



INDEPENDENT
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safe and reliable transport services for new south wales



Report on the status of recommendations arising from independent investigations into rail, bus and ferry incidents in NSW

March 2009 to May 2009

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CONTENTS

1.0 – Introduction	3
1.1 – Background	3
1.2 – Methodology	4
2.0 - Overview Rail	5
2.1 – Rail safety investigation reports	5
2.2 – Summary of the status of OTSI/ATSB rail recommendations	7
2.3 – Analysis of OTSI and ATSB rail report recommendations	8
2.4 – Individual summaries of each outstanding OTSI rail report	9
3.0 - Overview Ferry	39
3.1 – Ferry safety investigation reports	39
3.2 – Summary of the status of OTSI ferry recommendations	40
3.3 – Analysis of OTSI ferry recommendations	41
3.4 – General comment	41
3.5 – Individual summaries of each outstanding OTSI ferry report	42
4.0 - Overview Bus	48
4.1 – Bus safety investigation reports	48
4.2 – Summary of the status of OTSI bus recommendations	49
4.3 – Analysis of OTSI bus recommendations	50
4.4 – Individual summaries of each outstanding OTSI bus report	51
5.0 - Annexure “1”	
A summary of completed rail, ferry and bus safety investigation reports	59

1.0 Introduction

The purpose of this report is to provide the Minister, the transport industry and the community advice on the status of recommendations resulting from independent investigations into rail, bus and ferry incidents in New South Wales. The reports are published on a quarterly basis. Independent investigations include those conducted by the Office of Transport Safety Investigation (OTSI) and the Australian Transport Safety Bureau (ATSB). It is noted that the recommendations arising from the Special Commission of Inquiry into the Waterfall Rail Accident are already subject to a separate quarterly reporting process.

1.1 Background

Regulators for rail, bus and ferry are required to monitor the implementation of recommendations included in independent investigation reports. These regulators are:

- ITSRR in relation to rail;
- Ministry of Transport in relation to bus; and
- NSW Maritime in relation to ferry.

The relevant regulator is responsible for writing to each of the interested parties, and for any follow-up action, and reports directly to the Minister on the status of the recommendations.

Recommendations by OTSI or ATSB have no binding legal effect. That is, organisations to whom OTSI/ATSB direct recommendations are not legally obliged to implement them. To ensure recommendations are given due consideration, and to provide certainty around obligations to implement recommendations, ITSRR has developed a monitoring methodology to track the handling of recommendations by any interested party. The reporting framework is explained in more detail in the table below.

Under this arrangement, the relevant regulators for rail (ITSRR), bus (Ministry of Transport) and ferries (NSW Maritime) have agreed to monitor and report to ITSRR on progress. Each regulator seeks advice from interested parties as to whether they accept the recommendation and, if so, the time frame in which they expect to implement it. If the interested party rejects the recommendation, they must demonstrate to the relevant regulator that they have assessed the risk and determined that it is not reasonably practicable. The party may also offer an alternative approach to managing the risk or issue identified in the report.

1.2 Methodology for close out of recommendations

	STATUS	DEFINITION
1.	Open – Await Response	This status is automatically assigned to an accepted recommendation. Affected parties will be asked to submit their response for implementing the recommendation to the relevant regulator.
2.	Open – Response Received	The regulator has received a response from an affected party and this response is under review by the regulator. It has not yet been accepted by the regulator.
3.	Open – Acceptable Response	The regulator agrees that the planned action, when completed, meets the recommendation.
4.	Open – Acceptable Alternative Response	The regulator agrees that alternative action, when completed, satisfies the objective of the recommendation.
5.	Open – Response Rejected by ITSRR	The regulator does not agree that the planned or alternate action meets the recommendation. The company or agency is advised of the rejection and requested to provide a revised response.
6.	Open – Company Claims Closure	The company or agency claims that the planned or alternate action has been completed. The action has not yet been verified by the regulator. The regulator has not yet agreed that the item is closed.
7.	Closed – Recommendation Rejected	The regulator has agreed with the party that following further analysis and review that the recommendation is not appropriate (i.e. will not achieve the desired safety outcomes). The regulator may commission an independent review to assist in determining if a rejection is warranted. If the response is valid the recommendation will be classified as rejected and will therefore be closed.
8.	Closed – No Longer Applicable	The recommendation has been overtaken by events and action is no longer required. For example, a new technology has eliminated the reason for the recommendation, it has been superseded by other recommendations issued, or the operator affected has gone out of business.
9.	Closed – Action Verified	Completion of the planned or alternate action has been verified by the regulator through a compliance inspection or audit.
10.	Closed – Action Not Verified	The regulator accepts that the planned or alternate action has been completed following a review of documentation submitted. Field verification is not necessary.

2.0 OVERVIEW RAIL

2.1 Rail Safety Investigation Reports

A summary of the outstanding OTSI and ATSB Rail Safety Investigation Reports is provided in the table below. The table includes those reports that have been closed this quarter. A summary of the OTSI and ATSB Rail Safety Investigation reports that have been closed previously is provided at annexure "1".

It should be noted that where one recommendation applies to two or more parties, the recommendation is recorded as a multiple to ensure that each party carries out actions to satisfy the one recommendation. For example, if one recommendation applies to 2 parties then in the summary this is reported as 2 recommendations.

No.	Title of Report	Short Title	Date Of Incident	Date Tabled by Minister	Area of Operations	No of Recs	Status
RAIL SAFETY INVESTIGATION REPORTS (OTSI)							
1.	Steel Sleeper introduction on NSW Class 1 Main Line track 1996 - 2004	Steel Sleepers	27.4.04	16.9.05	DIRN / CRN	12	Open
2.	Derailment of Freight Australia Limited Cement Service 4VM9 – Bethungra	Bethungra	22.12.04	4.5.06	DIRN	14	Open
3.	Shunting Fatality – Lachlan Valley Railway Society Heritage Steam Train SS84 – Ariah Park	Ariah Park	15.4.06	27.5.07	CRN	17	Open
4.	Tack worker fatality at Baan Baa	Fatality near Baan Baa	22.5.06	3.6.08	CRN	18	Open
5.	Fatal injuring of two rail maintenance workers Singleton	Singleton	16.7.07	21.7.2008	DIRN	18	Open

No.	Title of Report	Short Title	Date Of Incident	Date Tabled by Minister	Area of Operations	No of Recs	Status
6.	Derailment of PN Ore Service 4835 – Nevertire – Nyngan	Nyngan	1.10.2006	25.9.2008	CRN	7	Open
7.	Track Worker Injured by Hi-Rail Excavator Sandgate Rail Flyover Project	Sandgate	7.11.2006	6.2.2009	DIRN	4	Open
RAIL SAFETY INVESTIGATION REPORTS (ATSB)							
8.	Level crossing collision between XPT passenger train ST24 and Passenger car	Albury	5.06.2006	29.6.2007	DIRN	1	Closed
9.	Results of trials for heavy vehicle clearance times at level crossings	Heavy Vehicles	12.12.2006	5.10.2007	DIRN	1	Open
10.	Collision between freight train 9351 and an overturned semi-trailer at Illabo, NSW	Illabo	2.11.2006	6.03.2008	DIRN	4	Closed
CORONIAL INQUESTS AND INQUIRIES							
11.	Coroner's Singleton Report	Singleton Coroners	16.07.07	13.3.09	DIRN	22	Open

2.2 A summary of the status of each of the recommendations included in the outstanding open OTSI and ATSB Rail reports is provided below.

Reporting framework for TREC agencies implementation of reports															
Regulator	Report Agency	Name of report	Date of Incident	Date Report Tabled	Open – await response	Open – response received	Open – acceptable response	Open – alternative acceptable response	Open – response rejected by regulator	Open – Company Claims Closure	Closed – Rec Rejected	Closed – No Longer Applicable	Closed – Action Verified	Closed – Action Not Verified	Total no. of recommendations
	OTSI	Steel Sleepers	27/04/2004	16/09/2005		1	3		1	3			4		12
	OTSI	Bethungra	22/12/2004	4/05/2006		2	1			1	2	1	5	2	14
	OTSI	Ariah Park	15/04/2006	27/05/2007						1		1	10	5	17
	OTSI	Albury	25/06/2006	29/06/2007									1		1
	OTSI	Heavy Vehicles	12/12/2006	5/10/2007		1									1
	ATSB	Illabo	2/11/2006	6/03/2008								2	2		4
	OTSI	Fatality near Baan Baa	22/05/2006	3/06/2008	5	1	7				2		2	1	18
	OTSI	Singleton	16/07/2007	21/07/2008	2	1	11				2			2	18
	OTSI	Nyngan	1/10/2006	25/09/2008	5									2	7
		Sandgate	7/11/2006	6/11/2009			2			1			1		4
		Singleton Coroners	16/07/2007	13/03/2009	18							4			22
				TOTAL:	30	6	24		1	6	6	8	25	12	118

2.3 Analysis of OTSI and ATSB Rail Report Recommendations

During the reporting period, ten (10) rail recommendations have been marked as “closed”, resulting in the closure of the Albury and Illabo Reports. A total of 21 OTSI, ATSB and Coronial reports are now closed. There are currently 67 “open” recommendations relating to nine (9) reports and 214 ‘closed’ recommendations, which represent 76% of all recommendations.

There were no new reports released during the reporting period.

2.4 SECTORAL UPDATE RAIL

Individual summaries have been prepared for each of the following open OTSI Rail Safety Investigation Reports:

1. Steel Sleepers
2. Bethungra
3. Ariah Park
4. Albury
5. Heavy Vehicles
6. Illabo
7. Fatality near Baan Baa
8. Singleton
9. Nyngan
10. Sandgate
11. Singleton Coroner's

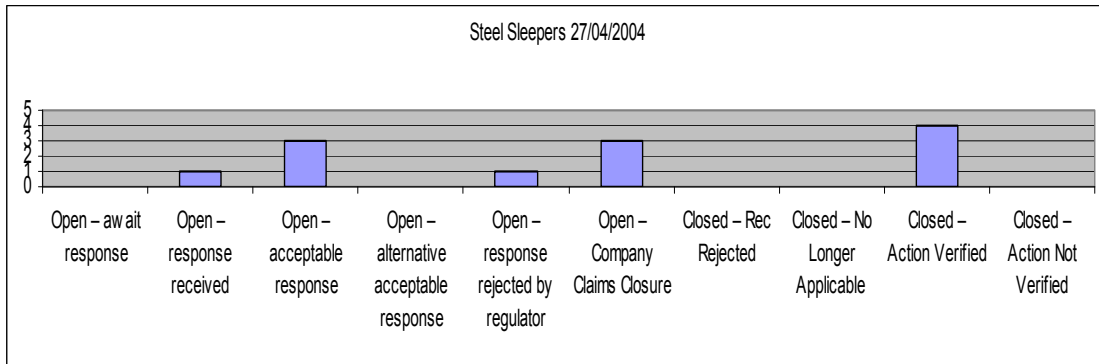
Title: STEEL SLEEPERS
Date of incident: 31.8.05
Date tabled: 6.10.05
No of Recommendations: 12 (Regulator: 4; Other 8)

Description of incident: The OTSI investigation into a separate incident involving a derailment at Rocky Ponds in November 2002 included a recommendation that a systemic investigation be conducted into the introduction and performance of steel sleepers in the NSW Rail Network. As a result, OTSI initiated a systemic investigation into the installation of steel sleepers on Class 1 Main Line track.

Focus of recommendations: Track manager required to inspect steel sleepers on Class 1 Main lines to ensure sleepers are installed to standard. Track manager to review procedures for installation to reduce variation in installation techniques and maintenance of standards. The Regulator to conduct inspection of Class 1 lines to ensure steel sleepers are installed to standards.

Progress with safety outcomes: ITSRR is continuing to seek a response from ARTC, although this issue has been overtaken by other factors; in particular, the owner's decision to increase steel sleeper usage on the Country Rail Network (CRN). Due to this change of strategy, ITSRR has increased its oversight of steel sleeper installation. Prohibition notices were issued in January 2009, and have been followed by Improvement Notices seeking provision of an Engineering Assurance that steel sleepers are as safe as the technology they replace. In the interim, ITSRR has imposed speed restrictions. The prohibition of the installation of steel sleepers contrary to ARTC's standard has been implemented.

Current status



DETAILS OF 'OPEN' RAIL RECOMMENDATIONS – Steel Sleepers on 31.8.05

No:	Detail of recommendation:	Agency:	'Open' status:
5.2	Inspect all steel sleepers installed on Class 1 Main line track to ensure the current installation meets the approved technical performance standards	ARTC	Open – Agency claims closure
5.3	Ensure future steel sleepers are installed according to approved technical performance standards and procedures.	ARTC	Open – Agency claims closure
5.4	Provide adequate training to Installers and Maintainers relating to the installation and maintenance of steel sleepers.	ARTC	Open – Agency claims closure
5.7	Further develop and specify a steel sleeper installation procedure that guides the installer in the recommended practices for installing steel sleepers. Such a procedure should recommend the various spot tamping, resurfacing and ballasting processes required. Quality control requirements should also be specified for the installation process. Such controls should ensure sleeper installation performance standards and procedures are met.	ARTC	Open – Response rejected by ITSRR
5.9	Ensure that there is adequate contractor control over both internal and external suppliers of civil infrastructure services (e.g. PRS programs, in-face sleepers programs, rail renewal, etc). Such controls should include appropriate standard references, work scope instructions, quality assurance checks and final work certifications.	ARTC	Open – Response received
5.10	Conduct a Class 1 Main line steel sleeper audit program in order to satisfy itself as to the Maintainers ability to meet the installation performance standard. This program should assess compliance relating to current steel sleeper performance standards.	ITSRR	Open – Acceptable response

No:	Detail of recommendation:	Agency:	'Open' status:
5.11	Review the adequacy of Infrastructure Maintainer's contract controls, covering both internal and external suppliers of civil infrastructure services (e.g. PRS programs, in face sleeping programs, rail renewal, etc). Such controls should include appropriate standard references, quality assurance checks, final work certification and applicable work scope instructions.	ITSRR	Open – Acceptable response
5.12	Review the adequacy of Infrastructure Maintainer's configuration management procedures to gauge how effective their system is in requiring configuration changes to have engineering approval, stakeholder consultation and Rail Regulator advice. Bring any identified deficiencies to the attention of the Infrastructure Maintainer for rectification.	ITSRR	Open – Acceptable response

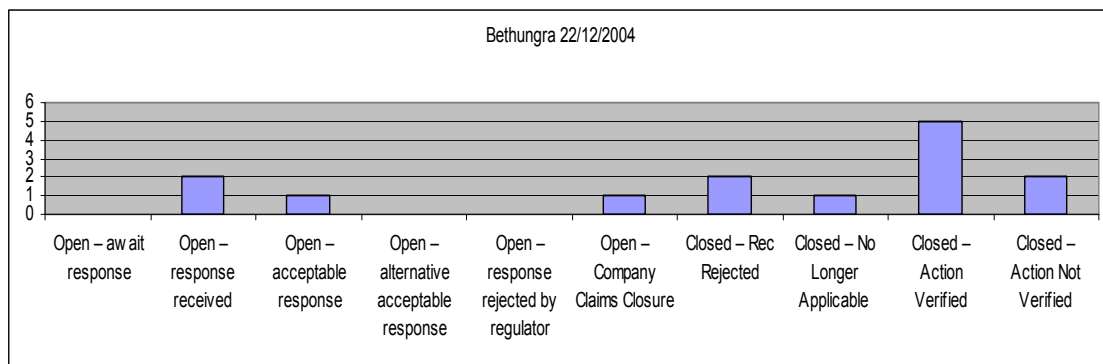
Title: BETHUNGRA
Date of incident: 22.12.04
Date tabled: 4.5.06
No of Recommendations: 11 (Regulator: 4, Other 7)

Description of incident: At approximately 8.05pm on 22 December 2004, freight service 4VM9, operated by Freight Australia Limited, derailed whilst descending the grade at Bethungra, on the main South line (part of the Defined Interstate Rail Network (DIRN)). 4VM9 consisted of four locomotives and 11 loaded bulk cement wagons and was enroute from Berrima to Melbourne. All 11 wagons from the train and 288 metres of track were severely damaged as a result of the incident. There were no reported injuries.

Focus of recommendations: The major safety issues identified related to asset management reporting, competence of track inspectors, event recorders and communication protocols.

Progress with safety outcomes: During this quarter, two recommendations were 'closed – recommendation rejected'. However, ARTC has failed to respond to ITSRR's request to progress the outstanding recommendations. Therefore, ITSRR has requested ARTC to reschedule for the next quarter the proposed briefing on its Asset Management Strategy for the NSW Network. In relation to this site, track condition has been restored with concrete sleepers and no speed restrictions apply.

Current status



**DETAILS OF 'OPEN' RAIL RECOMMENDATIONS –
Bethungra on 22.12.04**

No:	Detail of recommendation:	Agency:	'Open' status:
5.1 (a) ii	Review the competencies and training of those responsible for the conduct of track inspections and track maintenance to ensure that: (1) track inspections are conducted in the scheduled timeframes and track maintenance is conducted in the prescribed manner, and (2) staff can accurately recognise and interpret track related deficiencies and defects.	ARTC	Open – Agency claims closure
5.1(a) iii	Review the competencies and training of those responsible for the interpretation of data obtained from track inspections and the WTSA (Welded Track Stability Analysis) process to ensure that risk can be appropriately identified, categorised and managed.	ARTC	Open – Response received
ITSRR 1.	ITSRR will require a briefing and information transfer from ARTC on their view of the asset condition of the main south line.	ITSRR	Open – Response received
ITSRR 3.	ITSRR is to consider ARTC's strategies for improving track condition including the application and implementation of the recommendation from OTSI report into the 'Steel sleeper introduction on NSW Class 1 Main line Track' of 31 August 2005.	ITSRR	Open – Acceptable response

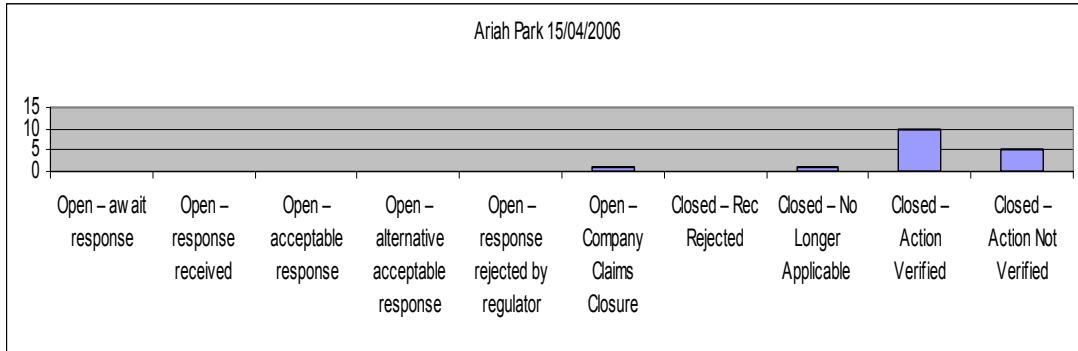
Title: ARIAH PARK
Date of incident: 15 April 2006
Date published: 07 May 2007
No of Recommendations:3 (Regulator: 1; Other 2)

Description of incident: On 15 April 2006, a heritage passenger steam train operated by Lachlan Valley Railway Society Cooperative Ltd (LVRS) was participating in an event to celebrate the centenary of the opening of the rail line between Temora and Ariah Park. The train consisted of a 32 Class steam locomotive, No. 3237, its tender and five passenger carriages. For the journey from Temora to Ariah Park, it was designated SS83 and configured with the tender of the locomotive leading. It arrived at Ariah Park where the locomotive and tender were detached from the carriages. On completion of the ceremony, the locomotive and tender had to be reversed towards the Ariah Park platform to be re-coupled with the carriages. To engage the hook and link of the coupling mechanism, the guard stepped into the gap between the tender and the carriage on two occasions; initially to align the coupling link and subsequently to place the carriage's coupling link over the tender's coupling hook. As the guard attempted to effect the coupling manoeuvre, he was crushed between the tender and the carriage. The guard died shortly after at hospital of the injuries he had sustained.

Focus of recommendations: LVRS to audit its operations and rolling stock to identify risks to persons. ITSRR is to monitor LVRS to determine if LVRS should remain accredited. ARTC is to review its secondary employment policies and rostering processes.

Progress with safety outcomes: One remaining recommendation directed to LVRS relating to the governance arrangements of its Board remains open, awaiting verification by ITSRR. ITSRR varied the operator's accreditation to restrict shunting operations until safety measures are fully implemented.

Current status



DETAILS OF 'OPEN' RAIL RECOMMENDATIONS – Ariah Park on 15.4.07

No:	Detail of recommendation:	Agency:	'Open' status:
5.1.b.i	Review the operations and focus on its Board to ensure that it is meeting its legal obligations. If the Board does not have the expertise to address fundamental requirements such as risk management, act to acquire or engage the necessary expertise.	Lachlan Valley Railway Society Co-op Ltd	Open – Agency claims closure

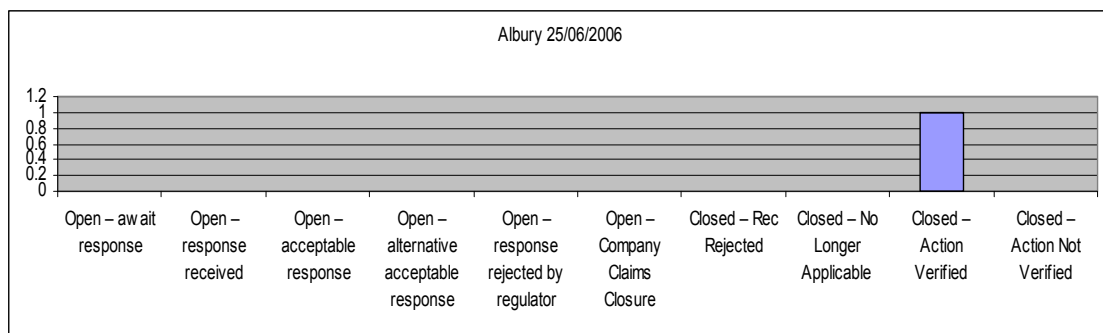
Title: ALBURY
Date of incident: 05.06.06
Date published: 29.06.07
No of Recommendations: 1 (Other 1)

Description of incident: At approximately 1322 on 5 June 2006, a passenger car (a 1986 Holden Commodore sedan) drove into the path of XPT passenger train (ST24) at the Thurgoona Road level crossing, on the northern edge of Albury, New South Wales (NSW). The driver of the passenger car was fatally injured during the collision. The investigation concluded that the effect of non-prescription drugs on driver performance and driver distraction due to mobile phone operation were safety factors which contributed to the collision.

Focus of recommendations: Level Crossing Strategy Council (LCSC) consider strategies to reinforce public awareness of risks involving cannabis and mobile phone on driver performance and awareness.

Progress with safety outcomes: The level crossing at Thurgoona, Albury has now been grade separated. The NSW Roads and Traffic Authority has conducted campaigns that target the risk associated with cannabis use and mobile phone usage when driving a motor vehicle.

Current status



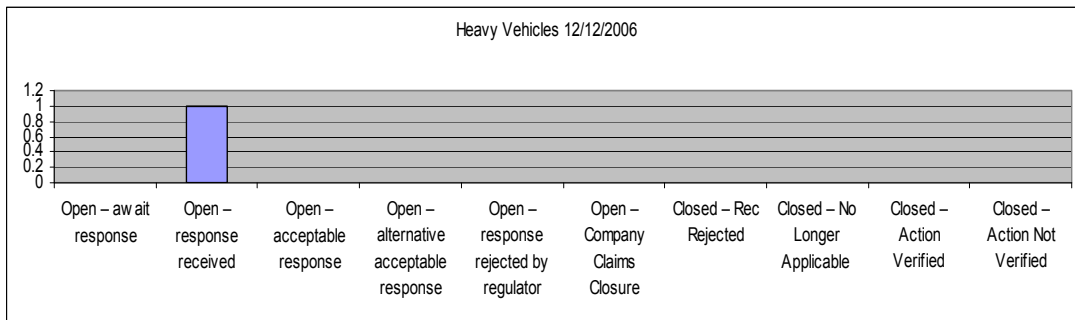
Title: HEAVY VEHICLES
Date of incident: 12 December 2006
Date published: 05 October 2007
No of Recommendations: 1 (Regulator 1)

Description of incident: At approximately 1356 on 12 December 2006, a double trailer road-train truck drove into the path of *The Ghan* passenger train (1AD8) on the Fountain Head Road level crossing at Ban Ban Springs approximately 130 km directly south-east of Darwin, Northern Territory (170 km by road). There were no fatalities, although the truck driver and a female passenger were hospitalised and several other passengers and crew sustained minor injuries. This Supplementary Report was compiled to outline the ATSB's findings during a timing trial for high mass combination vehicles traversing the Fountain Head Road railway level crossing at Ban Ban Springs. The results of the trial may have wider implications in relation to the adequacy of the current standards for sighting distances at level crossings.

Focus of recommendations: The Australian Standard for level crossing sighting distances from stop signs is inadequate to cater for the longest road trains authorised on Australian Roads. The report concludes that the certain road trains will not clear the level crossing in time to avoid a collision with trains travelling at line speed (115 KPH).

Progress with safety outcomes: ITSRR initially pursued this issue with the NSW Level Crossing Strategy Council, but has now decided to take the lead in relation to this matter directly with the Roads and Traffic Authority. The RTA advises that the issue of sighting distances for heavy vehicle transition times at level crossings is being dealt with at a national level by AusRoads. Currently awaiting further advice from the RTA in relation to this issue.

Current status



DETAILS OF ‘OPEN’ RAIL RECOMMENDATIONS – Heavy Vehicles on 4.5.06

No:	Detail of recommendation:	Agency:	‘Open’ status:
RS2007 0001	The ATSB advises that State and Territory road transport authorities and rail regulators should consider the implications of this safety issue and take actions where it is considered appropriate.	ITSRR	Open – Response received

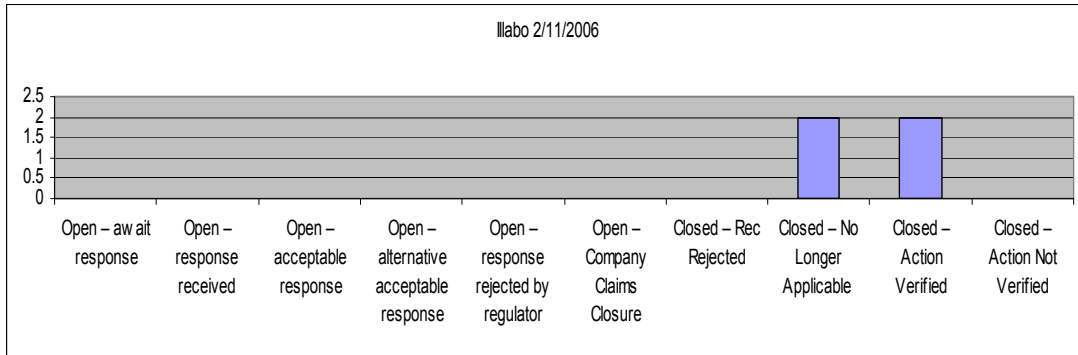
Title: ILLABO
Date of incident: 2 November 2006
Date published: 6 March 2008
No of Recommendations: 4 (ARTC and GrainCorp)

Description of incident: Shortly before 23:14 hours on Thursday 2 November 2006, the driver of a semi-trailer loaded with baled wool lost control of his truck whilst negotiating the approach to the Olympic Highway level crossing at Illabo, NSW. The truck overturned and slid along on its side coming to rest on the level crossing, obstructing both of the railway lines at the crossing. After climbing out of the prime mover cab, the driver realised that his truck was obstructing the railway lines and called the '000' emergency number. The '000' operator received the call and transferred it to the police communication centre who then attempted four times to warn train 9351, which was approaching the crossing, without success. At about 23:24:35 freight train 9351 travelling at about 94 km/h collided with the overturned semitrailer. The leading bogie on the leading locomotive GL 102 derailed as a result of the collision. There was moderate damage to the leading locomotive and the truck's prime mover. The truck's trailer was destroyed. There was significant damage to the level crossing signals, signage, and auxiliary trackside equipment. There were no serious injuries but the train crew were treated for shock.

Focus of recommendations: Operational procedures regarding primary communication systems.

Progress with safety outcomes: ARTC has now enhanced its train control procedures for communicating with trains using primary and secondary communications systems. Further, clause 47(2) of the Rail Safety Regulation introduced in January 2009 now places obligations on rail infrastructure managers to decline access to the network if any train does not meet the prescribed requirements for primary and secondary communication systems. Report closed this quarter.

Current status



Title: FATALITY NEAR BAAN BAA
Date of incident: 22.05.2006
Date published: 03.06.2008
No of Recommendations: 14 (Regulator: 4; Other 10)

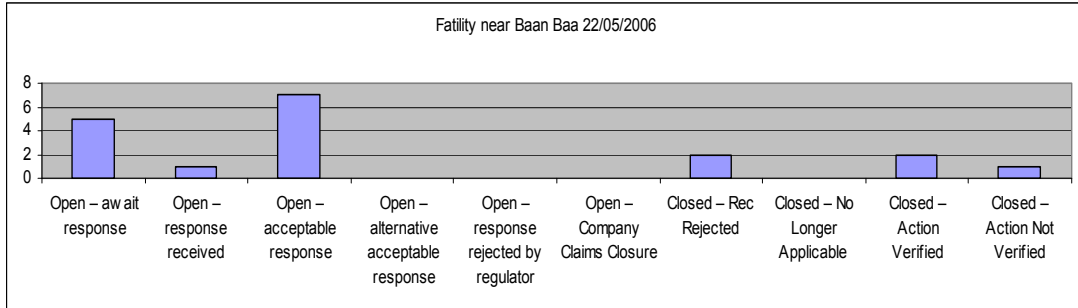
Description of incident: At approximately 9:00am on 22 May 2006, a track worker employed by the Rail Infrastructure Corporation (RIC) and seconded to the Australian Rail Track Corporation (ARTC) was fatally injured while participating in ballasting operations approximately 3km South of Baan Baa. The ballast train (5M23) was crewed by two Southern & Silverton Railway Pty Ltd (Silverton Rail) drivers and consisted of three locomotives and 22 ballast wagons, with a plough van at the rear.

Focus of recommendations: ARTC to review its procedures for ballasting operations including wagon design, radio communications and track worker locations. ARTC to review its work scheduling practices to reduce potential pressure on work gangs to meet work program targets. RailCorp to review its ballasting operations to see if any lessons learned can be transferred to its operations. Southern and Silverton Railway to review rolling stock requirements. ITSRR is to review ARTC's work method statements regarding ballasting operations and compare RailCorp and ARTC's ballasting operation procedures for consistency. ITSRR is also to monitor event loggers on locomotives.

Progress with safety outcomes: During this quarter RailCorp revised and published an upgraded Safe Work Method Statement for top ballasting operations in NSW, which was published on 11 June 2009. Two recommendations relating to data loggers / event recorders directed to ITSRR have been 'Closed – Recommendation Rejected', given programs at a national level will address this issue. ITSRR monitors aspects of Rolling Stock Standard 001 as part of its compliance activities which includes data loggers/event recorders. ITSRR does not intend to prioritise the monitoring of data loggers/event recorders other than by way of safety compliance activities as the risk profile of railway operations in NSW does not indicate this issue as a high safety risk. ARTC has implemented temporary control measures. ARTC

is also modifying its fleet of ballast wagons to enable remote control of ballast distribution.

Current status



DETAILS OF ‘OPEN’ RAIL RECOMMENDATIONS – Fatality near Baan Baa on 22.05.2006

No:	Detail of recommendation:	Agency:	‘Open’ status:
4.1.a (1) a.	Australian Rail Track Corporation Ltd (ARTC) further amend its Work Method Statement (WMS) Unloaded NDFP Air Operated Ballast Wagons to: (a) specifically identify those workers who must have a radio during ballasting operations and specifically include a requirement that all radios be tested prior to the commencement of each days ballasting operations.	ARTC	Open – Acceptable response
4.1.a (1) b. a.	ARTC further amend its WMS Unload NDFP Air Operated Ballast Wagons to: (b) specify what constitutes a normal walking speed and identify a speed which must not be exceeded during ballasting operations where any worker is required to walk alongside the train.	ARTC	Open – Acceptable response
4.1.a (1) c. a.	ARTC further amend its WMS Unload NDFP Air Operated Ballast Wagons to: (c) specify the minimum number of workers that must be involved in a ballasting operation and define their roles and responsibilities.	ARTC	Open – Acceptable response
4.1.a (1) d. a.	ARTC further amend its WMS Unload NDFP Air Operated Ballast Wagons to: (d) identify the contingencies that need to be factored into local planning and subsequently incorporated into the WMS, and referred to in safety briefings.	ARTC	Open – Acceptable response
4.1.a (1) e.	ARTC further amend its WMS Unload NDFP Air Operated Ballast Wagons to: specify the requirement for a risk assessment to be conducted before making any changes to working arrangements, either prior to or during a ballasting operation, and specify who has the authority to make such changes.	ARTC	Open – Acceptable response

No:	Detail of recommendation:	Agency:	'Open' status:
4.1.a (ii)	ARTC is to ensure that all its employees who are required to participate in ballasting operations, including those seconded from RIC, and contractors it engages for the same purpose, are briefed on, understand, and fully comply with its ballasting procedures.	ARTC	Open – Response received
4.1.a (iii)	ARTC is to emphasise the importance of a proper appreciation by its work planners of the time needed to safely conduct track work.	ARTC	Open – Awaiting response
4.1.a (iv)	ARTC is to emphasise the need to identify all of the risks associated with a specific task and the requirement to articulate specific control measures to adequately manage those risks.	ARTC	Open – Awaiting response
4.1.a (v)	ARTC is to maintain its prohibition on workers stepping from or onto moving ballast wagons.	ARTC	Open – Awaiting response
4.1.a (vi)	ARTC is to continue, and expedite if possible, its program to convert all ballast wagons so that they may be operated remotely.	ARTC	Open – Acceptable response
4.1.a (vii)	ARTC is to equip all track workers with two-way radios when they are engaged in ballasting operations.	ARTC	Open – Acceptable response
4.1.d (i)	ITSRR is to review the risk assessment that has underpinned the development of ARTC's WMS Unload NDFF Air Operated Ballast Wagons and compare its revised requirements with those of RailCorp for the same type of activity to ensure there is a consistent approach to the planning and execution of ballasting operations within NSW.	ITSRR	Open – Awaiting response
4.1.d (ii)	ITSRR it to monitor the adherence of ARTC and its employees, including contractors, to the revised procedures for ballasting operations.	ITSRR	Open – Awaiting response

Title: SINGLETON
Date of incident: 16.07.2007
Date published: 21.07.2008
No of Recommendations: 13 (Regulator: 3; Other 10)

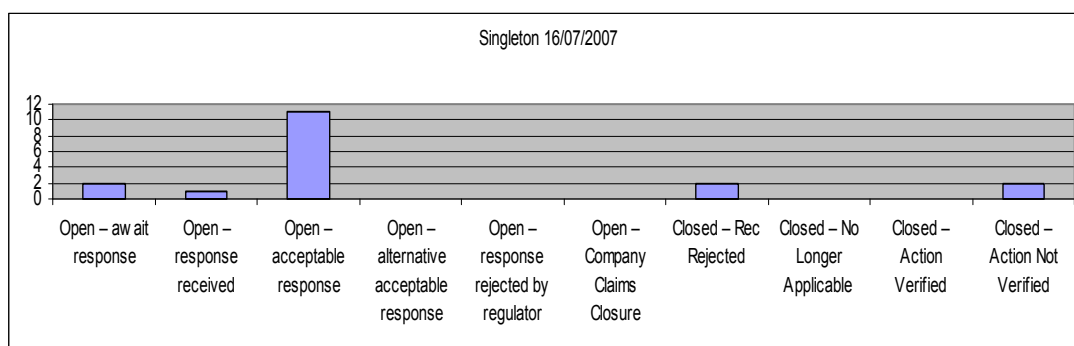
Description of incident: At approximately 5:48am on 16 July 2007, a signal electrician and his assistant (hereafter referred to as “the Electrician” and “the Electrician’s Assistant” respectively and collectively as “the two rail maintenance workers”) were struck and fatally injured by Pacific National’s coal service HV161 at No.56A points approximately 445m South of Singleton railway station. The two rail maintenance workers had been called-out to attend to the points which had malfunctioned earlier in the morning. Analysis of recorded conversations between the Electrician and the network controller in charge of train movements through Singleton, together with signal records, revealed that the two rail maintenance workers were working under a method of worksite protection known as NAR (*No Authority Required*). Under this arrangement, one of them was required to keep a lookout for approaching trains at all times.

Focus of recommendations: Infrastructure managers and ITSRR to review the applicability of “No Authority Required” (NAR) worksite protection.

Infrastructure manager to review the risks associated with fatigue.

Progress with safety outcomes: Responses received from ARTC, Pacific National and RailCorp. ARTC has restricted the application of “No Authority Required” worksite protection to daylight hours. ITSRR is conducting risk assessments regarding the use of “No Authority Required” worksite protection in conjunction with the two infrastructure managers. Two recommendations were closed this quarter.

Current status



DETAILS OF 'OPEN' RAIL RECOMMENDATIONS – Singleton on 16.07.2007

No:	Detail of recommendation:	Agency:	'Open' status:
4.1 a.(1). i.	In conjunction with ITSRR, and as a priority, remove Network Rules ANWT 310 and NWT 310 (No Authority Required) and replace them with the Lookout Protection method, but in a modified form which includes specific reference to the requirements that: (a) protection arrangements be documented; (b) the role of Protection Officer be performed by someone with the requisite qualifications, and (c) information pertaining to the presence of workers on the track be passed by Network Controllers to drivers operating rolling stock on the same track.	ARTC	Open – Acceptable response
4.1 a. (ii)	In consultation with ITSRR, amend Network Rules ANTR 406 and NTR 406 (Using Train Lights) to remove the requirement for train drivers in NSW to extinguish their headlights on approaching another train and the option of their doing the same when approaching a motor vehicle on a nearby road, a platform, a signal box or a location where shunting is in progress, and instead, require them to dim their headlight instead in all of these circumstances.	ARTC	Open – Acceptable response
4.1 a. (iv)	Review the range of safety clothing and safety equipment provided to its rail safety workers to ensure that, irrespective of the worksite protection arrangements under which they are working, visibility of them within the danger zone at night is not solely dependent on external sources of illumination.	ARTC	Open – Acceptable response
4.1 a. (v)	Investigate, as a matter of priority, the use of existing technology that automatically alert those that are required to work in the danger zone of an approaching train, or other form of rolling stock, and which also automatically alerts those operating such rolling stock when they are approaching a worksite.	ARTC	Open – Response received
4.1 b (i)	Review its SMS (Safety Management System) to ensure that there are adequate control measures therein to properly manage the risks associated with fatigue.	ARTC	Open – Acceptable response

No:	Detail of recommendation:	Agency:	'Open' status:
4.1 b(ii)	Having satisfied itself that its SMS does contain adequate control measures to properly manage the risks associated with fatigue, or having acted to ensure that the related controls are being acted upon.	ARTC	Open – Acceptable response
4.1 b (iii)	Improve its process for auditing worksites by the inclusion of a requirement that before auditors attend a pre-work safety briefing and go on-site, they first examine the related risk assessment/s, and by requiring that they must subsequently examine the related train control graph/s.	ARTC	Open – Acceptable response
4.1 a (i)	In conjunction with ITSRR, and as a priority, remove Network Rules ANWT 310 and NWT 310 (No Authority Required) and replace them with the Lookout Protection method, but in a modified form which includes specific reference to the requirements that: (a) protection arrangements be documented; (b) the role of Protection Officer be performed by someone with the requisite qualifications, and (c) information pertaining to the presence of workers on the track be passed by Network Controllers to drivers operating rolling stock on the same track.	RailCorp	Open – Acceptable response
4.1 a.(ii)	In consultation with ITSRR, amend Network Rules ANTR 406 and NTR 406 (Using Train Lights) to remove the requirement for train drivers in NSW to extinguish their headlights on approaching another train and the option of their doing the same when approaching a motor vehicle on a nearby road, a platform, a signal box or a location where shunting is in progress, and instead, require them to dim their headlight instead in all of these circumstances.	RailCorp	Open – Acceptable response
4.1 a (iii)	Ensure that radio communication with the territory they control in NSW conforms to the requirements of Network Rules ANGE 204/NGE204 (Network Communications) and Network Procedures. ANPR 721/NPR 721 (Spoken and Written Communication).	RailCorp	Open – Acceptable response
4.1 a (iv)	Review the range of safety clothing and safety equipment provided to its rail safety workers to ensure that, irrespective of the worksite protection arrangements under which they are working, visibility of them within the danger zone at night is not solely dependent on external sources of illumination.	RailCorp	Open – Acceptable response
4.1 a (v)	Investigate, as a matter of priority, the use of existing technology that automatically alert those that are required to work in the danger zone of an approaching train, or other form of rolling stock, and which also automatically alerts those operating such rolling stock when they are approaching a worksite.	RailCorp	Open – Acceptable response
4.1 d(ii)	Review the adequacy and applicability of Australian Standard AS/NZ 4602:1999 for high visibility vest in the rail application.	ITSRR	Open – Awaiting response

No:	Detail of recommendation:	Agency:	'Open' status:
4.1 d (iii)	Monitor ARTC's efforts to ensure that work within the rail corridor in ARTC controlled territory within NSW occurs under arrangements that conform to its revised worksite protection requirements.	ITSRR	Open – Awaiting response

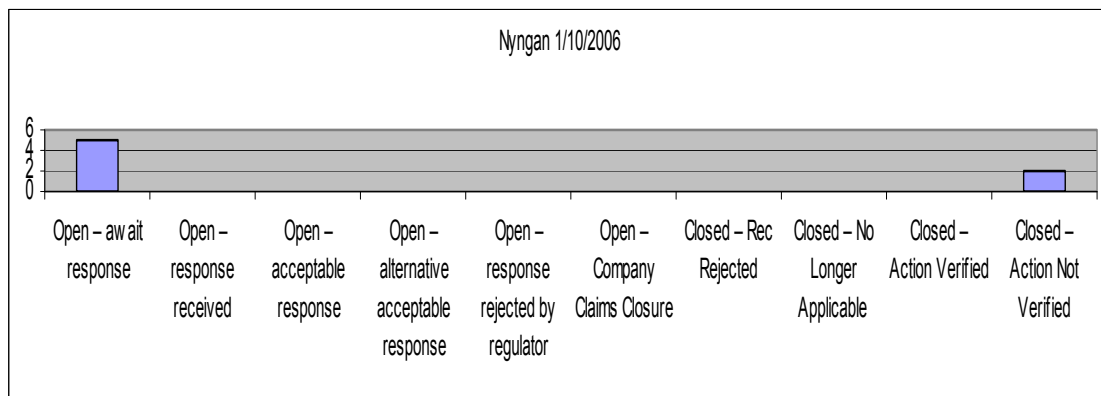
Title: NYNGAN
Date of incident: 01/10/2006
Date published: 25.09.2008
No of Recommendations: 7 (Regulator 1; Others 6)

Description of incident: At approximately 5:46am on 1 October 2006, the trailing locomotive and 14 wagons within Pacific National Limited's ore container service 4835 derailed four kilometres South-East of a locality known as Miowera, on a Class 3 freight line, between Nevertire and Nyngan in the Central West region of NSW. These rail vehicles and 22 containers thereon, suffered varying degrees of damage. Fortunately, there were no injuries.

Focus of recommendations: Asset management practices and procedures of ARTC.

Progress with safety outcomes: ITSRR has closed the two recommendations directed to Southern and Silverton. ARTC has failed to respond to ITSRR's request for advice on how it proposes to respond to the OTSI recommendations.

Current status



**DETAILS OF 'OPEN' RAIL RECOMMENDATIONS –
Nyngan on 1.10.2006**

No:	Detail of recommendation:	Agency:	'Open' status:
4.1.a (i)	ARTC is to ensure that all staff involved in the inspection, repair and management of track are properly qualified for their role and have a proper understanding of relevant engineering standards, inspection and repair procedures and documentation.	ARTC	Open – Awaiting response
4.1.a (ii)	ARTC is to ensure that the outcome of track inspections, track maintenance activities and other track management measures are recorded in more specific terms and in a way that more adequately supports its understanding of track condition.	ARTC	Open – Awaiting response
4.1.a (iii)	ARTC is to conduct regular audits of its track management system in order to assure itself of the integrity of that system.	ARTC	Open – Awaiting response
4.1.a (iv)	ARTC is to amend ARTC Network Rule ANTR 400 and Operator Standard Operating Procedures to specify that rolling stock should only be moved at the scene of a running line derailment when there is a compelling safety requirement to do so and/or the movement has been approved by OTSI or ITSRR or, if the occurrence has occurred on the Defined Interstate Rail Network, the ATSB and has subsequently been authorised by Train Control.	ARTC	Open – Awaiting response
4.1.c	ITSRR is to ensure that the elements of ARTC's Safety Management System upon which the Corporation relies to monitor and maintain track condition are robust and that the requirements specified therein are being met.	ITSRR	Open Awaiting response

Title: SANDGATE
Date of incident: 7.11.2006
Date published: 6.2.2009
No of Recommendations: 4 (all John Holland Rail)

Description of incident: At approximately 13:10 hours on Tuesday 7 November 2006, a track worker was preparing to weld a newly-laid section of rail in an area where new tracking was being commissioned when he was struck by a reversing Hi-rail excavator operated on behalf of John Holland Rail. The track worker was severely injured, requiring hospitalisation and emergency surgery.

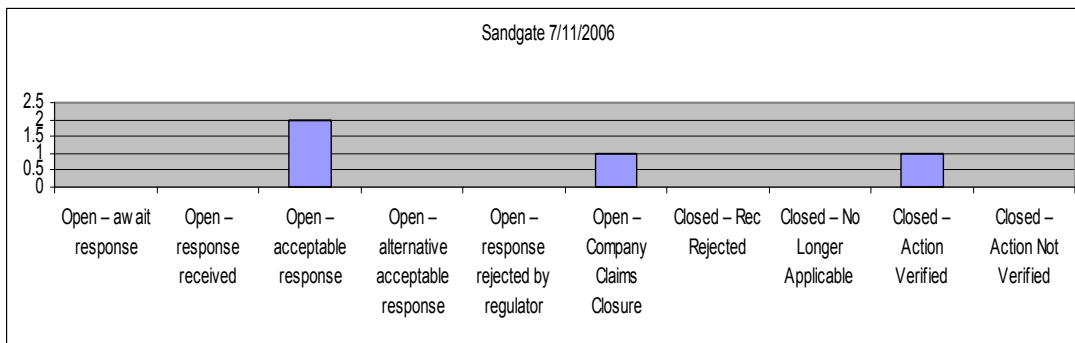
The accident occurred because the welder and excavator operator were oblivious to each other's presence on the track.

Focus of recommendations: Recommendations were directed to John Holland Rail ensuring that:

- Construction activities in NSW comply fully with WorkCover NSW's Moving Plant on Construction Sites – Code of Practice 2004;
- Risk assessments and risk controls are carried out for audit risk plans;
- All heavy equipment employed on its worksites, or that it controls on other worksites are fitted with operable warning devices; and
- Where its employees or subcontractors are engaged in cutting or welding rail, and there is heavy machinery including rolling stock in proximity, a spotter is tasked to support the welder or welding crew.

Progress with safety outcomes: One recommendation closed this quarter. ITSRR is currently reviewing John Holland's response to the two remaining recommendations.

Current status



DETAILS OF 'OPEN' RAIL RECOMMENDATIONS – Sandgate on 7.11.2006

No:	Detail of recommendation:	Agency:	'Open' status:
4.1.b	Audit Worksite risk plans to ensure that proper risk assessments are taking place and that meaningful risk controls are being identified and applied.	John Holland Pty Ltd	Open – Acceptable Response
4.1.d	Require that in every instance where its employees or its subcontractors are engaged in cutting or welding rail, and there is heavy machinery including rolling stock in the proximity, that a spotter is tasked to support the welder or welding crew.	John Holland Pty Ltd	Open – Acceptable response

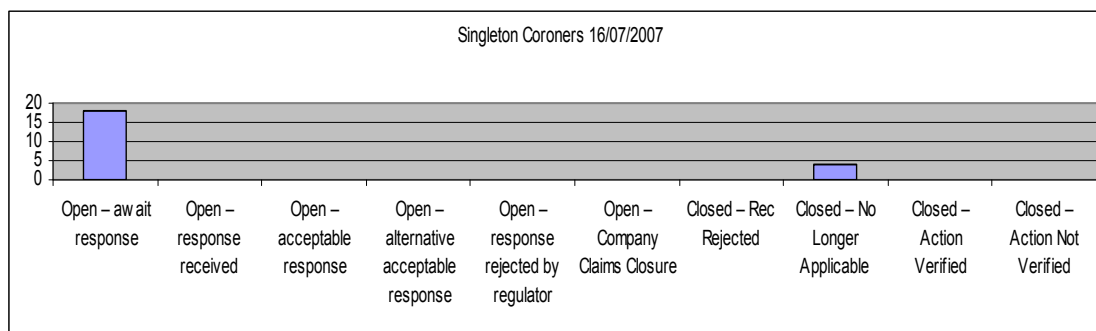
Title: CORONER'S SINGLETON REPORT
Date of incident: 16.07.2007
Date published: 13.03.2009
No of Recommendations: 22 (Rail Transport Operators 22)

Description of incident: At approximately 5:48am on 16 July 2007, a signal electrician and his assistant (hereafter referred to as "the Electrician" and "the Electrician's Assistant" respectively and collectively as "the two rail maintenance workers") were struck and fatally injured by Pacific National's coal service HV161 at No.56A points approximately 445m South of Singleton railway station. The two rail maintenance workers had been called-out to attend to the points which had malfunctioned earlier in the morning. Analysis of recorded conversations between the Electrician and the network controller in charge of train movements through Singleton, together with signal records, revealed that the two rail maintenance workers were working under a method of worksite protection known as NAR (*No Authority Required*). Under this arrangement, one of them was required to keep a lookout for approaching trains at all times.

Focus of recommendations: Infrastructure Managers and ITSRR to review the applicability of "No Authority Required" (NAR) worksite protection. Infrastructure manager to review the risks associated with fatigue.

Progress with safety outcomes: ITSRR advised the Singleton Coroner that the intent of recommendations 8 and 9 are no longer applicable as the issues have been addressed by the *Rail Safety Act 2008*. Accordingly, these recommendations have been marked as 'closed – no longer applicable'. ITSRR has commenced the process of engaging with interested parties in relation to the remaining recommendations.

Current status



DETAILS OF 'OPEN' RAIL RECOMMENDATIONS – Singleton Coroner's on 16.7.2007

No:	Detail of recommendation:	Agency:	'Open' status:
1.	It is not appropriate to abolish the No Authority Required method of working; however, it should not be used during hour of darkness or when visibility is restricted by environmental factors. Rules should be modified to reflect this within three months.	Australian Rail Track Corporation	Open – awaiting response
2.	A minimum of two lookouts should be employed unless the line being worked on is a single direction line. A primary lookout should be placed further away from the expected train direction, looking past any worker in the direction from which a train may be expected to come, and more than 10 metres but not more than 15 metres from the closest worker. A second lookout should be placed further down the line to warn of the approach of a wrong-running direction train. Subject to the foregoing, the actual placement of the lookouts should remain a matter for the Protection Officer. Rules should be modified to reflect this safety feature within three months.	Australian Rail Track Corporation	Open – awaiting response
3.	Lookouts should have two independent methods of altering workers to the approach of a train. To the extent that this does not already exist, rules need to be modified to make this a requirement within 6 months.	Australian Rail Track Corporation	Open – awaiting response
4.	The Protection Officer associated with any work team intending to work within the danger zone must notify Network Control of the location of the work area, the number of crew in the team, the nature of the work to be done and expected duration of the work. Any alteration of particulars is to be notified. Network Control is to be notified when the work team has vacated the danger zone.	Australian Rail Track Corporation	Open – awaiting response

No:	Detail of recommendation:	Agency:	'Open' status:
5.	Network Control must notify the crew of any train operating through or near any notified work, location of the work, the number of crew in the team, the nature of the work being done and the expected duration of the work. Network Control is to notify all such crews when advised that the work team has vacated the danger zone.	Australian Rail Track Corporation	Open – awaiting response
6.	Network Control must notify the Protection Officer of all trains expected to operate near or pass through the worksite during the anticipated duration of the work. This need not be done as a block at the commencement of the entry to the site, but as a continuous update but giving no less than 10 minutes notice prior to the anticipated arrival of rail traffic.	Australian Rail Track Corporation	Open – awaiting response
7.	Rules should be modified to cause of recommendations contained in 4.5 and 6 above to be implemented within 6 months.	Australian Rail Track Corporation	Open – awaiting response
10.	The Network Rules should be modified to allow drivers of trains approaching each other in different directions to dim the headlights instead of extinguishing same. If dimmed light shown by one train approaching another is still so bright that a driver has problems looking toward it, a mechanical means of reducing the light intensity, such as installing modified blinds or shades in driving positions should be employed. Train headlights should be returned to normal immediately the lead locomotive of the opposing direction is passed.	Australian Rail Track Corporation	Open – awaiting response
11.	<p>Should the recommendation restricting the use of the NAR method of working to daylight hours not be accepted, then the rules relating to the use of NAR as a method of working during hours of darkness or reduced visibility should be modified within 6 months to include the following requirements:</p> <ul style="list-style-type: none"> a) at least two lookouts should be employed in respect of every work team b) each lookout needs to be equipped with two independent methods of warning workers of the approach of a train c) the speed at which trains pass through the danger zone in a work site needs to be reduced to no more than 15 kph d) you believe it was them portable warning devices such as flashing lights beside the track should be used by a work party to identify the location e) workers within the rail corridor should be issued with and use self illuminating and reflective clothing to enhance the chance of their being seen f) the Protection Officer for a work party must notify network control of the intention to enter, and of actual entry to carry out work within the danger zone, and of the locations, number of crew, nature of the work and estimated duration of work, of any modifications of those particulars, and of the 	Australian Rail Track Corporation	Open – awaiting response

No:	Detail of recommendation:	Agency:	'Open' status:
	<p>withdrawal from the danger zone</p> <p>g) Network Control must notify the crew of any train operating through or near the location of the particulars notified by the Protection Officer, of any modification of those particulars, and of withdrawal of the work crew from the danger zone</p> <p>h) Network Control must notify in a timely manner the Protection Officer of expected traffic during the duration of the work period</p> <p>i) Network Control and the Protection Officer must have the ability to speak to each other instantly.</p>		
12.	It is not appropriate to abolish the No Authority Required method of working; however, it should not be used during hour of darkness or when visibility is restricted by environmental factors. Rules should be modified to reflect this within three months.	RailCorp	Open – awaiting response
13.	A minimum of two lookouts should be employed unless the line being worked on is a single direction line. A primary lookout should be placed further away from the expected train direction, looking past any worker in the direction from which a train may be expected to come, and more than 10 metres but not more than 15 metres from the closest worker. A second lookout should be placed further down the line to warn of the approach of a wrong-running direction train. Subject to the foregoing, the actual placement of the lookouts should remain a matter for the Protection Officer. Rules should be modified to reflect this safety feature within three months.	RailCorp	Open – awaiting response
14.	Lookouts should have two independent methods of altering workers to the approach of a train. To the extent that this does not already exist, Rules need to be modified to make this a requirement within 6 months.	RailCorp	Open – awaiting response
15.	The Protection Officer associated with any work team intending to work within the danger zone must notify Network Control of the location of the work area, the number of crew in the team, the nature of the work to be done and expected duration of the work. Any alteration of particulars is to be notified. Network Control is to be notified when the work team has vacated the danger zone.	RailCorp	Open – awaiting response
16.	Network Control must notify the crew of any train operating through or near any notified work, location of the work, the number of crew in the team, the nature of the work being done and the expected duration of the work. Network Control is to notify all such crews when advised that the work team has vacated the danger zone.	RailCorp	Open – awaiting response

No:	Detail of recommendation:	Agency:	'Open' status:
17.	Network Control must notify the Protection Officer of all trains expected to operate near or pass through the worksite during the anticipated duration of the work. This need not be done as a block at the commencement of the entry to the site, but as a continuous update but giving no less than 10 minutes notice prior to the anticipated arrival of rail traffic.	RailCorp	Open – awaiting response
18.	Rules should be modified to cause of recommendations contained in 4.5 and 6 above to be implemented within 6 months.	RailCorp	Open – awaiting response
21.	The Network Rules should be modified to allow drivers of trains approaching each other in different directions to dim the headlights instead of extinguishing same. If dimmed light shown by one train approaching another is still so bright that a driver has problems looking toward it, a mechanical means of reducing the light intensity, such as installing modified blinds or shades in driving positions should be employed. Train headlights should be returned to normal immediately the lead locomotive of the opposing direction is passed.	RailCorp	Open – awaiting response
22.	<p>Should the recommendation restricting the use of the NAR method of working to daylight hours not be accepted, then the rules relating to the use of NAR as a method of working during hours of darkness or reduced visibility should be modified within 6 months to include the following requirements:</p> <ul style="list-style-type: none"> a) at least two lookouts should be employed in respect of every work team b) each lookout needs to be equipped with two independent methods of warning workers of the approach of a train c) the speed at which trains pass through the danger zone in a work site needs to be reduced to no more than 15 kph d) you believe it was them portable warning devices such as flashing lights beside the track should be used by a work party to identify the location e) workers within the rail corridor should be issued with and use self illuminating and reflective clothing to enhance the chance of their being seen f) the Protection Officer for a work party must notify network control of the intention to enter, and of actual entry to carry out work within the danger zone, and of the locations, number of crew, nature of the work and estimated duration of work, of any modifications of those particulars, and of the withdrawal from the danger zone g) Network Control must notify the crew of any train operating through or near the location of the particulars notified by the Protection Officer, of any modification of those particulars, and of withdrawal of the work 	RailCorp	Open – awaiting response

No:	Detail of recommendation:	Agency:	'Open' status:
	<p>crew from the danger zone</p> <p>h) Network Control must notify in a timely manner the Protection Officer of expected traffic during the duration of the work period</p> <p>i) Network Control and the Protection Officer must have the ability to speak to each other instantly.</p>		

3.0 OVERVIEW FERRY

3.1 Ferry Safety Investigation Reports

A summary of the outstanding Ferry Safety Investigation Reports is provided in the table below. The table includes those reports that have been closed this quarter. A summary of the OTSI reports that have been closed previously is provided at annexure "1".

No.	Title of Report:	Short title:	Date of incident:	Date tabled:	No. of Recs	Status
1.	Systemic Investigation into incidents of collision involving Freshwater Class Vessels	Freshwater Class Systemic Investigation	October 2004 to October 2005	30.10.06	42	Open
2.	Fatal Collision between Dawn Fraser and dinghy at Walsh Bay	Walsh Bay – Dawn Fraser	5.01.07	22.06.07	11	Closed
3.	Fatal Collision between Pam Burrige and recreational cruiser Merinda under Sydney Harbour Bridge	Port Jackson – Pam Burrige	28.03.07	25.03.08	16	Closed

3.2 A summary of the status of each of the recommendations included in the outstanding open OTSI ferry reports is provided below.

Reporting framework for TREC agencies implementation of reports															
Regulator	Report Agency	Name of report	Date of Incident	Date Report Tabled	Open – await response	Open – response received	Open – acceptable response	Open – alternative acceptable response	Open – response rejected by regulator	Open – Company Claims Closure	Closed – Rec Rejected	Closed – No Longer Applicable	Closed – Action Verified	Closed – Action Not Verified	Total no. of recommendations
Maritime	OTSI	Freshwater Class Ferries -	Oct 04 to Oct 05	30/10/2006			6				1		32	3	42
	OTSI	Walsh Bay - Dawn Fraser	5/01/2007	22/06/2007									11		11
	OTSI	Port Jackson - Pam Burridge	28/03/2007	25/03/2008									13	3	16
				TOTAL:			6				1		56	6	69

3.3 Analysis of OTSI Ferry Report Recommendations

During the reporting period, three (3) ferry recommendations were marked as “closed”. A total of ten (10) ferry safety investigation reports are now closed, and only one (1) remains open. There are currently six (6) outstanding ferry recommendations and 131 ‘closed’ recommendations, which represent 96% of all recommendations.

3.4 General comment

On 30 October 2008, NSW Maritime conducted an audit to verify SFC closed recommendations. All SFC recommendations marked as ‘closed – not verified’ were successfully assessed as ‘closed – verified’ by this audit.

3.5 SECTORAL UPDATE FERRY

Individual summaries have been prepared for each of the following open OTSI Ferry Safety Investigation Reports:

1. Freshwater Class Systemic Investigation
2. Walsh Bay – Dawn Fraser
3. Port Jackson – Pam Burrige

Title: FRESHWATER CLASS SYSTEMIC INVESTIGATION

Date of incident: October 2004 to October 2005

Date tabled: 30 October 2006

No of Recommendations: 42 (SFC-38, NSWMM -4)

Description of incident: Throughout the period October 2004 to October 2005, Freshwater class vessels operated by Sydney Ferries Corporation (SFC), more commonly known as Manly Ferries, were involved in 11 reported collisions. All of these reported collisions were the subject of some form of investigation, either by SFC, NSW Maritime and/or the Office of Transport Safety Investigations (OTSI). However, in view of what appeared to be an adverse safety trend and recurring safety issues, and in the interests of public transport safety, the Chief Investigator initiated a systemic investigation into the incidents.

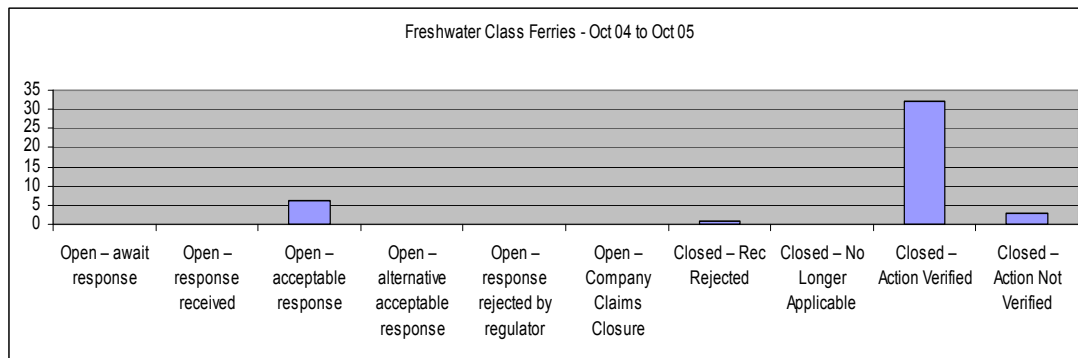
Focus of recommendations: The recommendations to SFC were categorised into the areas of risk management, emergency management, training, communications, crew resource management and maintenance. A number of other recommendations relate to NSW Maritime monitoring and auditing SFC operations and projects.

Progress with safety outcomes: The implementation of the remaining open recommendations is progressing well. SFC recently closed one further recommendation, which is now classed as 'closed – not verified'. This recommendation concerned the development of check lists for all classes of vessel for normal emergency procedures. NSW Maritime will continue to monitor the implementation of the outstanding open recommendations. The rejected recommendation referred to SFC masters assessing the fitness-for-duty of all crew prior to each shift. This has been rejected as SFC is still negotiating a higher health standard for ferry crews with the unions as part of the next Enterprise Bargaining Agreement (EBA).

SFC has advised that significant progress has been made on recommendations concerning crew

rostering and shift alignment and that a new system is due to commence on 29 June 2009.

Current status



DETAILS OF 'OPEN' FERRY RECOMMENDATIONS – Freshwater Class Systematic Investigation Report on 30/10/2006

No:	Detail of recommendation:	Agency:	'Open' status:
10	Continue to progress, in concert with Unions, the development of a cogent and contemporary fitness-for – work policy and ensure that NSW Maritime is kept informed of the status of this important endeavour.	SFC	Open – acceptable response
14	Review the Fleet Emergency Response Plan (FERP) to ensure consistency with the State Disaster Plan (DISPLAN) and legislative requirements.	SFC	Open – acceptable response
29	Ensure that 'lessons learned' from accidents, incidents, exercises, drills and risk assessments are formally distributed to crews and relevant staff members.	SFC	Open – acceptable response
31	Minimise the rotation of crew members during a shift and ensure that any rotation that must occur does not take place without reference to the Master.	SFC	Open – acceptable response
32	Align shifts so that all members of a crew start work at the same time.	SFC	Open – acceptable response
38	Conduct an analysis of critical failure modes on all classes of vessels, commencing with the Freshwater class, with particular emphasis on propulsion control systems.	SFC	Open – acceptable response

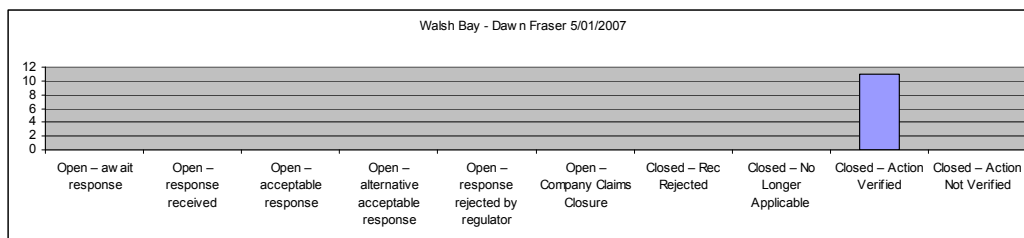
Title: FATAL COLLISION BETWEEN DAWN FRASER AND DINGHY AT WALSH BAY
Date of incident: 5 January 2007
Date tabled: 22 June 2007
No of Recommendations: 11 (SFC-6, NSWMM -5)

Description of incident: At about 6:56am on Friday 5 January 2007, Sydney Ferries' Rivercat *Dawn Fraser* was in transit from the Balmain Shipyard to Circular Quay to begin its daily scheduled services when it collided with a small aluminium runabout/dinghy on the Eastern side of Walsh Bay. The point of impact was approximately 300 metres West of the Sydney Harbour Bridge and 150 metres North-West of Dawes Point. The dinghy was occupied by two adult males, one aged in his 60s and the other, who was his son, aged in his 30s. Before the collision, the younger man was able to jump clear of the dinghy into the water, but his father was in the dinghy when it was struck. The older man died as a result of his injuries on 13 January 2007.

Focus of recommendations: The recommendations directed to NSW Maritime focus on the establishment of a 15 knot speed limit in the approaches to, and under, the Sydney Harbour Bridge; the consideration of extending the Priority Over Sail, "Orange Diamond" signal to all SFC ferries; and the review of the NSW Maritime educational materials distributed to boaters. The recommendations directed to SFC all focus on operational and crew training and procedures.

Progress with safety outcomes: The final remaining open recommendation directed to NSW Maritime was recently closed with the commencement of the practical component of the boat licence test commencing on 1 June 2009. There are no outstanding open recommendations with SFC. This incident is now closed.

Current status



Title: **FATAL COLLISION BETWEEN *PAM BURRIDGE* AND RECREATIONAL CRUISER *MERINDA* UNDER SYDNEY HARBOUR BRIDGE**

Date of incident: 28 March 2007

Date tabled: 25 March 2008

No of Recommendations: 16 (5 x SFC, 9 x NSW Maritime, 1 x Sydney Ports Corporation (SPC), 1 x Australian Maritime Officers Union (AMOU))

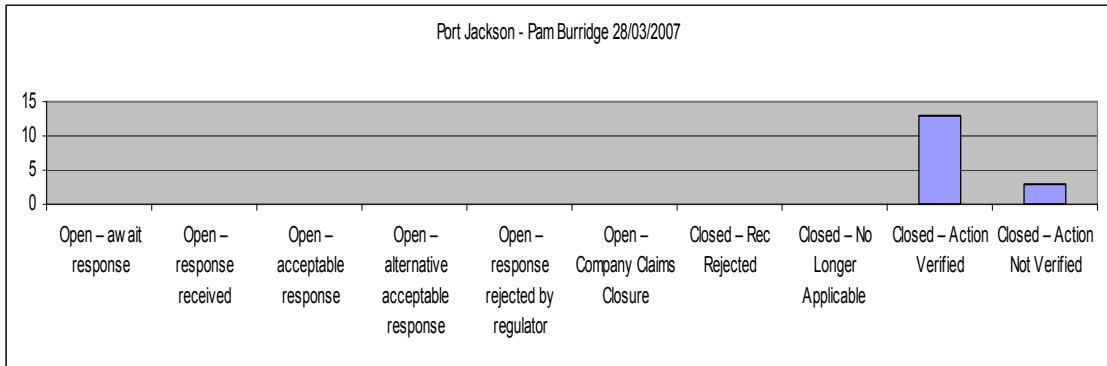
Description of incident: At approximately 10:50pm on Wednesday 28 March 2007, Sydney Ferries HarbourCat *Pam Burridge* collided with the starboard side of the motor cruiser *Merinda* some 96 metres East of the Harbour Bridge and 180 metres out from the shoreline of Dawes Point. As a result of the collision, *Merinda* was effectively cut in two and twelve people on board were either thrown into the water or left standing on, or clinging to, the wreckage of the launch. As a result of the collision, four passengers on board *Merinda* were fatally injured and the remaining eight required hospitalisation. Three of the surviving eight passengers were seriously injured.

Focus of recommendations: The recommendations to SFC focused on the fitting of data recorders and real-time vessel trackers, time-tabling and adherence to the Sydney Cove Code of Conduct. The recommendations to NSW Maritime focused primarily on the review of current licensing arrangements and vessel lighting, as well as increased presence of Boating Service Officers during night hours. The recommendation to SPC involved risk assessments for moving traffic control to Port Botany. The recommendation to the AMOU was to impress on its members who are SFC masters of the need to comply with safe operating requirements at all times.

Progress with safety outcomes: The final remaining open recommendation directed to NSW Maritime was recently closed, with the commencement of the practical component of the boat licence test commencing on 1 June 2009. There are no outstanding open recommendations relating to this incident although three are “closed – not verified” and will be verified at the next audit of SFC later in 2009.

The recommendation to the AMOU is not being followed up by NSW Maritime as NSW Maritime does not have regulatory oversight of the AMOU. This action as therefore been marked as “closed – action not verified”.

Current status



4.0 OVERVIEW BUS

4.1 Bus Safety Investigation Reports

A summary of the outstanding bus Safety Investigation Reports is provided in the table below. The table includes those reports that have been closed this quarter. A summary of the OTSI Rail Safety Investigation reports that have been closed previously is provided at annexure "1".

No.	Title of Report:	Short Title	Date of incident:	Date tabled:	No. of Recs	Status
4.	Overseas-sources buses – systemic Investigation	System Investigation	N/A	30.01.08	5	Open
5.	Bus accidents occasioning death and serious injury	Various Accidents	19-27.06.07	14.08.08	12	Open
6.	Serious injuring of a young cyclist after being struck by a bus, Parklea	Parklea	12.11.07	5.02.09	8	Open

4.2 A summary of the status of each of the recommendations included in the outstanding open OTSI bus reports is provided below.

Reporting framework for TREC agencies implementation of reports															
Regulator	Report Agency	Name of report	Date of Incident	Date Report Tabled	Open – await response	Open – response received	Open – acceptable response	Open – alternative acceptable response	Open – response rejected by regulator	Open – Company Claims Closure	Closed – Rec Rejected	Closed – No Longer Applicable	Closed – Action Verified	Closed – Action Not Verified	Total no. of recommendations
	OTSI	Overseas sourced buses - systemic invest	18/11/2005	23/01/2008			1	1			1			2	5
	OTSI	Various Accidents	19-27/6/2007	14/08/2008			2			1		1	4	4	12
	OTSI	Cyclist struck by bus - Parklea	12/11/2007		1	3				4					8
				TOTAL:	1	4	3			5	1	1	6	4	25

4.3 Analysis of OTSI Bus Report Recommendations

During the reporting period, six (6) bus recommendations were marked “closed”. A total of seven (7) bus safety investigation reports are now closed. There are currently 13 outstanding bus recommendations, relating to three (3) reports and 68 “closed” recommendations, which represent 84% of all recommendations.

4.4 SECTORAL UPDATE BUS

Individual summaries have been prepared for each of the following open OTSI Bus Safety Investigation Reports:

1. Overseas-Sourced Buses (systemic investigation)
2. Bus accidents occasioning death and serious injury
3. Serious injuring of a young cyclist after being struck by a bus at Parklea

Title: THE IMPORTATION AND REGISTRATION OF OVERSEAS-SOURCED BUSES IN NSW (Systemic Investigation)

Date tabled: 30.01.08

No of Recommendations: 5 (RTA 4 and MoT1)

Description of incident: On 5 September 2005, a driver with only five weeks driving experience in Australia lost control of a bus carrying 24 occupants while descending Jamberoo Mountain Road. Two passengers died at the scene and a third died later in hospital as a result of injuries sustained in the crash. OTSI's investigation into this accident established that the driver lost control of the bus because of poor driving technique which caused the bus's brakes to overheat. It also established that at the time of its importation as a second-hand vehicle into Australia, the bus had been equipped throughout with seat belts but that these had been removed because they, and the associated anchorages, did not meet the related Australian Design Rules (ADRs). The bus was then presented for registration as a commercial vehicle in NSW by the importer. Although the bus did not meet the specific ADRs relating to seat-belts, and therefore the requirements for registration as a commercial vehicle in NSW, it was registered. Concerned by this and other anomalies, the Chief Investigator initiated a 'systemic' investigation into the importation and registration of buses from overseas for commercial operations in NSW.

Focus of recommendations:

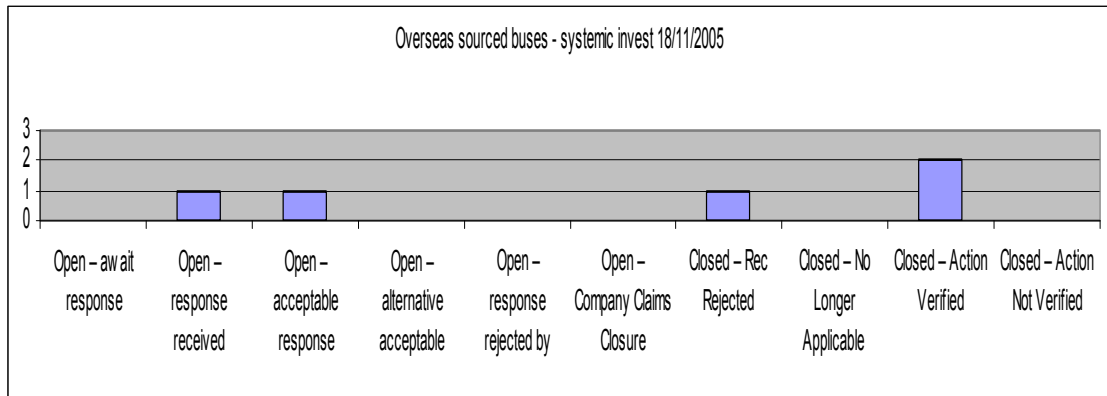
A review of the concession that allows the importation of pre-1989 buses that do not meet safety standards, and a review of the training and information provided to Authorised Unregistered Vehicle Inspection Scheme inspectors. A requirement that all applicants for LR, MR and HR class driver licences to undertake and pass a road knowledge test in English.

Progress with safety outcomes:

MoT is undertaking further consultation with the RTA in relation to the recommendation that applicants undertake and pass the road knowledge test in English. A further meeting to discuss this issue with the RTA has been scheduled for late June 2009. In relation to the other remaining

recommendation, the RTA advises that the design and construction standards that are applicable to buses are administered by the Department of Infrastructure, Transport, Regional Development and Local Government (DOITRDALG) through the Australian Design Rules. The RTA has raised the issue of seats in buses with the relevant national committee. The Ministry has written to the RTA to seek a further update on this recommendation.

Current status



DETAILS OF 'OPEN' BUS RECOMMENDATIONS – Overseas-Sourced Buses (Systemic Investigation)

No:	Detail of recommendation:	Agency:	'Open' status:
3.	Remove the anomaly which permitted some types of new buses in NSW that were not intended to convey standing passengers to be registered even though they were not fitted with seatbelts throughout.	RTA	Open – response received
5.	Institute a requirement for all applicants for a public passenger bus driver's authority to provide evidence that they have been examined and passed the road knowledge test in English.	MoT (subject to RTA capability)	Open – Acceptable response

- Title:** **BUS ACCIDENTS OCCASIONING DEATH AND SERIOUS INJURY WEST PENNANT HILLS, RUTHERFORD AND SYDNEY CBD 19-27 JUNE 2007**
- Date tabled:** 14.08.08
- No of Recommendations:** 12 (MoT 1, RTA 3, STA 2, Transurban Group 2, Hillsbus 2, Hunter Valley 2)
- Description of incident:** During the period 19 – 27 June 2007 two pedestrians and a cyclist were killed and a fourth person was seriously injured in separate accidents after being struck by a bus.
- **M2 Motorway, West Pennant Hills:** On 19 June 2007, a male adult pedestrian sustained fatal injuries after being struck by a bus, operated by Hillsbus, on the M2 Hills Motorway at West Pennant Hills. The pedestrian had alighted from a car and was attempting to cross three lanes of traffic when hit by the bus in a 'Buses Only' lane.
 - **Clarence Street, Sydney CBD:** On 19 June 2007, a female adult pedestrian sustained fatal injuries after being struck by a bus operated by the State Transit Authority (STA), while crossing Clarence Street near where it intersects Druitt Street in the Sydney CBD.
 - **Arthur Street, Rutherford:** On 20 June 2007, a 16 year old male cyclist was killed after he lost control of his bicycle and was run over by a bus, operated by Hunter Valley Buses, at the intersection of Hillview and Arthur Streets at Rutherford.
 - **Druitt Street, Sydney CBD:** On 27 June 2007, a female adult pedestrian sustained serious injuries after being struck by a bus, operated by the STA, while crossing Druitt Street near its intersection with Kent Street in Sydney CBD.

OTSI found that in relation to each accident, the pedestrians and the cyclist placed themselves at risk and that the ensuing accidents could not, in any way, be attributed to the actions of the bus drivers.

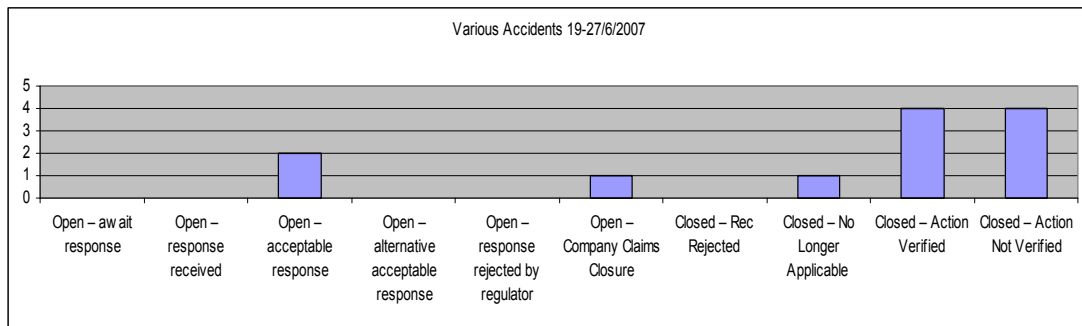
- Focus of recommendations:** The recommendations focused on the need for buses to be equipped with external CCTV, for operators to review the positioning of external mirrors, to revise pedestrian management in the

CBD and at bus interchanges as well as the need to improve barriers and signage at various locations.

Progress with safety outcomes:

Recommendations 4, 5, 6, 7, and 8 have now been closed. In regards to recommendation 10 and 11, the affected parties have informed the Ministry that they have actioned the recommendations. The Ministry is currently reviewing this advice before closure. In regards to recommendation 3, the RTA and the City of Sydney have formed a steering group to consider and develop safety options.

Current status



DETAILS OF ‘OPEN’ BUS RECOMMENDATIONS – Various Bus Accidents - 19-27 June 2007

No:	Detail of recommendation:	Agency:	‘Open’ status:
3.	In cooperation with the City of Sydney Council, conduct a trial of ‘countdown’ pedestrian signals at selected locations in the Sydney CBD to determine whether such equipment should be used more widely within the City.	RTA	Open – Acceptable response
10.	Continue to emphasise to its employees the importance of reporting any instance of unsafe activity.	Hillsbus	Open – Affected Party Claims Closure
11.	Review the positioning of all external mirrors throughout its fleet to ensure that the requirements of ADR 14/02 are met and to eliminate blind spots to the extent that it is possible. In the interim, bring to the attention of all of its drivers information concerning blind spots that are already known to exist, and the strategies that should be used to compensate for them.	Hunter Valley Buses	Open – Affected Party Claims Closure

Title: **SERIOUS INJURING OF A YOUNG CYCLIST
AFTER BEING STRUCK BY A BUS AT
PARKLEA**

Date of incident: 12.11.2007

Date tabled: 5.2.2009

No of Recommendations:8 (6 RTA, 1 Dept Education,1 Busways)

Description of incident: About 9:00am on 12 November 2007, a bus travelling Northwards along the newly opened 'T-Way' immediately adjacent to Sunnyholt Road collided with an eight year-old female cyclist at a pedestrian crossing in the immediate vicinity of the Parklea Markets. The young cyclist suffered severe head injuries. After riding her bike across six lanes of Sunnyholt Road, accompanied by her mother, the young cyclist failed to stop at the traffic island separating Sunnyhold Road from the T-Way, despites calls from her mother. However, the young cyclist either did not hear this warning or failed to respond to it continued onto the T-Way, in the face of a red light, into the path of a bus.

**Focus of
recommendations:**

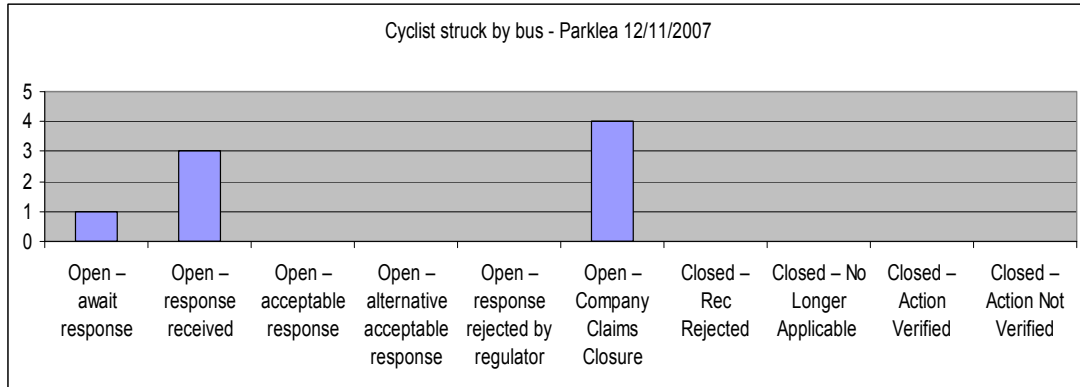
Most of the recommendations were directed to the Roads and Traffic Authority and related to a review of the phasing of the traffic lights, the installation of a safety barrier, and the installation of warning signs at this intersection. Other recommendations related to the promotion of the Parklea Public School's approach to road safety as an example of good practice to other schools throughout NSW. The remaining recommendation was directed to Busways and recommended equipping its buses with CCTV recorders that can cover events both forward and rear of the driver.

**Progress with safety
outcomes:**

In regards to recommendations 1, 2, 3 and 4, the affected parties have informed the Ministry that they have actioned and or rejected the recommendation. The Ministry is currently reviewing this advice before closure. In regards to recommendations 5, 6 and 7, the affected parties have informed the Ministry of Transport that they accept the recommendations and are continuing to investigate the issues. In regard to recommendation 8 the Ministry has written to the affected party seeking advice. The Ministry is

currently awaiting a response from the affected party.

Current status



DETAILS OF 'OPEN' BUS RECOMMENDATIONS – Serious injuring of a young cyclist after being struck by a bus at Parklea

No:	Detail of recommendation:	Agency:	'Open' status:
1.	Review the phasing of the traffic lights governing movement across the pedestrian crossing in the immediate vicinity of the Parklea Markets to ensure that there is sufficient time for pedestrians to safely cross from the North-Western to the South-Eastern side of Sunnyholt Road and the adjoining T-Way in a single bound.	RTA	Open – Party Claims Closure
2.	Give consideration to altering the phasing of traffic lights to allow pedestrians seeking to cross from the South-Eastern to the North-Western side of the T-Way and Sunnyholt Road to do so in a single bound.	RTA	Open – Party Claims Closure
3.	Review the phasing of the traffic control lights in the in the immediate vicinity of the Parklea Markets with a view to providing an interval between the time lights governing movement on the pedestrian crossing revert to red and the time those governing vehicle movement on Sunnyholt Road and the T-Way revert to green.	RTA	Open – Party Claims Closure
4.	Install a safety barrier, similar to those that can be seen elsewhere along Sunnyholt Road, on the traffic island between Sunnyholt Road and the T-Way in the immediate vicinity of the Parklea Markets to prevent pedestrians from simply continuing to move straight across the island onto the T-Way.	RTA	Open – Party Claims Closure

No:	Detail of recommendation:	Agency:	'Open' status:
5.	Install 'Look Both Ways' signs on the carriageway in the immediate vicinity of the pedestrian crossing opposite Parklea Markets.	RTA	Open – Response received
6.	Install 'Riders to dismount' signage adjacent to the pedestrian crossing in the immediate vicinity of the Parklea Markets and at all other locations in NSW where a pedestrian crossing that is not equipped with bicycle crossing lights is immediately preceded by a cycle path.	RTA	Open – Response received
7.	Consider using Parklea Public School's approach to encouraging students to walk or ride to school and its road safety education program as an example of good practice to other schools throughout NSW.	Dept of Education and Training	Open – Response received
8.	Equip its buses with CCTV recorders that can cover events both forward and rear of the driver and which can be relied upon to capture high resolution images even when the bus is subject to the forces associated with a collision.	Busways	Open – Awaiting Response from Affected Party

5.0 A summary of completed Rail, Ferry and Bus Safety Investigation Reports is provided in the table below:

No.	Title of Report	Short title	Date Of Incident	Date Tabled by Minister	Area of Operations	No of Recs	Status
COMPLETED <u>RAIL</u> SAFETY INVESTIGATION REPORTS (OTSI and Coroners)							
1.	Pacific National train 4YN2 derailed due to misalignment	Rocky Ponds	7.11. 2002	7.7.04	DIRN	12	Closed
2.	Pacific National train G9821 derailed due to misalignment	Yass Junction	19.11.02	5.8.04	DIRN	23	Closed
3.	Signal passed at Danger resulting in derailment of Pacific National Service B9162	Unanderra	20.6.03	5.8.04	Metro (Illawarra)	7	Closed
4.	Road Motor Vehicle Struck By Countrylink Xplorer Service NP23a on Barabah Street Level Crossing (530.780 kms)	Baan Baa	4.5.04	23.5.05	CRN	17	Closed
5.	Coroner’s Inquiry into the above incident	Bann Baa (Coroners)	As above	N/A	As above	2	Closed
6.	Shunting Fatality – Port Botany Rail Yard	Port Botany	1.7.04	6.7.05	Yard	15	Closed
7.	Derailment of Pacific National Wheat Service 5424 – Old Burren	Old Burren	6.4.05	25.11.05	Grain Line	12	Closed
8.	Fatal Level crossing Collision – Grawlin Plains	Grawlin Plains	31.5.05	3.1.06	CRN	10	Closed

No.	Title of Report	Short title	Date Of Incident	Date Tabled by Minister	Area of Operations	No of Recs	Status
9.	Opposing Movement between coal trains – Bloomfield	Bloomfield	20.8.05	27.7.06	Balloon Loop	6	Closed
10.	Derailment of 4BM7 Lidcombe	Lidcombe	4.11.05	21/12/06	Metro	14	Closed
11.	Derailment of Pacific National Freight Services CB76 and 1WB3	Lapstone - Wauchope	1.3.05 and 7.3.05	31/01/07	DIRN, Metro (Blue Mtns)	5	Closed
12.	Signal passed at danger by CityRail Service 67-R resulting in an opposing movement, North Strathfield	North Strathfield	2.9.06	28.9.07	Metro	10	Open
					TOTAL:	133	
COMPLETED <u>RAIL</u> SAFETY INVESTIGATION REPORTS (ATSB)							
13.	Pacific National train 4YN2 derailed due to misalignment	Beresfield	23.10.1997	1.1.1998	DIRN	6	Closed
14.	Near collision between stationary Coal Train LD 166 and an empty Endeavour Passenger Train D743	Sandgate	25.2.2004	21.9.2005	DIRN	11	Closed
15.	Derailment of coal train DS212 departing Bloomfield colliery loop Thornton, NSW	Thornton	11.10.2004	23.1.2006	Intersection between Balloon Loop and DIRN	6	Closed
16.	Derailment of XPT Passenger Train ST22 at Harden New South Wales	Harden	9.02.2006	28.6.2007	DIRN	1	Closed
17.	Derailment of Freight Train 3AB6 Yerong Creek, NSW	Yerong Creek	4.01.2006	29.01.2008	DIRN	3	Closed

No.	Title of Report	Short title	Date Of Incident	Date Tabled by Minister	Area of Operations	No of Recs	Status
18.	Level crossing collision – Back Creek NSW	Back Creek	10.03.2007	31.07.2008	DIRN	1	Closed
19.	Signal passed at Danger – Gloucester	Gloucester	11.03.2008	15.08.2008	DIRN	2	Closed
					TOTAL:	30	

No.	Title of Report:	Short title:	Date of incident:	Date tabled:	No. of Recs	Status
COMPLETED <u>FERRY</u> SAFETY INVESTIGATION REPORTS						
* These reports were prepared by the Australian Transport Safety Bureau (ATSB) for OTSI at the request of the Chief Investigator.						
1.	Collision of Betty Cuthbert with Wharf No 5 Circular Quay	Circular Quay – Betty Cuthbert	29.09.05	03.03.06	10	Closed
2.	Collision of the Manly Ferry Collaroy Number 3 West Wharf, Circular Quay	Circular Quay – Manly Ferry	04.03.05	01.12.05	11	Closed
3.	Collision of the Louise Sauvage at the Rose Bay Wharf	Rose Bay – Louise Sauvage	12.05.04	08.07.05	13	Closed
4.	Lady Herron – Collision with Wharf	Circular Quay Lady Herron	20.02.04	* Published 16.02.06	6	Closed
5.	Collision between Betty Cuthbert and two moored vessels at Fern Bay	Cockatoo Island – Betty Cuthbert	11.01.06	31.07.06	6	Closed
6.	Betty Cuthbert – Collision with Wharf	Sydney Harbour – Betty Cuthbert	19.02.04	* Published 16.02.06	4	Closed

No.	Title of Report:	Short title:	Date of incident:	Date tabled:	No. of Recs	Status
7.	Collaroy Collision with Wharf No 2 Circular Quay	Circular Quay – Collaroy	19.09.05	20.04.06	11	Closed
8.	Collision of the Manly Ferry Narrabeen Number 5 Wharf, Circular Quay	Circular Quay – Narrabeen	26.05.05	01.04.06	7	Closed
				TOTAL:	68	
COMPLETED <u>BUS</u> SAFETY INVESTIGATION REPORTS						
1.	Woodpark (air brake failure on bus resulting in a collision)	Woodpark	3.03.04	15.03.05	9	Closed
2.	Gosford (Sudden brake application resulted in multiple injuries)	Gosford	8.06.04	13.01.05	3	Closed
3.	JAMBEROO (Fatal bus accident – Jubo Travel)	Jamberoo	5.09.05	1.09.06	8	Closed
4.	STA Bus Collision – Spit Road, Mosman	Spit Road, Mosman	14.11.05	22.09.06	11	Closed
5.	BLIND SPOT BUSES (systematic Investigation)	Blind Spot buses	22.2.05	6.10.05	5	Closed
6.	EASTERN DISTRIBUTOR TUNNEL (collision between two STA buses)	Eastern Distributor Tunnel	25.2.05	7.11.05	10	Closed
7.	Fatal injuries sustained by a pedestrian struck by a Veolia Bus Kensington and Montgomery Streets Kogarah	Kogarah	2.5.06	28.2..07	10	Closed
				TOTAL:	56	