments on non-public roads</td>
<td>5900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using ALCAM</td>
<td></td>
<td>200</td>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>Using professional judgement</td>
<td>200</td>
<td>200</td>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>Interface agreements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between rail infrastructure managers and Public road managers</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Between rail infrastructure managers and non-public road managers</td>
<td>300</td>
<td>600</td>
<td>900</td>
<td></td>
</tr>
</tbody>
</table>

Highlight indicates: Not attributable to the regulatory proposal

Note: no costs and benefits are attributable to the regulatory proposal in the Northern Territory because equivalent regulatory requirements already exist.
7.2.7 *Estimates of compliance cost implications*

The estimated upfront costs (in net present value terms) associated with implementing changes implied by the proposed amendments is in the range of $4.1m to $5.6m as indicated in Table 5. The revised estimate is a narrower range than the estimate included in the draft regulatory impact statement ($1.35m to $5.9m) reflecting the refinement that has occurred. However, as indicated in Table 6, estimates of on-going costs (revision of risk assessments and interface agreements, referred to as ‘maintenance’) have been included for the first time.

**Table 6. Estimates of compliance cost implication in accordance with three scenarios specified**

<table>
<thead>
<tr>
<th>New compliance tasks relative to the status quo (Scenario 1)</th>
<th>$ Net present value of costs (6% discount rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of level crossings with non-public roads that require interface agreements</td>
<td>40,000</td>
</tr>
<tr>
<td>Identification of grade separated road or rail crossings</td>
<td>40,000</td>
</tr>
<tr>
<td>Initial cost of implementing risk assessments and Interface Agreements</td>
<td>4,149,512</td>
</tr>
<tr>
<td>Maintenance cost for risk assessments and interface agreements over period from 2008 to 2020</td>
<td>6,757,161</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10,986,674</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New compliance tasks relative to the status quo (Scenario 2)</th>
<th>$ Net present value of costs (6% discount rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of level crossings with non-public roads that require interface agreements</td>
<td>40,000</td>
</tr>
<tr>
<td>Identification of grade separated road or rail crossings</td>
<td>40,000</td>
</tr>
<tr>
<td>Initial cost of implementing risk assessments and Interface Agreements</td>
<td>4,717,706</td>
</tr>
<tr>
<td>Maintenance cost for risk assessments and interface agreements over period from 2008 to 2020</td>
<td>7,676,387</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,474,093</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New compliance tasks relative to the status quo (Scenario 3)</th>
<th>Net present value of costs (6% discount rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of level crossings with non-public roads that require interface agreements</td>
<td>40,000</td>
</tr>
<tr>
<td>Identification of grade separated road or rail crossings</td>
<td>40,000</td>
</tr>
<tr>
<td>Initial cost of implementing risk assessments and Interface Agreements</td>
<td>5,599,800</td>
</tr>
<tr>
<td>Maintenance cost for risk assessments and interface agreements over period from 2008 to 2020</td>
<td>8,595,613</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14,275,413</strong></td>
</tr>
</tbody>
</table>
When combined, Table 6 indicates that total estimated compliance costs over the 12 year period from 2008 (first year of implementation) to 2020 is in the range $11m to $14.2m in net present value terms.

7.3 Indirect effects

The indirect effect of the proposed reform is the effect that better information and a framework for coordination of action has on the implementation of risk control measures at road and rail crossings. As explained and emphasised in a number of sections in this regulatory impact statement, the proposed obligations do not change the statutory duties of either road managers or rail infrastructure managers. Accordingly, the decision making criteria applied by each party will not change. Nevertheless the outcomes of considerations might change because:

- for the first time in some cases, proposed investments in risk controls at road and rail crossings will be formally placed on the list of relative priorities;
- a risk assessment informed by the knowledge of both parties may indicate a higher level of net benefits associated with implementing a potential risk control measure (it is noted that the reverse can also occur); and
- coordinated action on the part of the road and rail infrastructure managers is likely to reduce the cost of implementing risk control measures.

It is foreseeable that due to availability of better information and establishment of means of coordinating action (through interface agreements) tangible improvements in safety outcomes can be made. The broad level of support for the proposed legislative amendments indicates that there is a strongly held belief in this assertion.

It is impossible to demonstrate, ex-ante, the benefits that will flow from the reform but it is possible to make the point that, at minimum, the availability of better information and establishment of a more effective framework for coordination of action, is a precursor to efficient administration, rational decision making and improvement in safety outcomes (if it can be demonstrated that current safety outcomes are not optimal).

7.4 Size and significance of potential benefits

There are approximately 100 crashes between a road vehicle and a train in Australia each year, and about 8% of these result in deaths.\(^8\) Crashes result in substantial direct financial costs in terms of:

- medical and repair costs;
- loss of personal income; and
- loss of business and consequential financial loss.

Costs of railway level crossing crashes are estimated to be $180,000 per crash in urban areas and $430,000 in rural areas.\(^9\) These figures exclude the costs to the rail track owner

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\(^8\) It is noted that only 82 crashes occurred in 2006 but that an average of 100 crashes per year is more appropriately quoted given the available time series data.

for track and train repair and for the train operator, which can often amount to several million dollars for a single crash.

In recent correspondence the Australasian Railways Association has claimed that the five level crossing accidents that have occurred over the last 15 months, involving collisions with trucks, has cost the rail industry in excess of $100m in infrastructure repair costs, rolling stock repair costs and lost revenue due to the closure of tracks, etc. In addition to this it was noted that there were 15 fatalities, and many tens of serious injuries and minor injuries. It is clear that in this 15 month period, level crossing accidents have imposed significant costs on the Australian community.

However, rather than accept this observation as an indication of a trend (an escalation of costs that can be attributed to level crossing accidents) it is thought most appropriate to rely on research undertaken by the Bureau of Transport and Regional Economics (BTRE) in 2003\(^{10}\). The research undertaken by the BTRE valued the costs of rail accidents, by reference to the year 1999. This work indicates that the cost of level crossing accidents can be valued at $32m per annum\(^ {11}\) in 1999 dollars. Adjusting this figure so that it is expressed in 2007\(^ {12}\) dollars suggests that the benefit of eliminating level crossing accidents is in the order of $40m per annum. In other words, this is the maximum scope of benefits that can be achieved by making improvements in level crossing safety.

For the purpose of comparison it is worthwhile noting that if the 100 crashes per year (average) were costed assuming the $180,000 (urban) $430,000 (rural) values that have been determined using time series data (in 2002 dollars) then the range of potential benefits available per annum in 2007 dollars in between $20m and $48m. This alternative valuation of potential benefits does not, however, include costs associated with property damage. If the average value of property damage was taken into account it would support the adoption of $40m per annum as a reasonable indication of the scope of potential benefits available.

### 7.5 Break-even analysis

The aim of the break-even analysis is to identify the amount of safety benefits that would have to be attributed to the proposed reform in order for it to ‘break-even’. There are two issues here. The first being, in purely quantitative terms, what is the amount of benefits that would need to be attributed to the proposed reform for it to break-even? The second issue is whether or not it is reasonable to believe that the implied improvement in safety is feasible, likely and appropriately attributed, at least in part, to the proposed reform\(^ {13}\).

Table 6, 8 and 9 indicate the benefit stream that is required to break-even. Consistent with the transitional provisions that are proposed to accompany the provision contained in the Amendment Bill, rail infrastructure managers and road managers will have three years to implement the risk assessments and develop the interface agreements that are required in order to comply with the new regulatory requirements. It is assumed that there are little or

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11 $32m was the estimated costs to the community in 1999. Given the relatively low frequency of level crossing accidents, the adoption of results for one year has the potential to distort the analysis. However, no alternative objective analysis of the cost of level crossing accidents is available. The observation is that 1999 was a good year for level crossing accidents (less than average). Accordingly, the use of these figures as the basis for benefit estimation will not distort the analysis in favour of the reform proposal.
12 Converted into present value using CPI all groups’ December to December quarters (CPI 6401).
13 This question is given consideration in section 7.7.
no benefits achieved in the first two years during the period that duty holders are becoming compliant. There is then, in relative terms, a tangible increase in transport safety outcomes as better information and improved means of coordinating action drive implementation of new and/or revised risk control measures. From that period onwards it is assumed that there is only minor and gradual improvements in transport safety outcomes.
Table 7. Benefit stream that is required to break-even in net present value terms (Scenario 1)

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>NPV target to break even = $ 10,986,674</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumed % reduction in cost associated with level crossing accidents</td>
<td>No benefits yet</td>
</tr>
<tr>
<td>Benefit stream in 2007 dollars</td>
<td>120,335</td>
</tr>
<tr>
<td>Description</td>
<td>Initial implementation</td>
</tr>
<tr>
<td>Benefit stream in NPV terms</td>
<td>101,036</td>
</tr>
</tbody>
</table>

Table 6 indicates the benefit stream in 2007 dollars (representing avoided level crossing accidents) that would have to be attributed to the regulatory proposal in order for it to break-even under the best case scenario. It indicates that following the initial 3 year period over which risk assessments are undertaken and interface agreements are developed and agreed, some significant gains are made but thereafter only gradual improvements are possible and/or attributable to the regulatory proposal. The table demonstrates that a sustainable 6% reduction in level crossing accidents needs to be attributed to the regulatory proposal in order for it to break-even, however, this result is sensitive to the speed at which safety improvements manifest, and in part, are attributed to the regulatory proposal. For example, Table 7 shows that if benefits are assumed to manifest and be attributed...
to the regulatory proposal at a faster rate in the initial years (post implementation), then a lower level of safety improvement needs to be attributed to the proposed reform (5%) in order for it to break even.

### Table 8. Alternative Benefit stream that is required to break-even in net present value terms (Scenario 1 - alternative)

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>NPV target to break even =</th>
<th>$</th>
<th>10,986,674</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(alternative)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumed %</td>
<td></td>
<td></td>
<td>10,986,674</td>
</tr>
<tr>
<td>reduction in cost</td>
<td></td>
<td></td>
<td></td>
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Given the results demonstrate a sensitivity to these assumptions it is worthwhile, for the purposes of comparison, to control for the influence of these assumptions by comparing the net present value of the total available benefits (i.e. the benefits associated with eliminating level crossing accidents entirely) over the period from 2010 to 2020\(^{14}\), with the net present value of estimated compliance costs over the period from 2008 to 2020. The net present value of benefits is is the order of $280 million and the net present value of estimated compliance costs (under scenario 1) is

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\(^{14}\) The choice of the period 2010 to 2020 is consistent with the assumption that no benefits are achieved and attributable to the regulatory proposal during the first two years of implementation.
$11m. This would suggest that a 4% reduction in accident costs in aggregate over the period would need to be attributed to the regulatory proposal in order for it to break even.

Table 9. Benefit stream that is required to break-even in net present value terms (Scenario 2)

<table>
<thead>
<tr>
<th>Scenario 2</th>
<th>NPV target to break even = $12,474,093</th>
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</thead>
<tbody>
<tr>
<td>Benefit stream in 2007 dollars</td>
<td>120,335</td>
</tr>
<tr>
<td>Discount factor (assumed 6% discount rate)</td>
<td>1.06</td>
</tr>
<tr>
<td>Benefit stream in NPV terms</td>
<td>101,036</td>
</tr>
<tr>
<td>Total over period</td>
<td>12,466,533</td>
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</tbody>
</table>

Table 8 indicates the benefit stream in 2007 dollars (representing avoided level crossing accidents) that would have to be attributed to the regulatory proposal in order for it to break-even under the ‘most likely’ scenario. The table demonstrates that a sustainable 7% reduction in level crossing accidents needs to be attributed to the regulatory proposal in order for it to break-even, however, as indicated previously the result is sensitive to the assumptions regarding how quickly safety improvements will manifest and can be attributed in part to the regulatory proposal. Controlling for the
influence of these assumptions, a 4.5% reduction in accident costs in aggregate over the period 2010 to 2020 would need to be attributed to the regulatory proposal in order for it to break even.

Table 10. Benefit stream that is required to break-even in net present value terms (Scenario 3)

<table>
<thead>
<tr>
<th>Scenario 3</th>
<th>NPV target to break even = $ 14,275,413</th>
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<tbody>
<tr>
<td>Assumed % reduction in cost associated with level crossing accidents</td>
<td>No benefits yet</td>
</tr>
<tr>
<td>Benefit stream in 2007 dollars</td>
<td>120,335</td>
</tr>
<tr>
<td>Description</td>
<td>Initial implementation</td>
</tr>
<tr>
<td>Discount factor (assumed 6% discount rate)</td>
<td>1.06</td>
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<tr>
<td>Benefit stream in NPV terms</td>
<td>101,036</td>
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<tr>
<td>Equivalent in accident terms</td>
<td>avoidance of 1 serious injury</td>
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</table>

Table 9 indicates the benefit stream in 2007 dollars (representing avoided level crossing accidents) that would have to be attributed to the regulatory proposal in order for it to break-even under the worst case scenario. The table demonstrates that a sustainable 8% reduction in level crossing accidents needs to be attributed to the regulatory proposal in order for it to break-even, however, as indicated previously the result is sensitive to the assumptions regarding how quickly safety improvements will manifest and can be attributed in part to the regulatory proposal.
Controlling for the influence of these assumptions, a 5% reduction in accident costs in aggregate over the period 2010 to 2020 would need to be attributed to the regulatory proposal in order for it to break even.

7.6 Interpretation

The following issues are relevant to the interpretation of the break-even analysis:

- The estimated available benefits of $40 million per annum (i.e. cost of accidents it is sought to avoid) is reflective of the residual risk that has not been controlled at road or rail crossings. The impact of the historical investment in risk assessment and the establishment of risk controls has ensured that the annual cost of accidents is only $40 million.

- The implicit assumption adopted in this regulatory impact statement is that the size and scope of available benefits ($40 million p.a.) remain constant. The reality is that risk factors change, and that as a result of this, the risk of accidents occurring might increase or decrease. The National Railway Level Crossing Strategy (2003) contends that increases in freight and passenger demand, the size and speed of trains, the size of trucks, train quietness and motor vehicle speed and sound proofing can be expected to increase the likelihood and severity of crashes. The implication is that if nothing more is done than what is done presently, then the number and severity of accidents at road and rail crossings will increase. The potential size of the increase in the number and severity of accidents depends on the residual risk, which is only just now being assessed, or will be assessed as an outcome of the proposed obligations on road and rail infrastructure managers. This regulatory impact statement is therefore based on a conservative estimate of available benefits, but it is the best estimate that can be made, given the information that is available.

- Benefits (in the form of accident avoidance) will only occur when new risk controls are implemented or existing risk controls are revised and made more effective. The undertaking of risk assessments and the development of means by which actions can be agreed and jointly implemented (i.e. interface agreements) result in no benefits unless actions are motivated and occur as a result.

- The benefit/cost assessment of risk controls typically only considers the incremental cost of implementing the risk control and then compares this to the benefits of accident avoidance. If it is assumed that risk control improvement projects (resulting as a consequence of the regulatory proposal) have an average benefit cost ratio (BCR) of 1.5, then in order for the total exercise to break-even, the aggregate reduction in accidents costs needs to be three times the estimated costs of the other inputs (i.e. risk assessment, interfaces agreements). If the average BCR of the risk control projects implemented is 2, then the multiple needed to break-even is two times the estimated costs of the other inputs. The higher the average BCR the lower the multiple of other input costs that is needed to break-even.

- Neither rail infrastructure managers nor road managers have statutory duties that require them to invest in risk controls to the point where the costs involved in doing so exceed the benefits. In economic terms, the obligation on the rail infrastructure
manager is to invest in risk controls until the incremental risk control has a BCR of approximately 1\textsuperscript{15}. In the case of the road manager the obligation is to invest in risk controls with BCRs over 1 until the available budget is expended. Accordingly, it is reasonable to assume that risk controls implemented in accordance with terms and conditions of interface agreements will have an average BCR of over 1.

- It is not possible to predict the average BCR for implemented risk reduction measures under the control of the rail infrastructure manager. It will depend on the spread between the first risk control measure and the last risk control measure which is justifiable (BCR>1). However, for road managers, it is possible to make the observation that the amount of funding available for road safety projects is limited and that in practice, available funding runs out well before the point where all projects with BCR over 1 have been funded. The cut-off in practice, given the budget constraint, is typically in the BCR range 2 to 3\textsuperscript{16}. For this reason, it is reasonable to assume that risk controls implemented (indirectly) as a consequence of this reform proposal will have an average BCR between 1.5 and 2. If this were not the case, then the risk control measures would not receive funding.

- Putting aside speculation about what risk controls might be implemented as an indirect consequence of the regulatory proposed it remains a fact that the undertaking of risk assessments and the establishment of means to agree and jointly implement risk controls are unavoidable costs that must be incurred in order to gain access to any available benefits.

- Consistent with the assumptions contained in the regulatory impact statement, the effect of the regulatory proposal is to require:
  
  o New and revised risk assessments in circumstances where these are not otherwise being undertaken due to the presence of government funded ‘risk assessment’ program; and
  
  o Development and implementation of interface agreements to provide means to act on results of risk assessments.

The benefits that can be attributed to recent investments in risk assessments funded by governments can not be attributed to the regulatory proposal.

### 7.7 Conclusion

The estimated cost of implementing the legislative requirement for risk assessments at road and rail crossings and for interface agreements between rail infrastructure managers and road managers (across Australia) over the period from 2008 to 2020 is between $11\text{m} and $14.2\text{m}$ in present value terms. Assuming the worst case ($14.2\text{m}$), for the initiative to be

\textsuperscript{15}The first risk control for an identified risk might have a Benefit Cost Ratio (BCR) of 2.5. The next available risk control (additional to the first risk control with aim of reducing the residual risk) might have a BCR of 1.5, the third 1.2, fourth 0.9, fifth 0.7, etc. In this circumstance the statutory duty requires the rail infrastructure manager to implement the 1\textsuperscript{st}, 2\textsuperscript{nd} and 3\textsuperscript{rd} risk control in order to be in a position to demonstrate that it has done everything it can to eliminate or reduce risk to safety, excepting in circumstances where there is a ‘gross disproportion’ between costs and benefits. Note that in this example, the average BCR for risk controls that are implemented is 1.73.

\textsuperscript{16}Based on experience of investment in road safety projects. Specific funds can have higher cut-offs in practice e.g., candidate projects in Victorian black spots program typically do not receive funding unless they have a BCR over 4.
of net benefit, level crossing occurrences will need to reduce by more than 5% (in total) over the next twelve year period. How much over 5% will depend on the ratio of benefits to costs for risk controls that are implemented as a result of better information (risk assessment) and improved framework to give effect to action (interface agreements).

Assuming the worst case, and assuming that the average benefit cost ratio of risk control projects that are implemented are between 1.5 and 2, a 10% to 15% reduction in level crossing accidents will be needed in order for the proposed reform and consequential implementation of risk controls to be of net social benefit in aggregate.

The safety risks of level crossings and road/rail interfaces are different for each party, but it is important for both parties to work together to effectively manage their shared risks. In some instances, it is only through joint work that a risk can be reduced. For example, coordinating the timing of level crossing signals and boom gates with traffic lights can only be achieved in cooperation. Ways of reducing risk at road/rail interfaces need not necessarily be costly. Some examples of less costly risk controls include:

- moving warning signs to more appropriate distances and compliance with the Australian Standard for Uniform Traffic Control Devices AS 1742.7;
- coordinating traffic signals with level crossing warning equipment to stop vehicles entering an area where traffic is stopped due to an approaching train, and to facilitate their departure from an area where training is approaching;
- assigning priority to the road traffic departing an area where a level crossing exists;
- considering the level crossing safety issues when undertaking analysis for creating heavy vehicle routes;
- installing interlocked advance warning signals;
- clearing vegetation;
- traffic queue relocation; and
- signalling system timing adjustments to create consistent dwell times at level crossings.

Through these and other similar initiatives the NTC judgement is that a 15%+ reduction in accidents at road and rail crossings can be achieved over the period from 2008 to 2020. The secondary question, however, is whether these improvements can be attributed to the regulatory proposal.

Ultimately it becomes a matter of judgement in attributing benefits to the reform proposal. This is because the effects (costs and benefits) of the risk assessment, joint consideration, agreement on risk controls and implementation of risk controls cannot be separated from each other.

However, putting aside the benefits of undertaking of the risk assessments (the majority of which are assumed to not be attributed to the regulatory proposal), the NTC is of the view that the proposed requirement for interface agreements will be instrumental in achieving any desired reduction in accidents. The main rationale for this is that there is presently no incentive or requirement for road managers to take the information from risk assessments and incorporate it into their decision making. The requirement for interface agreements
forces this action to be taken and therefore maximises the possibility of new or revised risk controls jointly being implemented in circumstances where they are justified (i.e. in circumstances where the benefit cost ratio is over 1 and sufficiently high enough to receive funding in preference to other competing safety priorities).

In addition, it is a fact that the undertaking of risk assessments and the establishment of means to agree and jointly implement risk controls are unavoidable costs that must be incurred in order to gain access to any available benefits (in the form of accident avoidance). The choice is between:

- paying the estimated compliance costs on the basis of a reasonable belief that at least a sufficient number of safety improvement projects will be identified and implemented in order to make it worthwhile; or otherwise

- accepting that the current number and severity of accidents will continue and most likely escalate (due to reasons articulated in section 7.6) into the foreseeable future.

Stakeholders strongly believe that there is virtue in seeking to reduce the observed costs of accidents at road and rail crossings. The majority of stakeholders believe that the implementation of the regulatory proposal is a necessary first step to make sure that decisions are not ‘made in the dark’ (purpose of risk assessments) and to ensure that responsibilities do not ‘fall between the cracks’ (purpose of interface agreements).
8 CONSULTATION

The proposed model amendments are a product of a lengthy policy development process that has included substantial consultation at all stages. Appendix A indicates those organisations that made written submissions and/or participated in workshops and information sessions over the course of the development period for the proposed provisions. Appendix A also lists the major issues raised in written submissions received in the most recent rounds of consultation.

Provisions proposing obligations on road managers to jointly identify, assess and control risk at road and rail crossings were firstly included in the exposure draft of model Bill released for public comment in October 2005. Concerns raised by State and Territory road authorities and representatives of local government organisations led the NTC to exclude the proposed provisions from the model Bill at that time. Instead, the NTC sought the in-principle support of the Australian Transport Council to develop additional provisions to impose complementary obligations on road and rail infrastructure managers to manage road-rail interfaces jointly.

The Commission has been developing the new obligations since 2 June 2006, when Australian Transport Ministers approved the model Rail safety Bill, as well as the Commission’s recommendation to develop the additional provisions relating to road/rail interfaces.

Successive iterations of these legislative provisions were prepared with the assistance and upon the advice of the national Rail Legislation Advisory Panel and the Rail Safety Package Steering Committee. The Rail Safety Package Steering Committee also prepared information materials to assist with consultation.

There have been three formal rounds of consultation: between August and September 2006 (release of the Draft RIS for consultation), between November 2006 and January 2007 (circulation to TACE members and observers for comment) and between May and June 2007 (2nd circulation to TACE of revised Amendment Bill for comment, with interpretation aided by provision of information materials). During these rounds of consultation, road authorities and local government associations were contacted and invited to comment on the provisions.

State and Territory road authorities have been provided with opportunities to comment each time the proposed provisions have been forwarded to Transport Agency Chief Executives (TACE). This, combined with the public rounds of consultation, has provided State and Territory road authorities with ample opportunities to comment and be involved in the refinement of the proposed provisions.

Attempts to engage with local government at various points during the development process has primarily been through the peak body, the Australian Local Government Association. The ALGA is an observer at meetings of TACE and receives copies of all materials forwarded to TACE members. Representatives of local government attended information sessions held in capital cities both when: (1) the exposure draft of the model Bill was released in October 2005; and (2) when the exposure draft of the model Regulations and draft RIS for consultation were released for public comment during August and September 2006. However, in early 2007 it was identified that there had not been sufficient engagement with local government organisations. Representatives of State and Territory transport agencies (members of the steering committee) took on the responsibility to engage in targeted consultation with state level local government
associations and their members. This resulted in valuable input in March 2007. This has been followed by NTC directly undertaking consultation with representatives of state level local government associations.

There are some residual concerns being expressed by local government interests in NSW but all local government interests have gained some comfort from the revised content of the Amendment Bill and the proposed 3 year transitional period that will apply to implementation of the requirements.

A shortcoming of the consultation that has been undertaken is the level of engagement with managers of non-public roads. The NTC is confident however, that stakeholders engaged in the process (e.g. local councils) have raised the type of issues for consideration that managers of non-public roads would have raised. Moreover, the obligations demonstrate that special consideration has been given to minimising the potential regulatory burden on managers of non-public roads.

8.1 Next Steps

The NTC will submit the model amendments and this final regulatory impact statement to the Australian Transport Council (out of session) in September for vote. The voting period is eight weeks. Accordingly, the vote outcome will be known in November 2007.
9 IMPLEMENTATION, MAINTENANCE AND REVIEW

The Council of Australian Governments’ Principles and Guidelines for national Standard Setting and Regulatory Action by Ministerial Council and Standard setting Bodies require that regulatory impact statements should include a discussion of the means by which proposed regulation will be implemented and what arrangements are to be made for its review.

9.1 Implementation

As noted in the consultation section, the process of development of the proposed amendments has been an extensive one, concurrent with the development of the model Bill and Regulations, covering a period of 2 years. As would be expected, the jurisdictions’ understanding of what is required to implement jurisdictional law based on the model Bill and Regulations has gained clarity during this period, particularly in recent months.

The Australian Transport Council will vote on the proposed legislative reform package in November 2007. Each state will then enact the model legislation.

Interface Agreements between road authorities and railway infrastructure managers need to be in place 3 years post the commencement of the new State and territory law based on the Amendment Bill.

9.2 Maintenance

It is recognised by NTC that an important aspect of national regulatory reform is ensuring that reforms are kept up to date and effective. Maintenance refers to the amending and updating of existing national reforms as need arises. The NRTC (predecessor organisation) formalised its maintenance role in 1999 when the ATC approved the Australian Road Rules and agreed to a maintenance strategy for the Rules, recognising that without a concerted effort to keep them up to date, national uniformity or consistency would rapidly be lost.

More recently, the Intergovernmental Agreement for Regulatory and Operational Reform in Road Rail and Intermodal Transport demonstrates that the ATC expects the NTC to lead any maintenance of the regulatory framework. The intergovernmental agreement provides that, having regard to its objectives, and to matters contained in the NTC Act and elsewhere in the intergovernmental agreement, the ongoing responsibilities and functions of the NTC will include:

(a) monitoring the implementation of agreed reforms and regularly reporting to the ATC; and

(b) maintaining and reviewing agreed reforms. ¹⁷

¹⁷ IGA, Part 5, Responsibilities and functions of the National Transport Commission, paragraphs 5.1(f) and (g). “Agreed reforms” are defined in Part 3 of the IGA as reforms proposed by the NTC or the NRTC and agreed by the ATC, including any amendments to a reform that have been made in accordance with the IGA or its predecessors.
In October 2005 (at the same time as the exposure draft of the model Bill) the NTC released a discussion paper entitled *Review of Institutional Arrangements supporting regulation of Rail Safety: Phase A*. In this paper, amongst other things, the NTC put forward its proposals for maintenance arrangements that should apply to Rail Safety Regulatory instruments that are voted on by ATC members and become ‘Agreed Reforms’. Submissions received in response to the release of the discussion paper indicate that a systematic program of maintenance for the regulatory scheme for rail safety will engender both the confidence of the stakeholders in that scheme and the public’s confidence in rail safety more generally. Moreover there is a general acceptance that the benefits of a national approach to rail safety regulation should be safeguarded by ensuring that it is maintained over time, for scope, content, effectiveness and relevance.

In its discussion paper (October 2005) the NTC postulated that the important issues to be considered in settling those maintenance processes for use in the rail safety context include:

(a) how and by whom proposals for maintenance are to be initiated, considered and responded to\(^{18}\);

(b) whether any such proposals need not be considered on a national basis (e.g., minor formal changes to regulation to update or correct references could be simply dealt with in the relevant jurisdiction);

(c) what the requirements should be for the regulators or industry or both to respond to any changes decided upon by the ATC or NTC;

(d) how urgent issues are to be dealt with;

(e) the cycle, priorities and process for the evaluation of the implementation of rail transport safety regulatory reforms; and

(f) how and when the periodic reviews of relevance and effectiveness of the reforms are to be conducted and what the requirements should be for responding to any decisions by ATC on recommendations by the NTC about those reviews.

In its discussion paper, the NTC then went on to table a suggested set of processes for the maintenance, evaluation and periodic review of the Rail Safety Regulatory instruments. Submissions indicated strong support for these proposals. These proposals formed the basis of recommendations that were put to ATC members for a vote at the same time as the model Bill. These proposals were approved unanimously. Accordingly, the implementation package endorsed by ATC members now includes in its scope the requirement to implement the maintenance processes approved as being applicable to model rail safety instruments.

**9.3 Review**

In addition to the maintenance of implemented reforms, there is also a need for the periodic and comprehensive review of the reform to ensure its continued relevance and effectiveness.

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\(^{18}\) One respondent gave the example of Victoria’s review of the implementation of medical assessment standards in the industry, noting that it was timely, soundly based on evidence from surveys, full participation by all industry stakeholders and led to recommendations for improvements.
At their meeting in April 2003, Transport Agency Chief Executives (TACE) considered that nationally implemented reform should be reviewed on a cycle of ten years after ATC approval. The national review would be a comprehensive evaluation of the reform, distinguishable from the maintenance of the reform, which would occur on an as needs basis. TACE also considered that a minor review of implemented reforms be conducted by the NTC at the five year mark to gauge whether the reform is meeting its objectives.

In relation to this reform, in accordance with previously endorsed views of TACE, the NTC proposes to undertake a minor review of the effectiveness of jurisdictional law based on the model Bill and Regulations within five years of ATC approval of model legislation, and a comprehensive review within ten years.
10 STATEMENT OF COMPLIANCE WITH NATIONAL COMPETITION POLICY

The National Competition Policy Agreements set out specific requirements with regard to all new legislation adopted by jurisdictions that are party to the agreements. Clause 5(1) of the Competition Principles Agreement sets out the basic principle that must be applied to both existing legislation, under the legislative review process, and to proposed legislation:

“The guiding principle is that legislation (including Acts, enactments, Ordinances or Regulations) should not restrict competition unless it can be demonstrated that:

(a) The benefits of the restriction to the community as a whole outweigh the costs; and

(b) The objectives of the regulation can only be achieved by restricting competition.”

Clause 5(5) provides a specific obligation on parties to the agreement with regard to newly proposed legislation:

“Each party will require proposals for new legislation that restricts competition to be accompanied by evidence that the restriction is consistent with the principle set out in sub-clause (1).”

Therefore, all regulatory impact statements must include a section providing evidence that the proposed regulatory instrument is consistent with these National Competition Policy obligations.

The key competition-related aspect of the proposed model Regulations (as is also the case with the model Bill) is that it will constitute a vehicle for making further progress toward regulatory harmonisation in the rail industry. To this extent, it can be expected to have a pro-competitive impact, by reducing regulatory barriers to interstate trade.

The proposed regulations do not impose any direct restrictions on competition. While they increase the safety related requirements applicable to accredited rail transport operators, these new requirements are equally applicable to existing rail transport operators and new entrants and so do not constitute a barrier to entry. Moreover it is not anticipated that these requirements will have any significant impact in reducing or deterring entry to the industry.

Therefore, the regulations are considered to be fully compliant with the National Competition Policy.

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19 Competition Principles Agreement, Clause 5. 1995. See: www.ncc.gov.au
11 APPENDIX A

11.1 Stakeholders that made written submissions during the course of developing proposed provisions contained in Amendment Bill

11.1.1 Exposure draft of model Bill released for public consultation (October 2005)

There were 23 written submissions received in response to the release of the exposure draft of the model bill but only those listed below commented on clauses 719, 721, 915 and 916 that proposed obligations on road authorities of the nature that are proposed in the model Amendment Bill.

- Department for Transport, Energy and Infrastructure, SA
- Department of Infrastructure, Vic
- VicRoads
- Department of Planning and Infrastructure, WA

11.1.2 Draft RIS released for public consultation (August 2006)

There were approximately 20 written submissions received in response to the release of the Draft RIS for consultation but only those listed below commented on proposed obligations on road authorities of the nature that are proposed in the model Amendment Bill.

- Queensland Rail
- Independant Transport Safety Rail Regulator, NSW
- Department of Planning and Infrastructure, NT
- VicRoads
- Public Transport Authority, WA
- Department for Transport, Energy and Infrastructure, SA
- Department of Infrastructure, Energy and Resources, Tas
- Queensland Transport
- Australasian Railway Association
- Department of Infrastructure, Vic
- Association of Tourist and Heritage Rail Australia
- Department of Planning and Infrastructure, WA
- Department of Transport and Regional Services
11.1.3 Circulation of Refined Amendment Bill to TACE members and observers (November 2006 and in May 2007)

Iterations of the Amendment Bill were circulated to TACE members and observers, firstly in November 2006 (submissions period closing in early January) and secondly, following refinement of the Bill, in May 2007.

- Independant Transport Safety Rail Regulator, NSW
- VicRoads
- Department for Transport, Energy and Infrastructure, SA
- Department of Infrastructure, Energy and Resources, Tas
- Queensland Transport
- Department of Infrastructure, Vic
- Department of Planning and Infrastructure, WA
- Roads and Traffic Authority, NSW
- Parliamentary Council’s Committee

11.2 Stakeholders that participated in workshops / information sessions / teleconferences (and that did not make written submissions)

NTC has directly consulted with the following parties, albeit have never received formal written submissions from any:

- Australian Local Government Association
- Local Government and Shires Associations of New South Wales
- Local Government Association of Northern Territory
- Local Government Association of Queensland
- Local Government Association of South Australia
- Local Government Association of Tasmania
- Municipal Association of Victoria
- Western Australian Local Government Association

In addition to the above list (as indicated in section 8.1) government representatives on the steering committee (one from each jurisdiction) undertook consultation with local government representatives and identifiable representatives of non-public road interests within their jurisdiction. From feedback received by NTC, in most instances this consultation was limited to discussions with parties such as the local government association, forestry departments, crown lands departments and the like that are easily identifiable managers of non-public roads. The exception was in NSW. ITSRR commissioned a consultant to engage consultation with individual councils. 141 NSW councils and shires were sent a copy of Amendment Bill and associated information materials. This prompted participation by representatives of 39 councils in information
sessions held in various locations within NSW. The outcomes of this consultation (in the form of a consultant report) was provided to the NTC and has led to some modifications to the Amendment Bill and to some clarifications being provided in this regulatory impact statement and in the associated information materials that have been prepared for the purpose of implementation.

### 11.3 Tabulation of written comments received following the circulation of the Amendment Bill for comment in November 2006.

The following table consolidates comments received from TACE members and observers following the circulation of the Amendment Bill in November 2006.

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<tr>
<th>Author</th>
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<tbody>
<tr>
<td>ITSRR</td>
<td>Drafting</td>
<td>61C(2)</td>
<td>It is noted that 61B will now allow for local variations. However as 61C(2) complements this provision, the Bill should also allow for 61C(2) to be subject to local variations.</td>
</tr>
<tr>
<td>ITSRR</td>
<td>Drafting</td>
<td>61C(1)(a) and (2)(a)</td>
<td>The obligation that is imposed on the roads authority under this provision is actually broader than the obligation on a RIM in section 61A. Under section 61A the interface is defined as between the 'road infrastructure of a public road' and railway operations of a RIM. The interface description should be the same. Section 61C now suggests that a interface co-ordination plan of a roads authority has to cover more broader interfaces than just 'road or rail crossings'. This is clearly wrong.</td>
</tr>
<tr>
<td>Parliamentary Counsel's Committee</td>
<td>Drafting</td>
<td>61-61C</td>
<td>There is a suggestion that, in sections 61-61C, the references to risks &quot;caused, wholly or in part, by&quot; should be changed to risks &quot;because, or partly because, of ...&quot; This is a helpful suggestion as those words sit much better with the concept of risk ( there is a risk because of something, rather than a risk caused by something).</td>
</tr>
<tr>
<td>Parliamentary Counsel's Committee</td>
<td>Drafting</td>
<td>Consequential amendments – ss 56 and 57 of the Model Bill</td>
<td>There will need to be consequential amendments in sections 56 and 57 of the Model Bill to extend the references in those sections to section 61 so that include sections 61A and 61B.</td>
</tr>
<tr>
<td>VicRoads</td>
<td>Drafting</td>
<td>61C(1)(a) and (2)(a)</td>
<td>The provisions specifying the risks that must be identified by road authorities and rail infrastructure managers for the purpose of preparing ICPs are different. In</td>
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<td>particular, rail infrastructure managers are only required to identify risks arising from ‘any road or rail crossing that is part of the road infrastructure’, whilst road authorities are required to identify risks arising from ‘any road infrastructure’. VicRoads requests that the legislation be reviewed and amended so that the obligation to identify risks be consistent for both road authorities and rail managers, and only apply to road/rail interfaces and not all road infrastructure.</td>
</tr>
<tr>
<td>NTC</td>
<td>Drafting</td>
<td>4 – Definition of ‘road authority’</td>
<td>The intention of the expressions 'other than a public road' or 'not a public road' is to ensure that roads that are not accessible by the public and privately owned/managed roads and are covered. The treatment of these roads is different to that of public roads insofar as the interface co-ordination plans will only be required on an exceptional basis when the rail infrastructure manager considers these are necessary. Ambiguity arises because of the extension of the use of 'road authority' (and 'responsible road authority') to roads other than public roads. This extension is strained in the case of privately owned roads that are not accessible by the public and may not make sufficiently clear the intended obligations in respect of non-public roads.</td>
</tr>
<tr>
<td>DIER</td>
<td>Drafting</td>
<td>61C(1)</td>
<td>I also note that the obligation in clause 61C(1) is broader than that proposed in clause 61A(1). These obligations should the same.</td>
</tr>
<tr>
<td>DIER</td>
<td>Drafting</td>
<td>61C(2)</td>
<td>Clause 61C(2) should also be subject to local variations, like clause 61B(1), as the former clause complements the latter. (This comment seems to be a repetition of an earlier comment in this submission on 61C.)</td>
</tr>
<tr>
<td>DIER</td>
<td>Drafting</td>
<td>Regulations</td>
<td>Regarding the Regulations, the cross reference in 13(1) should be to 61A(1)(b) or 61B(1)(b). The current citations do not</td>
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<tr>
<td>Roads and Traffic Authority, NSW</td>
<td>Drafting</td>
<td>61C(1)</td>
<td>The obligation that is imposed on the roads authority under this provision is actually broader than the obligation on a rail infrastructure manager in section 61A. Under section 61A (the rail authority’s obligation) the interface is defined as between rail infrastructure and a ‘road or rail crossing’. In section 61C the interface is defined as between the ‘road infrastructure or a public road’ and ‘railway operations’ or a rail infrastructure manager. The interface description should be confined to ‘road or rail crossings’.</td>
</tr>
<tr>
<td>Parliamentary Counsel’s Committee</td>
<td>Drafting - offence provisions</td>
<td>61-61C</td>
<td>The problem of prosecutions under those sections has also been raised. The suggestion now is that there be no offence specified in sub-section (1) of sections 61-61C but that the sub-sections remain as a general statutory duty. The offence would remain attached to sub-section (2) of the sections, but with the addition of a new offence of failing to implement a registered plan. There are still difficulties (for instance, in proving that a plan existed but had not been registered) but at least the major problem with the sub-sections (1) would be overcome.</td>
</tr>
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</table>
| SA Department for Transport, Energy and Infrastructure | Extent of obligation – inconsistency with ATC policy | Bill Regulations | I am not able to endorse the Amendment Bill or Regulations, the area of concern being the treatment of the obligations for road authorities.  

It is understood that the policy intent of the June 2006 ATC vote in relation to road-rail interface coordination plans was to introduce a legal requirement for road authorities to develop and implement, in liaison with rail infrastructure managers, joint management plans to address the shared safety matters at road/rail interfaces. This was to be undertaken without imposing additional or different safety obligations on road authorities.  

The drafting of the proposed section 61C appears to have exceeded this intention by introducing an obligation on road authorities to identify risks and to, ‘… develop and implement … interface
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| Roads and Traffic Authority, NSW     | Extent of obligation – inconsistency with ATC policy                 | Bill Regulations                                                                | I have previously concurred in principle to the creation of a requirement for road authorities to enter into Interface Coordination Plans for level crossings, subject to any legislation being consistent with the road authority’s liability under NSW law.  

The proposed amendments appear to take the obligations on road authorities much further than previously described.  

The RTA’s concerns relate to the fundamental differences in how risks at coordination plans to manage those risks, so far as is reasonably practicable.’ This effectively places a safety duty obligation on road authorities that is equivalent to that placed on rail infrastructure managers.  

To remove any potential misinterpretation of the intent of the legislation, I suggest that the provisions be re-drafted to provide a stronger focus on the processes required to be undertaken by road authorities, rather than drafting the provisions in terms of managing safety risks.  

In particular, provision should include requirements for road authorities to:  

- identify the road infrastructure interfaces with railway infrastructure that need to be jointly managed;  
- consult with the rail infrastructure manager for the preparation, implementation and operation of a joint interface coordination plan;  
- comply with any reasonable requests from a rail transport operator for the provision of information in relation to the preparation and/or operation of the interface coordination plan; and  
- so far as is reasonably practicable, comply with the plan in the course of undertaking the care, control or management of its roads. |
level crossings are perceived between road and rail authorities. To the rail industry, level crossings and other road/rail interfaces contribute significantly to their risk profiles and are considered a high risk to the safety of their operations. Conversely, for road authorities, level crossings feature as a low risk in relation to the overall road safety risk.

The NTC has verbally stated that the primary objective of the legislation is to ensure that a process is established whereby road authorities are legally obliged to identify risks from the roads perspective arising from level crossings. The draft Amendment Bill and draft regulation go much further than that. They require the road authority to identify the risks, enter into an agreement to manage the risks and then implement what is contained in the agreement.

The documents to date have also not discriminated between risks due to maintenance of road infrastructure, signs and lines and developing plans to reduce or eliminate any risks at current level crossings, which could involve significant capital expenditure. The proposed legislation places a statutory obligation for the road authority to manager the risks at the level crossing regardless of whether it is feasible for the road authority to do so. Nor does it refer to the relationship to other risks that the road authority is required to manage under its own roads legislation, such as road safety.

Furthermore, it is understood the legislation will contain criminal offences and penalties for non-compliance.

The NTC has also verbally stated that the legislation does not specify what Interface Coordination Plans must contain. While this is true, the legislative requirement to manage risks and implement plans could well lead to court interpretation that a road authority is required in fact to manage all the known road related risks at a level crossing, presumably by eliminating or reducing those risks. With more than 1600
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<td>Level crossings in NSW, most of which are on roads controlled by local councils, a shift of funding of this nature would have a significant impact on road priorities throughout NSW.</td>
</tr>
<tr>
<td>VicRoads</td>
<td>Extent of obligation – potential conflict with other priorities of road authorities</td>
<td>Bill, Regulations</td>
<td>The National Transport Commission, at a teleconference with road authorities on 7 December 2006, stated that the legislation is not intended to modify existing road management obligations for road authorities. However, there is concern that the introduction of requirements to prepared Interface Co-ordination Plans will place pressure on road authorities to give priority to works at road/rail interfaces ahead of road works at other locations. VicRoads requests that the legislation expressly provides that the obligation to prepare ICPs does not impose an obligation on road authorities to give greater priority that is presently the case to management of roads at road/rail interfaces.</td>
</tr>
<tr>
<td>Roads and Traffic Authority, NSW</td>
<td>Extent of obligation – potential inconsistency with existing legal liabilities and protections of road authorities</td>
<td>Bill</td>
<td>It is proposed that an additional requirement be included in the draft provisions (at least in NSW) which confirms that the provisions regarding public road/rail interfaces do not extend roads authorities’ existing liabilities at common law. In particular the NSW provisions when adopted will ensure that the existing liability protections for road authorities under the Civil Liability Act 2002 NSW (section 45) will not be affected.</td>
</tr>
<tr>
<td>VicRoads</td>
<td>General</td>
<td>Bill, Regulations</td>
<td>Whilst VicRoads is supportive of the principle of interface co-ordination plans for road/rail interfaces, it cannot endorse the Bill and Regulations as currently drafted. (VicRoads’ concerns with the Bill and Regulations are summarised in the attachment to the submission.)</td>
</tr>
<tr>
<td>WA Department for Planning and Infrastructure</td>
<td>General</td>
<td>Bill</td>
<td>WA endorses the Rail Safety Amendment Bill No 2.</td>
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<td>Queensland Transport</td>
<td>General</td>
<td>Bill Regulations</td>
<td>Queensland Transport’s Rail Safety Unit, in consultation with the Department of Main Roads, Department of Employment and Industrial relations and the Local Government Association of Queensland, has reviewed the proposed amendments to the Bill and Regulations. Queensland supports the proposed amendments, and in my role as TACE member I endorse the Rail Safety Amendment Bill No 2 and Rail safety (Amendment No 1) Regulations.</td>
</tr>
<tr>
<td>Department of Infrastructure, Victoria</td>
<td>General</td>
<td>Bill Regulations</td>
<td>I am pleased to support the proposal that road authorities have reciprocal obligations to develop and implement interface co-ordination plans with rail transport operators. While the necessary amendments to the national legislation appear to be progressing well, further work is necessary to settle some remaining issues, including the scope and impact of the proposal.</td>
</tr>
<tr>
<td>DIER</td>
<td>ICPs should be required between 2 rolling stock operators on same rail infrastructure</td>
<td>61(3)</td>
<td>I understand that there was some discussion at the Rail Safety package Steering Committee regarding clause 61(3), for it to operate subject to any regulations that may be otherwise made to require interfaces between rail transport operators. This does not seem to be reflected in the circulated copy.</td>
</tr>
<tr>
<td>ITSRR</td>
<td>ICPs should be required between 2 rolling stock operators on same rail infrastructure</td>
<td>61(3)</td>
<td>Discussion at the Rail Safety Policy Steering Committee was to allow subsection (3) to operate subject to any regulations that may otherwise be made to require interfaces between RSOs.</td>
</tr>
<tr>
<td>WA Department for Planning and Infrastructure</td>
<td>ICPs should be required between 2 rolling stock operators on same rail infrastructure</td>
<td>61(3)</td>
<td>It is accepted that the development of an interface Co-ordination Plan between a rolling stock operator and a rail infrastructure manager should be a legislated requirement. However, there may be merit in also instituting ICPs between two rolling stock operators on some rail infrastructure.</td>
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<tr>
<td>DIER</td>
<td>Local variations</td>
<td>4 – Definitions</td>
<td>The definitions in the Bill acknowledge local variations, however, Tasmania does not have some of these definitions in its road management legislation. In some instances where those definitions exist, they are markedly different to the Victorian approach. My departmental officers will seek further advice about the implications of the proposed approach and I reserve the right to amend this approach as required for the Tasmanian legislative environment.</td>
</tr>
<tr>
<td>SA Department for Transport, Energy and Infrastructure</td>
<td>Local variations</td>
<td>Bill Regulations</td>
<td>In recognition of the different road infrastructure management legislation throughout Australia, I also suggest that the provisions (including the model Regulations) relating to road authorities should identified as being subject to local provisions to enable jurisdictions flexibility to give effect to the intent of the ATC decision in a manner that is consistent with jurisdictional legislation and/or policies in relation to level crossing management.</td>
</tr>
<tr>
<td>VicRoads</td>
<td>Mechanism needed to assist parties reach agreement</td>
<td>Regulations 13(1)(d) and 14(1)(e)</td>
<td>Road authorities and rail infrastructure managers are also required as part of the process of developing ICPs to enter into Interface Agreements. The legislation requires that the process for developing an ICP must be undertaken until there is a written interface agreement between a road authority and rail infrastructure manager. However, there is no mechanism to assist parties to reach agreement and there is a danger that Interface Agreements may never be achieved. It is noted that the NTC has indicated that the purpose of these provisions is to require road authorities to follow a process, and not to compel parties to agree. VicRoads requests that the legislation makes it clear that road authorities are only required to enter into the process of developing Interface Agreements, and if they follow the prescribed process, they do not breach the legislation by failing to enter into an Interface Agreement.</td>
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<tr>
<td>VicRoads</td>
<td>Parallel road/rail interfaces</td>
<td>4 – definition of 'road or rail crossing'</td>
<td>The definition of ‘road or rail crossing’ includes parallel road/rail infrastructure. However, this concept is unclear and was not included in the approval provided by the Australian Transport Council for road authorities. VicRoads requests that the concept of parallel road/rail be reviewed. If the concept is to be included in the legislation, it will need a clear definition so that it is consistent with the purpose of the legislation, being to manage risks at road/rail crossings.</td>
</tr>
<tr>
<td>Department of Infrastructure, Victoria</td>
<td>Parallel road/rail interfaces</td>
<td>4 – definition of ‘road or rail crossing’</td>
<td>The proposal should be reviewed with respect to parallel road/rail interfaces and how the proposal will apply to the tram network in Victoria.</td>
</tr>
</tbody>
</table>
| Roads and Traffic Authority, NSW    | Parallel road/rail interfaces        | 4 - definition of ‘road or rail crossing’  | The proposed amendments also expand the scope of interfaces from level crossings to all possible interfaces between rail operations and roads, including road over rail bridges and vice versa and instances of parallel running of roads and railways. The NTC document of October 2006 on Transitional Arrangements for Implementation of Rail Safety Legislation stated:  

'The ATC decision clearly intended this mutual obligation to apply to road and rail interfaces at grade level crossings, although the full range of interfaces falling within its ambit such as road over rail and vice versa and parallel running between road and rail, is yet to be detailed.'  

While most, if not all jurisdictions are in a position to identify risks at grade level crossings due to work with the nationally adopted ALCAM level crossing risk assessment model, there is no equivalent process for road over rail or parallel running. Parallel running is not defined in the proposed amendments, with the result that the drafting of these provisions imposes unreasonably onerous obligations on roads authorities which are
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<tr>
<td>DIER</td>
<td>Private road authorities</td>
<td>61C(2)</td>
<td>I endorse the inclusion of public road authorities in the Bill, but I am concerned with extending the interface agreement obligations to private road owners, other than private roads servicing industry. In the short time for consideration of the Bill, there has not been an opportunity to consult with any private road owner stakeholders, which are a very diverse group. To counter this, I would like a 'local variations' clause inserted into clause 61C, like that in clause 61B(1). This will provide some flexibility to address outcomes from consultation with local private road owners before implementing the Bill, which may include an option for managing the risks through alternate means but still achieving the same outcome.</td>
</tr>
<tr>
<td>DIER</td>
<td>Private road authorities</td>
<td>61C(3)</td>
<td>I am also concerned about the requirement in clause 61C(3), to require private road owners to maintain a register of current agreements and other instruments. In particular, individuals would be made to maintain a register, which creates an unnecessary burden. It is nonsensical to require private landowners to maintain a register; instead the obligation could be altered to require only the rail infrastructure manager to keep a register for these types of road owners.</td>
</tr>
<tr>
<td>Department of infrastructure, Victoria</td>
<td>Private road authorities</td>
<td>61C(2)</td>
<td>The proposal should be reviewed with respect to how the proposal will impact on private landholders who have rail crossings on their land.</td>
</tr>
<tr>
<td>SA Department for Transport, Energy and Infrastructure</td>
<td>Private road authorities</td>
<td>61C</td>
<td>For information, I support the approach to private roads in the Amendment Bill, which requires the rail infrastructure manager to initiate the need for an ICP. The draft SA Rail Safety Bill imposes this obligation on any authority within the meaning of the SA Road Traffic Act 1961, which includes an owner of any road that is open to or used by the public. The Road Traffic Act 1961 does not make a distinction between public and private roads and, at this time, it is not considered</td>
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<tr>
<td>Roads and Traffic Authority, NSW</td>
<td>Private road authorities</td>
<td>61B</td>
<td>Under this clause private road authorities are required to enter into ICP’s with the rail manager. Under NSW laws there is no such entity as a road authority for a private road. The NSW Independent Transport and Reliability Regulator (ITSRR) views that ICP’s for private roads can be managed as a matter of commercial negotiation between the private road owner and the relevant rail operator whose operations impact on private roads.</td>
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<td>VicRoads</td>
<td>Road manager consultation</td>
<td></td>
<td>VicRoads is concerned that there has been insufficient consultation with road authorities, and particularly local governments, regarding the requirement for road authorities to prepare Interface Co-Ordination Plans. The road authorities should be provided with more time to consider the legislation.</td>
</tr>
<tr>
<td>Department of infrastructure, Victoria</td>
<td>Road manager consultation</td>
<td>Bill Regulations</td>
<td>Before a final proposal is presented to ATC for approval, it is suggested that the scope of the proposed amendments and their impact be resolved through further discussions with jurisdiction officers, including from Victoria. It is also recommended that further consultation take place with VicRoads and local councils on the proposals.</td>
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<tr>
<td>Roads and Traffic Authority, NSW</td>
<td>Road manager consultation</td>
<td>Bill Regulations</td>
<td>The NTC should co-ordinate and lead consultation with roads authorities and local government and shires associations to address their concerns about the impact of these provisions on their resources, risk expertise and legal liabilities.</td>
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<tr>
<td>WA Department for Planning and Infrastructure</td>
<td>Road manager consultation</td>
<td>Bill Regulations</td>
<td>WA understands that Local Government Authorities are concerned that they are not being sufficiently consulted in the development of this provision in the Rail Safety Model Bill. In WA, the impact on Local Governments is minimised as Main Roads WA expends funds for level crossings on their behalf.</td>
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<tr>
<td>Roads and Traffic Authority, NSW</td>
<td>Sample interface co-ordination plan</td>
<td>Bill Regulations</td>
<td>The NTC should develop a ‘sample’ interface co-ordination plan to demonstrate at a practical level the outcomes sought to be achieved by these provisions.</td>
</tr>
</tbody>
</table>

The refined Amendment Bill (taking into account the above) was circulated in May 2007. TACE members have provided written responses confirming their support for the refined Amendment Bill.

It should be noted, however, that some responses from TACE members received during June and July 2007 did include further drafting comments (but no substantive comments). These drafting comments have been considered and addressed. The NTC has written back to TACE members and advised them of how their comments have been addressed.