

VICTORIA

Auditor General

Victoria

Regulating operational rail safety

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AUDITOR GENERAL
VICTORIA

The Hon. Monica Gould MP
President
Legislative Council
Parliament House
Melbourne

The Hon. Judy Maddigan MP
Speaker
Legislative Assembly
Parliament House
Melbourne

Dear Presiding Officers

Under the provisions of section 16AB of the *Audit Act 1994*, I transmit my performance audit report on *Regulating operational rail safety*.

Yours faithfully

JW CAMERON
Auditor-General

24 February 2005

Foreword

Thousands of Victorians travel on trains every day. Their safety is assured through a series of rail safety regulations. The Department of Infrastructure (DoI), the public transport safety regulator, plays a critical role in putting these regulations into action. Equally important is the role of Victoria's accredited rail operators.

Victoria's current system for regulating rail safety was introduced at the same time as privatisation of much of the rail network. DoI has been called upon to develop and establish processes for bringing rail safety legislation and regulations to life, at the same time as actually putting these regulations into action day after day.

It is now time for DoI to take stock of its rail safety accreditation, auditing and investigation practices. It should preserve those activities that are serving it well, some of which we have identified in our audit. But it needs to upgrade other activities, so that they are more systematic, rigorous and of greater sophistication.

This report makes a number of recommendations to improve regulatory effectiveness in Victoria. Some of the recommendations call for actions to be taken on changes already identified by DoI. This is commendable, but many of these changes have been on the drawing board for too long. It is now time for DoI to give these unrealised plans the priority they deserve.



JW CAMERON
Auditor-General

24 February 2005

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1. Executive summary



1.1 Introduction

In 1999, the Victorian Government privatised the suburban and regional train and tram system. Prior to 1999, the Public Transport Corporation (a statutory body) was the principal train operator and track manager in Victoria. The corporation also managed rail safety.

In 2004, there were 49 train organisations (termed “accredited rail operators”, or AROs) operating on the Victorian rail network. These 49 organisations manage railway infrastructure, provide or operate rolling stock, or a combination of all 3. Thirty AROs operate on a commercial basis and 19 operate on a not-for-profit basis. Most not-for-profit AROs are heritage rail operators, such as the Dandenong Range’s Puffing Billy Railway.

At the same time as privatisation, the government introduced legislation and regulations governing rail safety in Victoria. These are the *Transport (Rail Safety) Act 1996*, which is an amending Act to the *Transport Act 1983*, and the *Transport (Rail Safety) Regulations 1998*.

The secretary of the Department of Infrastructure (DoI) administers the Act and regulations. Under the provisions of the Act, the secretary has delegated most of his regulatory powers to the Director, Public Transport Safety.

The fundamental consideration in regulating rail safety is establishing processes for identifying and responding to safety risks. Under Victoria’s rail safety regulatory framework, the government and industry jointly regulate the industry. This reflects the legislation’s objectives of placing responsibility for managing safety risks on those who are in the best position to identify and address them, which is generally the AROs. The onus is on railway managers, providers and operators to assess and respond to risks, primarily through their safety management systems. The government’s role is to scrutinise the AROs’ systems for identifying and addressing risks, and determine that these comply with the legislation and regulations, and meet Australian standards.

This audit examined whether DoI implemented the rail safety regulatory framework effectively and efficiently, and as intended by the legislation. The audit examined the application of the rail safety legislation and regulations for **trains only**. It focused on 4 areas, namely, accreditation, safety auditing, incident and accident reporting and investigation, and enforcement.

1.2 Has DoI accredited rail organisations in line with the legislation and regulations?

All managers of railway infrastructure and providers and operators of rolling stock who intend to operate rail in Victoria must be accredited by DoI.

We reviewed DoI's files on 40 instances in which DoI granted accreditation (covering 29 currently operating AROs). Our review showed that DoI does not have the evidence to demonstrate that, at the time of initial accreditation, it satisfied itself that most applicants complied with all accreditation requirements.

After we reviewed the files, DoI drew on evidence from safety audits it has conducted to demonstrate that all AROs in our sample currently meet all accreditation requirements.

The lack of documented evidence supporting accreditation means that DoI is not able to support all of its initial accreditation decisions. To avoid this situation continuing, DoI must improve its process for assessing accreditation applications, including its recording of assessments, to better discharge its responsibilities and accredit rail organisations according to the legislation and regulations. DoI is developing new procedures to do this.

Recommendation

- 1. That DoI improve its processes for assessing accreditation applications, including its recording of assessments, to ensure that it can demonstrate that rail operators have met all legislative requirements.**

1.3 Has DoI conducted safety audits as required?

Under the legislation, DoI is required to conduct safety audits (called "compliance audits") of all AROs at least annually. We assessed 4 aspects of DoI's safety auditing: safety audit methodology; the quantity of safety audits; skills of audit staff; and audit practices.

1.3.1 Did DoI have an adequate methodology for planning safety audits?

DoI's safety audit planning methodology is evidence and risk-based, drawing on data from previous audits of the ARO, accident and incident investigations, and information provided by AROs in their material change applications¹.

DoI's planning methodology is documented in its standard procedures for the conduct of external audits. However, DoI's application of its planning methodology is not recorded and, therefore, open to question about how well and how consistently it is applied.

DoI's risk assessments are not as complete as they should be due to the insufficient data about the causes of accidents and incidents. DoI intends to address this, as well as link its databases. This will give it better, and more accessible, information for identifying potential risks to rail safety. This will improve safety audit planning significantly. We, therefore, support these initiatives and recommend that they be completed as soon as possible.

We also suggest that DoI's safety audit planning incorporates more sophisticated risk analysis techniques than it currently uses. (Further details are provided in Part 4.1.4 of this report).

Recommendations

2. **That DoI improve and expand its risk analysis techniques for safety audit planning.**
3. **That DoI ensures that its plans to enhance the accident and incident database, and to link this with the safety audit databases, are completed as soon as possible.**

¹ An ARO must submit an "application for a material change" if a proposed change to their accredited activities and (or) safety management system could reasonably be expected to actually or potentially affect safety.

1.3.2 Did DoI conduct the required number of safety audits?

Under the *Transport Act 1983*, DoI must conduct a safety audit (called a “compliance audit”) of the operations of every person² accredited under the Act at least once every 12 months. Over the last 4 years, DoI has fulfilled its legislative responsibility to conduct an annual compliance audit of each ARO.

Although not mandated, DoI also conducts compliance *inspections* that target specific safety issues. DoI has met or exceeded its internal target for compliance inspections over the last 3 financial years. While it requires significant resources, this function is an important component in the maintenance of rail safety.

1.4 Did DoI’s staff have the skills required to audit rail safety?

In order to be able to perform safety audits to an adequate standard, DoI’s auditing staff should be appropriately skilled. DoI’s safety audit staff met the audit criteria for qualifications in rail safety, and experience in:

- railway engineering and railway operational management systems
- ensuring compliance of AROs’ safety management systems with AS 4292, the Australian standard for rail safety management, and preparing reports on this
- assessing management systems, particularly in accordance with quality and risk analysis standards.

DoI has a structured approach to the identification of the training and development needs of safety auditors. DoI is currently developing a new education program for public transport regulation.

The training received by DoI’s audit staff is comparable with some regulators but not as extensive as one other regulator. Maintaining up-to-date specialist skills is important as new technology and operating practices are being introduced throughout the industry. DoI audit staff are not able to maintain direct involvement with their fields of expertise, so training is necessary for them to keep up-to-date. This makes it important for DoI to complete its current plans for the training and development of audit staff.

² The Act refers to “persons”, whether they are individuals or organisations.

1.5 Were DoI's audit practices adequate?

Compliance *audits* assess the ongoing compliance of accredited rail organisations (AROs) with legislative requirements and with the terms of their accreditation. Compliance *inspections* are conducted broadly along the same lines as compliance audits, but usually focus on a specific issue.

DoI conducts compliance audits and inspections according to the guidelines that are part of their quality management system³. The guidelines are based on AS 4292: *Rail Safety Management* and on AS 3911 *Guidelines for Auditing Quality Systems*. While DoI's approach is consistent with practices in all jurisdictions, in 2003, AS 3911 was superseded by AS/NZS ISO 19011:2003 *Guidelines for Quality and/or Environmental Management Systems Auditing*. DoI should consider updating its audit procedures to reflect this latest standard.

DoI has not sought to formally re-accredit its safety audit guidelines and practices since its accreditation lapsed in 2001⁴. In lieu of this accreditation, to ensure it uses a quality-assured safety audit process, DoI should commission periodic, independent audits of its processes. DoI has advised that it plans to do this.

The compliance audit and compliance inspection files were reviewed and found to contain incomplete documentation and inconsistent use of standard forms. This resulted in a limited trail of evidence from the original scope of a safety audit to the ultimate outcomes of the audit. The lack of documented evidence means that DoI cannot conclusively support all of its safety audit findings. The following recommendations address this.

Recommendations

4. That DoI:

- **consider updating its audit process to reflect the most up-to-date standards for auditing quality systems**
- **ensures that its safety audit procedures are subject to periodic and independent audit, as planned.**

³ Department of Infrastructure, Safety and Technical Services Branch, *Standard Procedures, Document No. SP 019, External Audits Rail, May 2001*, unpublished.

⁴ The Bureau of Veritas Quality International accredited DoI's safety audit methodology.

Recommendations - *continued*

5. That DoI improve its procedures for the conduct of compliance audits and its total adherence to these procedures by ensuring that:
 - the proceedings of opening meetings are recorded and maintained on file with the audit meeting attendance sheet
 - compliance audit files contain evidence of a completed audit scope planner
 - changes to audit scope are recorded on the audit progress report and linked to the audit scope planner and the audit scope check list
 - observation notes are recorded on the audit check list
 - minutes of closing meetings are attached to the audit meeting attendance sheet on file
 - minutes of closing meetings are circulated to all attendees
 - there is compliance with DoI's peer review policy
 - ARO feedback questionnaires are relevant
 - auditors complete and file completed audit progress report forms, and ensure the details are entered on DoI's audit database.
6. That DoI, in its next round of safety audits, address all those instances where it does not currently have full documented evidence that the auditor conducted the audit on the basis of DoI's standard procedures for external safety audits, which are based on AS 4292, the Australian standard for rail safety management.

1.6 Has DoI ensured that accidents and incidents are reported and investigated as required?

Under the legislation and regulations, accredited rail organisations must:

- report all notifiable occurrences relating to their rail services or activities
- inquire into any railway accident or incident that may affect the safe operation, construction, maintenance, repair or alteration of their rail infrastructure or rolling stock. They are also required to report the findings of, and safety actions resulting from, these investigations to DoI.

The legislation also empowers DoI to undertake investigations.

1.6.1 Did DoI ensure that AROs report notifiable occurrences as required?

DoI collects and reviews reports on the types of notifiable occurrences required by the legislation, and uses this information to inform its regulation of rail safety.

DoI takes a number of actions to ensure that AROs comply with the requirements to report notifiable occurrences. DoI could improve this process by formally documenting its procedures for achieving ARO compliance.

1.6.2 Did DoI ensure that AROs investigate accidents and incidents as required?

DoI receives and reviews ARO investigation reports. While the standard of ARO investigations varied, DoI has taken steps to improve this.

The legislative requirement that AROs investigate accidents or incidents that may affect the safe operation of rail infrastructure or rolling stock provides DoI with leeway to work with AROs to define the types of accidents and incidents that it considers crucial to safe operations, and therefore should be investigated. DoI could provide greater guidance to AROs on the types of accidents and incidents that should be investigated, and use this guidance to monitor whether the requirements of the legislation are being met.

DoI has started to improve its accident and incident databases. Further improvements should be made to its internal management of information on accident and incident reporting, to enable DoI to track which notifiable occurrences should have been investigated, which were investigated, what their findings were and whether they were acted upon. This would enable DoI to use the findings of accident and incident investigations to better inform future implementation of the rail safety regulatory framework.

Recommendations

7. **That DoI develops guidelines about the types of accidents and incidents that should be investigated and the extent to which an investigation should be undertaken and reported, for internal and external distribution.**
8. **That DoI develops and implements an information management system that integrates information on ARO investigations and DoI's monitoring of these investigations.**

1.6.3 Did DoI investigate accidents and incidents as allowed for by legislation?

DoI has taken responsibility for investigating accidents and incidents, as allowed for by legislation. However, DoI does not have an explicit policy or guidelines to identify the types of accidents or incidents it will investigate. Such a policy is an important part of ensuring that DoI investigates incidents and accidents that warrant investigation independently of AROs. To address this gap, DoI should develop and implement a strategy about its investigatory function. This strategy should identify:

- the criteria for the types of accidents and incidents that DoI should investigate, and under what circumstances
- how these investigations will be resourced
- the processes and systems for recording information on investigation reports
- the processes and systems for reviewing and monitoring investigation findings.

Recommendation

9. **That DoI review its investigation function and develop a strategy that details the circumstances under which it will take a key role in the investigation of accidents and incidents.**

1.7 Does DoI have an enforcement strategy that can adequately address breaches of the legislation and regulations?

Under Victorian legislation, DoI can take disciplinary action against an ARO if the ARO has:

- caused or permitted unsafe practice in relation to any activity in respect of which they are accredited
- acted negligently in the course of any activity in respect of which they are accredited
- obtained their accreditation improperly
- not paid a fee required by the regulations.

DoI's enforcement strategy (Figure 1A, left hand pyramid) includes all enforcement actions prescribed in legislation. As part of its enforcement strategy, DoI staff supplement the enforcement provisions in the legislation with several actions that are not prescribed (show cause notices, non-compliance and non-conformance reports).

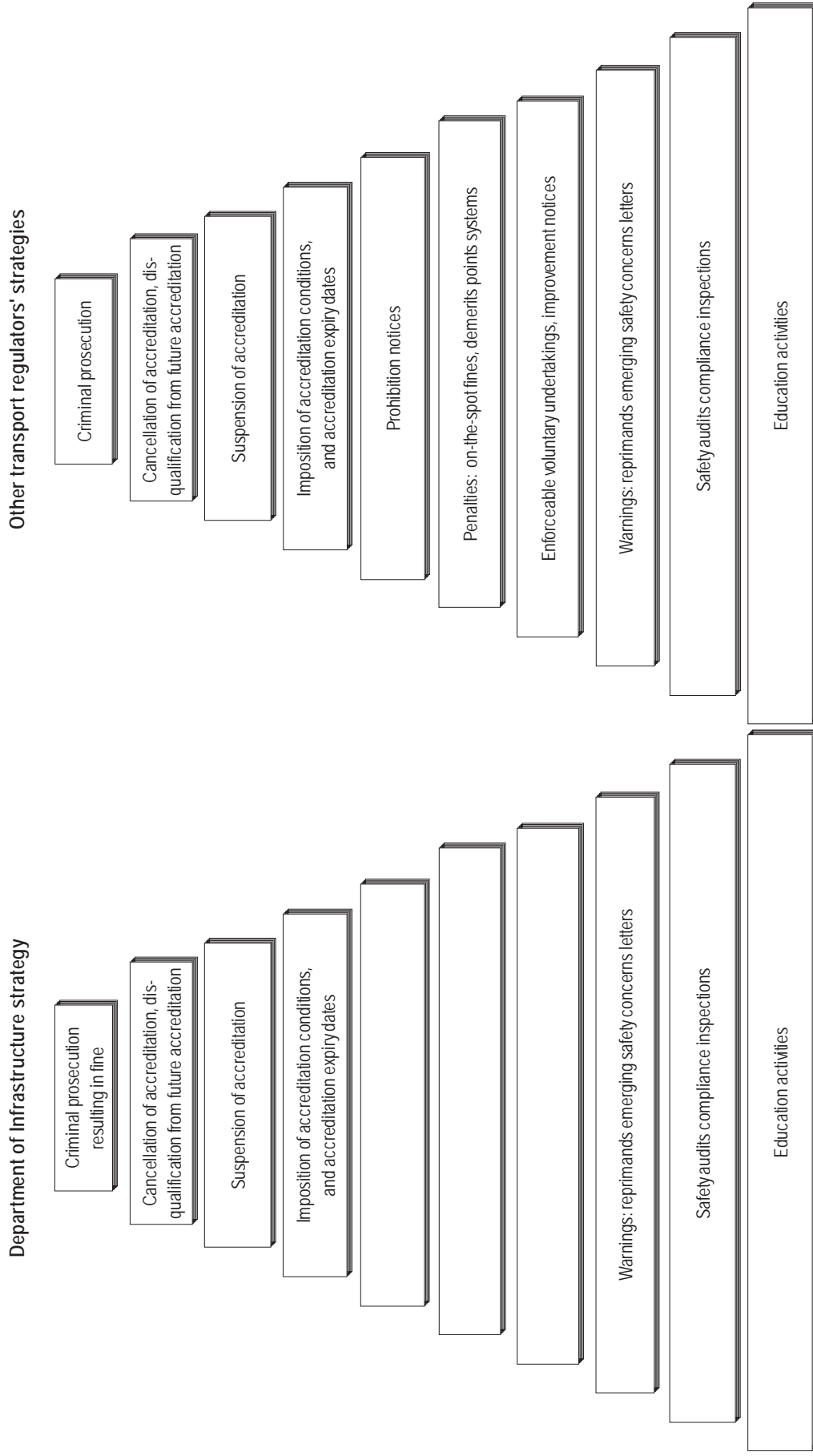
DoI is not legally required to guide AROs in their understanding of when enforcement activity may escalate. However, authorities such as the OECD have reported that ensuring that regulated parties understand their legal responsibilities is a fundamental step in gaining compliance⁵. There are some useful interstate examples of this. At present, DoI's enforcement actions do not include specific activities to educate AROs about their legal requirements and the penalties for non-compliance. DoI should add this step to its suite of education activities.

Figure 1A compares DoI's enforcement strategy (left hand side pyramid), with the enforcement strategies of other transport regulators (right hand side pyramid)⁶.

⁵ OECD 2000, *Reducing the Risk of Policy Failure: Challenges for Regulatory Compliance*.

⁶ Enforcement strategies are frequently displayed as a pyramid. This symbolises the theory that most regulatory action should occur at the base of the pyramid through attempts to coax compliance by persuasion. If this fails, a regulator escalates its enforcement action to warnings and, less commonly, sanctions. If these, in turn, fail to secure compliance, a regulator may finally resort to suspension and cancellation of accreditation.

FIGURE 1A: DOI'S ENFORCEMENT STRATEGY COMPARED WITH OTHER TRANSPORT REGULATORS' STRATEGIES



Source: Victorian Auditor-General's Office.

As Figure 1A shows, DoI deploys a smaller range of enforcement actions than other jurisdictions. This is because the Victorian legislation does not provide the additional enforcement provisions available in some other jurisdictions. DoI is aware of its limited legislative powers. It is currently undertaking a review of the regulatory framework for rail safety in Victoria⁷. DoI aims to present new legislation, incorporating more enforcement actions, to parliament in 2005.

DoI does not have a structured process or policy in place to guide its staff and AROs about when the currently available enforcement actions will be applied, and when it will escalate enforcement activity to a higher level. Good practice would see DoI providing clear guidance for staff about when to apply the various enforcement provisions available to them. However, this is something of a moot point, since their capacity to apply the appropriate enforcement action is currently mainly limited by the number of enforcement options at their disposal, particularly the gulf between the lowest and highest levels of the Victorian enforcement pyramid. Following its review of rail safety legislation, DoI should ensure that it does provide appropriate guidance to its staff.

Recommendations

- 10. That, as part of its education activities, DoI educates AROs about their legal obligations and the penalties for non-compliance.**
- 11. That DoI provides its staff with guidance about when to apply enforcement provisions, on the secretary's behalf, and when to escalate enforcement actions to a higher level.**

⁷ For a full discussion of the issues being canvassed in the review, see DoI 2004, *Improving Rail Safety in Victoria: Issues Paper for a review of the Rail Safety Regulatory Framework*, Department of Infrastructure, Melbourne.

RESPONSE provided by Secretary, Department of Infrastructure

The Department of Infrastructure's (DOI's) current corporate plan identifies public safety and security for all forms of transport as one of its highest priority areas.

DOI's core objective is to promote safe transportation services. The safe operation of rail and a sustained improvement in rail incident trends is a top priority for the Government and the Department.

DOI is taking steps to improve rail safety through impending changes to the legislative framework for rail, including a safety case approach to the accreditation of rail organisations. The framework will require those organisations to, in a more structured manner, identify and mitigate risks associated with their operations. Whilst the current approach to rail incident investigation which places the emphasis on prevention rather than prosecution will be maintained, the proposed framework also includes a wider range of enforcement options and measures.

*In the context of increased public expectations of safe transportation systems, especially in light of the Waterfall rail accident in New South Wales, the Department welcomes the Auditor-General's review of our activities. **With respect to this report, the Department of Infrastructure accepts the 11 recommendations made.***

The Department has already completed a review of our procedures for the accreditation of rail organisations, the auditing of accredited organisations and for the handling of rail safety occurrences. As a result of this review, revised procedures that address various issues identified in the Auditor-General's report have been written to incorporate the intent of the report's recommendations.

As noted in the Auditor-General's report, work is well underway to establish a whole of business database system to integrate accreditation, auditing and occurrence handling.

Through these initiatives, DOI will continue its role with industry to improve the safety of rail services to the people of Victoria. Additionally, DOI's Internal Audit Committee will regularly audit the progress of changes for improving the management systems within Public Transport Safety.



2. Rail safety in Victoria



2.1 Victorian rail safety regulation

Prior to 1999, the Public Transport Corporation (a statutory body) was the principal train operator and track manager in Victoria. The corporation also managed rail safety.

In 1999, the Victorian Government privatised the suburban and regional train and tram system. New legislation and regulations governing rail safety in Victoria were introduced at the same time.

The rail safety legislation and regulations are the *Transport (Rail Safety) Act 1996* (an amendment to the *Transport Act 1983*) and the *Transport (Rail Safety) Regulations 1998*. The main parties to the Victorian rail safety regulatory system are:

- the Secretary of the Department of Infrastructure (DoI), who administers the Act and regulations. Under the provisions of the Act, the secretary has delegated most of his regulatory powers to the Director, Public Transport Safety
- managers of rail infrastructure - people or organisations that own or have a right to manage a railway or part of the rail infrastructure. This includes railway tracks, bridges, platforms, communication and signalling systems, overhead cables, workshops, plant and machinery, service roads and all other facilities that are necessary to operate a railway safely
- providers of rolling stock - people or organisations that design, construct, maintain, repair or alter rolling stock
- operators of rolling stock - people or organisations that operate or oversee the operation of a rail, light rail or tramway service.

2.1.1 Inter-governmental Agreement on National Rail Safety

The Victorian Government is party to a 1996 Inter-governmental Agreement on National Rail Safety (IGA). The agreement aims to achieve a cost-effective, nationally consistent approach to rail safety regulation.

The IGA provides for mutual recognition of interstate infrastructure managers and rolling stock operators. Under mutual recognition arrangements, regulators recognise accreditation in one state for the purposes of accreditation in their own state, provided that the original accreditation is consistent with the Australian standard on rail safety, namely AS 4292, and the operations in both states are similar. This arrangement is discussed further in Part 3 of this report.

One consequence of the IGA is that DoI is leading and participating in relevant national projects involving other states. These initiatives are discussed at the relevant points throughout this report.

2.2 Rail operations in Victoria

There are 49 train organisations (termed “accredited rail operators”, or AROs) operating on the Victorian rail network¹. These 49 organisations manage railway infrastructure, or provide or operate rolling stock, or a combination of all 3.

Accredited rail operators operate either commercially or not-for-profit. As Figure 2A shows, the majority of Victorian AROs are commercial organisations. They include Connex, which operates metropolitan train services, and V/Line Passenger Corporation, which operates on the Victorian regional network (and is government-operated). Most not-for-profit AROs are heritage rail operators such as the Puffing Billy Railway in the Dandenong Ranges.

Future changes to Victorian railways will see the introduction of regional fast train services.

FIGURE 2A: COMMERCIAL AND NOT-FOR-PROFIT ACCREDITED TRAIN ORGANISATIONS IN VICTORIA, AUGUST 2004

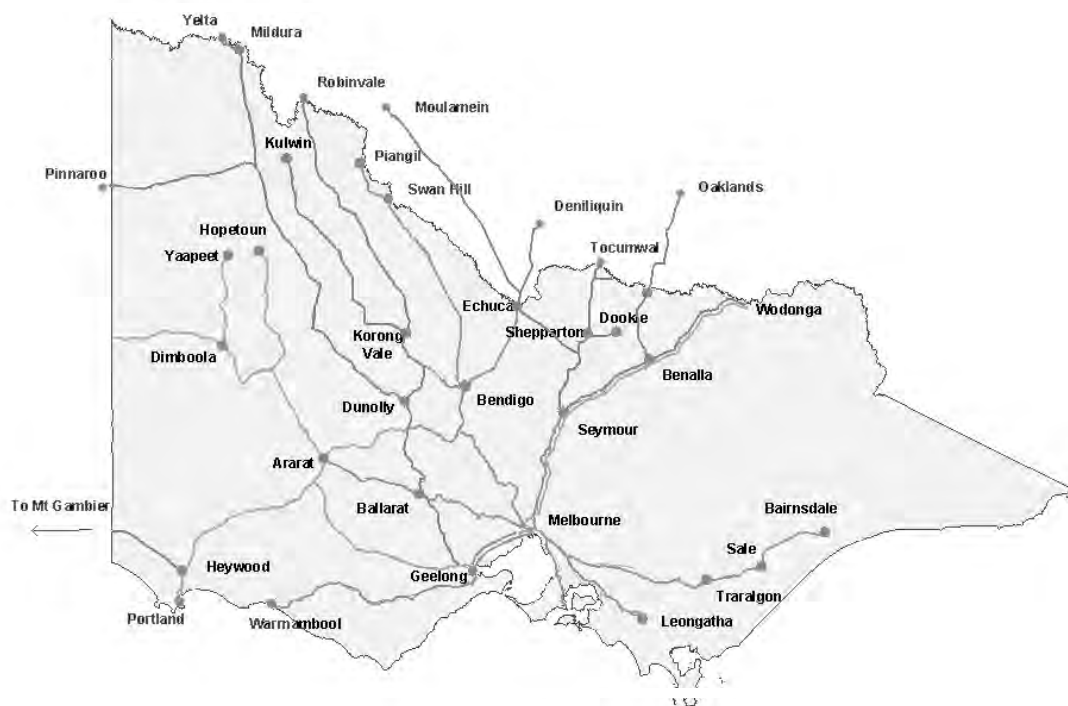
Accredited rail organisations	Number
Commercial	30
Not-for-profit	19
Total	49

Source: Department of Infrastructure, October 2004.

Figure 2B shows the railway network within Victoria.

¹ There is a full list of Victorian AROs in Appendix A, of this report.

FIGURE 2B: VICTORIA'S RAIL NETWORK



Source: Department of Infrastructure, 2004.

2.3 Public Transport Safety Directorate

The Director, Public Transport Safety has 39 staff, forming the Public Transport Safety Directorate. The directorate is responsible for the independent audit, investigation and review of tram, rail and bus safety in Victoria². An estimated 11 positions within the directorate are directly responsible for train safety. Further information on the directorate's organisational structure, and the structural arrangements between the secretary and the directorate, is provided in Appendix B of this report.

2.4 Audit objective, scope and method

The objective of the audit was to determine whether DoI implemented the rail safety regulatory framework effectively and efficiently, and as intended by the legislation. The audit examined the application of the rail safety legislation and regulations pertaining to **trains only**. The audit was performed in accordance with the Australian auditing standards applicable to performance audits, and included tests and procedures necessary to the audit.

² DoI is currently reviewing the role of the Public Transport Safety Directorate in, and its accountability for, public transport investigations.

Figure 2C shows an overview of the audit team's evidence gathering process.

FIGURE 2C: AUDIT EVIDENCE GATHERING PROCESS

Audit question	Evidence gathering process
Has DoI accredited managers of rail infrastructure, and providers and operators of rolling stock in accordance with the legislation and regulations?	<ul style="list-style-type: none"> ● Audit criteria identified ● Sample of DoI's files and documents about the accreditation process reviewed ● DoI officers interviewed
Has DoI conducted safety audits as required?	<ul style="list-style-type: none"> ● Audit criteria identified ● Sample of DoI's files and documents about annual safety audits reviewed ● DoI officers and other stakeholders interviewed ● International practice researched³
Has DoI ensured accidents and incidents are reported and investigated as required?	<ul style="list-style-type: none"> ● Audit criteria identified ● Sample of DoI's files and documents about notifiable occurrences reviewed ● Sample of investigation reports reviewed ● DoI's officers interviewed ● Officers of other state regulators and of national transport regulatory agencies interviewed, and international practice researched⁴
Has DoI enforced the legislation and regulations as required?	<ul style="list-style-type: none"> ● Audit criteria identified ● Sample of DoI's files and documents about accreditation, safety audits, notifiable occurrences, and investigations reviewed ● DoI officers interviewed ● Officers of other state regulators and of national transport regulatory agencies interviewed, and international practice researched⁵
Has DoI used the findings of safety audits and of accident and incident investigations to inform the implementation of rail safety regulatory framework?	<ul style="list-style-type: none"> ● Audit criteria identified ● Sample of DoI's files and documents about accreditation, safety audits, notifiable occurrences, and investigations reviewed ● DoI's officers interviewed ● Officers of other state regulators and of national transport regulatory agencies interviewed, and international practice researched⁶

Source: Victorian Auditor-General's Office.

We thank staff from DoI and members of the audit reference group for their assistance with the audit. We would also like to thank the consultants from Williams-Worley Rail for assisting the audit team undertake the audit.

³ The actions and procedures of other regulatory bodies were not used to assess DoI's compliance with legislation and regulations.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.



3. Has DoI accredited rail organisations in line with the legislation and regulations?



3.1 Background

All managers of railway infrastructure and providers and operators of rolling stock who intend to operate rail in Victoria must be accredited by the Department of Infrastructure (DoI).

Under the Transport (Rail Safety) Regulations 1998, organisations seeking accreditation must have:

- accreditation in another state or territory to carry out similar operations in Victoria (mutual recognition)
- the competency and capacity to meet safety standards
- the competency and capacity to safely manage infrastructure, or provide and operate rolling stock
- a safety management system (SMS) that conforms to AS 4292 (for commercial operators) or section 3 of the Victorian Tourist Rail Safety Accreditation Requirements (*Victorian Guidelines*) (for not-for-profit operators)
- a risk management strategy that provides for the clear identification, analysis, assessment, treatment and monitoring of all safety risks
- the financial capacity or public risk insurance to meet reasonable potential accident liabilities
- (for managers of infrastructure) access to the land occupied by the rail infrastructure, and a right to use the rail infrastructure, and
- (for operators of rolling stock) evidence of an agreement with the track manager to operate particular rolling stock on the railway, including arrangements to safely operate the rolling stock.

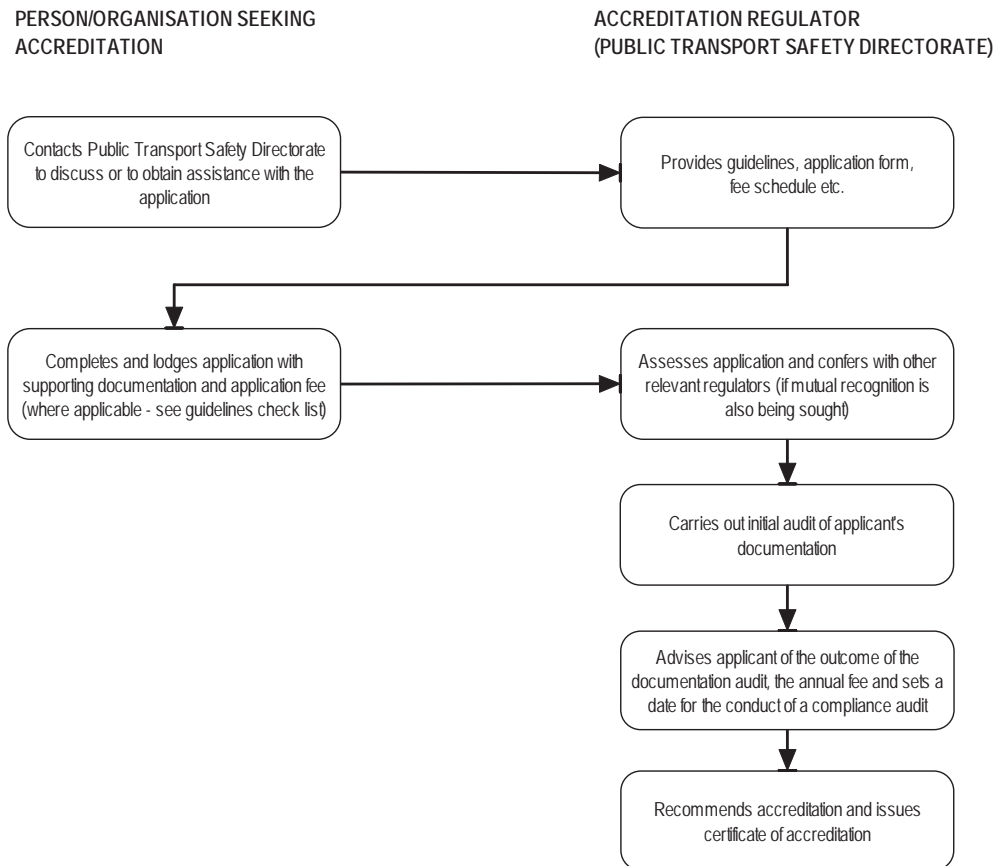
In Victoria, both DoI (through the Director, Public Transport Safety) and accredited rail organisations (AROs) are responsible for providing railway transport safely. This means that:

- organisations seeking accreditation must show DoI that they can meet the requirements of accreditation,
- DoI must assure itself that these requirements are met at the time that accreditation is sought¹.

¹ As part of its compliance audits and inspections, discussed in full in Part 4, DoI assesses an ARO's ongoing compliance with the accreditation conditions.

Figure 3A shows the accreditation process.

FIGURE 3A: VICTORIAN ACCREDITATION PROCESS



Source: Department of Infrastructure.

Accredited rail operators are required to pay an initial application fee and an annual accreditation fee², except in the following instances:

- DoI granted not-for-profit operators exemption from paying the initial accreditation fee, under the provisions of the rail safety legislation. DoI presented evidence in support of this decision.
- DoI granted operators who applied for accreditation before 18 June 1998 and organisations seeking accreditation under mutual recognition arrangements exemption from paying the initial accreditation fee. DoI has not presented evidence in support of this decision.

² AROs must pay both an initial accreditation fee plus an ongoing accreditation fee. As of 1 July 2004, the initial application fee for each accreditation is \$5 112.50. Ongoing annual accreditation fees vary for each ARO, depending on activity and kilometres travelled.

3.2 Audit methodology

We randomly identified and audited files kept by DoI on 29 currently accredited train operators. This selection covered 15 commercial and 14 not-for-profit organisations, covering 40 instances of accreditation. To conduct the audit, we:

- identified the legislative requirements needed to satisfy each accreditation category
- developed an assessment tool. The tool comprised:
 - the accreditation categories and the associated legislative requirements and
 - the activities DoI should have carried out when determining the applicant's compliance with the legislative requirements
- assessed the level of evidence held by DoI to support its decision that it was satisfied that the legislative requirements were met by organisations seeking accreditation for the first time. That is, our audit focused on DoI's process for assessing accreditation applications. We did not independently verify the outcomes of these assessments.

Figure 3B shows how we have grouped the various accreditation requirements, for the purposes of this audit³.



Metropolitan train service in Melbourne.

³ This categorisation has been devised by the audit team, for reporting purposes, from relevant legislative and regulatory requirements.

FIGURE 3B: CATEGORIES OF ACCREDITATION AND REGULATORY REQUIREMENTS

Category of accreditation	Regulatory requirements
Safety management system	The person ⁴ has an appropriate safety management system. A safety management system is in place when the person commences operations OR A safety management system will be in place when the person commences operations.
Risk management	There is a copy of a risk management strategy that provides for the clear identification, analysis, assessment, treatment and monitoring of all associated risks.
Competency and capacity	The person has the competency and capacity to meet the relevant safety standards OR The person has the competency and capacity to manage rail infrastructure, and operate and provide rolling stock safely. The accredited person must ensure that any person who undertakes railway safety work in relation to railway activities in respect of which the person is accredited is competent for the task undertaken OR The accredited person must ensure that any person who undertakes railway safety work in relation to railway activities in respect of which the person is accredited is supervised by a person who is competent for the task undertaken.
Financial capacity	The person has the financial capacity to meet reasonable potential accident liabilities OR The person has public risk insurance arrangements to meet reasonable potential accident liabilities.
Land and rail infrastructure access	For managers of infrastructure: The person has (or is in a position to obtain) a right of access to the land where the rail infrastructure is constructed AND The person has (or is in a position to obtain) a right to use the rail infrastructure. For operators of rolling stock: The person has (or is in a position to obtain), unless the person is applying for accreditation as both the manager of the rail infrastructure of a railway and as an operator of rolling stock on that railway, an agreement with the manager of the rail infrastructure of the railway to operate particular rolling stock on the railway and, if so, whether the agreement includes appropriate arrangements for the safe operation of the rolling stock.
Mutual recognition	The person is accredited in another state or territory to manage/operate/provide a similar type of service.

Source: Victorian Auditor-General's Office analysis.

⁴ The Act refers to the entity seeking accreditation as a "person".

3.3 Safety management system

3.3.1 Criteria

The most important feature of the Victorian rail safety accreditation system is that organisations seeking accreditation have a safety management system that shows how they intend to provide rail operations safely. For example, a safety management system should describe how an organisation seeking accreditation will deal with operating in various conditions (e.g. dry conditions experienced in Victoria's Mallee district) and training of its workers (including training in rail routes in different states and territories, if applicable).

There are 2 regulatory requirements relating to a safety management system.

The first is that the person has an appropriate safety management system. In assessing whether this requirement was met, we examined if DoI had:

- received or viewed safety management system (SMS) documents
- found that the applicant had complied with all Australian Standard (AS) 4292 requirements (for commercial organisations) or section 3 of the Victorian Tourist Rail Safety Accreditation Requirements (the *Victorian Guidelines* for non-commercial organisations).

The second is that the person has (or will have) an SMS in place when they commences operations. In assessing whether this requirement was met, we examined if:

- DoI audited the ARO's safety management system prior to or within 12 months of issuing accreditation, through an adequacy audit
- DoI found that the ARO's safety management system complied with all AS 4292 requirements or section 3 of the *Victorian Guidelines*.

3.3.2 Evidence

Figure 3C shows the results of our audit of the files.

FIGURE 3C: SAFETY MANAGEMENT SYSTEM

Audit criteria	Audit observations			
	Y	N	U	X
The person has an appropriate safety management system	Y	N	U	X
• SMS document received or viewed by DoI	40	-	-	-
• SMS document complied with relevant standards	37	1	2	-
A safety management system is in place when the person commences operations OR	Y	N	U	X
A safety management system will be in place when the person commences operations				
• SMS audited prior or within 12 months of accreditation	37	2	-	1
• SMS complies with relevant standards	36	3	-	1

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

Figure 3C shows that in all cases, SMS documents were received or viewed by DoI. It also shows that in at least 90 per cent of the accreditations reviewed, DoI files contained evidence that it satisfied itself that the SMS complied with the relevant standards. However, in almost 3 per cent of cases reviewed, DoI files did not contain evidence that it had satisfied itself that the SMS complied with the relevant standards.

DoI has indicated that it intends to include safety management systems in its current review of rail safety legislation. As part of its review, DoI is proposing to introduce a "safety case approach" to rail safety management⁵. This type of approach requires the ARO to "make a case" to DoI demonstrating that it has an appropriate safety management system in place. This system should be based on an assessment of the risks within the ARO's operations, and provide for their proper control.

⁵ *Improving Rail Safety in Victoria: Issues Paper for a Review of the Rail Safety Regulatory Framework*, Victorian Department of Infrastructure, July 2004, p. 45.

3.4 Risk management

3.4.1 Criteria

Another important feature of the Victorian rail accreditation system is that organisations seeking accreditation have identified all the safety-related risks of their operations, and how these risks will be mitigated. Examples of risks include inappropriate skilling of workers, a train driver passing a stop signal and vandalism.

The legislation requires that, to be accredited, the organisation must have a risk management strategy that provides for the clear identification, analysis, assessment, treatment and monitoring of all risks associated with the ARO's rail activity. In assessing whether this requirement was met, we examined if DoI:

- received or viewed documents detailing the organisation's risk management strategy
- assessed these documents and found they provided for the clear management of safety risks.

3.4.2 Evidence

Figure 3D shows the results of our audit of the files.

FIGURE 3D: RISK MANAGEMENT

Audit criteria	Audit observations			
	Y	N	U	X
There is a copy of a risk management strategy that provides for the clear identification, analysis, assessment, treatment and monitoring of all associated risks				
<ul style="list-style-type: none"> • Documentation received or viewed document by DoI 	33	6	-	1
<ul style="list-style-type: none"> • Document assessed and found to provide clear management of safety risks 	18	18	3	1

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

Figure 3D shows that in almost 83 per cent of cases reviewed, DoI files contained evidence that it had received or viewed a copy of a risk management strategy. However, in 15 per cent of cases reviewed, DoI files did not contain evidence that it had received a copy of a risk management strategy.

Figure 3D also shows that in 45 per cent of accreditations reviewed, DoI files did not contain evidence that it had satisfied itself that organisations seeking accreditation had a risk management strategy that provided for the clear identification, analysis, assessment, treatment and monitoring of all associated risks.

DoI has indicated that it intends to address this through its “safety case approach” to rail safety management, as discussed earlier. As part of this approach, DoI will require a more rigorous assessment of safety risks, and that this assessment underpins the ARO’s safety management system. This new requirement contrasts with the current approach in the legislation, in which an ARO’s safety management system and risk management strategy are independent of each other.

3.5 Competency and capacity

3.5.1 Criteria

There are 2 competency and capacity regulatory requirements.

The first is that the person has the competency and capacity to meet relevant safety standards, or to carry out rail operations safely. Examples of competency and capacity requirements include worker literacy, worker health and fitness, and an ability to manage contractors.

In assessing whether this requirement was met, we examined if DoI had found that the relevant requirements of AS 4292 or the *Victorian Guidelines* had been met.

The second is that the accredited person must ensure that any person who undertakes (or supervises a person undertaking) railway safety work is competent for the task. In assessing whether this requirement was met, we examined if DoI had evidenced that the relevant requirements of AS 4292 or the *Victorian Guidelines* had been met.

3.5.2 Evidence

Figure 3E shows the results of our audit of the files.

FIGURE 3E: COMPETENCY AND CAPACITY

Audit criteria	Audit observations			
The person has the competency and capacity to meet the relevant safety standards OR The person has the competency and capacity to manage rail infrastructure, and operate and provide rolling stock safely ⁶	Y	N	U	X
<ul style="list-style-type: none"> Organisation meets relevant requirements of AS 4292 or the <i>Victorian Guidelines</i> 	25	7	-	8
The accredited person must ensure that any person who undertakes railway safety work in relation to railway activities in respect of which the person is accredited is competent for the task undertaken OR The accredited person must ensure that any person who undertakes railway safety work in relation to railway activities in respect of which the person is accredited is supervised by a person who is competent for the task undertaken	Y	N	U	X
<ul style="list-style-type: none"> Organisation meets relevant requirements of AS 4292 or the <i>Victorian Guidelines</i>⁷ 	23	16	1	-

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

Figure 3E indicates that in almost 60 per cent of accreditations reviewed, DoI files did contain evidence that DoI had satisfied itself that the requirement for competency and capacity had been met. However, in almost 20 per cent of accreditations reviewed, DoI files did not contain evidence that it had satisfied itself that the requirement for competency and capacity had been met.

⁶ Commercial organisations seeking mutual recognition were not assessed against this condition.

⁷ As part of its accreditation assessments, DoI also took into account existing practices of organisations operating prior to the implementation of the amending legislation and regulations. That is, if the organisation applying for accreditation had been operating safely, and DoI was satisfied that there were to be no changes in its operating practices (e.g. number of employees), DoI considered that the applicant met this accreditation condition. This accreditation condition would then be subject to ongoing audit, as discussed in Part 4 of this report.

3.6 Financial capacity

3.6.1 Criteria

There is one financial capacity regulatory requirement. That is, either that:

- the organisation has the financial capacity to meet reasonable accident liabilities. In assessing whether this requirement was met, we examined if DoI:
 - received or viewed the organisation’s financial documents
 - analysed these documents and found coverage was adequate for reasonable accident liabilities, or that
- the organisation has public liability insurance to meet reasonable accident liabilities. In assessing whether this requirement was met, we examined if DoI:
 - received or viewed public liability insurance documents
 - analysed these documents and found coverage was adequate for reasonable accident liabilities.

3.6.2 Evidence

Figure 3F shows the results of our audit of the files. DoI’s staff told us that they only examine the reasonableness of insurance coverage in order to assess compliance with this accreditation requirement. This should be considered when reviewing our findings in Figure3F.

FIGURE 3F: FINANCIAL CAPACITY

Audit criteria	Audit observations			
The person has the financial capacity to meet reasonable potential accident liabilities	Y	N	U	X
• Received or viewed financial documents	11	29	-	-
• Assessed documents and found adequate coverage for reasonable accident liabilities	2	37	1	-
OR				
The person has public liability insurance to meet reasonable potential accident liabilities				
• Received or viewed insurance documents	36	4	-	-
• Assessed documents and found adequate coverage for reasonable accident liabilities	11	29	-	-

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General’s Office analysis.

Figure 3F shows that in around 27 per cent of accreditations reviewed, DoI files contained evidence that DoI had received or viewed financial documentation. In over 72 per cent of cases, DoI files did not contain such evidence. In almost 93 per cent of accreditations reviewed, DoI files did not contain evidence that the requirement for adequate coverage of accidents had been met.

Figure 3F also shows that, in around 90 per cent of the accreditations reviewed, DoI files contained evidence that it had received public liability insurance documents. In 10 per cent of cases, the DoI files did not show such evidence.

Furthermore, Figure 3F shows that in almost 73 per cent of cases, the DoI files reviewed did not show evidence that DoI had satisfied itself that the requirement for adequate public liability insurance to cover accidents had been met.

3.7 Land and rail infrastructure access

3.7.1 Criteria

There are 2 land and rail infrastructure access regulatory requirements.

The first is that a person seeking accreditation as an infrastructure manager has (or is in a position to obtain) access to the land on which the rail infrastructure is constructed, and the right to use the rail infrastructure. In assessing whether this requirement was met, we examined if DoI received or viewed documents establishing that the person had (or was in the process of obtaining) this access and right.

The second is that the person seeking accreditation as an operator (has or is in a position to obtain), unless they are also applying for accreditation as a manager, an agreement with the manager to operate particular rolling stock on the railway. In assessing whether this requirement was met, we examined if DoI:

- received or viewed documents showing the person has an agreement, or is in the process of gaining agreement, with the manager to operate particular rolling stock on the railway
- assessed these documents and found that they contained appropriate arrangements for the safe operation of rolling stock.

3.7.2 Evidence

Figure 3G shows the results of our audit of the files.

FIGURE 3G: LAND AND RAIL INFRASTRUCTURE ACCESS

Audit criteria	Audit observations			
For managers – The person has (or is in a position to obtain) a right of access to the land where the rail infrastructure is constructed AND	Y	N	U	X
The person has (or is in a position to obtain) a right to use the rail infrastructure				
<ul style="list-style-type: none"> Received or viewed document showing (or in position to obtain) access to land and infrastructure 	7	5	1	-
For operators – The person has (or is in a position to obtain), unless the person is applying for accreditation as both the manager of the rail infrastructure of a railway and as an operator of rolling stock on that railway, an agreement with the manager of the rail infrastructure of the railway to operate particular rolling stock on the railway and, if so, whether the agreement includes appropriate arrangements for the safe operation of the rolling stock	Y	N	U	X
<ul style="list-style-type: none"> Received or viewed document showing organisation has (or in process of gaining) agreement with manager 	10	2	-	1
<ul style="list-style-type: none"> Assessed document and found it contains appropriate arrangements for safe operation of rolling stock 	6	6	-	1

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Note: These findings are based on an analysis of managers and operators only.

Source: Victorian Auditor-General's Office analysis.

Figure 3G shows that in at least 15 per cent of the accreditations reviewed, DoI files did not contain evidence that it had received or viewed relevant documentation for managers and/or operators. It also shows that DoI did not assess the relevant documentation for operators in almost half of the accreditations reviewed.

3.8 Mutual recognition arrangements

3.8.1 Criteria

The Inter-governmental Agreement on National Rail Safety provides for persons seeking accreditation in Victoria, and who are already accredited in another state or territory, to have their accreditation recognised by DoI. This is known as “mutual recognition”, and it only applies if the person’s proposed Victorian operations are similar to their interstate accredited operations.

In assessing whether this requirement was met, we examined if DoI:

- had a copy of the certificate of accreditation issued or other relevant documentation from another state or territory
- had assessed the proposed operations and found that they were similar to the operations accredited in another state or territory.

3.8.2 Evidence

Figure 3H shows the results of our audit of the files.

FIGURE 3H: MUTUAL RECOGNITION

Audit criteria	Audit observations			
	Y	N	U	X
The person is accredited in another state or territory to manage/operate/provide similar type of service	Y	N	U	X
• Copy of accreditation certificate or other relevant documentation from another state or territory	8	-	-	-
• Proposed operations assessed and found to be similar to accredited operations in another state or territory	8	-	-	-

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

Mutual recognition means that a person's accreditation application can be subject to less scrutiny than if they were not applying for mutual recognition. To mitigate the risks that could arise from this lower level of scrutiny, DoI must apply these regulatory provisions thoroughly. We found that DoI had a copy of the accreditation certificate or other relevant documentation from another state or territory in all of the accreditations reviewed. We also found that, in all of the accreditations reviewed, DoI files contained evidence that DoI had satisfied itself that the proposed Victorian operations were similar to the accredited operations in another jurisdiction.

3.9 Conclusion and recommendation

Victoria's system of regulation requires DoI and AROs to work together to provide safe railways. This reflects legislative and regulatory objectives of placing responsibility for managing safety risks on those who are in the best position to identify and address these risks, generally the AROs. Accordingly, the legislation requires persons applying for accreditation to show DoI how they will carry out their rail operations safely, including through developing and implementing a safety management system and a risk management strategy.

To avoid this system of "co-regulation" becoming merely self-regulation, the legislation requires DoI to scrutinise applicants' proposals and determine that these comply with the requirements of the legislation and regulations, and meet Australian standards.

We reviewed DoI's files on 40 instances in which DoI granted accreditation (covering 29 currently operating AROs). Our review showed that DoI does not have the evidence to demonstrate that, at the time of initial accreditation, it satisfied itself that most applicants complied with all accreditation conditions.

DoI does not have evidence that it received or viewed all of the documents it needed to ensure that all accreditation requirements were met. More importantly, DoI does not have evidence that it always assessed the documents it received or viewed, in order to satisfy itself that applicants could meet the accreditation requirements. This means that, in these instances, either:

- DoI assessed the applicant and found that they met the accreditation conditions, but DoI did not record their assessment
- DoI did not assess this accreditation condition.

Two-thirds of the accreditations we reviewed occurred within one month of the regulations being introduced on 17 November 1998. After we reviewed the files, DoI drew on evidence from the safety audits⁸ it has conducted over the past 6 years to demonstrate that all but one of the AROs in our sample currently meet all accreditation requirements. During our audit, DoI also audited the one remaining ARO to confirm that it is currently meeting all accreditation requirements.

The lack of documented evidence supporting accreditation means that DoI is not able to support all of its initial accreditation decisions. To avoid this situation continuing, DoI must improve its process for assessing accreditation applications, including its recording of assessments, to better discharge its responsibilities and accredit rail organisations according to the legislation and regulations.

⁸ Safety audits are discussed in full in Part 4 of this report.

DoI has advised that, as a result of this performance audit, it has developed new procedures⁹ to do this. We support any action DoI takes to improve its processes for accrediting rail organisations.

Recommendation

- 1. That DoI improve its processes for assessing accreditation applications, including its recording of assessments, to ensure that it can demonstrate that rail operators have met all legislative requirements.**



DoI safety auditors assess track safety on tourist railways.

⁹ These procedures are currently in draft form, and awaiting finalisation by the Director, Public Transport Safety Directorate. DoI has indicated that these improvements include check lists and an enhanced internal register for recording and management of files.



4. Has DoI conducted safety audits as required?



4.1 Did DoI have an adequate methodology for planning safety audits?

4.1.1 Background

Under the *Transport Act 1983*, the secretary of the Department of Infrastructure (DoI) must conduct a safety audit (called a compliance audit) of the operations of every person¹ accredited under the Act at least once every 12 months. DoI can conduct these audits more frequently if the secretary considers it appropriate to do so, such as where an accredited rail operator (ARO) has a record of safety-related issues². Compliance audits involve inspection of:

- the rail infrastructure or rolling stock
- the operation, construction, maintenance, repair or alteration of the rail infrastructure or rolling stock
- the ARO's system for ensuring that their employees are competent³.

A compliance audit, for example, should identify whether an ARO is complying with the requirements of the Act and its safety management plan, and could include checking the maintenance of rolling stock, monitoring the medical health of train staff, and track and signal maintenance. The currency of medical certificates, the number of employee drug and alcohol tests, as well as the current management structure of an ARO, and the rostering of staff may also be checked during a compliance audit.

In 2001, DoI decided to supplement the number of compliance *audits* through the conduct of compliance *inspections*, which are short, targeted audits usually undertaken in response to a specific safety issue. For example, DoI undertakes compliance inspections to verify the appropriate implementation of actions arising from approved material change applications⁴.

¹ The Act refers to “persons”, whether they are individuals or organisations.

² Safety and Technical Services Branch, Standard Procedures, Document No. SP 019, *External Audits Rail*, p. 6, Department of Infrastructure, May 2001, unpublished.

³ DoI aims to audit the main elements of an ARO's operations (being management structure, maintenance and work force safety) once a year. It also aims to audit all aspects of an ARO's operations over a 3-year period. Our research indicated that all state rail regulators adopt the same approach. The extent to which DoI achieved this coverage was not included in the scope of our audit.

⁴ To assist the industry further, in 2002, DoI released the *Guidelines to Changing a Safety Management System*. This assists each ARO to submit to DoI a detailed risk assessment for any “material change” application to vary their existing safety management system. Part 4.1.3 of this report provides further information about material changes.

This section examines how DoI decides which aspect of an ARO's operations it will audit. This is essential to understanding whether DoI is "auditing the right things". The following sections assess whether DoI is applying sound audit practices.

4.1.2 Criteria

In assessing whether DoI had a sound safety audit planning methodology, we examined if DoI's planning was:

- systematic and evidence-based
- based on assessments of sources of risk and their likely impact on rail safety
- comparable with the methodologies of other regulators.

4.1.3 Evidence

Was DoI's audit planning systematic and evidence-based?

DoI's methodology for planning safety audits is documented in its standard procedures for the conduct of external audits of rail⁵. However, DoI officers do not record their application of this methodology during the audit planning stage.

At interview, DoI advised us that auditors plan each audit of each ARO by meeting together prior to the audit to discuss:

- data from previous audits of that ARO
- data about accidents and incidents involving that ARO
- information from all AROs' "background files", which are the main reference files for each ARO, particularly information about safety risks identified in the material change applications by that ARO⁶.

Each of these sources is discussed in more detail below.

Data from previous audits

DoI's audit database includes information about:

- AROs' accreditation details
- any administrative or material changes to AROs' accreditations
- previous audit scopes and audit results (in particular, previous non-compliance notices).

⁵ Department of Infrastructure, Safety and Technical Services Branch, *Standard Procedures, Document No. SP 019, External Audits Rail, May 2001*, pp. 7-8, unpublished.

⁶ An ARO must submit an application for a material change if a proposed change to its accredited activities and/or safety management system could reasonably be expected to actually or potentially affect safety.

DoI plans in 2005-06 to develop an electronic database to store documents, evidence and findings about compliance audits and inspections⁷. DoI also plans in 2005-06 to link this new compliance audit and compliance inspection database with the accident and incident database. This is discussed below and in more detail in Part 5 of this report.

Accident and incident data

DoI's accident and incident database records details of rail accidents and incidents that AROs have reported. We refer to this as the notifiable occurrences database. Auditors can extract reports from the database as required, and reports can be sorted by incident type, ARO and location. DoI's risk manager analyses data from the database to identify trends, and forwards information to management, for possible use when planning audits.

At present, the database does not record the causes of accidents or incidents. This is a major drawback for the planning of safety audits. DoI advised us that it has started updating the database to include a field to record causal data⁸, and intend to use this information in planning safety audits.

Other background information, including material change information

Background files on AROs provide information about:

- how approved material changes could affect safety
- feedback provided by other industry parties or by the public
- issues identified by the Public Transport Safety Directorate
- other information obtained by DoI.

Material change applications that are approved by DoI are an important input into the audit planning process. In 2002, DoI issued guidelines to AROs about what constitutes a material change to accredited activities or their safety management system. This attention reflects DoI's view that material changes to an ARO's operations are potential sources of risk to rail safety.

When seeking approval for a material change, the ARO must satisfy DoI that it will not create any safety risks. AROs cannot implement major material changes without DoI's written approval. DoI often audits (usually through compliance inspections) the ARO after a period of time, to determine whether the material change was implemented without a safety risk.

⁷ Department of Infrastructure, *Rail Accreditation Management System Business Requirements Report, Initial Draft 1, September 2004*, unpublished.

⁸ The notifiable occurrences database is further discussed in Part 5 of this report.

An alternative audit approach described by one regulator is to audit the systems surrounding a safety issue (as well as the issue itself), and explore further the possible underlying causes of that issue. DoI applies this approach to a limited extent.

Was DoI's audit planning based on risk assessments?

At interview, DoI advised us that, during its audit planning, DoI assess the risks associated with an ARO's operations by considering:

- any material change applications by the ARO, discussed above
- the ARO's risk register, if held by DoI
- the ARO's history of accident and incidents, which DoI compares to the ARO's risk registers to identify safety issues and associated maintenance practices
- information about safety trends across the rail industry⁹.

DoI's risk assessment process is not documented in its standard procedures, nor are the results of the assessments recorded when audits are planned. On this basis, it is not possible to determine whether DoI's risk assessment process is systematically and uniformly applied by all auditors when planning safety audits.

Was DoI's audit methodology comparable with that of other regulators?

All rail regulators take similar approaches to planning audits, using similar evidence and risk assessment processes. They generally draw on the findings of previous audits, incident and accident reports, material change applications, and industry trends. A federal transport regulator uses similar inputs, but uses a more formal planning methodology that is documented in a procedure manual.

Like DoI, other state rail regulators do not regularly use more structured risk analysis techniques. One state rail regulator has commissioned a state-wide risk analysis project, and has asked major AROs to provide comprehensive risk assessments of their operations. However, this was a once-off, not an annual, process.

⁹ DoI's processes for staying informed about safety trends include:

- the analysis and reporting of safety performance of metropolitan, regional and freight train services and level crossing incidents
- railway safety statistics published in the rail safety bulletin
- periodic analysis of national and international rail safety information and the sharing of safety related data with other jurisdictions
- participation by the Director, Public Transport Safety in the Rail Safety Regulators Panel
- DoI auditors also participate in audits conducted by other regulators of mutually recognised AROs.

4.1.4 Conclusion

DoI's safety audit methodology is evidence and risk-based, drawing on data from previous audits of the ARO, accident and incident investigations, and information provided by AROs in their material change applications. However, DoI's application of its safety audit planning methodology is not recorded and, therefore, open to question about how well and how consistently it is applied.

DoI's risk assessments are not as complete as they should be due to insufficient data about the causes of accident and incidents. DoI intends to address this in 2005-06, and to link its databases. This will give it much better, and more accessible, information for identifying potential risks to rail safety. This will improve safety audit planning significantly. We support these initiatives and strongly recommend that they are completed as soon as possible.

DoI could also adopt an approach to safety auditing which explores further the possible underlying causes of a safety issue. This approach stresses the importance of systems integrity, and will provide DoI with additional risk-related information to support its audit activities.

Lastly, we suggest that safety audit planning incorporates more sophisticated risk analysis techniques, such as:

- the use of a structured risk assessment model
- development of a risk profile of AROs
- consolidation of existing risk analysis techniques in the standard procedures
- recording the outcomes of the risk assessment process and their impact on the scope of annual safety audits.

Recommendations

2. **That DoI improve and expand its risk analysis techniques for audit planning.**
3. **That DoI ensures that its plans to enhance the accident and incident database, and to link this with the safety audit databases, are completed as soon as possible.**

4.2 Did DoI conduct the required number of safety audits?

4.2.1 Background

As already described, the secretary of DoI must conduct a safety audit (called a compliance audit) of the operations of every person accredited under the Act at least once every 12 months. DoI can conduct these audits more frequently if the secretary considers it appropriate to do so, such as where an ARO has a history of safety issues.

DoI also supplements its compliance *audits* with the conduct of compliance *inspections*, which are short, targeted audits usually undertaken in response to a specific safety issue.

4.2.2 Criteria

In assessing whether DoI met its legislative requirement for undertaking an annual audit of all accredited rail operators, we reviewed the number of compliance audits that DoI had undertaken over the last 4 financial years. We also examined whether every ARO was subjected to a compliance audit over this same period.

Although there is no legislative mandate for the conduct of compliance inspections, we also reviewed the number of compliance inspections that DoI undertook annually against its internal target.

4.2.3 Evidence

Figure 4A shows the number of compliance audits of all accredited rail operators over our review period. We verified these figures in our review of DoI's audit database.

FIGURE 4A: COMPLIANCE AUDITS

Year	Accredited rail (train) operators	Actual compliance audits (train)
2000-01	40	46
2001-02	41	45
2002-03	46	48
2003-04	49	56

Source: Department of Infrastructure, verified by Victorian Auditor-General’s Office.

The number of actual compliance audits exceeds the number of AROs. We found that DoI audited every ARO annually and some AROs more than once annually, where there have been identified safety issues.

Figure 4B shows the target number and actual number of compliance inspections that DoI has conducted over the last 3 financial years.

FIGURE 4B: COMPLIANCE INSPECTIONS

Year	Accredited rail operators (train)	DoI internal target for compliance inspections	Actual compliance inspections (train)
2001-02	41	120	120
2002-03	46	120	142
2003-04	49	120	134

Source: Department of Infrastructure.

Figure 4B shows that the target number of compliance inspections has been exceeded over the last 2 financial years.

The numbers of yearly compliance inspections of AROs varies. For large rail operators, where there is a greater perceived risk to safety or they have a history of adverse events, DoI has the discretion to conduct multiple inspections each year.

DoI has advised that the identification of issues for compliance inspections is driven by:

- material change proposals
- reports of incidents
- outcomes of the annual compliance audits of AROs
- the identification of industry-wide safety issues.

DoI advise that compliance inspections are unannounced, and focus on specific safety issues to a greater extent than is possible during compliances audits, which have a wide scope. Compliance inspections are, therefore, an important component of assuring rail safety. The conduct of compliance inspections occupies almost all the time of one safety auditor.

4.2.4 Conclusion

Over the last 4 years, DoI has fulfilled its legislative responsibility to conduct an annual compliance audit of each ARO.

DoI has met or exceeded its internal target for compliance inspections over the last 3 financial years. Although this represents a significant commitment of DoI's audit resources, this function is an important component in the maintenance of rail safety.

4.3 Did DoI's staff have the skills required to audit rail safety?

4.3.1 Background

In order to be able to perform safety audits to an adequate standard, DoI's auditing staff should be appropriately skilled. The legislation and regulations do not specify what qualifications and experience rail safety audit staff should have, nor is training specified. We have, therefore, used DoI's position descriptions for the safety audit branch, and our own experience in auditing, to evaluate these matters. We also undertook research into what other state and federal regulators did in these areas.

4.3.2 Criteria

There are 4 criteria relating to qualifications and experience for safety audit staff.

The first is that safety audit staff should be appropriately qualified to undertake rail safety audits, that is, the Manager, Accreditation and Audit and the safety auditors had a qualification related to safety.

The second is that safety audit staff should also be appropriately experienced to undertake rail safety audits. To determine whether this requirement had been met, we examined whether safety audit staff had experience in:

- railway engineering and railway operational management systems
- ensuring compliance of AROs' safety management systems with AS 4292 on rail safety management, and preparing reports on this
- assessing management systems, particularly in accordance with quality and risk analysis standards.

The third is that safety audit staff should receive ongoing training and development. Maintaining up-to-date specialist skills is important as new technology and operating practices are being introduced throughout the industry. Training is thus necessary to keep auditors up-to-date. To determine whether this requirement had been met, we identified evidence showing whether DoI had a structured and ongoing approach to the provision of training and development to safety audit staff.

Finally, we expected that DoI's auditing staff would have qualifications and experience comparable with other regulators. To determine whether this requirement had been met, we examined whether:

- DoI's criteria used to recruit auditing staff were comparable with other regulators
- the ongoing training provided by DoI to auditing staff was comparable with other regulators.



DoI safety auditor inspecting a train braking mechanism.

4.3.3 Evidence

Qualifications

We reviewed the position descriptions and actual qualifications of staff employed in safety audits. Figure 4C shows the results for actual qualifications of rail safety staff.

FIGURE 4C: QUALIFICATIONS

Qualification	Manager Audit	Safety Auditor	Safety Auditor	Safety Auditor	Safety Auditor
Certificate level, related to safety	x		x	x	x
Tertiary qualification in engineering		x	x		
Master of Business, Rail Operations				x	

Source: Department of Infrastructure.

We found that the qualifications of DoI’s audit staff satisfy DoI’s qualifications requirements as stated in its position descriptions.

Experience

Figure 4D shows the experience of rail safety staff.

FIGURE 4D: RAIL SAFETY EXPERIENCE - YEARS

Experience in -	Manager Audit	Safety Auditor	Safety Auditor	Safety Auditor	Safety Auditor
Railway engineering and railway operational management systems	25	14	10	21	2
Ensuring compliance of AROs’ safety management systems with AS 4292 on rail safety management, and preparing reports on this	4	4	10	5	2
Assessing management systems, particularly in accordance with quality and risk analysis standards	4	4	4	10	-

Source: Department of Infrastructure.

Figure 4D shows that DoI’s audit staff have rail industry and safety audit experience as required by DoI’s position descriptions.

The qualifications and experience of DoI’s audit staff was comparable with those of other state rail regulators. Another regulator employs more technical specialists for its audits than DoI. In lieu of this practice, DoI uses specialist contractors (from a panel of suppliers) for compliance audits and compliance inspections in operations, infrastructure and rolling stock. This is considered to be a more efficient use of resources for a smaller organisation than employing and potentially underutilising full-time specialists.

Training

At interview, DoI staff advised that they have an annual performance assessment process for staff. An outcome of this process is the development of performance plans for each rail safety auditor that identifies ongoing training and development needs. Some of the training provided includes personal skills development such as communication and negotiation skills, and technical skills development such as investigation skills, report writing and risk management.

Auditing experience is not included in the position descriptions of rail safety auditors. DoI's past practice has been to appoint people from the rail industry who may not have auditing experience. However, all 4 auditors had completed a short course to develop their technical auditing skills.

DoI is developing a Public Transport Safety Education Program (the education program). The objective of the education program is to establish a more effective professional development framework that reflects contemporary best practice approaches to rail safety regulation¹⁰. The education program will aim to ensure that:

- DoI's staff maintain the competencies to effectively regulate rail transport and protect public safety
- DoI's staff are equipped to assess the "safety case"¹¹, a key element of its proposal for new rail safety legislation.

DoI intends to have the education program accredited under the Australian Qualifications Framework, which would allow staff who achieve competency at certificate level to move on to tertiary studies. DoI is yet to establish a formal agreement with a tertiary institute, or consortium, to provide the course.

Training currently provided to DoI's safety auditors is comparable with most other state rail regulators. However, one rail regulator provided more extensive training, including a one-off, 16-day, formal audit training course. At a federal transport regulator, safety auditors spend around 5 per cent of their time undertaking training to enhance their technical expertise. They are reportedly considered experts in their field. This commitment to training results in the need to hire additional audit staff.

4.3.4 Conclusion

Safety audit staff meet DoI's own requirements for qualifications and experience for auditing rail safety.

¹⁰ Department of Infrastructure, *Draft Public Transport Safety Education Program*, unpublished.

¹¹ The "safety case" approach is the requirement for an ARO to demonstrate to a state safety regulator, with its documentation, that it has a formal safety management system which is based on assessed operational risks that are controlled by effective identified control procedures. *Ibid.*, pp. 5-6.

DoI has a structured approach to identifying the training and development needs of safety auditors.

The current system of rail regulation in Australia is relatively new and has evolved between the jurisdictions at largely the same pace. The state rail regulators generally have audit staff with similar qualifications and experience. The training received by DoI's audit staff is comparable with some other regulators, but not as extensive as one other regulator. Bearing in mind the importance of training, it is important that DoI complete its current plans for training and development of audit staff.

4.4 Were DoI's audit practices adequate?

4.4.1 Background

Compliance *audits* assess the compliance of AROs with legislative requirements and with the terms of their accreditation. Compliance *inspections* are conducted broadly along the same lines as compliance audits, but usually look at one specific issue.

4.4.2 Audit methodology

We randomly identified and examined files kept by DoI for audits undertaken in 2003. We selected 28 compliance audit files (18 of which were for commercial AROs and 10 for not-for-profit AROs). We also selected 37 compliance inspections files (27 of which were for commercial AROs and 10 for not-for-profit AROs).

4.4.3 Did DoI use appropriate safety audit procedures?

Criteria

In assessing whether DoI used appropriate safety audit procedures, we examined if their procedures were:

- based on current Australian standards for rail safety management, and the external audit of management systems
- consistent with procedures used by other rail regulators.

Evidence and conclusion

DoI conducts compliance audits and inspections according to the guidelines that are part of its quality management system¹². The guidelines are based on AS 4292 *Rail Safety Management* and on AS 3911 *Guidelines for Auditing Quality Systems*. All DoI's auditors (as well as contractors) are required to follow the guidelines and use the related standard forms. We used DoI's guidelines to develop criteria for the following sections of this audit.

DoI's practice of using AS 4292 as the basis for its safety audits is consistent with practices in all jurisdictions. However, in 2003, AS 3911 *Guidelines for Auditing Quality Systems* was superseded by AS/NZS ISO 19011:2003 *Guidelines for Quality and/or Environmental Management Systems Auditing*. DoI should consider updating its audit procedures to reflect these latest standards.

DoI has not sought to formally re-accredit its safety audit guidelines and practices since its accreditation lapsed in 2001¹³. In lieu of accreditation, to ensure DoI uses a quality-assured safety audit process, it should commission a periodic, independent audit of its processes, perhaps by peer review by another regulator. DoI has advised that it plans to do this.

Recommendation

4. That DoI:

- **consider updating its audit processes to reflect the most up-to-date standards for auditing quality systems**
- **ensures that its safety audit procedures are subject to periodic and independent audit, as planned.**

4.4.4 Was audit preparation adequate?

Criteria and evidence

In assessing whether audit preparation was adequate, we examined if DoI had met the criteria in Figure 4E. Figure 4E also shows the results of our file reviews.

¹² Department of Infrastructure, Safety and Technical Services Branch, *Standard Procedures, Document No. SP 019, External Audits Rail, May 2001*, unpublished.

¹³ The Bureau of Veritas Quality International accredited DoI's safety audit methodology.

FIGURE 4E: AUDIT PREPARATION CRITERIA AND EVIDENCE

Audit criteria	Audit observations			
	Y	N	U	X
The status of the audit (whether it is a compliance audit or compliance inspection) should be clearly established				
• Clear documentation (compliance audits)	26	1	-	1
• Clear documentation (compliance inspections)	35	2	-	-
The scope of the audit should be documented on the audit scope planner				
• Audit scope planner on file (compliance audits)	2	25	-	1
• Audit scope planner on file (compliance inspections)	-	-	-	37
An audit progress report should be initiated by the lead auditor				
• Audit progress report on file (compliance audits)	21	6	-	1
• Audit progress report on file (compliance inspections)	31	6	-	-
The ARO should be notified of the details of the forthcoming audit, including special requirements and facilities				
• Audit notification letter on file (compliance audits)	22	5	-	1
• Audit notification letter on file (compliance inspections)	-	-	-	37

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

We found that:

- most files specified whether a compliance audit or a compliance inspection was to be conducted
- almost no compliance audit file contained an audit scope planner. This is the standard DoI document that should be used for documenting the scope of the audit. The audit scope planner would demonstrate that the auditor plans to cover the matters identified during DoI's preparatory analysis. However, DoI provided evidence that the audit scope was detailed in the notification letters it sent to AROs (notification letters were present in around 80 per cent of the compliance audit files reviewed). Audit scope planners were not used for compliance inspections because they were short, and undertaken in response to a particular safety issue.

Conclusion

While record keeping about the status of audits was good, there was little use of the audit scope planner. The planner is the key document linking the planned scope of the audit with its implementation. DoI should, therefore, improve this aspect of its audit practice.

4.4.5 Did DoI conduct and record opening meetings adequately?

Criteria and evidence

In assessing whether DoI conducted and recorded opening meetings adequately, we examined if DoI had met the criteria in Figure 4F. Figure 4F also shows the results of our file reviews.

FIGURE 4F: OPENING MEETING AUDIT CRITERIA AND EVIDENCE

Audit criteria	Audit Observations			
	Y	N	U	X
A opening meeting is held to:				
<ul style="list-style-type: none"> • introduce the audit team • confirm the purpose and scope of the audit • confirm the audit timetable arranging escorts (a) 				
Attendances at the opening meeting should be recorded				
<ul style="list-style-type: none"> • Completed audit meeting attendance sheet on file (compliance audits) 	23	4	-	1
<ul style="list-style-type: none"> • Completed audit meeting attendance sheet on file (compliance inspections) 	-	-	-	37

(a) When assessing this criteria, we only examined whether an opening meeting was conducted.

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

We found that while over 80 per cent of compliance audit files recorded who attended the opening meeting, only one of the 28 compliance audit files contained clear notes recording the details of the opening meeting (there are no opening meetings for compliance inspections). While this was not a formal audit criteria, the lack of minutes made it impossible for us to assess whether the meeting covered the required issues.

Conclusion

It is particularly important to minute opening meetings because the purpose of these meetings is to establish with the ARO, the scope of the audit. This ultimately makes it possible to assess claims that an audit is being conducted within the audit parameters agreed between DoI and the ARO. DoI should improve this aspect of its audit practice.

4.4.6 Did DoI undertake the audit fieldwork adequately?

Criteria and evidence

In assessing whether DoI conducted audits adequately, we examined if DoI had met the criteria in Figure 4G. Figure 4G also shows the results of our file reviews.

FIGURE 4G: AUDIT CONDUCT CRITERIA AND EVIDENCE

Audit criteria	Audit observations			
	Y	N	U	X
The audit should be conducted within the agreed audit scope				
• Notation of change to audit scope on audit progress report (compliance audits)	-		27	1
• Compliance inspections	-	-	-	37
Observation notes written on the audit check list attest that the audit was based on evidence and observed practice				
• Completed audit check list on file (compliance audits)	23	4	-	1
• Completed audit notes form (compliance inspections do not use audit check lists)	33	-	-	4
The audit report should contain a summary of the audit findings				
• Summary of findings attached to final report (compliance audits)	25	2	-	1
• Summary of findings attached to final report (compliance inspections)	-	-	-	37

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

As discussed previously, most files did not contain an audit scope planner or minutes of discussions about audit scope. In these cases, it was not possible to assess whether the audit was conducted within the agreed scope.

Eighty per cent of compliance audit files contained a check list confirming that the audit was conducted in line with AS 4292, and that the audit observations and findings were recorded against AS 4292's audit check list. For compliance inspections (which do not use the audit check list) in about 90 per cent of the files reviewed, the auditor's observations and findings were recorded on the audit file or maintained on the DoI audit database.

Conclusion

We are unable to conclude whether audits were, or were not, conducted within the agreed audit scope due to the limited use of the audit scope planner.

Not all audit files contained observation notes attesting to the fact that DoI's audits were based on evidence and observed practice, one of the most critical aspects of the audit process.

4.4.7 Did DoI conduct and record closing meetings adequately?

Criteria and evidence

In assessing whether DoI conducted and recorded closing meetings adequately, we examined if DoI had met the criteria in Figure 4H. Figure 4H also shows the results of our file reviews.

FIGURE 4H: CLOSING MEETING AUDIT CRITERIA AND EVIDENCE

Audit criteria	Audit observations			
	Y	N	U	X
At the end of the audit, a closing meeting should be held with the auditee to present and discuss the audit findings, including:				
• presentation in writing and discussion about observations and non-compliances				
• initiation of corrective actions for non-compliances raised				
Compliance audits				
• Completed audit meeting attendance forms	16	11		1
Compliance inspections	-	-	-	37
Non-compliance reports and audit observation sheets and supporting evidence should be forwarded to the lead auditor at the end of the audit				
Compliance audits				
• Sign-off by responsible audit officer	6		-	22
Compliance inspections	-	-	-	37

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

The first criteria requires DoI to hold closing meetings with the ARO, to present and discuss the audit findings. At this meeting, DoI should provide the ARO with written details of observations and non-compliances. At the meeting, DoI should discuss with the ARO corrective actions to non-compliances raised as a result of the audit. The first step is reaching agreement on a date by which the ARO will provide a plan of corrective actions (usually 10 days).

Our review found that around 60 per cent of compliance audit files had a completed audit attendance sheet, indicating that a closing meeting had been held. While there were no closing minutes on the audit files, we sighted non-compliance reports presented at the closing meeting. We found that these:

- were all signed by a representative of the ARO being audited, indicating the audit observations and findings were discussed by DoI and the ARO
- contained proposed corrective actions for about half of the non-compliance reports.

The second criteria is that non-compliance reports, audit observation sheets and supporting evidence should be forwarded to the lead auditor at the end of the audit. We identified that all non-compliance reports raised in the 6 relevant audit files were signed-off by the lead auditor.

Conclusion

It is important to minute closing meetings because they can effectively be hand-overs of important issues from the auditor to the ARO, which the ARO should then address. Minutes should not only record points raised in the meeting, but formally record agreement about the audit findings and what the ARO proposes to do to address safety and non-compliance issues that the auditor has raised. While there were no closing minutes on the audit files, we did note that where non-compliance reports were raised it was clear that DoI and the ARO had discussed audit findings, and in about half of the cases they discussed proposed corrective actions.

4.4.8 Did DoI record and follow-up on non-compliances adequately?

Criteria and evidence

In assessing whether follow-up and recording of non-compliances was adequate, we examined if DoI had met criteria in Figure 4I. Figure 4I also shows the results of our file reviews.

FIGURE 4I: NON-COMPLIANCES¹⁴ AUDIT CRITERIA AND EVIDENCE

Audit criteria	Audit observations			
Each non-compliance should be recorded in a non-compliance report	Y	N	U	X
<ul style="list-style-type: none"> Completed non-compliance report on file (compliance audits) 	6	-	-	22
<ul style="list-style-type: none"> Completed non-compliance report on file (compliance inspections) 	1	-	-	36
Non-compliance reports issued should include:				
<ul style="list-style-type: none"> the date by which the auditee must address the non-compliance details about how the auditee will address the non-compliance 				
Compliance audits				
<ul style="list-style-type: none"> Non-compliance report specifies required response date 	5	1	-	22
<ul style="list-style-type: none"> Non-compliance report specifies corrective action 	5	1	-	22
Compliance inspections				
<ul style="list-style-type: none"> Non-compliance report specifies required response date 	1	-	-	36
<ul style="list-style-type: none"> Response date incorporates safety impact of non-compliance 	-	1	-	36
<ul style="list-style-type: none"> Non-compliance report specifies corrective action 	1	-	-	36
There should be evidence on the file that:				
<ul style="list-style-type: none"> the non-compliance has been addressed by the response date, in line with corrective actions in the non-compliance report the date addressed and details of action taken have been entered on the audit database the lead auditor has signed-off that the action taken meets the requirements of the non-compliance report, before the next compliance audit of the auditee is undertaken 				
Compliance audits				
<ul style="list-style-type: none"> Completed non-compliance reports show that action was taken to correct non-compliances by the proposed date for corrective action 	1	5	-	22
<ul style="list-style-type: none"> Completed audit progress report form on file 	6	-	-	22
<ul style="list-style-type: none"> Completed non-compliance report signed-off by lead auditor 	4	2	-	22
Compliance inspections				
<ul style="list-style-type: none"> Completed non-compliance reports show that action was taken to correct non-compliances by the proposed date for corrective action 	-	1	-	36
<ul style="list-style-type: none"> Completed audit progress report form on file 	1	-	-	36
<ul style="list-style-type: none"> Completed non-compliance report signed-off by lead auditor 	1	-	-	36

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

¹⁴ Non-compliances identify instances where one or more areas of an AROs' safety management system are found not to conform to the rail safety standards articulated in AS 4292.

The first criteria is that non-compliances should be recorded on the standard non-compliance report form. Non-compliances were noted for 6 of the AROs subject to compliance audit, and one ARO subject to compliance inspection. All of the 7 files had full details of the non-compliances recorded on the non-compliance report.

The second criteria is that non-compliance reports should include details about how the non-compliance should be addressed, and the required response date. All but one of the non-compliance reports issued after compliance audits specified the required corrective action and a response date. While this was not a formal audit criteria, there was insufficient evidence on files to determine whether response dates had been set in light of the severity of the non-compliance and its potential impact on rail safety.

The third criteria is that the non-compliance should be addressed before the proposed date for corrective action. Action taken should be documented on the non-compliance report and entered on DoI's audit database. Reports should be signed-off by the lead auditor before the next compliance audit of the ARO.

A total of 18 non-compliances were raised in 6 compliance audit files and one compliance inspection file. Of these:

- 4 non-compliances had been resolved before the proposed date for corrective action
- 3 non-compliances had been partly resolved before the proposed date for corrective action
- the remaining 11 non-compliances had been resolved, but after the proposed date for corrective action. DoI advised us that in some cases this date was exceeded because DoI was not satisfied that the non-compliance had been effectively closed off by the ARO and required further action. We noted here that non-compliance reports are not prescribed in the rail safety legislation, and DoI cannot, therefore, enforce their close-off. DoI is seeking to address this matter in its current review of rail safety legislation¹⁵.

All non-compliances were eventually addressed by DoI.

Conclusion

DoI raises non-compliance reports where AROs do not comply with their accredited safety management system. It is most important for rail safety that actions to correct non-compliances identified by audits are identified, recorded and followed-up.

¹⁵ Department of Infrastructure, 2004, *Improving Rail Safety in Victoria: Issues Paper for a Review of the Rail Safety Regulatory Framework, July 2004*. Available from <<http://www.doi.vic.gov.au>>.

Our file reviews and subsequent interviews with DoI’s staff established that the majority of non-compliances were not addressed by the proposed date for corrective action. In some cases, corrective action taken by AROs only partly addressed the deficiencies identified by the audits. However, all non-compliances were eventually addressed by DoI.

4.4.9 Was DoI’s final audit report adequate?

Criteria and evidence

In assessing whether the final audit report was adequate, we examined if there was evidence on the files reviewed that the criteria in Figure 4J had been met. Figure 4J also shows the results of our file reviews.

FIGURE 4J: FINAL AUDIT REPORT CRITERIA AND EVIDENCE

Audit criteria	Audit observations			
	Y	N	U	X
There should be a process of peer group review completed prior to finalising and issuing a compliance audit report				
• Evidence of peer review process on file (compliance audits)	1	26	-	1
• Evidence of peer review process on file (compliance inspections)	-	-	-	37

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General’s Office analysis.

DoI’s safety audit procedures require that a peer group review team, which is made up of the lead auditor and one other manager or team leader, undertakes an internal review of the results of the audit. The objective of the review is to verify the audit scope, objectives, results and report (draft and final), and endorse the reviewed documents.

Only one of the 28 compliance audit files contained evidence that a peer review process had been undertaken before the audit was finalised and a compliance audit report issued. DoI provided some examples of auditors seeking their colleagues’ (in DoI and in another regulator’s office) input into draft audit reports. However, this does not comply with the peer review process set out in DoI’s standard procedures for the conduct of safety audits.

Conclusion

Final audit reports were issued for all audits and had summaries of findings attached. The reports were adequate, but there was limited evidence of peer review.

We expected that there would have been strong adherence to the peer review process. If this role was applied in a manner consistent with DoI's safety audit procedures, and appropriately documented, there would be some evidence on file of a process of quality assurance over the safety audit process. DoI should, therefore, improve this aspect of its audit practice.



DoI safety auditor (right) discussing train maintenance specifications.

4.4.10 Was DoI's audit questionnaire adequate?

Criteria and evidence

A post-audit questionnaire is distributed to AROs. Through this instrument, which is similar to a customer feedback survey, DoI seeks feedback on its audit conduct.

In assessing whether the final audit questionnaire was adequate, we examined if there was evidence on the files reviewed that the criteria in Figure 4K had been met. Figure 4K also shows the results of our file reviews.

FIGURE 4K: AUDIT QUESTIONNAIRE CRITERIA AND EVIDENCE

Audit criteria	Audit observations			
A customer questionnaire should be sent to the auditee, together with the final audit report, at the end of the audit	Y	N	U	X
<ul style="list-style-type: none"> Completed questionnaire on file and follow-up of issues (compliance audits) 	4	23	-	1
<ul style="list-style-type: none"> Completed questionnaire on file and follow-up of issues (compliance inspections) 	-	-	-	37

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

Only one in 7 compliance audit files contained evidence of a completed audit survey. There did not appear to be any analysis of the results of these surveys. There was no evidence that DoI had followed-up unreturned surveys from AROs.

Conclusion

There appears to be no purpose for the use of client surveys, because they did not appear to be analysed or used for continuous improvement, where they were returned at all. DoI should reconsider their use and determine whether they provide a basis for feedback from AROs that can be used for continuous improvement.

4.4.11 Was updating of DoI's audit database adequate?

Criteria and evidence

In assessing whether updating of DoI's audit database was adequate, we examined if there was evidence on the files reviewed that, at the end of the audit process, the audit progress report was completed and forwarded to the administration and audit officer to update the audit database. Figure 4L shows the results of our file reviews.

FIGURE 4L: UPDATING OF AUDIT DATABASE CRITERIA AND EVIDENCE

Audit criteria	Audit observations			
At the end of the audit process, the audit progress report form should be completed and forwarded to the administration and audit officer to update the audit database	Y	N	U	X
<ul style="list-style-type: none"> Completed audit progress report form on file (compliance audits) 	21	6	-	1
<ul style="list-style-type: none"> Completed audit progress report form on file (compliance inspections) 	31	6	-	-

Note: Y = There was evidence to support this activity; N = There was no evidence to support this activity; U = It was not clear that there was evidence to support this activity; X = This activity was not applicable.

Source: Victorian Auditor-General's Office analysis.

The audit database is a key resource for planning and monitoring the conduct of audits. We found that, in around 75 per cent of compliance audit files and 84 per cent of compliance inspection files, there was evidence that the database had been updated. However, in 21 per cent of compliance audit files and 16 per cent of compliance inspection files, there was evidence that the database had not been updated.

Conclusion

The information updated to the audit database appeared to be comprehensive for most compliance audit and inspection files reviewed. However, given the importance of the database for future planning of audits, this level of performance should increase to 100 per cent.



DoI audits Metrol which controls and monitors the suburban and metropolitan train system.

4.4.12 Overall conclusion on audit practices

DoI conducts compliance audits and inspections according to the guidelines that are part of its quality management system¹⁶. The guidelines are based on AS 4292 *Rail Safety Management* and on AS 3911 *Guidelines for Auditing Quality Systems*. All DoI's auditors (as well as contractors) are required to follow the guidelines and use the related standard forms. We used DoI's guidelines to develop criteria for this part of our audit. Using these criteria, we reviewed 28 compliance audit files and 37 compliance inspections files.

¹⁶ Department of Infrastructure, Safety and Technical Services Branch, *Standard Procedures, Document No. SP 019, External Audits Rail, May 2001*, unpublished.

The compliance audit and compliance inspection files were reviewed and found to contain incomplete documentation. Most importantly, for compliance audits, DoI does not have evidence to demonstrate that in all instances:

- the scope of the audit reflected the results of the risk assessments and other analysis the auditor undertook when planning how to target the audit
- the conduct and recording of audits fully complied with DoI's standard procedures for external safety audits, which are based on AS 4292, the Australian standard for rail safety management.

This means that either:

- DoI did fulfill these aspects of safety audits, but did not record this properly
- DoI did not fulfill these aspects of safety audits.

The lack of documented evidence means that DoI is not able to fully support all of its safety audit findings. In its next round of safety audits, DoI should address all those instances for which it does not have full documented evidence that the auditor conducted the audit on the basis of DoI's standard procedures for external safety audits, which are based on AS 4292, the Australian standard for rail safety management.

For these and subsequent audits, DoI should improve its procedures, using the suggestions made in this report. It should also strengthen its quality assurance processes to ensure that auditors adhere to these procedures.

Recommendations

5. That DoI improve its procedures for the conduct of compliance audits and its total adherence to these procedures by ensuring that:
 - the proceedings of opening meetings are recorded and maintained on file with the audit meeting attendance sheet
 - compliance audit files contain evidence of a completed audit scope planner
 - changes to audit scope are recorded on the audit progress report and linked to the audit scope planner and the audit scope check list
 - observation notes are recorded on the audit check list
 - minutes of closing meetings are attached to the audit meeting attendance sheet on file
 - minutes of closing meetings are circulated to all attendees
 - there is compliance with DoI's peer review policy
 - ARO feedback questionnaires are relevant
 - auditors complete and file completed audit progress report forms, and ensure the details are entered on DoI's audit database.

 6. That DoI, in its next round of safety audits, address all those instances where it does not currently have full documented evidence that the auditor conducted the audit on the basis of DoI's standard procedures for external safety audits, which are based on AS 4292, the Australian standard for rail safety management.
-



5. Has DoI ensured that accidents and incidents are reported and investigated as required?



5.1 Background

Under the regulations, all accredited rail organisations (AROs) must report all notifiable occurrences pertaining to their rail services or activities to the Department of Infrastructure (DoI). The notifiable occurrences that must be reported verbally as soon as practicable, and in writing within 72 hours, are:

- death
- incapacitating injury (the person or people admitted to hospital)
- derailment of a unit of rolling stock resulting in significant damage to property or equipment
- collision of rolling stock, or fire or explosion, resulting in significant damage to property
- significant unplanned delays resulting in emergency implementation of contingency arrangements
- collision with a person or road vehicle at a level crossing.

While not specified in the regulations, DoI also require AROs to report on signals passed at danger (SPAD)¹ within 72 hours.

The notifiable occurrences and other information that must be reported monthly are:

- any derailment of any unit of rolling stock
- any collision between rolling stock and any person, other vehicle, infrastructure or any other obstruction
- any defect in (or failure of) any rolling stock or part of any rolling stock
- any defect in (or failure of) any part of the infrastructure
- any failure (or breach of) any practice or procedure
- any fire or explosion
- the total number of tests conducted of the blood alcohol concentration of employees carrying out rail safety work, and how many found blood alcohol concentrations above the acceptable level of 0.00.

Under the legislation, AROs must also inquire into any railway accident or incident that may affect the safe operation, construction, maintenance, repair or alteration of their rail infrastructure or rolling stock. They are required to report the findings of, and safety actions resulting from, these investigations to DoI.

The legislation also empowers DoI to undertake investigations. Australian Standard (AS) 5022 provides guidelines for the conduct of incident and accident investigations².

¹ A SPAD occurs when a train passes, without authority, a signal displaying a stop indication or stop aspect.

5.1.1 Methodology

To gather evidence for this component of the audit, we examined a selection of notifiable occurrence reports, monthly reports, and accident and incident investigation reports provided by AROs to the regulator. Officers of DoI, and of other state rail regulators and 2 national transport safety bodies, were interviewed to assess current principles and practices for accident and incident reporting and investigation. We also examined business planning documents provided by DoI.

5.2 Did DoI ensure that AROs report notifiable occurrences to it as required?

5.2.1 Criteria

In examining whether AROs reported all notifiable occurrences to DoI as required by the regulations, we examined if DoI had:

- received notifiable occurrences reports from AROs as required by the regulations
- a strategy to ensure that AROs complied with the requirements to report notifiable occurrences, and that their strategy was consistent with planned or implemented strategies of other regulators and transport safety bodies
- used ARO information on notifiable occurrences to continuously improve rail safety.

5.2.2 Evidence

Reporting as required

In the 2003-04 financial year, DoI received 4 730 reports of notifiable occurrences from AROs, on the types of notifiable occurrences specified in the regulations. Of the occurrences reported in this period, vandalism (20 per cent) and rolling stock irregularities (17 per cent) were the most common. In this same period, reported deaths, including suspected suicides and employee accidents, equated to less than one per cent of total reported notifiable occurrences (41 in total).

DoI records the reported notifiable occurrences in an electronic database using the categories identified in the nationally agreed standard for reporting rail incidents and accidents³. We refer to this database as the “notifiable occurrences database”.

² AS 5022 is currently being reviewed: DoI is actively involved in the review.

³ The national reporting of occurrences categories and definitions have been standardised by the Rail Safety Regulator’s Panel, which operates under the auspices of the Australian Transport Council.

In 2001, DoI changed its reporting requirements so that AROs are now required to report more detailed information on each notifiable occurrence such as a description of the accident, and possibly findings and recommendations of any subsequent investigations.

DoI has a formal procedure that officers should follow when an ARO verbally reports a notifiable occurrence. This procedure includes a 24-hour reporting phone line, which is staffed by nominated on-duty officers, and procedures for managing the report, including the process for escalating it to ministerial level if required.

Compliance strategy

While DoI advised us that it mainly relies on the willingness and cooperation of the AROs to notify occurrences, it has several ways of attempting to ensure that AROs report *all* occurrences. These actions include conducting regular meetings with major AROs, holding a safety managers' forum every 2 months, and a memorandum of understanding with the Victorian WorkCover Authority. DoI also considers that, since more than one ARO is often involved in an accident or incident, this will tend to minimise the number of notifiable occurrences that should be reported but are not.

DoI audits all AROs annually and also conducts random compliance inspections⁴. Part of each audit includes a review of the ARO's notifiable occurrence records and the subsequent safety actions. The audit also includes a check of infrastructure and rolling stock that, according to DoI, provides an opportunity to check if matters that should have been reported were reported. In addition, auditors may interview ARO employees about notifiable occurrences that weren't reported.

DoI's approach is similar to that taken by most other state rail regulators, although further improvements to its compliance strategy could include a confidential ARO employee reporting system.

Continuous improvement

DoI records details from monthly reports of notifiable occurrences into its notifiable occurrences database. DoI officers produce quarterly reports on the number and type of accidents and incidents reported for the secretary and the Public Transport Division of DoI. Summary reports have also been provided annually to industry groups. DoI's review of this data identified an increase in incidents on the country rail network. As a result, the Public Transport Safety Directorate recently commissioned an independent inquiry to ascertain the underlying reasons for this adverse trend.

⁴ Further information about annual safety audits is contained in Part 4 of this report.

5.2.3 Conclusions

DoI has received notifiable occurrences reports from AROs as required by the regulations. DoI has a number of actions in place to ensure that AROs comply with the requirements to report notifiable occurrences. DoI could improve this process by documenting its internal procedures for achieving ARO compliance.

5.3 Did DoI ensure that AROs investigate accidents and incidents as required?

5.3.1 Criteria

In assessing whether DoI ensured that AROs investigated accidents and incidents as required, we examined if:

- DoI had received investigation reports from AROs as required by the legislation and regulations
- DoI had a strategy to ensure that AROs complied with the requirements to investigate and report accidents and incidents, and that their strategy was consistent with planned or implemented strategies of other regulators and transport safety bodies
- DoI reviews and uses information from ARO investigation reports to continuously improve rail safety.

5.3.2 Evidence

Reporting as required

DoI advised us that there were about 158 investigable⁵ accidents and incidents in the 2003-04 financial year, but were unable to readily tell us how many reports they received from AROs on these investigations during this period. This is because DoI keeps paper-based files containing the investigation reports submitted by AROs, but has not recorded these reports into its databases.

DoI has started to improve its notifiable occurrences database so that, in the future, it will be able to identify the number of ARO investigations reported, and the causal factors, occurrence circumstances and close out of safety actions resulting from investigations. However, these improvements will not integrate all the information contained in the paper-based investigation reports, a matter which we discuss further in the following section on continuous improvement.

⁵ Refers to immediately notifiable occurrences

Quality of investigations

A review of a sample of 10 ARO investigation reports submitted to DoI indicates that reporting standards vary among the AROs. Our reviewers considered the structure of several reports to be poor, and their level of analysis limited. Reports did not explore the accidents or incidents in much depth or look for systemic problems that may have caused them.

DoI acknowledges that industry reporting standards vary. To address this, DoI has developed and conducted a safety investigation course for its staff and staff of some AROs. In addition, DoI is jointly funding (with an industry body) the development of a national rail incident investigation code of practice and a training course about it.



Rail signals and crossings are regularly inspected by DoI safety auditors.

Compliance strategy

The legislation requires AROs to investigate any railway accident or incident that may affect the safe operation of the rail infrastructure or rolling stock of the ARO. It does not categorise accidents and incidents, or specify the categories that AROs must investigate. This is in contrast to the reporting requirements for notifiable occurrences, which the regulations make quite clear. DoI has not moved to clarify this situation for itself and has provided only limited guidance to AROs on the accidents and incidents that should be investigated.

DoI stated that it uses data from the reports of notifiable occurrences as a basis for internal discussions on potential investigations. It was not possible for us to confirm whether this review process had generated any investigations. DoI also has a document detailing the standard internal procedure for initiating and monitoring investigations of notifiable occurrences, namely, Standard Procedure (Rail) No. 15. This generally reflects the national standard on rail safety investigations, AS 5022.

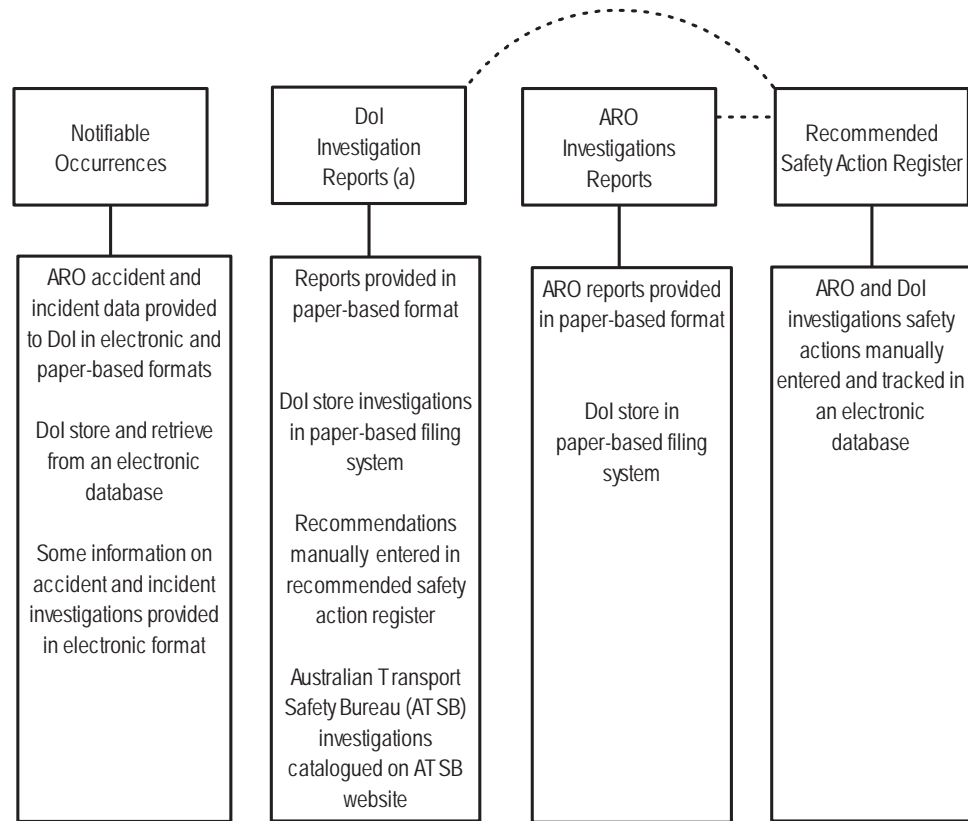
As an alternative to its procedures document, DoI advised that AS 5022 could be used to determine which accidents and incidents should be investigated. AS 5022 provides guidelines on the type of accident and incident that should be investigated, including a classification of severity levels for incidents and accidents. It suggests the level of investigator that should investigate each type of category, and provides a very limited indication of the extent (or necessity) of an investigation.

Our interstate research showed that some other rail regulators use their equivalents of the Victorian notifiable occurrences reports to systematically identify accidents and incidents that should be investigated. One state regulator has a highly structured approach reviewing all such reports and deciding which will be investigated, and by whom. If the ARO is to investigate, the regulator tracks the progress of the ARO's investigation. Another state regulator has guidelines about which incidents and accidents must be investigated, and they have an accident investigations team.

Continuous improvement

DoI reviews ARO investigation reports and records the recommendations from these reports in an electronic tracking system referred to as the "recommended safety actions register". However, there are no links between the notifiable occurrence reporting database, the paper-based ARO investigation reports and this recommended safety actions register. This means that DoI cannot readily track which notifiable occurrences should have been investigated, which were investigated, what their findings were and whether they were acted upon. Figure 5A shows DoI's systems for recording ARO reporting information and illustrates the separation of each of these systems.

FIGURE 5A: DOI'S CURRENT STORAGE AND RETRIEVAL SYSTEMS FOR ACCIDENT AND INCIDENT REPORTING AND INVESTIGATIONS



(a) DoI investigation reports are discussed in Part 5.4 of this report.

Note: - - - - - Indicates manual link.

Source: Victorian Auditor-General's Office.

5.3.3 Conclusion

DoI receives ARO investigation reports. Although the standard of investigations varied, DoI has recently taken steps to improve this.

The legislative requirement that AROs investigate accidents or incidents that may affect the safe operation of the rail infrastructure or rolling stock provides DoI with leeway to work with AROs to define the types of accidents and incidents that it considers crucial to safe operations, and therefore should be investigated.

DoI has provided some guidance to AROs on the accidents and incidents that should be investigated. DoI should develop guidelines for internal use and distribution to AROs about the types of accidents and incidents that should be investigated and the extent of the investigation. This would be consistent with approaches taken in some other jurisdictions. These guidelines could draw on the AS 5022 classification of the severity of incidents.

DoI reviews ARO investigations. However, DoI's systems for recording information on the number of AROs' investigations, their findings and DoI's review and monitoring of their recommendations operate independently. DoI has started to improve its accident and incident information databases. While these improvements go some way toward integrating DoI's data collection on investigations, DoI should develop an information management system that integrates *all* the information collected on investigations. This would enable DoI to better monitor investigations reported by AROs and, more importantly, it would enable DoI to use the findings of accident and incident investigations to better inform future implementation of the rail safety regulatory framework.

Recommendations

7. **That DoI develops guidelines about the types of accidents and incidents that should be investigated and the extent to which an investigation should be undertaken and reported, for internal and external distribution.**
8. **That DoI develops and implements an information management system that integrates information on ARO investigations and DoI's monitoring of these investigations.**

5.4 Did DoI investigate accidents and incidents as allowed for by legislation?

5.4.1 Criteria

In assessing whether DoI investigated accidents and incidents as allowed for by legislation, we examined:

- if DoI has undertaken such investigations
- whether DoI investigations were of sufficient quality
- if DoI had a policy about the types of accidents and incidents it would investigate rather than leaving this to the AROs
- if DoI uses the results of its investigations to continuously improve rail safety.

5.4.2 Evidence

Investigating as required, and quality of investigations

Since the relevant amendments to the Act came into effect, DoI has taken responsibility for investigating 8 accidents and incidents. DoI conducted one investigation itself in 2000. We found this report to be of high quality.

DoI engaged the Australian Transport Safety Bureau (ATSB) to undertake the remaining investigations. The ATSB is an independent authority for the investigation of accidents and incidents. The ATSB is an operationally independent federal body that investigates aviation, marine and rail accidents and incidents. Since 1 July 2003, the ATSB has been empowered under the *Commonwealth Transport Safety Investigations Act 2003* (TSI Act) to investigate rail accidents on the Defined Interstate Rail Network.

The ATSB has been available in the past to conduct investigations on behalf of the Victorian rail regulator. However, the ATSB now mainly conducts rail investigations under the Commonwealth TSI Act and may not always have sufficient resources available to undertake investigations for the Victorian rail regulator under Victorian legislation.

DoI's staff are trained to conduct accident and incident investigations bearing in mind that undertaking accident and incident investigations themselves would divert resources from accreditation and auditing functions. In lieu of the ATSB or its own staff conducting investigations, DoI currently has one other option: to draw on expertise from established departmental panels. It used this option to investigate an accident that occurred in metropolitan Melbourne in 2000.

Our research shows that in order to avoid conflict of interest, in at least one other Australian jurisdiction, accident investigations have been separated from safety regulation.

Compliance strategy

The legislation is not prescriptive about the types of incidents and accidents that DoI should investigate rather than leaving this to the AROs. In lieu of legislative prescription, DoI does not have a policy or guidelines to identify the types of accidents or incidents it will investigate rather than leaving this to the AROs. Such a policy is an important part of ensuring that DoI investigates incidents and accidents that warrant investigation independently of AROs. While Standard Procedure (Rail) No. 15 provides guidance on the procedures and process for investigations, this document does not identify the circumstances for instigating a DoI-led investigation.

Continuous improvement

Similar to ARO investigations, DoI reviews ATSB investigation reports and manually records the recommendations from these reports into an electronic tracking system referred to as the “recommended safety actions register”. This information is reviewed and monitored by DoI officers. However, as is the case with ARO investigations, DoI does not have an information management system which integrates information on the reporting of a notifiable occurrence, the subsequent investigation and reporting, and the review and monitoring of safety actions by DoI. This is illustrated in Figure 5A located in Part 5.3.2 of this report.

5.4.3 Conclusions

DoI has taken responsibility for investigating accidents and incidents as allowed for under legislation. DoI-instigated investigation reports are of a high quality.

DoI does not, however, have a policy or guidelines to explicitly identify the types of accidents or incidents it will investigate and under what circumstances it will do so. The development of such a policy is an important part of ensuring that DoI investigates incidents and accidents that warrant investigation independently of AROs. To address this gap, DoI should develop and implement a strategy about its investigatory function. This strategy should identify:

- the criteria for the types of accidents and incidents that DoI should investigate and under what circumstances
- how these investigations will be resourced
- the processes and systems for recording information on investigation reports
- the processes and systems for reviewing and monitoring investigation findings.

Recommendation

9. **That DoI review its investigation function and develop a strategy that details the circumstances under which it will take a key role in the investigation of accidents and incidents.**
-



6. Does DoI have an enforcement strategy that can adequately address breaches of the legislation and regulations?



6.1 Background

Under Victorian rail safety legislation, the Department of Infrastructure (DoI) can take disciplinary action against an accredited rail organisation (ARO) if the ARO has:

- caused or permitted unsafe practice in relation to any activity in respect of which they are accredited
- acted negligently in the course of any activity in respect of which they are accredited
- obtained their accreditation improperly
- not paid a fee required by the regulations.

If, following an inquiry, DoI decides it has proper cause to penalise the ARO, it can:

- warn or reprimand the ARO
- impose conditions (or an expiry date) on their accreditation
- suspend the accreditation for a specified period or until a specified event
- cancel the accreditation immediately or with effect from a specified later date
- disqualify the ARO from holding an accreditation until a specified event or until DoI decides otherwise
- prosecute and levy fines on AROs.

DoI can also immediately suspend an ARO's accreditation if it considers it in the interest of public safety to do so.

6.1.1 Methodology

We examined DoI's enforcement activities and strategy. In doing so, we interviewed DoI's officers and reviewed their enforcement related documents. We also researched enforcement practices available to, and used by, other rail safety regulators and other transport safety bodies.

6.2 Audit criteria

In assessing whether DoI has implemented the enforcement provisions of the legislation and regulations as required, we examined if its enforcement strategy incorporated:

- all of the enforcement actions prescribed in the Victorian rail safety legislation

- all of the enforcement actions used by other Australian jurisdictions. To assist in this examination, we developed a 10-level hierarchy incorporating the range of enforcement actions used by other Australian transport regulators. This is shown on the right hand side of Figure 6C¹.

As part of their enforcement strategy, regulators typically use a range of education activities to encourage compliant behaviour. During the audit, we examined if DoI’s education activities were in line with those of other Australian regulators. Figure 6D shows the type of education activities and examples of practices used in other Australian jurisdictions.

Lastly, we assessed whether DoI’s enforcement strategy provides clear guidance for its own staff and AROs about when its enforcement actions will be applied, and when it will escalate enforcement actions to a higher, more prescriptive level.

We did not examine whether DoI applied its powers appropriately to address breaches of the legislation and regulations.

6.3 Evidence and conclusions

Figure 6A compares DoI’s enforcement actions with the range of actions prescribed in the Victorian rail safety legislation.

FIGURE 6A: DOI’S ENFORCEMENT ACTIONS

Enforcement provision	Included in DoI’s enforcement strategy?
6. Criminal prosecution resulting in fines	Yes, however, DoI has not yet enforced this provision.
5. Cancellation of accreditation, disqualification from future accreditation	Yes. DoI has enforced this provision in 2 cases where the operators could not demonstrate adequate insurance cover.
4. Suspension of accreditation	Yes. DoI has enforced this provision in several accreditations reviewed in Part 3. This provision is used to address serious non-compliances prior to rail operations recommencing.
3. Imposition of accreditation conditions, accreditation expiry dates	Yes. DoI has enforced this provision with respect to several accreditations reviewed in Part 3 of this report. This provision is used as an incentive for the audited body to rectify non-compliance reports.
2. Safety audits, compliance inspections	Yes. Further information about safety audits and compliance inspections is in Part 4 of this report.
1. Education activities	Yes, see Figure 6D.

Source: Victorian Auditor-General’s Office.

¹ The pyramid symbolises the theory that most regulatory action should occur at the base of the pyramid through attempts to coax compliance by persuasion. If this fails to secure compliance, a regulator escalates its enforcement action to warnings and, less commonly, sanctions. If these, in turn, fail to secure compliance, a regulator may finally resort to suspension and cancellation of accreditation. See I Ayres and J Braithwaite, 1992, *Responsive Regulation: Transcending the Deregulation Debate*, Oxford University Press, New York, p. 35, for further discussion.

Figure 6A shows that DoI’s enforcement strategy includes all prescribed enforcement actions. Figure 6A also shows that, as part of its enforcement strategy, DoI’s staff supplement the enforcement provisions in the legislation with several actions that are not prescribed (show cause notices, non-compliance and non-conformance reports, described further in the following figures).

Figures 6B and 6C compare DoI’s enforcement actions with the range of actions available or used across Australia.

FIGURE 6B: DOI’S ENFORCEMENT ACTIONS, COMPARED WITH OTHER AUSTRALIAN JURISDICTIONS

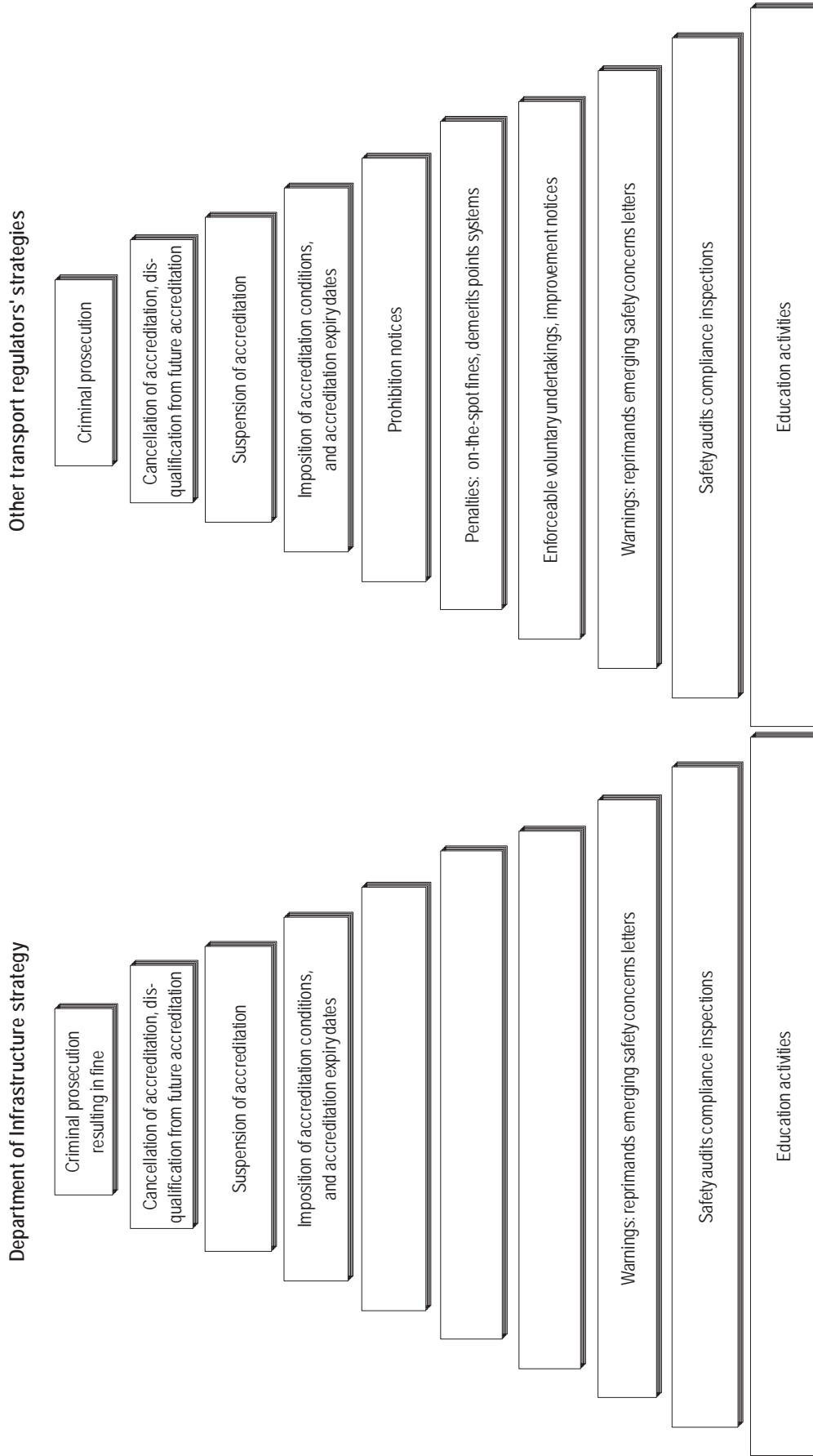
Enforcement actions available or used in other jurisdictions	DoI’s enforcement actions
10. Criminal prosecution	Criminal prosecution resulting in fines.
9. Cancellation of accreditation, disqualification from future accreditation	Cancellation of accreditation, disqualification from future accreditation.
8. Suspension of accreditation	Suspension of accreditation.
7. Imposition of accreditation conditions, accreditation expiry dates	Imposition of accreditation conditions, accreditation expiry dates.
6. Prohibition notices	Not provided for in Victorian rail safety legislation, see Figure 6A.
5. Penalties: on-the-spot fines, demerit points system	Not provided for in Victorian rail safety legislation, see Figure 6A.
4. Enforceable voluntary undertakings, improvement notices	Not provided for in Victorian rail safety legislation, see Figure 6A.
3. Warnings or reprimands, emerging safety concerns letters	Not provided for in Victorian rail safety legislation, although DoI issues: <ul style="list-style-type: none"> • show cause notices as a last resort, where all other avenues of persuasion have been exhausted, and where there is a clear breach of DoI’s established requirements where there is judged to be a clear threat to public safety • non-conformance reports during safety audits and compliance inspections². These reports are also used to follow-up on breaches of legislation relating to accident and incident investigations.
2. Safety audits, compliance inspections	Safety audits, compliance inspections ³ .
1. Education activities	Education activities.

Source: Victorian Auditor-General’s Office.

² Further information about non-conformance reports issued during safety audits and compliance inspections is in Part 4 of this report.

³ Further information about safety audits and compliance inspections is in Part 4 of this report.

FIGURE 6C: DOI'S ENFORCEMENT STRATEGY COMPARED WITH OTHER TRANSPORT REGULATORS' STRATEGIES



Source: Victorian Auditor-General's Office.

Figure 6C shows that DoI deploys a smaller range of enforcement actions than some other jurisdictions. This is because the Victorian legislation does not provide the additional enforcement provisions available to some other transport regulators.

DoI is aware of its limited legislative powers. It also considers that this prevents it from effectively addressing the “lack of sustained improvement in rail incidents, variability in safety performance across the State”, and the systemic safety issues identified in the investigations of major Victorian and interstate rail accidents⁴. For these reasons, DoI is undertaking a review of the regulatory framework for rail safety in Victoria⁵. The review considers the number and type of enforcement tools that DoI has at its disposal and whether these represent best practice in rail safety regulation. DoI aims to present new proposals, incorporating more enforcement actions, to government in 2005. Bearing in mind the documented importance of a properly graduated enforcement strategy⁶, we support DoI’s review.

Education activities

Figure 6D shows how DoI’s education activities compare with those of the regulators of other jurisdictions.

⁴ Department of Infrastructure (2004) *Improving Rail Safety in Victoria: Understanding the Issues*, Bulletin. Available from <<http://www.doi.vic.gov.au>>.

⁵ For a full discussion of the issues being canvassed in the review, see Department of Infrastructure 2004, *Improving Rail Safety in Victoria: Issues Paper for a Review of the Rail Safety Regulatory Framework*, July 2004.

⁶ Authorities such as Ayres and Braithwaite recognise the importance of a properly graduated enforcement strategy. See I Ayres and J Braithwaite, 1992. *Responsive Regulation: Transcending the Deregulation Debate*, Oxford University Press, New York.

FIGURE 6D: DOI'S EDUCATION ACTIVITIES - continued

Type of education activity	Examples from other transport regulators	Included in DoI's education strategy?
Education activities to help AROs (especially smaller AROs) develop rail safety skills - cont.	<p>One-on-one work with smaller AROs to help them develop their safety management systems and risk management strategies.</p> <p>Publications promoting rail safety issues and practices (such as magazines, newsletters and bulletins).</p> <p>Specific rail safety issues are identified from safety-related data, which is used to identify current and future risk areas and to inform above activities.</p>	<p>Yes:</p> <ul style="list-style-type: none"> • DoI has worked with ARO staff on a one-to-one basis to help with material change projects. • DoI has worked with one ARO on emergency evacuation plans. This is not DoI's standard approach. <p>Yes. DoI has issued safety bulletins and alerts.</p> <p>Partly - activities listed above are informed by outcomes of audits.</p>
Education activities to develop a safety culture within AROs.	<p>Workshops for ARO chief executive officers about developing a safety culture.</p> <p>Annual safety culture survey to evaluate progress and inform future activities</p>	<p>Yes:</p> <ul style="list-style-type: none"> • DoI has met with CEOs about reporting requirements and the importance of a reporting culture. <p>DoI has also conducted bi-monthly safety managers meetings.</p> <p>Nothing similar.</p>

Source: Victorian Auditor-General's Office.

Figure 6D shows that DoI's enforcement activities do not include activities to educate AROs about their legal requirements and the penalties for non-compliance. Authorities including the Organisation for Economic Co-operation and Development (OECD) have highlighted that ensuring that regulated parties understand their legal responsibilities is a fundamental step in gaining compliance⁷. DoI should add this to its suite of education activities.

⁷ OECD 2000 *Reducing the Risk of Policy Failure: Challenges for Regulatory Compliance*. Available from <<http://www.oecd.org/home/>>.

Enforcement strategy

At interview, DoI advised us that staff draw on their experience⁸ to decide when to carry out an enforcement activity, and when to escalate enforcement actions to a higher level.

DoI does not have a structured process or policy in place to guide its staff and AROs about when the currently available enforcement activities will be applied, and when it will escalate enforcement activity to a higher level. Good practice would see DoI provide clear guidance for staff about when to apply the various enforcement provisions available to them. However, this is something of a moot point, since DoI's capacity to apply the appropriate enforcement action is mainly limited by the number of enforcement options at its disposal. DoI is also limited by the gap between the lowest and highest levels of the Victorian enforcement pyramid, which we have already discussed above. Following its review of rail safety legislation DoI should, however, ensure that it does provide such guidance to its staff and AROs.

Recommendations

10. **That, as part of its education activities, DoI educates AROs about their legal obligations and the penalties for non-compliance.**
 11. **That DoI provides its staff with guidance about when to apply enforcement provisions, on the secretary's behalf, and when to escalate enforcement actions to a higher level.**
-

⁸ For further details of staff competencies and experience, see Part 4 of this report.



Appendix A.

Victorian accredited rail organisations



Company name	Manager of infrastructure	Operator of rolling stock	Provider of rolling stock	Mutual recognition	Not-for-profit	Commercial
Alexandra Timber Tramway	√	√	√		√	
Alstom	√	√				√
ATN Access	√	√	√			√
Australian Rail Track Corp	√			√		√
Australia Southern Railroad	√			√		√
Bluescope Steel	√	√	√			√
Castlemaine Maldon	√	√	√		√	
Chicago Freight			√			√
Coal Creek	√	√	√		√	
Connex	√	√	√			√
CRT	√			√		√
DERM			√		√	
EDI Rail	√	√				√
Emerald Tourist Railway	√	√	√		√	
Freight Australia	√	√	√			√
Geelong Steam Preservation (Bellarine)	√	√	√		√	
GJ McLeod	√					√
GrainCorp		√		√		√
Great Southern Ltd		√	√	√		√
Great Southern Soc			√		√	
GreenTRail	√	√	√		√	
Interail		√	√	√		√
John Holland	√	√	√			√
Lachlan Valley		√	√	√		√
Mornington Railway Preservation Society	√	√	√		√	
NSW Rail Transport Museum		√	√	√	√	
Pacific National	√	√	√	√		√
Patrick Portlink	√	√				√
Queensland Rail		√	√	√		√
Rail Infrastructure Corp	√	√	√	√		√
Rail Technical		√				√
Red Cliffs	√	√	√		√	
Seven-O-Seven			√		√	
Seymour Railway			√		√	
Southern Shorthaul Railroad		√	√			√
Sth Gippsland	√	√	√		√	

Company name	Manager of infrastructure	Operator of rolling stock	Provider of rolling stock	Mutual recognition	Not-for-profit	Commercial
SCT	√	√	√			√
Spencer Street Station Authority	√					√
Rail Corporation NSW (Countrylink)	√	√	√	√		√
State Mine Heritage Park and Railway NSW		√	√	√	√	
Steamrail			√		√	
The Central Highlands	√	√	√		√	
The Silvertown Tramway		√		√		√
United Goninan			√	√		√
VicTrack	√					√
V/Line Passenger	√	√	√			√
Walhalla	√	√	√		√	
Works Infrastructure	√	√	√			√
Yarra Valley	√	√	√		√	

Source: Department of Infrastructure, October 2004.

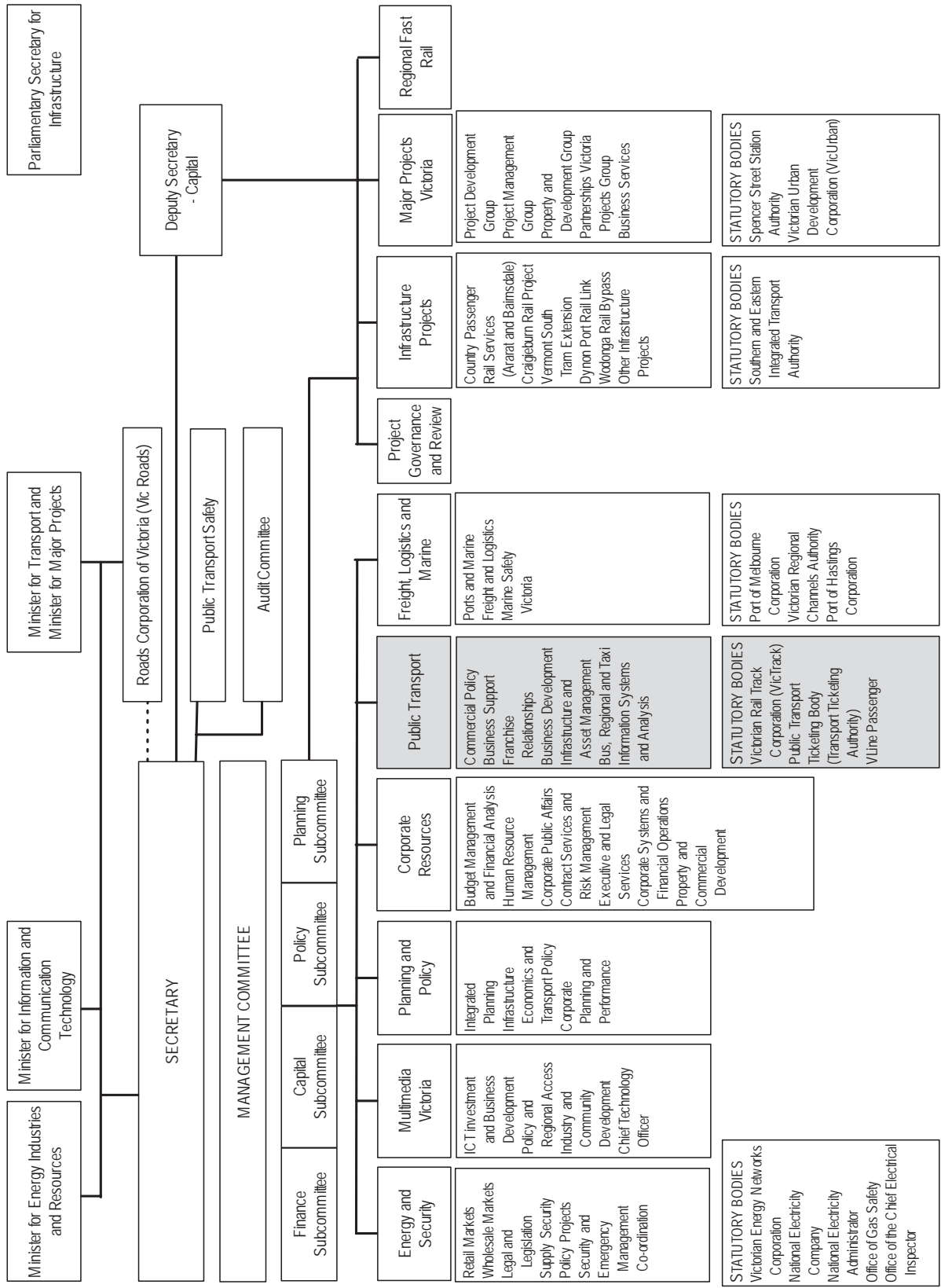


Appendix B.

Organisational structure

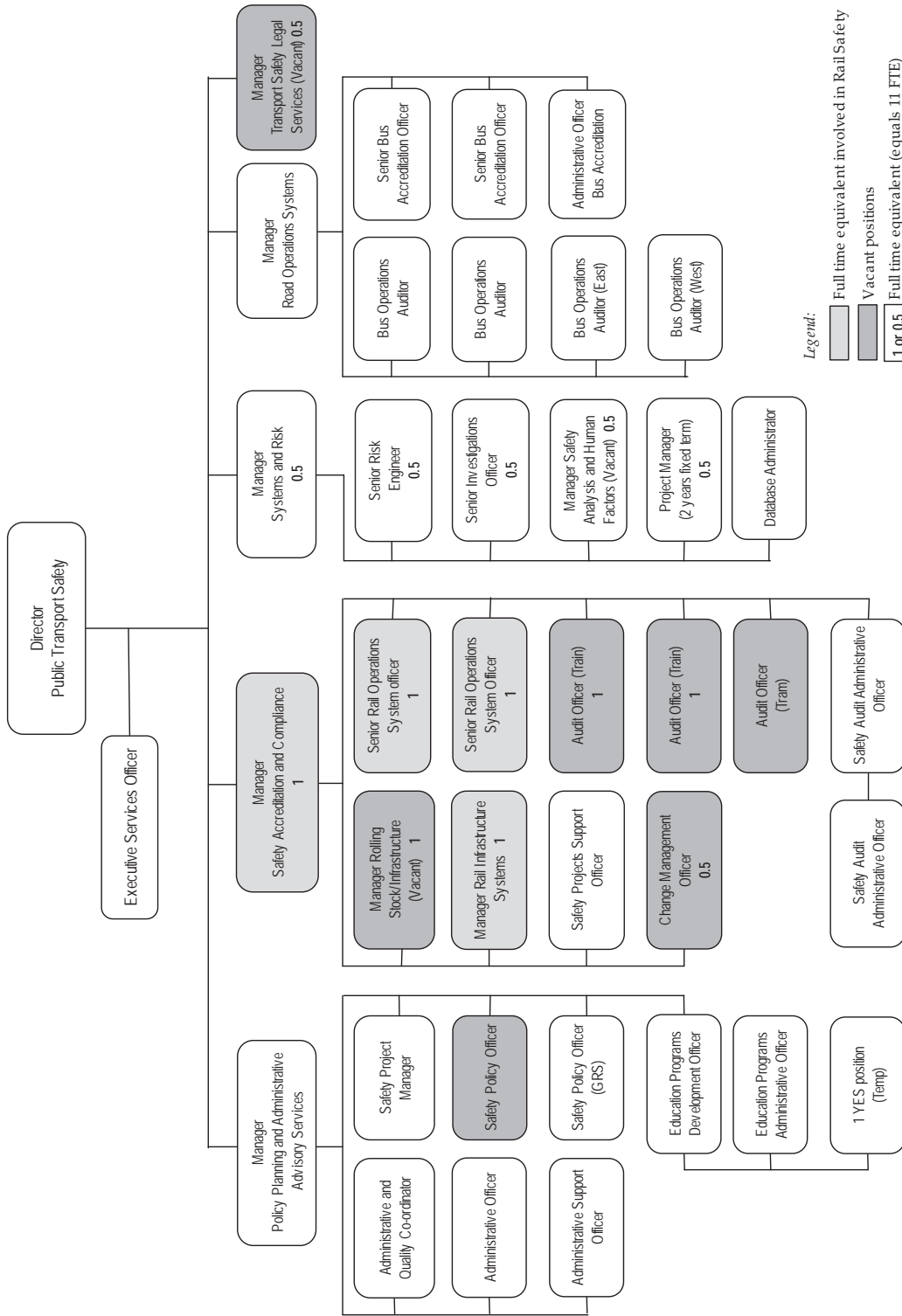


APPENDIX B1: DEPARTMENT OF INFRASTRUCTURE ORGANISATIONAL CHART, 2004



Source: Department of Infrastructure, 2004.

FIGURE B2: PUBLIC TRANSPORT SAFETY DIRECTORATE'S ORGANISATIONAL STRUCTURE



Source: Department of Infrastructure, 2004.

PERFORMANCE AUDIT REPORTS of the Auditor-General issued since 2002

Report title	Date issued
International students in Victorian universities	April 2002
Nurse work force planning	May 2002
Investment attraction and facilitation in Victoria	May 2002
Management of roads by local government	June 2002
Managing Victoria's air quality	June 2002
Mental health services for people in crisis	October 2002
Management of food safety in Victoria	October 2002
Community dental health services	October 2002
Managing risk across the public sector	March 2003
Drug education in government schools	March 2003
Managing medical equipment in public hospitals	March 2003
Performance management and reporting: Progress report and a case study	April 2003
Fire prevention and preparedness	May 2003
Electronic procurement in the Victorian government	June 2003
Improving literacy standards in government schools	October 2003
Managing logging in State forests	October 2003
Addressing the needs of Victorian prisoners	November 2003
Beating the bugs: Protecting Victoria's economically significant crops from pests and diseases	April 2004
Delivery of home and community care services by local government	May 2004
Budget development and management within departments	May 2004
Managing emergency demand in public hospitals	May 2004
Maintaining public housing stock	June 2004
Measuring the success of the Our Forests, Our Future policy	October 2004
Meeting our future Victorian Public Service workforce needs	December 2004
Managing school attendance	December 2004

The Victorian Auditor-General's Office website at <www.audit.vic.gov.au> contains a more comprehensive list of all reports issued by the Office. The full text of the reports issued over the past 10 years is available at the website. The website also features a "search this site" facility which enables users to quickly identify issues of interest which have been commented on by the Auditor-General.



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