Rail Safety Regulator's Report

2012-13

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Message from the Director-General

I am pleased to report on the achievements of Queensland's Rail Safety Regulator (the Regulator) during 2012-13. The Regulator is committed to maintaining and improving safety across Queensland's extensive rail network through communication and collaboration with the rail industry. Their work includes accrediting and auditing rail transport operators, investigating rail occurrences, collecting and analysing rail safety statistics and developing and maintaining rail safety policy and legislation. Data about the safety performance of the 57 accredited rail transport operators in Queensland during 2012-13 is included in this report.

In addition to this work the Regulator team have worked on a range of projects over the last year including a six month study on fatigue management, a review into derailments on the Mount Isa line, conducted 11 compliance investigations and commenced a trial of level crossing technologies. This year the Regulator has also worked with rail providers during the design, construction and commissioning stages of significant new projects like Gold Coast Rapid Transit and Moreton Bay Rail Link. The Regulator's work maintains the public's confidence in the safety of passengers and freight using rail in Queensland and enhances safe rail operations across Queensland.

A safe and efficient rail transport network is vital for connecting Queensland's people, places and businesses. The Queensland Government and rail transport operators across Queensland are acutely aware of the importance of maintaining the safest possible railway operations, and the Regulator will continue to work collaboratively with the rail industry to facilitate this.

Neil Scales

Director-General

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Executive Summary

As at 30 June 2013, there were 57 accredited rail transport operators in Queensland. Of these, 38 are commercial railways and 19 are designated as tourist and heritage railways. The rail industry continues to expand in Queensland and it is expected that there will be over 60 accredited rail transport operators by the end of 2013.

During the year, two significant rail projects have commenced. Construction began on the Gold Coast Rapid Transit and passenger operations are expected by 2014. Preliminary work started on the construction of the Moreton Bay Rail Link and rail construction will start in late 2013. Passenger services are expected to commence in 2016.

There were 93 Category A and 12,480 Category B occurrences reported by rail transport operators. Category A occurrences have dropped by 31% when compared to the average reported between 2008-09 and 2011-12.

One fatality was reported as a result of a collision between a train and a person who had entered the rail corridor. The number of fatalities was a significant decrease from the nine reported in the 2011-12 financial year and 77% below the average reported between 2008-09 and 2011-12.

The Rail Regulation Unit conducted 121 compliance activities during the 2012-13 financial year, exceeding the yearly target by 21%. The Rail Regulation Unit also conducted 11 compliance investigations and finalised three ‘no blame’ investigations during the year. A strong focus was placed on education as a principal method of ensuring compliance with rail safety legislation. During 2012-13, the Rail Regulation Unit attended a number of national and local industry forums, and published safety alerts and reports of ‘no-blame’ rail safety investigations.

There were 13 level crossing collisions with road vehicles. This is slightly above the average reported between 2008-09 and 2011-12 of just over 12.

The Safer Rail Unit developed the *Queensland Level Crossing Safety Strategy 2012-2021* in collaboration with local and state government organisations and industry. The Queensland Government released the strategy in October 2012.

The Safer Rail Unit also established the Queensland Level Crossing Safety Group, comprising managers of level crossing infrastructure and other government and industry representatives, to coordinate implementation of the strategy.

The Minister for Transport and Main Roads introduced an offence and corresponding penalty for causing damage to rail infrastructure at a railway crossing, or causing an obstruction to trains or other drivers at a level crossing.

This year, the Safer Rail Unit instigated a Rail Level Crossing Safety Technology Trials project. Three companies were awarded the contracts for the trials in March 2013. The trials will be evaluated by an independent party to determine the types of systems which are effective in reducing safety risks at level crossings in Queensland.

The Rail Safety Regulator has also been actively involved in the progress of the national rail safety reforms which includes the establishment of the Office of the National Rail Safety Regulator and the National Rail Safety Investigator and the development of the Rail Safety National Law. Work continues in this area.

Part 1 Overview

Queensland's Rail Safety Regulator

The Rail Safety Regulator's principal objective is to facilitate safe railway operations in Queensland.

The role of the Rail Safety Regulator is to enhance rail safety by:

- accrediting persons as rail transport operators
- conducting an assessment of the competency and capacity of rail transport operators
- conducting safety investigations and reviewing rail transport operators' investigation reports
- conducting risk based compliance activities including:
  - audits of rail transport operators' safety management systems
  - conducting inspections of rail safety operators' procedures and practices
- implementing agreed national rail safety legislation reforms
- collecting and analysing rail safety occurrence statistics.

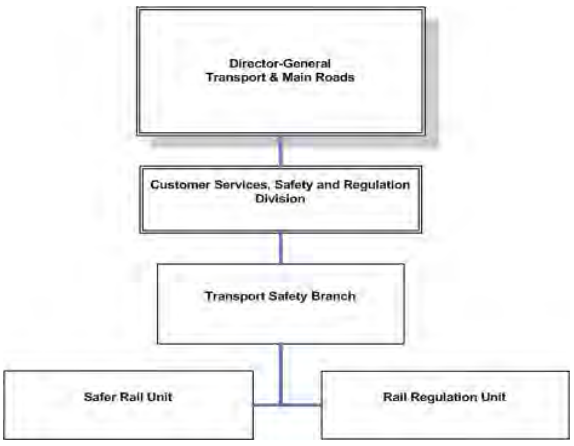
The Director-General of the Department of Transport and Main Roads is the Rail Safety Regulator in Queensland. The Transport Safety Branch is delegated to carry out the functions of the Rail Safety Regulator. The branch administers the *Transport (Rail Safety) Act 2010*, as well as other legislation and policies that relate to the delivery of transport safety outcomes in the state.

The objectives of the *Transport (Rail Safety) Act 2010* are:

- to provide for improvement of the safe carrying out of railway operations
- to provide for the management of risks associated with railway operations
- to make special provision for the control of particular risks arising from railway operations
- to promote public confidence in the safety of transport of passengers or freight by rail.

The functions of the Rail Safety Regulator are managed by two business units of the Transport Safety Branch, Rail Regulation and Safer Rail.

Figure 1: Organisational structure



The Rail Regulation Unit is an operational team with high-level skills in accreditation, auditing, risk management and rail investigation. All unit members are rail safety officers as defined by s137 of the *Transport (Rail Safety) Act 2010*. The Rail Regulation Unit also acts as the competent authority for the regulation of transport of dangerous goods by rail. The Rail Regulation Unit comprises of two teams:

- Compliance and Accreditation.
- Risk and Audit.

The Safer Rail Unit is responsible for the development of rail safety legislation and policy which support rail safety regulation. Safer Rail also deals with rail safety data and provides research support on rail safety issues.

Accredited Rail Transport Operators in Queensland

There are two distinct types of operations for which rail transport operators are accredited:

- Rail infrastructure manager – a person who has control over a railway track or a section of railway track over which rolling stock operates.
- Rolling stock operator – a person who owns or has the right to operate or move rolling stock such as locomotives, wagons, passenger carriages or other on-track vehicles on railway tracks.

Rail transport operators may be accredited for one or both types of operations.

As at 30 June 2013, there were 57 accredited rail transport operators in Queensland. Of these, 38 are commercial railways and 19 are designated as tourist and heritage railways. The list of accredited operators is available in Appendix 1.

Commercial railways conduct rail operations for the purpose of gaining a financial profit for shareholders. Tourist and heritage railways, on the other hand, are organisations focused on the preservation and operation of historic rolling stock or rail infrastructure.

Table 1: Accredited railways as at 30 June 2013

	Commercial	Tourist and Heritage	Total
Rolling Stock Operator	16	5	**21**
Rail Infrastructure Manager	3	0	**3**
Both	19	14	**33**
Total	**38**	**19**	**57**

Rail Infrastructure Managers

The rail industry in Queensland consists of various railway operations providing for the transportation of passengers, bulk and intermodal freight and the delivery of railway infrastructure services. The major rail networks in Queensland are currently managed by two entities – Queensland Rail Limited and Aurizon Network Pty Ltd. Aurizon Network Pty Ltd manages the coal networks while Queensland Rail Limited controls the remainder. Their networks are described as follows:

- Queensland Rail Limited's rail network consists of approximately 7,000km of track and includes the south east Queensland and regional railway network. The south east Queensland railway network is primarily designed to deliver passenger transport services throughout Brisbane and metropolitan areas. The regional freight railway network contains seven railway systems which are primarily designed to provide freight services across various locations within Queensland, from Mt Isa in the west to Cairns in the north.
- Aurizon Network Pty Ltd's rail network consists of approximately 2,670km of heavy haul railway track in central Queensland, primarily designed for the transportation of coal. The network consists of the Moura, Blackwater, Goonyella and Newlands railway systems.

Other rail infrastructure managers may be accredited to look after smaller sections of rail infrastructure such as freight terminals, sidings, balloon loops at mine sites or ports and tourist and heritage railways. These include the following:

- Australian Rail Track Corporation manages 98km of interstate railway infrastructure, known as the Defined Interstate Rail Network (DIRN), from the Queensland border to Acacia Ridge. The DIRN provides the strategic link between Queensland and New South Wales between the ports of Brisbane and Sydney.

  The DIRN carries both XPT passenger train services between Brisbane and Sydney and intermodal freight services from Sydney and Melbourne to Brisbane.
- GoldLinQ Pty Ltd is constructing the Gold Coast light rail network and will manage 13km of light rail infrastructure. Passenger services will commence in 2014.
- There are 14 tourist and heritage railways in Queensland that operate on and manage their own rail infrastructure.

Rolling Stock Operators

Rolling stock operators are involved in the transportation of passengers and/or freight. Passenger services are conducted by commercial operators or tourist and heritage operators. Freight transport services for coal, bulk minerals, intermodal and other freight are provided by commercial operators.

Passenger Services

Commercial passenger services operate within the Brisbane Suburban Network and over long distances to access most areas of Queensland and New South Wales.

Queensland Rail Limited provides passenger services within south east Queensland as well as long distance passenger services to regional Queensland. Long distance passenger services include the

operation of the Tilt Train and Sunlander (Brisbane to Cairns), the Inlander (Townsville to Mt Isa), the Spirit of the Outback (Brisbane to Longreach) and the Westlander (Brisbane to Charleville).

Queensland Rail Limited also provides tourist train services on the Kuranda Scenic Railway (Cairns to Kuranda), the Gulflander (Normanton to Croydon) and, through an arrangement with another provider, the Savannahlander (Cairns to Forsyth).

Tourist and heritage railways operate rolling stock either for display purposes or passenger enjoyment. During 2012-13, 11 of the tourist and heritage railways in Queensland operated steam driven locomotives for the purpose of providing passenger train rides or displays. The two largest tourist and heritage steam locomotive operators are Mary Valley Heritage Railway, located in Gympie and Southern Downs Steam Railway, located in Warwick.

Freight Services

Coal

Queensland's expanding coal export business has seen a substantial increase in bulk coal transportation from mine to port. The coal networks of the Goonyella, Blackwater and Newlands rail systems are currently considered the main avenues for coal transportation in Queensland. However, further development of coal reserves in Central Queensland will see construction of extensive new heavy haul railways in the near future.

The proposed railways will transport large volumes of coal from the developing regions of the Gallilee and Surat Basins in Central Queensland.

Bulk Mineral

The majority of bulk mineral freight is transported on the Mt Isa line in North Queensland. A variety of minerals is carried from the mine sites in the Mt Isa and Cloncurry regions to processing plants situated near the coast or to the Port of Townsville for export.

Intermodal

Intermodal freight services move goods through a combination of transport systems which include rail, road and sea modes. In Queensland, goods are dispatched to all areas via the rail network, from either major Queensland ports or from the interstate freight terminal located at Acacia Ridge.

Other Freight

In addition to bulk mineral and intermodal freight, grain, cattle, sugar products and fuel are transported on all major Queensland rail networks. The transport of this freight is often seasonal and based on market demand and availability of suitable rolling stock.

Construction and Maintenance Services

Some rail transport operators conduct their own construction and maintenance activities. In Queensland there are 10 organisations that provide additional support services in the construction, management and maintenance of railway track and associated rail infrastructure.

Organisations that provide these services may be accredited as a rail infrastructure manager and/or a rolling stock operator. When the organisation has management and control of the track, it is required to be

accredited as a rail infrastructure manager. If the organisation operates on an accredited entity's track it does so as a rolling stock operator.

Part 2 Rail Industry Safety Performance

In Queensland, notifiable occurrences are required to be reported to the Rail Safety Regulator by the relevant rail transport operator. The data is used by the Rail Safety Regulator to determine risks within the rail industry and to measure rail safety performance.

For the purposes of analysis and reporting, each notifiable occurrence report that is received is classified according to the national occurrence classification guideline OC-G1. Classification is generally done by the rolling stock operator, the rail infrastructure manager or in some cases, both, based on information available at the time. In some circumstances the classification of an occurrence may change at a later date as further information comes to hand.

The unit of classification is the top event of an occurrence, which is defined as the event with the greatest adverse outcome, expressed in terms of injury, property damage or occurrence.

An occurrence is also classified by seriousness into either a Category A (major) or Category B (minor) occurrence. Sections 31 and 32 of the *Transport (Rail Safety) Regulation 2010* provide guidance on whether a notifiable occurrence is classified as Category A or Category B.

A Category A notifiable occurrence occurs when an event is one or more of the following:

- An accident or incident that has caused significant property damage, serious injury or death.
- A running line derailment.
- A running line collision between rolling stock.
- A collision at a railway crossing between rolling stock and either a road vehicle or a person.
- A fire or explosion on or in rail infrastructure or rolling stock that affects the safe carrying out of the railway operations or has endangered 1 or more persons.
- A terrorist attack or an act or event suspected to be a terrorist attack.
- An accident or incident involving an inadequacy in the safety management system for the railway operations that could have caused significant property damage, serious injury or death.

A list of occurrence types is included in Appendix 2.

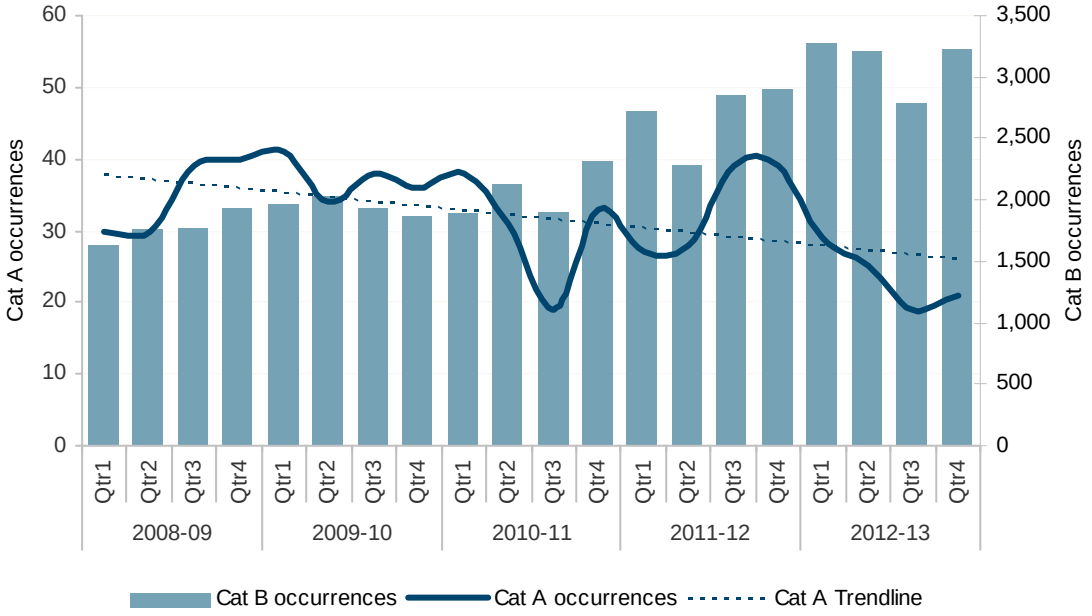
In the 2012-13 financial year there were 93 Category A and 12,480 Category B occurrences reported. The average over the preceding four years was 136 and 8469, respectively.

Figure 2 shows the number of notifiable occurrences reported by quarter since 2008-09 by seriousness. Since the January quarter of 2011-12 there was a 46% decrease in the number of Category A occurrences being reported in Queensland. This decrease is likely the result of a major improvement in safety and changes in reporting procedures. The decrease is consistent with the decreasing trend of Category A occurrences.

The large dip in Category A reporting in the third quarter of the 2010-11 financial year is a result of the widespread flooding that inundated Queensland in January 2011, causing closures to the rail network.

The increase in the number of Category B occurrences over time is likely the result of an increased reporting culture within railway operators. This early detection of minor occurrences may also play a part in the decrease in the number of major occurrences being reported.

Figure 2: Notifiable occurrences by category level reported in Queensland, 2008-09 to 2012-13



Fatalities (excluding suicides, assaults or natural causes)

A fatality is defined as a person who has died within 30 days of a railway occurrence, from injuries sustained in that occurrence. This does not include people who have died due to natural causes, assaults or suspected suicides.

In the 2012-13 financial year there was one fatality reported. This was the result of a collision between a train and a person who had entered the rail corridor. The number of fatalities was a significant decrease from the nine reported in the 2011-12 financial year and is also well below the average reported between 2008-09 and 2011-12 of five.

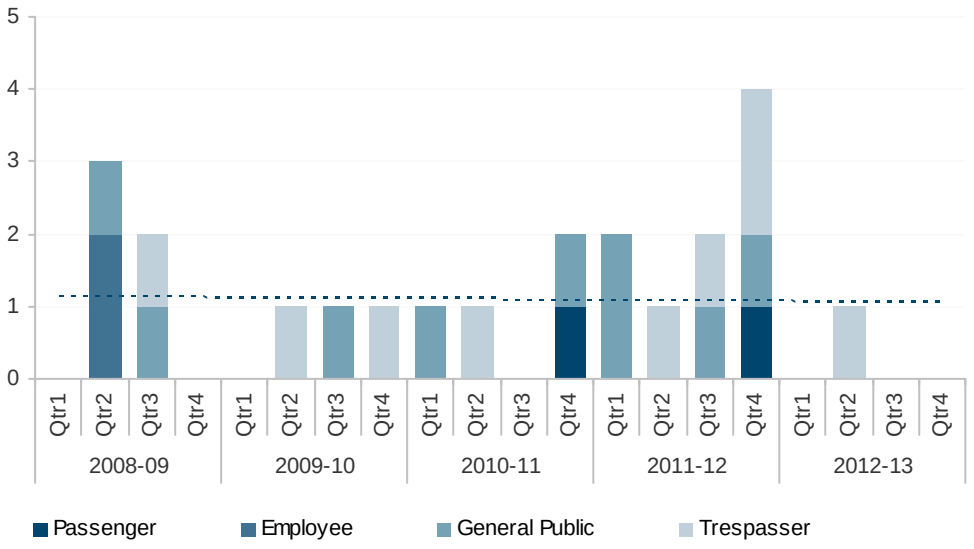
The majority (73% since 2008-09) of fatalities are due to collisions either at level crossings or running line collisions. While both types of occurrence are a direct result of railway operations, it is worth identifying where the balance of responsibility for managing this risk lies in these occurrences. Of the seven running line collisions, five were the result of a collision between a train and a person trespassing within the rail corridor. In these cases the balance of responsibility for managing this risk lies with the individual who chose to engage in dangerous behaviour (trespassing within the rail corridor) rather than with the rail transport operator. Table 2 shows the number of fatalities by occurrence type while Figure 3 shows the number of fatalities by person type in Queensland since 2008-09.

Table 2: Fatalities (excluding suicides, assaults or natural causes), Queensland, 2008-09 to 2012-13

Type		2008/09	2009/10	2010/11	2011/12	2012/13	Total Fatalities	%
Direct result of railway operations	Running line collision	1	2	2	1	1	**7**	**32%**
	Level crossing collision	4	1	1	3	0	**9**	**41%**
Fatalities as a direct result of railway operations		**5**	**3**	**3**	**4**	**1**	**16**	**73%**
Incidental to railway operations	Slip trip or fall	0	0	0	2	0	**2**	**9%**
	Railway trespass	0	0	0	1	0	**1**	**5%**
	Other	0	0	1	2	0	**3**	**14%**
Fatalities incidental to railway operations		**0**	**0**	**1**	**5**	**0**	**6**	**27%**
Total Fatalities (excl. suicides and assaults)		**5**	**3**	**4**	**9**	**1**	**22**	**100%**

Figure 3 shows the person type of fatalities since 2008-09. Of the 22 fatalities reported since 2008-09, nine were people trespassing within the rail corridor (six running line collisions, one railway trespass, one slip, trip and fall and one other occurrence), nine were members of the general public (seven in level crossing collisions, two in other occurrences), two were passengers (one the result of a slip, trip and fall and one the result of a running line collision), and two were train drivers (in a level crossing collision).

Figure 3: Fatalities (excluding suicides and assaults) by person type, Queensland, 2008-09 to 2012-13



Hospitalisations (excluding suicides, assaults or natural causes)

Hospitalisations are the number of people who have sustained serious injuries in a railway occurrence and were admitted to hospital because of those injuries. This excludes serious injuries due to natural causes, assaults or attempted suicides.

In 2012-13 there were 22 people admitted to hospital as the result of a notifiable occurrence in Queensland. Of these, 15 (68%) were the result of a slip, trip or fall. These figures are reasonably consistent with those reported since 2008-09, which has seen an average of just over 18 hospitalisations per year with 66% being the result of a slip, trip or fall.

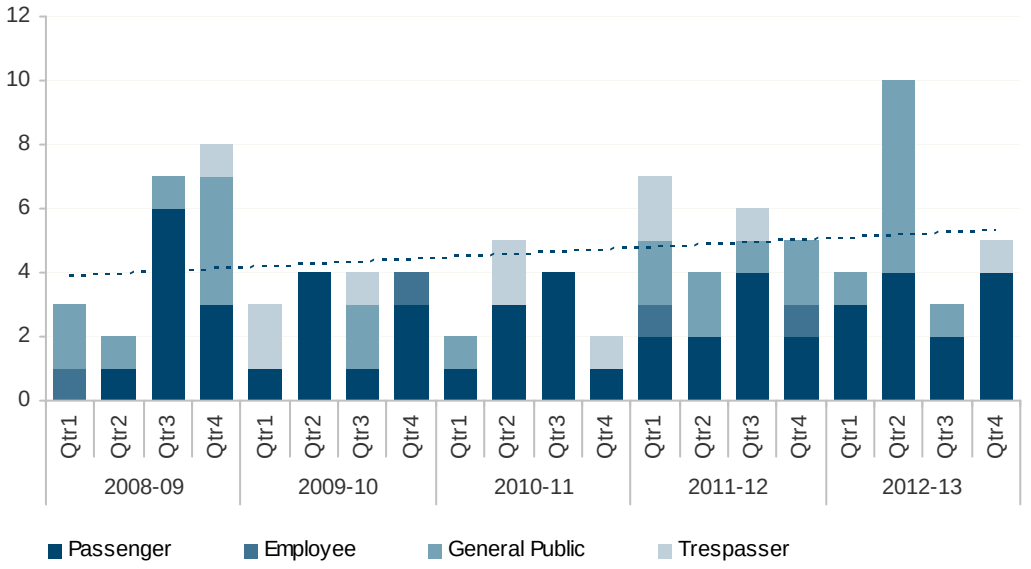
In contrast to fatalities there are a greater proportion of hospitalisations which can be considered incidental to railway operations. These are primarily the slip, trip and fall occurrences. Of these the majority of slips, trips and falls (74% since 2008-09) are falls on stairs, ramps, escalators at stations or on station concourses rather than those which occur on a train or while entraining or detraining. Table 3 shows the number of hospitalisations reported by financial year by type of occurrence.

Table 3: Hospitalisations (excluding attempted suicides, natural causes and assaults) on the rail network in Queensland, 2008-09 to 2012-13

Type		2008/09	2009/10	2010/11	2011/12	2012/13	Total	%
Direct result of railway operations	Running line collision	0	2	1	1	5	**9**	**10%**
	Level crossing collision	9	2	1	3	1	**16**	**17%**
	Yard collision	0	0	0	1	0	**1**	**1%**
Hospitalisations as a direct result of railway operations		**9**	**4**	**2**	**5**	**6**	**26**	**28%**
Incidental to railway operations	Slip trip or fall	11	10	9	16	15	**61**	**66%**
	Trespass	0	1	1	0	1	**3**	**3%**
	Other	0	0	1	1	0	**2**	**2%**
Hospitalisations incidental to railway operations		**11**	**11**	**11**	**17**	**16**	**66**	**72%**
Hospitalisations		**20**	**15**	**13**	**22**	**22**	**92**	**100%**

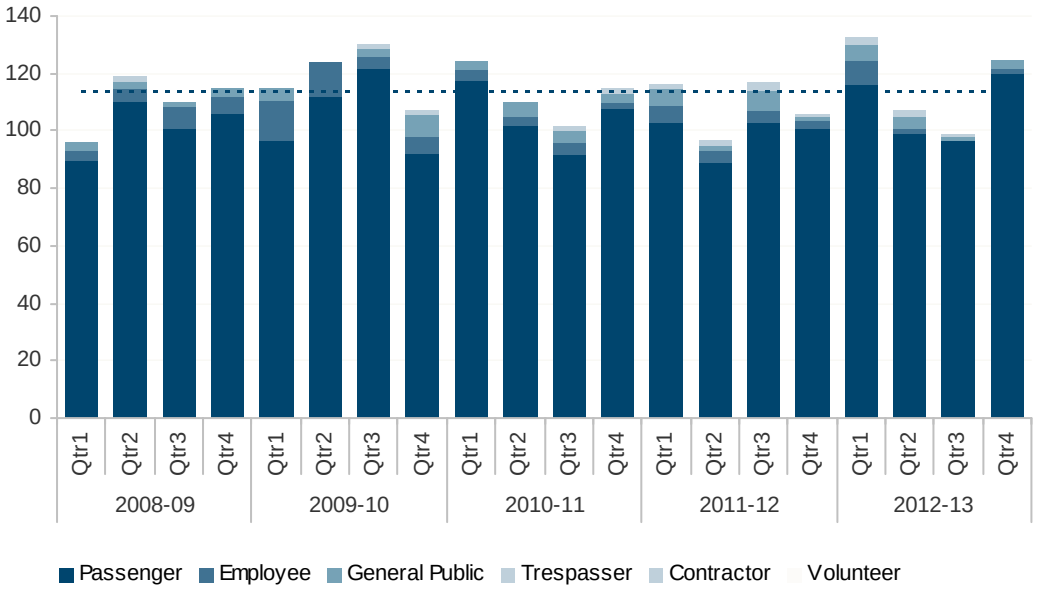
Figure 4 shows the person type of hospitalisations since 2008-09. There have been 51 passengers, 26 members of the public, 11 trespassers and four employees who have been hospitalised since the 2008-09 financial year.

Figure 4: Hospitalisations (excluding attempted suicides, natural causes and assaults) by person type, Queensland, 2008-09 to 2012-13



There were 463 minor injuries reported in the 2012-13 financial year. This is above the average reported between 2008-09 and 2011-12 of 450. Since 2008-09, over 91% of minor injuries have been slip, trip or fall occurrences. Figure 5 shows the number of reported injuries by person type. Train passengers represent over 94% of all reported minor injuries.

Figure 5: Minor injuries by person type, Queensland, 2008-09 to 2012-13



Derailments

There were 26 running line derailments reported in 2012-13 which is well below the average reported between 2008-09 and 2011-12 of 38 (Figure 6). There were also 187 yard derailments reported (Figure 7). Despite the comparatively high frequency of yard derailments they are generally low risk occurrences involving low-speed movements of freight rolling stock and empty passenger sets.

Running line derailments are derailments that occur on or impact the main operating line. Running line derailments are of primary concern because of the potentially severe consequences associated with higher track speeds and multiple fatalities in regards to passenger trains.

Of the 26 running line derailments in 2012-13, 23 were freight trains; one was a tourist and heritage steam train; one was a high rail vehicle and one a track machine. There were no suburban passenger train derailments.

Yard derailments are derailments that occur in railway yards or a railway line off the main operating line.

Figure 6: Running Line Derailments, Queensland, 2008-09 to 2012-13

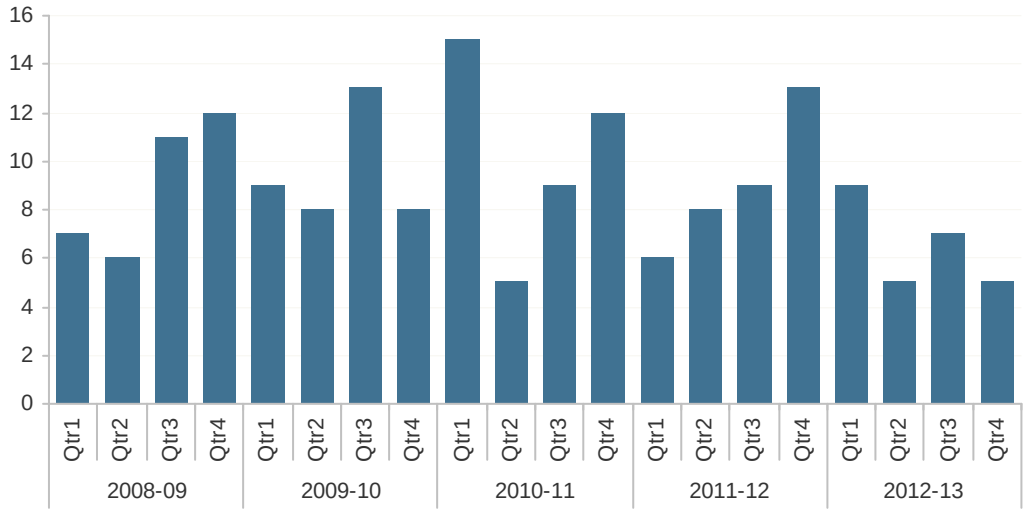
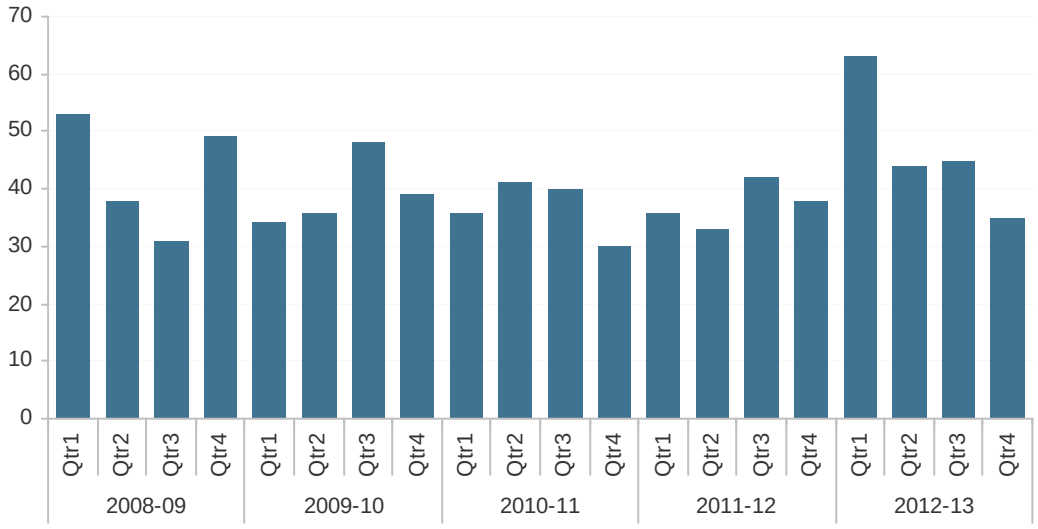


Figure 7: Yard Derailments, Queensland, 2008-09 to 2012-13

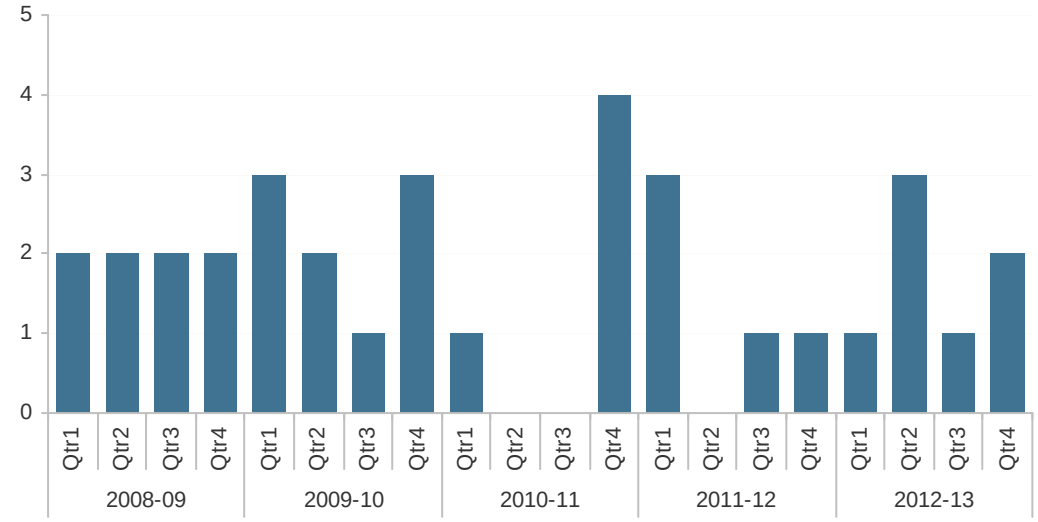


Collisions

There were seven running line collisions classified as Category A occurrences in 2012-13 (Figure 8). Three of these were with a person not on a level crossing; two were with a road vehicle not at a level crossing and two were with infrastructure.

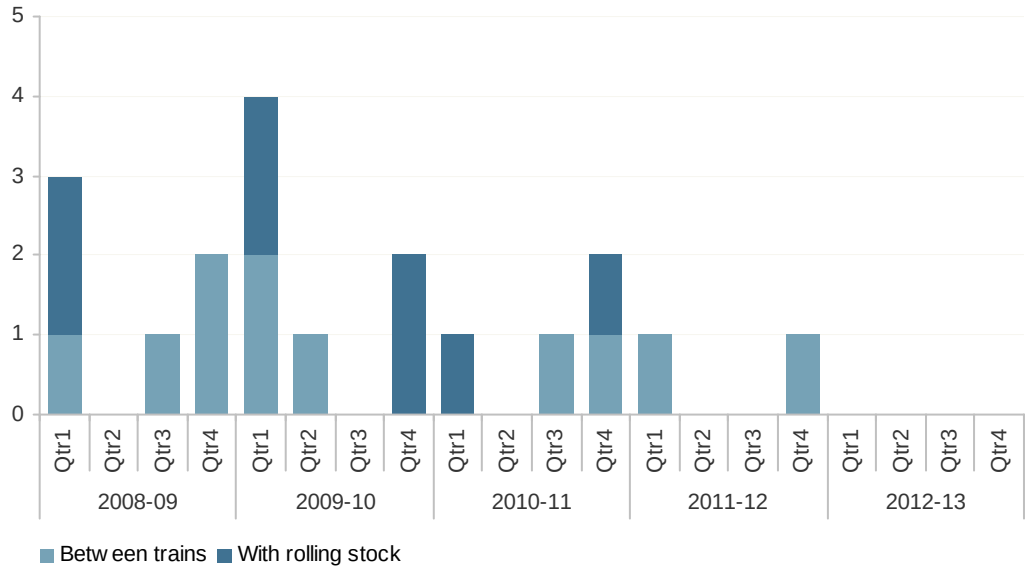
There were also a further 432 running line collisions classified as Category B occurrences, consisting of 205 running line collisions with animals or livestock, 201 running line collisions with obstructions, 22 running line collisions with infrastructure and four running line collisions with a person not on a level crossing.. Running line. Collisions with obstructions includes collisions with natural objects such as tree branches that fall on the track, mud slides and objects intentionally placed on the track by vandals. Running line collisions with infrastructure includes any fixed railway infrastructure item such as bridges, platforms and support for overheads signalling and traction equipment.

Figure 8: Running Line Collisions, Queensland, 2008-09 to 2012-13



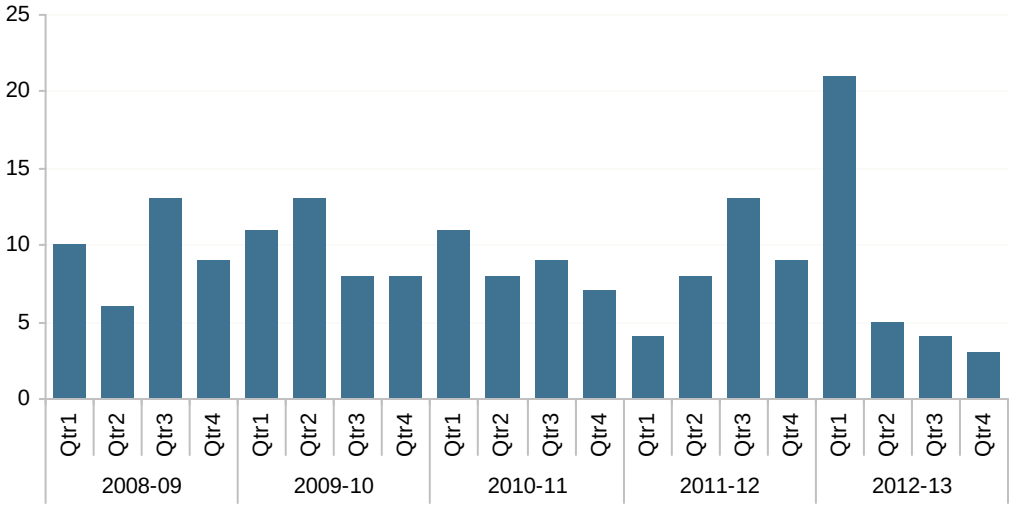
There were no running line collisions between trains or with rolling stock in 2012-13 (Figure 9).

Figure 9: Running Line Collisions between trains and with rolling stock, Queensland 2008-09 to 2012-13



There were 33 yard collisions reported in 2012-13 which is below the average reported between 2008-09 and 2011-12 of 37 (Figure 10). Of these 33 collisions, 21 occurred in the first quarter of 2012-13 and 15 of these were collisions with infrastructure.

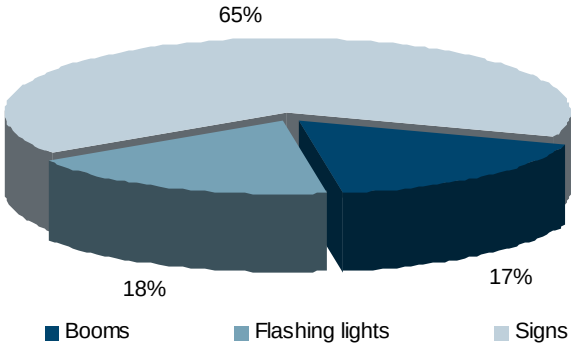
Figure 10: Yard Collisions, Queensland, 2008-09 to 2012-13



Level Crossing Occurrences

As at the end of December 2012 there were approximately 1,300 open public level crossings in Queensland. Of these, 17% were protected by boom gates, 18% by flashing lights and 65% by stop or give way signs (Figure 11).

Figure 11: Open public level crossing by protection level, December 2012

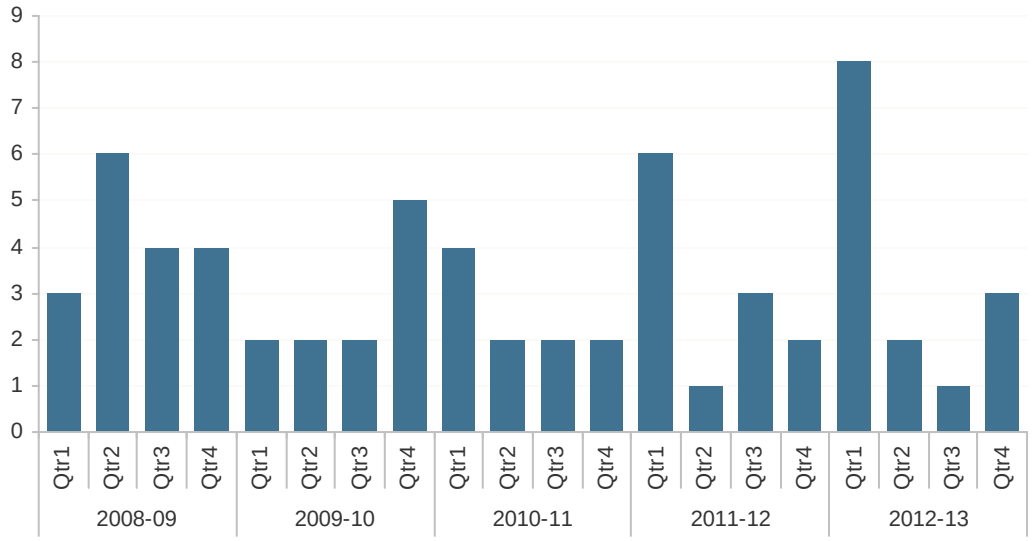


In 2012-13 there were 13 level crossing collisions with road vehicles and one collision with a person in Queensland (Figure 12). This is slightly above the average reported between 2008-09 and 2011-12 of just over 12. Of the 64 collisions at level crossings since 2008-09, three involved pedestrians.

Of the level crossing collisions with road vehicles in 2012-13, two occurred at crossings protected by boom gates; three at crossings protected by flashing lights; six protected by stop or give way signs and two occurred at unprotected occupational crossings. The collision with a person occurred at a crossing protected by flashing lights.

Since 2008-09 there have been nine fatalities as a result of level crossing collisions in Queensland. In 2012-13, there was one hospitalisation and no fatalities.

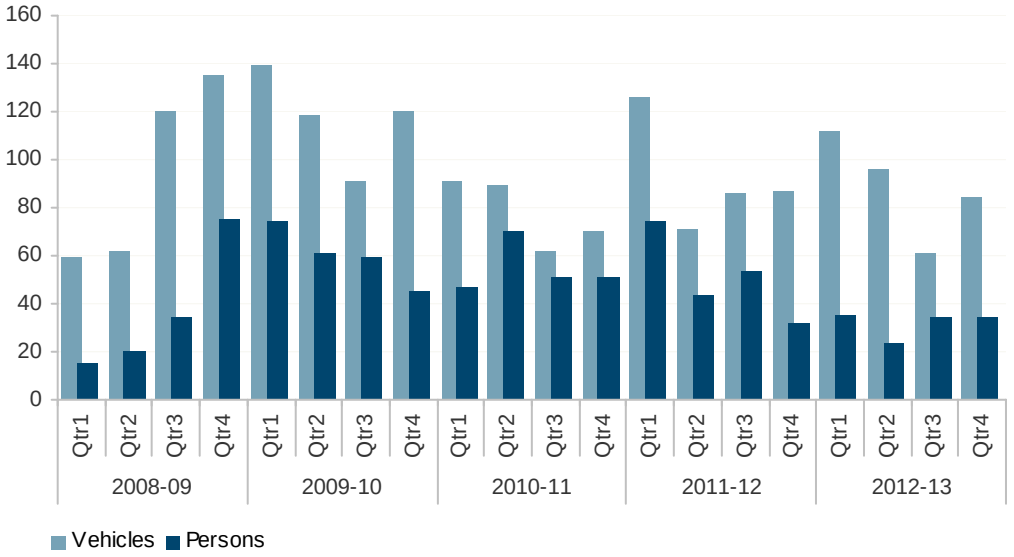
Figure 12: Level Crossing Collisions with vehicles or persons, Queensland, 2008-09 to 2012-13



Along with the level crossing collisions there have also been numerous near misses with both road vehicles and persons reported since 2008-09 (Figure 13). In the 2012-13 financial year there were 353 near misses with road vehicles (almost one every day) and 126 near misses with persons reported.

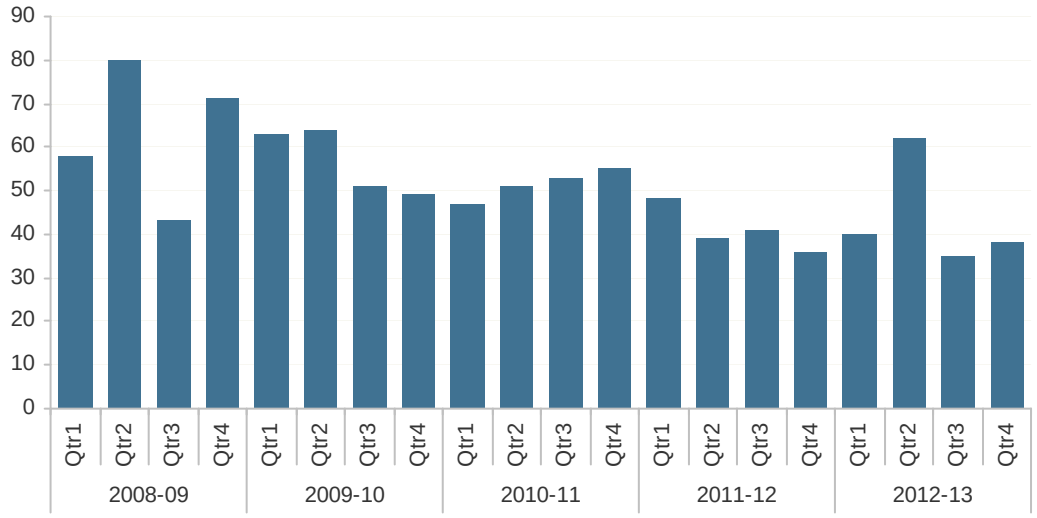
A near miss is defined as any occurrence where the driver of a moving train takes emergency action or has insufficient time to take emergency action to avoid impact with a road vehicle or person at a level crossing and no collision occurred. Emergency action includes continuous audible warning and/or brake application. Occurrences where the driver did not take emergency action but road vehicles or persons crossed when lights were flashing or gates were closed are not reported as near misses.

Figure 13: Level crossing reported near misses with vehicles and persons, Queensland 2008-09 to 2012-13



Other level crossing occurrences include boom strikes, which is when a road vehicle collides with the level crossing equipment at crossings protected by boom gates (Figure 14). In 2012-13 there were 175 reported boom strikes. This is below the average of 212 reported between 2008-09 and 2011/12.

Figure 14: Level Crossing Occurrences (Boom Strikes), Queensland, 2008-09 to 2012-13



Signals Passed at Danger

A signal passed at danger (SPAD) is a precursor safety occurrence – an event which could, under specific circumstances, lead to an occurrence such as a collision between trains.

There are five subcategories of SPAD's. The three subcategories in terms of train crew error risk are Driver Misjudged, Completely Missed While Running and Starting Against Signal. Technical SPADs are those where a proceed signal changes to stop in the face of the driver giving insufficient time for the train to brake to a stop prior to passing the signal at danger.

There were 97 train crew error SPADs reported in the 2012-13 financial year. This is above the average reported between 2008-09 and 2011-12 of 88.

Figures 15 and 16 show the number of train crew error and technical SPADs reported since 2008-09.

Figure 15: Train Crew Error SPADS Queensland 2008-09 to 2012-13

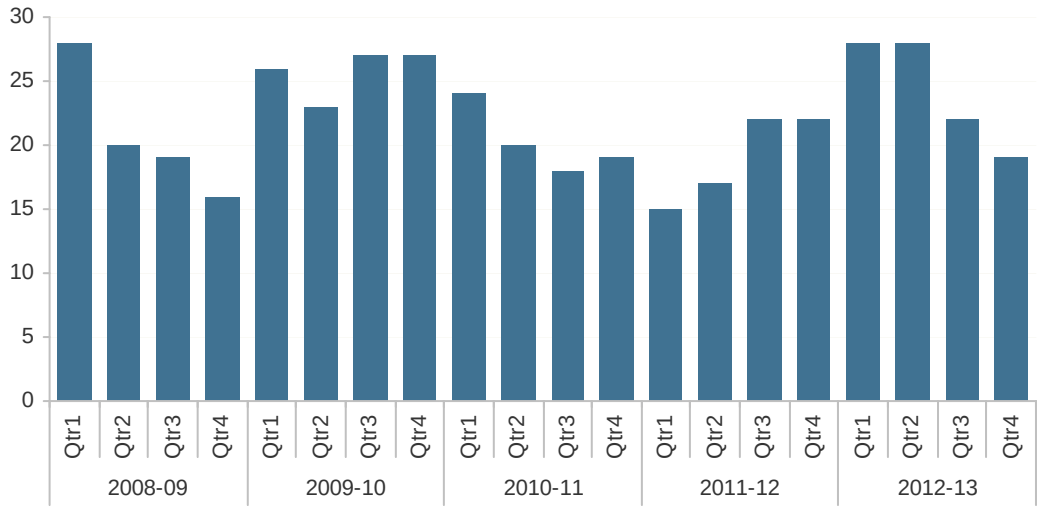
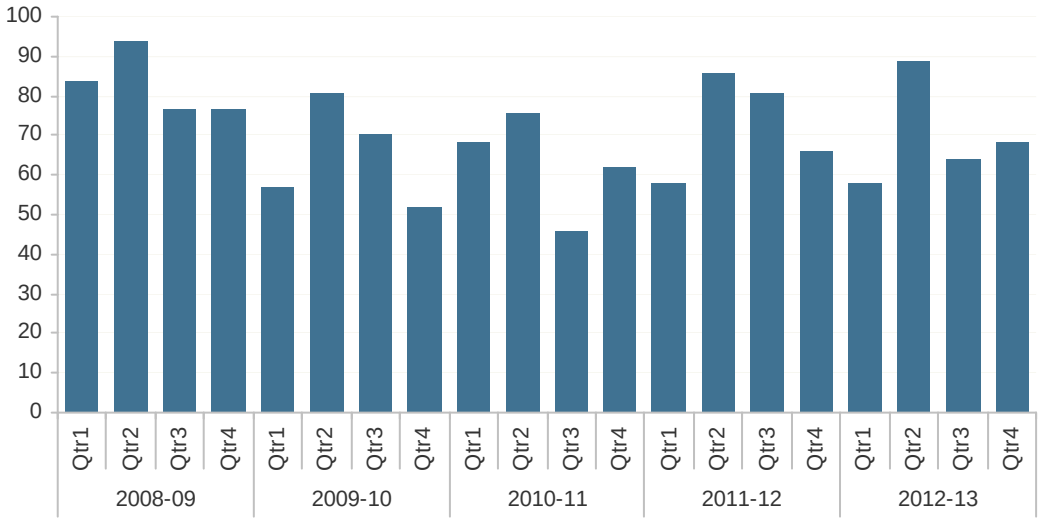


Figure 16: Technical Error SPADS Queensland 2008-09 to 2012-13

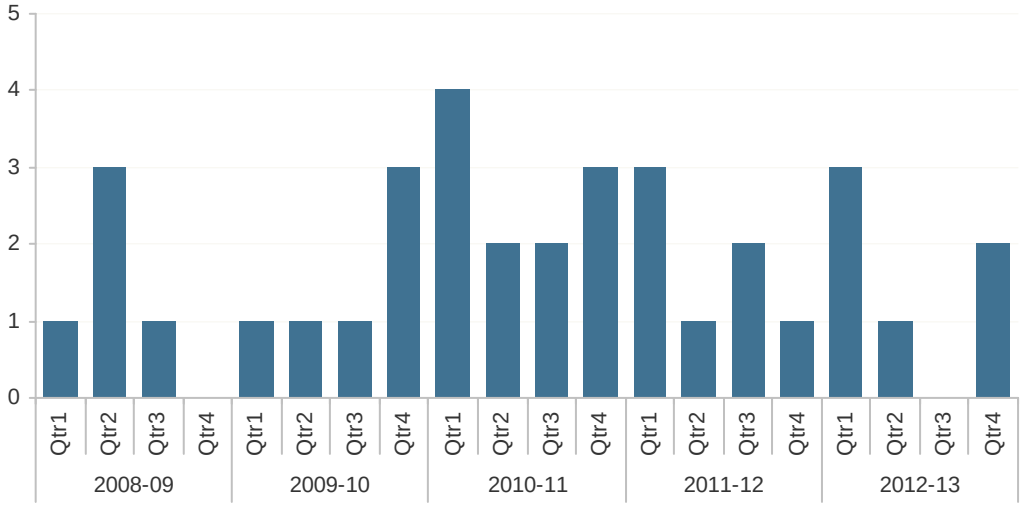


Other notifiable occurrences

There are a number of other minor notifiable occurrences which are reported by rail transport operators. These include occurrences such as exceed limits of authority occurrences, track and civil infrastructure irregularities, rolling stock irregularities, electrical irregularities, load irregularities and safeworking breaches.

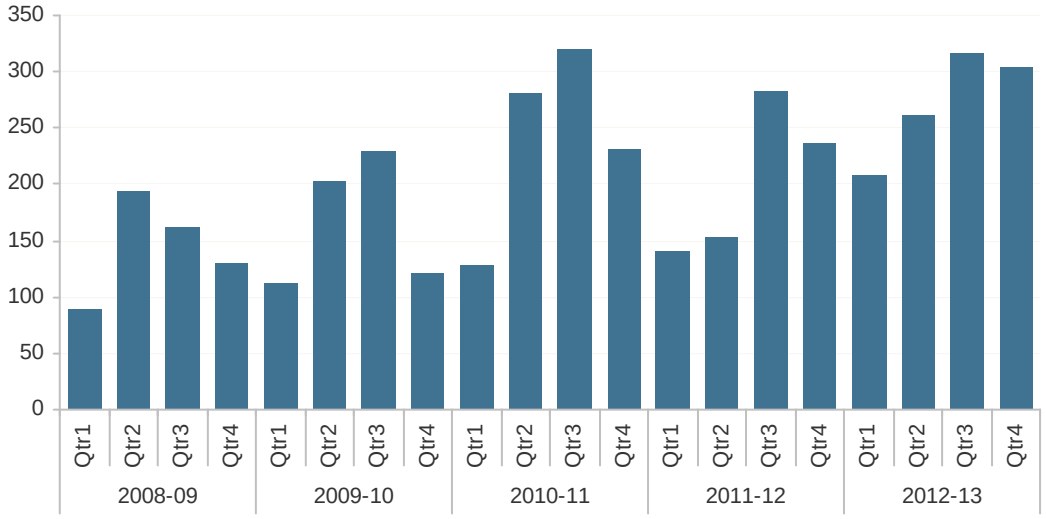
These are shown in the figures (Figures 17 to 23) below.

Figure 17: Exceed limit of authority occurrences, Queensland, 2008-09 to 2012-13



Exceed limit of authority occurrences occur when a train exceeds the limits of authorised movements. It includes authorised movements such as train orders/authority, special authority orders, tokens, warrants and locations such as stop boards, limit boards etc. They do not include SPADs.

Figure 18: Track and Civil Infrastructure Irregularities, Queensland, 2008-09 to 2012-13



In the last quarter of the 2012-13 financial year there was a significant increase in the number of points irregularities reported. Points irregularities refer to any failure of a set of points, and include misalignment of points, broken or damaged points blade or components or damage caused by trailing or run throughs. While the average number of points irregularity occurrences reported per month since July 2008 is a little over six, there was a total of 66 points irregularities reported in the month of June 2013. Of the 66 occurrences in June 2013, 57 occurred along the Central Coal network. The increase is a result of changed reporting procedures.

Figure 19: Track and Civil Infrastructure Irregularities, points irregularities, Queensland, 2008-09 to 2012-13

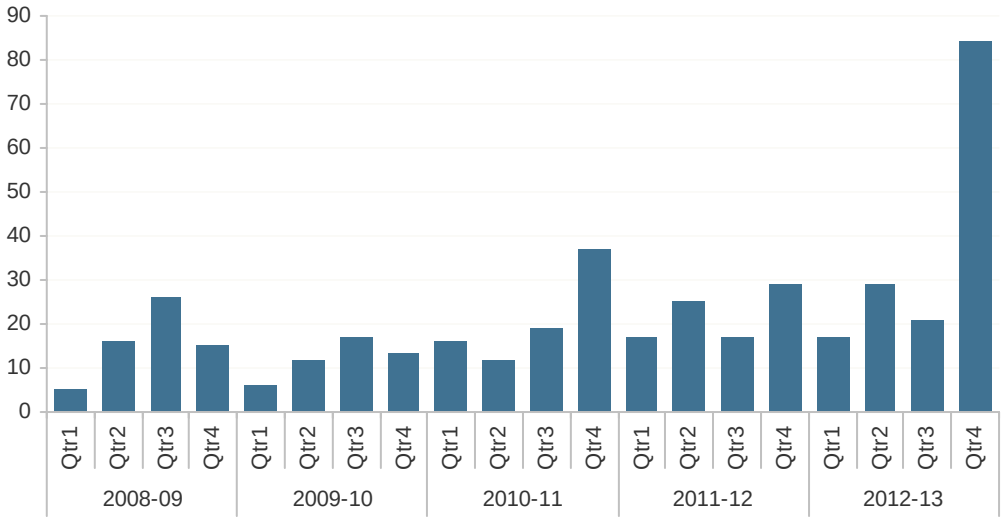


Figure 20: Safeworking Rule or Procedure Breach Queensland 2008-09 to 2012-13

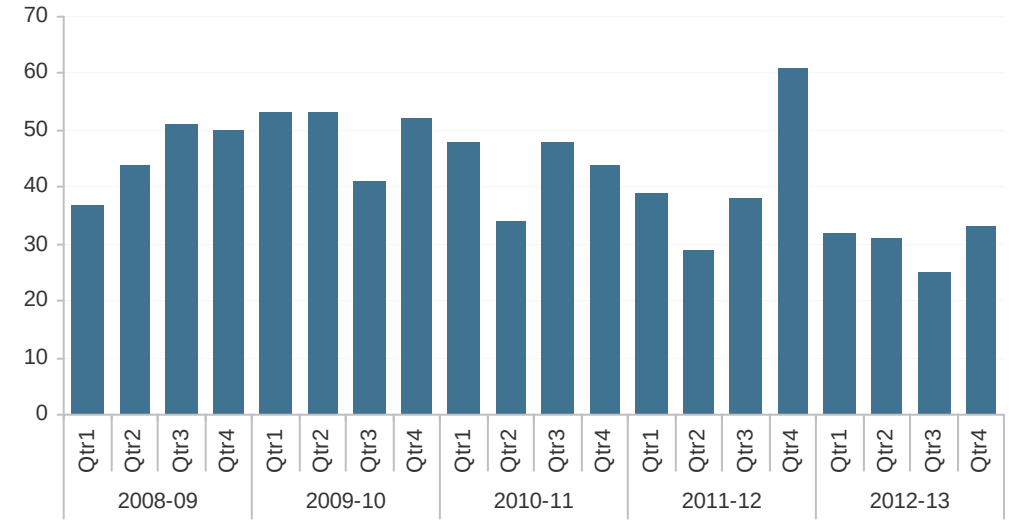
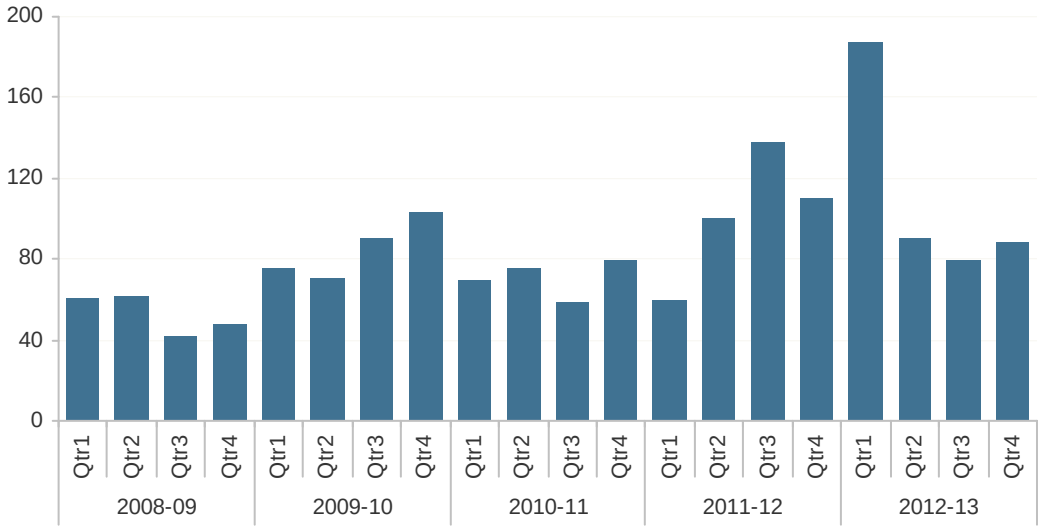


Figure 21: Load Irregularities, Queensland, 2008-09 to 2012-13



An increase in the Qtr1 reporting may be attributed to modifications made to the Overload Impact Detectors (OLID) on the network. The modifications resulted in detection and reporting of all small uneven load distribution. The issue was resolved by setting a minimum limit for reporting for uneven load distribution that was required to be reported.

Figure 22: Electrical infrastructure irregularities, Queensland, 2008-09 to 2012-13

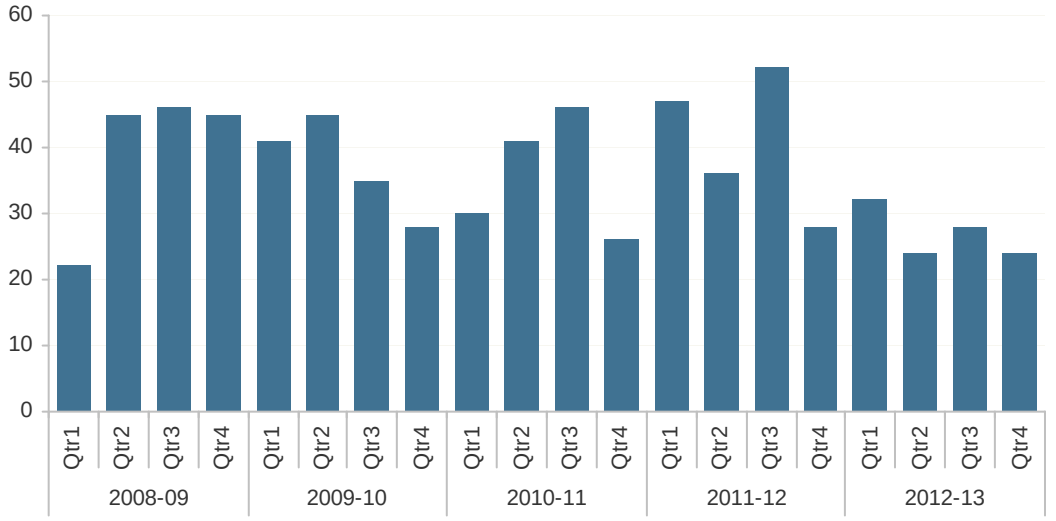
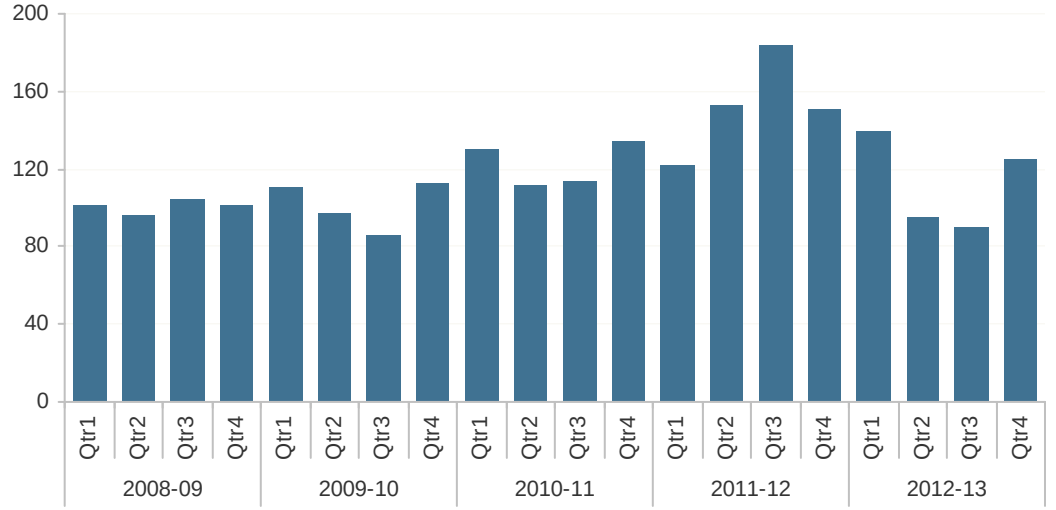


Figure 23: Rolling stock irregularities, Queensland, 2008-09 to 2012-13



Part 3 Rail Safety Regulator Activities

Rail Regulation Unit

Accreditation

When a person applies to the Rail Safety Regulator for rail safety accreditation, the application is assessed by the Compliance and Accreditation team of the Rail Regulation Unit. The applicant must provide evidence that they are able to meet the requirements of the *Transport (Rail Safety) Act 2010* to carry out railway operations in Queensland.

Accreditation is granted when the Rail Regulation Unit is satisfied that the legislative requirements have been met. During the 2012-13 financial year, six applications for accreditation were assessed and granted. All of these were for commercial rail transport operators (Table 4).

Table 4: Accreditations granted in 2012-13

Type of Accreditation	Approved Accreditations
Rolling Stock Operator	2
Rail Infrastructure Manager	1
Rail Infrastructure Manager and Rolling Stock Operator	3
Total	**6**

Variations to Accreditation

When an accredited rail transport operator proposes to make a substantial change to the nature of its railway operations, it is required to submit an application to vary its accreditation.

The application is assessed to ensure the rail transport operator has identified and is able to control the additional or changed safety risks. The variation is granted if the adequate risk control measures have been put in place.

During the 2012-13 financial year a total of eight variations to accreditation were assessed, with five from tourist and heritage operators and two commercial operators.

Significant Projects

Gold Coast Rapid Transit

In 2011, the Rail Regulation Unit received an application for accreditation from GoldLinQ Pty Ltd, to design, construct and operate the Gold Coast Rapid Transit light rail system. The Rail Regulation Unit has worked collaboratively with the GoldLinQ Pty Ltd to ensure a safe and timely completion of the various phases of the project. The Gold Coast Rapid Transit is expected to commence in mid-2014.

Pacific National Train Maintenance Facility, Nebo

In 2011, Pacific National Pty Ltd applied for a variation to accreditation to include a maintenance and provisioning facility at Nebo. The Rail Regulation Unit approved the variation and monitored the progress of works throughout the construction of the facility. The official opening of the facility occurred in August 2012.

Adani Mining Pty Ltd

In 2012, the Rail Regulation Unit received an application for accreditation from Adani Mining Pty Ltd as a rail infrastructure manager and rolling stock operator. Accreditation was granted, allowing Adani Mining Pty Ltd to commence construction of rail infrastructure for heavy haul coal transportation in the Galilee Basin.

Moreton Bay Rail Link

The Rail Regulation Unit has been involved in the Transport and Main Roads project to develop the Moreton Bay Rail Link.

The Moreton Bay Rail Link will deliver a passenger rail line between Petrie and Kippa-Ring. Construction of the rail corridor works is due to begin in early 2014, with some early works proposed to start in late 2013. The new rail line is scheduled for delivery by late 2016.

The Rail Regulation Unit has worked closely with the project team and the proponents for the design, construction and commissioning of the rail line.

Unaccredited Railways

The Rail Regulation Unit conducted a review of all unaccredited railway operations in Queensland following the introduction of the *Transport (Rail Safety) Act 2010*.

In total, 47 unaccredited railway activities were identified. Since 2010, the Rail Regulation Unit has undertaken 27 site visits and assessment.

No action was required in relation to 15 organisations where the scope and nature of their operations are not applicable to the *Transport (Rail Safety) Act 2010*. Typically these have been railway displays which have no possibility of movement.

Information about the requirement for accreditation was provided to a further 15 organisations owning rolling stock that is a static display with the potential for movement. Accreditation will only be required if the organisation intends to move the rolling stock.

The Rail Regulation Unit has met with a further 17 organisations undertaking railway operations to provide assistance to obtain accreditation or an exemption as a low risk railway.

Private Sidings

The *Transport (Rail Safety) Act 2010* requires all private sidings in Queensland to be registered by 1 September 2013. The Rail Regulation Unit undertook a project to identify all private sidings in Queensland and advise them of their requirements.

The Rail Regulation unit has identified 31 private siding managers in Queensland and continues to actively work towards private siding registration in September 2013.

Risk and Audit

Compliance activities are conducted by the Rail Regulation Unit to ensure an accredited rail transport operator is meeting its obligations under the *Transport (Rail Safety) Act 2010*. Compliance activities include audits, compliance inspections and site visits. The Rail Regulation Unit conducted 121 compliance activities during the 2012-13 financial year. This total exceeded the yearly indicative target of 100 compliance activities.

The Rail Regulation Unit develops an annual compliance program based on the risk profile considering:

- occurrence data trending
- investigation outcomes
- confidential reports
- previous audit outcomes and trends
- other compliance activities.

The compliance program is based on each accredited railway's risk profile and is made up of a combination of audits and compliance inspections. Higher risk accredited railways are audited more frequently than those evaluated to be of a lower risk. For example, tourist and heritage railways are not audited with the same intensity as commercial railway operators, as in general they possess a lower risk profile.

Audits and compliance inspections are conducted by the Rail Regulation Unit, to provide accredited railways support and assistance for maintaining their responsibilities under the *Transport (Rail Safety) Act 2010*. Audits and compliance inspections are collaborative in nature and are designed to remedy issues before regulatory intervention is required.

Audits

An audit is an activity which challenges the safety management system of an accredited rail transport operator and its compliance with the *Transport (Rail Safety) Act 2010*. Audits typically examine three or more elements of an accredited rail transport operator's safety management system. The audit elements are selected based on each individual accredited rail transport operator's risk profile.

The Rail Regulation Unit conducted 60 audits during the 2012-13 financial year of a range of rail transport operators located across Queensland. Key safety areas targeted through audits included railway asset management, safe working operations and corrective actions.

Key areas for improvement by rail transport operators included:

- the identification of defects in track and civil structures and improvements to maintenance
- the planning and conduct of internal safety management system audits
- the monitoring of wagon fleet maintenance and maintenance schedules.

There were 43 non-compliances resulting from the audits of which 41 have been closed. The outstanding two are being resolved by the relevant rail transport operator.

Compliance Inspections

A compliance inspection is an activity which examines an accredited rail transport operator's compliance with its own safety management system. Compliance inspections are conducted in a range of circumstances, including:

- in response to a notifiable occurrence
- as a follow-up from a safety action recommended in a rail safety investigation
- as part of the Rail Regulation Unit's risk based compliance program.

Key safety areas which were targeted included rail/road crossing interface agreements, rail traffic crew maintenance of competence, change management for testing of trains, shunting operations and network control procedures during track closures.

The Rail Regulation Unit conducted 56 compliance inspections in 2012-13. Key areas for improvement by rail transport operators included:

- adherence by rail safety workers to procedures contained in safety management systems
- the review of bulk product loading procedures
- the follow up and implementation of recommendations made from rail transport operators investigations and audits by the Rail Regulation Unit.

Significant Projects

Fatigue Management Assurance Study

In 2012, the Rail Regulation Unit conducted a fatigue management assurance study, to measure the fatigue levels experienced by rail traffic crew when conducting relay crew van operations. The Rail Regulation Unit engaged the services of expert consultants in fatigue management.

Data was collected using subjective and objective measurements of sleep and fatigue. This included subjective semi-structured interviews with drivers, supervisors and managers, sleep diaries and a risk assessment workshop. Activity monitors were also used to collect data for the timing of sleep and wake periods over an eight week period using 16 drivers.

The study found that driver fatigue levels were within acceptable limits. The Rail Regulation Unit made recommendations to the rolling stock operator about:

- maintenance of minimum manning levels to facilitate relay van operations
- conducting a review of existing fatigue management policies and guidance materials
- conducting a review of the induction process and fatigue management training for rail traffic crew working in the relay van roster to ensure relevance to operations.

The Rail Regulation Unit continues to monitor the recommendations through the compliance program.

Investigations

The Rail Safety Regulator may conduct an investigation in relation to a rail safety issue. The Rail Safety Regulator may conduct either a compliance investigation to determine if a breach of the *Transport (Rail Safety) Act 2010* has occurred, or a 'no blame' investigation to identify and examine systemic safety issues.

Compliance Investigations

In the past year the Rail Regulation Unit has conducted 11 compliance investigations and worked in conjunction with affected rail transport operators to improve rail safety.

Fatigue Management

In July 2012, the Rail Regulation Unit finalised an investigation into the rostering practices of a rolling stock operator and the potential to impact upon fatigue of rail traffic crew. The rolling stock operator has identified and implemented improvements to its rostering practices.

Derailment – 28 June 2012

In July 2012, the Rail Regulation Unit finalised an investigation into a derailment at Gympie. The investigation established that the derailment occurred as a result of poor track condition. The rail operator has closed the track and is conducting work to improve the track condition.

Bridge Infrastructure Inspections

In August 2012, the Rail Regulation Unit finalised an investigation of a series of timber bridge defects in central Queensland. The rail infrastructure manager has put in place a strengthened inspection regime and is working to introduce new asset management technology.

Derailment – 31 August 2012

In September 2012, the Rail Regulation Unit investigated a derailment at Ravenshoe. The investigation established that the derailment occurred as a result of poor track condition. The rail transport operator closed the track and conducted work to improve the track condition.

Critical Defects – South East Queensland

In September 2012, the Rail Regulation Unit finalised an investigation of the frequency of broken rail on the south east Queensland network. The investigation found that the rail infrastructure manager has adequate procedures and practices in place to manage the risk.

Derailment – 29 September 2012

In October 2012, the Rail Regulation Unit finalised an investigation into a yard derailment at Gympie. The investigation found that repair practices to the rolling stock and track condition contributed to the occurrence. The rail transport operator is currently working to improve its asset maintenance procedures.

Tourist & Heritage Track Inspection

In October 2012, the Rail Regulation Unit commenced an investigation to establish the condition of track infrastructure operated by tourist and heritage rail transport operators. Recommendations were made to improve maintenance procedures. Of the five rail transport operators inspected, one rail transport operator was required to temporarily close while track repairs were undertaken.

Safeworking Breaches

In November 2012, the Rail Regulation Unit finalised an investigation of ten safeworking breaches in Central Queensland. The investigation identified common themes between a series of occurrences and made recommendations to the rail transport operator to improve communications between track workers, rail traffic crew and network control. The rail transport operator has addressed the issues.

Rail Low Adhesion

In February 2013, following a collision at Cleveland, the Rail Regulation Unit commenced enquiries into occurrences of low adhesion between rolling stock wheel sets and rail infrastructure. The Rail Regulation Unit has reviewed infrastructure arrangements in Queensland to ensure the risk of collision from a similar occurrence is adequately managed. The Rail Regulation Unit has also engaged with the rail transport operator to ensure that a range of safety recommendations are put in place.

Derailment – 8 February 2013

In February 2013, the Rail Regulation Unit commenced an investigation into the derailment of a freight train near Rockhampton. The investigation found that a temporary speed restriction had not been put in place after track repairs. The rail transport operator has revised its procedures to address issues relating to risk assessment and maintenance following large scale events such as flooding.

Mt Isa Project

In March 2013, the Rail Regulation Unit commenced an investigation into the derailment of a freight train near Charters Towers. Following a series of derailments in early 2012, the Rail Regulation Unit expanded the scope of the investigation and commenced a project to review the derailments on the Mt Isa Line between 2008 and 2013. The purpose of the project is to identify contributing factors that impact on safe and reliable rail operations. The final project report is expected to be published in April 2014.

No Blame Investigations

In the past year, the Rail Regulation Unit finalised three no blame investigations. A copy of each investigation report is available on the Transport and Main Roads website.

Sunlander – Child falls from train

On 21 December 2011, Queensland Rail Limited's Sunlander train service was travelling in a northerly direction in the vicinity of Aloomba on the North Coast Line. Onboard staff were notified by a passenger that she was unable to locate her five year old son on the train.

The Rail Regulation Unit investigated the matter and found that the child had fallen from an open carriage door while the train was in motion. The child had suffered minor injuries and was conveyed to hospital.

The passenger carriages on the Sunlander train service are fitted with slam-shut external doors. These doors are able to be opened by passengers at any location or speed by the release of a two stage locking mechanism fitted to the doors.

The report recommended that the rolling stock operator:

- implement additional engineering controls on current Sunlander rolling stock and any other rolling stock that uses similar locking mechanisms on external doors
- implement appropriate administrative and engineering controls as identified in the rolling stock operator's investigation report
- ensure new rolling stock comply with the current standards of the rolling stock operator
- revise the current standard to reflect the current procedures utilised on the Sunlander service.

Tilt Train

On 19 March 2011, the rail traffic crew of a northbound Cairns Tilt Train observed severe track buckling on the Ingham-Hinchinbrook section of the North Coast Line. The rail traffic crew was of the belief they would be unable to stop the train prior to travelling over the buckle, and attempted to ride out the buckle without braking.

While traversing the buckle, the lead power unit of the train derailed. No injuries were reported, however, minor damage occurred to the train.

The Rail Regulation Unit investigation determined the immediate cause of the derailment was the lead power unit travelling over the severe track buckle.

The investigation found that an underlying cause of the derailment was a history of track instability and defects in the area of derailment. The investigation recommended that:

- the rail transport operator provides additional training for train drivers regarding the appropriate course of action when track buckling is observed
- the rail transport operator reviews the use of steel sleepers at locations of track instability
- the rail transport operator ensures train drivers have mobile phone availability and reliability on long distance services, to the extent that telecommunication networks allow
- the rail transport operator ensures that when an occurrence occurs, there is a clear delegation of an 'On Site Controller' until the arrival of the Occurrence Commander
- the rail transport operator reviews its standard to include a precaution regarding track buckling when there are temperature increases after a period of lower temperatures
- the rail transport operator develops a program to establish and maintain the integrity of track marking positions.

Banyo

On 14 September 2012, a heavy vehicle became grounded on the rail level crossing at St Vincents Road, Banyo. The driver of the heavy vehicle exited the cab with the intention to raise the low loader trailer clear of the crossing. He was assisted by a member of the public who entered the rail corridor. A southbound passenger train was stationary at Banyo station at the time.

A northbound passenger train collided with the heavy vehicle and split the heavy vehicle combination apart. The heavy vehicle driver sustained serious injuries as a result of being struck by the low loader. The driver of the northbound train suffered minor injuries.

The northbound train derailed on impact and suffered moderate damage to the lead unit. The stationary southbound train received minor damage and the heavy vehicle combination was extensively damaged. The collision caused extensive damage to the rail infrastructure and resulted in significant delays to train services.

The Rail Regulation Unit conducted an investigation into the occurrence.

The investigation established that the vertical geometry of the eastern approach to the level crossing is not designed for low loader trailers, resulting in the heavy vehicle becoming grounded across the level crossing. Contributing factors to the occurrence include a number of communication errors. Inconsistencies were also identified in the excess mass/over dimensional permit process, including the lack of a process in the coordination of permits between Transport and Main Roads and the local road manager.

The investigation recommended that:

- the rail infrastructure manager and local road manager continue to develop and implement an interface agreement in regard to road/rail level crossings
- the local road manager continues to develop and implement a web based permit approval process for local government roads
- the local road manager explores options to correct the vertical alignment at the St Vincents Road level crossing
- the rail infrastructure manager continues to review the training and information provided to staff about emergency communications
- the rolling stock operator continues with the review of the psychometric testing and monitoring process supporting business group requirements
- the state and local road managers establish a process for the coordination of permit approvals and notifications.

Cleveland

The Rail Regulation Unit has also assisted the Australian Transport Safety Bureau with a ‘no blame’ investigation of a collision of a suburban passenger train with a station building at Cleveland on 31 January 2013.

The interim report issued by the Australian Transport Safety Bureau found that low adhesion between the rolling stock and rail caused the passenger train to enter a slide. The investigation is continuing.

Enforcement

In some instances, compliance inspections, audits or investigation of a rail safety occurrence can result in enforcement action against a rail transport operator. The Rail Safety Regulator has the power to issue enforcement notices that include improvement notices, prohibition notices and embargo notices. In all cases, the Rail Regulation Unit will work with the rail transport operator to improve rail safety and when appropriate, clear the notice.

An improvement notice may be issued where a rail safety officer believes a person is carrying out or has carried out railway operations that threaten rail safety.

No improvement notices were issued during the 2012-13 period.

A prohibition notice may be issued if a rail safety officer believes an activity in relation to railway operations is likely to involve an immediate risk to the safety of persons.

In 2012-13 the Rail Regulation Unit issued six prohibition notices to rail transport operators. The notices related to:

- preventing the movement of rolling stock until certification was provided that the rolling stock were fit for purpose
- preventing the operation of rolling stock until rail infrastructure was certified as fit for purpose.

Of the six prohibition notices issued in the period, three have been cleared. The Rail Regulation Unit made two amendments to one prohibition notice to allow limited rail operations as improvements were put in place.

An embargo notice may be issued where a rail safety officer is authorised to seize a record, device or other thing and it can not be readily seized and removed.

In the 2012-13 period the Rail Regulation Unit issued one embargo notice in relation to the train set involved in a collision at Cleveland.

No prosecutions were undertaken in 2012-13.

Education and Training

The Rail Safety Regulator promotes the education of rail transport operators as a principal method of ensuring compliance with rail safety legislation. During 2012-13, the Rail Regulation Unit attended a number of national and local industry forums, published safety alerts and reports of no-blame rail safety investigations.

The Rail Regulation Unit delivers key messages to rail transport operators by attending key industry forums. Some of the key messages in 2012-13 included:

- locomotive steam boiler licensing
- advice in relation to the differences between compliance inspections and audits
- an overview of recent rail safety investigations
- the Rail Safety Regulation audit program
- private sidings and registration
- updates in relation to the National Rail Safety Regulator.

The Rail Regulation Unit also meets with major commercial rail transport operators on a regular basis to discuss current projects, initiatives and rail safety investigations.

Four safety alerts were issued to rail transport operators and industry by the Rail Regulation Unit in 2012-13. All safety alerts are available on the Department of Transport and Main Roads website.

The safety alerts issued to accredited railway operators in Queensland were on the following matters:

- In August 2012 a safety alert was issued about train brake pipe obstructions in flexible airbrake hoses.

- In October 2012, a safety alert was issued about the operation and management of hi-rail equipment.
- In April 2013, a safety alert was issued about the faulty design, installation, maintenance or operation of derailers.
- In June 2013, a safety alert was issued about locomotive boiler operation, inspection, maintenance and repair.

Significant Projects

SPAD Mitigation

In 2011, the Rail Regulation Unit engaged specialist expertise to conduct research into Signal Passed at Danger (SPAD) causation due to human error. A report titled *Report for Human Focused SPAD Mitigation – Strategies for the Rail Industry* was produced. A similar report titled *Managing Signals Passed at Danger* was also produced in 2011 by the Independent Transport Safety Regulator in New South Wales.

In 2013, the Rail Regulation Unit worked to combine these two reports into a single education package for industry. The report is expected to be published in the last quarter of 2013.

Diploma of Government (Rail Safety Regulation)

The Rail Safety Regulator encourages further development and education of rail safety officers. In 2012 and 2013, all rail safety officers have undertaken studies towards obtaining a Diploma of Government (Rail Safety Regulation).

Safer Rail Unit

Queensland Level Crossing Safety Strategy

The Safer Rail Unit developed the *Queensland Level Crossing Safety Strategy 2012-2021* in collaboration with local and state government organisations and industry. The Queensland Government released the strategy in October 2012. It includes initiatives such as promoting safe behaviour at level crossings, enhancing the visibility and audibility of trains, exploring new technology, improving level crossing infrastructure and research and development.

In December 2012 the Safer Rail Unit established the Queensland Level Crossing Safety Group to coordinate implementation of the strategy. It brings together managers of road and rail level crossing infrastructure and other government and industry representatives.

New Railway Crossing Offences and Penalties

As part of the Queensland Level Crossing Safety Strategy, level crossing offences and penalties were reviewed. In November 2012 the Queensland Government announced that from 30 November 2012, a four-point demerit loss, an infringement notice fine of $880 and a maximum penalty of $8,800 for two new rail crossing road rules would apply. The new rules relate to:

- damaging rail infrastructure at a railway crossing
- causing an obstruction to trains or other drivers at a level crossing.

Evaluation of new and emerging technologies for rail level crossing safety

The Safer Rail Unit, in collaboration with Queensland Rail, began a trial and evaluation of new and emerging rail level crossing safety technologies to evaluate whether they have a positive effect on driver behaviour at level crossings.

Three companies were awarded contracts to trial their technology on the live Queensland Rail network. Starting in mid 2013, two radio break-in systems and a solar-powered lighting system will be trialled for six months at five level crossings across Queensland. The trials will be evaluated by an independent party to determine the types of systems which may be effective in changing road driver behaviour and reducing safety risks at level crossings in Queensland.

Participation in Rail Safety Research

The Rail Safety Regulator continued to provide financial and in-kind support to the Cooperative Research Centre for Rail Innovation (Rail CRC) for rail research projects. Research projects conducted in 2012-13 included:

- Understanding pedestrian behaviour at level crossings.
- Affordable level crossings - stage 2.
- Level crossing risk and legal evaluation.
- Intelligent transport systems for safer level crossings.
- Establishing baseline rail level crossing occurrence and behaviours using video, data.
- Rail occurrence investigator training and competency framework.
- Safety case for driver-only operations.

National Rail Safety Reform

The Rail Safety Regulator has been actively involved in the progress of the national rail safety reforms which includes the establishment of the Office of the National Rail Safety Regulator and the National Rail Safety Investigator and the development of the Rail Safety National Law. The national rail safety reforms are designed to promote rail safety, improve productivity efficiencies through consistent national requirements and decrease the regulatory burden on industry.

In 2012-13, the Rail Safety Regulator:

- developed a Memorandum of Understanding with the Office of the National Rail Safety Regulator to promote effective communication, cooperation and coordination
- developed a Memorandum of Understanding with the National Rail Safety Investigator to facilitate the provision of certain Category A Notifiable Occurrence information to the Australian Transport Safety Bureau
- commenced drafting Queensland Rail Safety Law that is broadly consistent with the Rail Safety National Law
- participated in the National Rail Safety Maintenance Group to ensure that rail safety law continues to reflect best practice and delivers its intended outcomes
- represented Queensland at the National Operation Committee meetings held by the Office of the National Rail Safety Regulator on a monthly basis.

Appendix 1: Accredited Rail Transport Operators as at 30 June 2013

Organisation	Rail Infrastructure Manager	Rolling Stock Operator	Commercial	Tourist and Heritage	Date Accredited
Abigroup Contractors Pty Ltd		✓	✓		10.08.2012
Adani Mining Pty Ltd	✓	✓	✓		31.07.2012
Airtrain Citylink Ltd	✓	✓	✓		14.10.1998
ATEC Freight Terminals Pty Ltd	✓		✓		18.04.2013
Atherton–Herberton Historic Railway Inc	✓	✓		✓	1.11.2010
Aurizon Network Pty Ltd	✓	✓	✓		1.07.2010
Aurizon Operations Ltd	✓	✓	✓		1.07.2010
Australia Eastern Railroad Pty Ltd	✓	✓	✓		1.09.2008
Australian Narrow Gauge Railway Museum Society	✓	✓		✓	19.06.1997
Australian Rail Track Corporation	✓	✓	✓		15.01.2010
Australian Railway Historical Society	✓	✓		✓	19.06.1997
Australian Society of Section Car Operators		✓		✓	5.03.2002
Australian Tube Mills	✓	✓	✓		30.03.2004
Baulderstone Pty Ltd		✓	✓		8.11.2010
BM Alliance Coal Operations Pty Ltd	✓	✓	✓		1.06.2012
Bombardier Transportation Australia Pty Ltd		✓	✓		5.02.2008
Bowen Coke Pty Ltd	✓	✓	✓		24.02.2010
Brand Productions Corporate	✓		✓		10.12.2010
Bundaberg Steam Tramway Preservation Society Inc	✓	✓		✓	17.11.2011
Cairns Kuranda Steam	✓	✓		✓	14.05.2001

Organisation	Rail Infrastructure Manager	Rolling Stock Operator	Commercial	Tourist and Heritage	Date Accredited
Coleman Rail Pty Ltd		✓	✓		1.05.2013
Copper Refineries Pty Ltd	✓	✓	✓		15.06.2010
Downer EDI Rail Pty Ltd	✓	✓	✓		15.10.2009
Downer EDI Works Pty Ltd		✓	✓		1.04.2010
DownsSteam Tourist and Railway Museum	✓	✓		✓	21.10.2008
Freightliner Australia Pty Ltd		✓	✓		14.05.2007
Genesee and Wyoming Australia Pty Ltd		✓	✓		25.11.2002
GoldLinQ Pty Ltd	✓		✓		3.05.2011
GrainCorp Operations Ltd	✓	✓	✓		19.04.2000
Great Southern Rail Limited		✓	✓		20.05.2003
Hancock Coal Infrastructure Pty Ltd	✓		✓		1.12.2011
Incitec Pivot Limited		✓	✓		15.03.2013
Interail Australia Pty Ltd		✓	✓		26.03.2002
John Holland Pty Ltd		✓	✓		10.08.2009
Laing O'Rourke Australia Construction Pty Ltd (LORAC)		✓	✓		5.12.2011
Mary Valley Heritage Rail Museum	✓	✓		✓	23.04.1998
Maryborough City Whistle Stop Committee		✓		✓	4.11.1999
McConnell Dowell Constructions (Aust) Pty Ltd		✓	✓		8.11.2010
Mt Isa Mines Ltd	✓		✓		12.07.2010
New South Wales Rail Transport Museum		✓		✓	3.04.1998

Organisation	Rail Infrastructure Manager	Rolling Stock Operator	Commercial	Tourist and Heritage	Date Accredited
NSW Trains		✓	✓		3.09.2004
Pacific National Pty Ltd	✓	✓	✓		28.06.2002
Port Douglas Steam Train	✓	✓		✓	15.04.2003
Port of Brisbane Pty Ltd	✓		✓		1.07.2000
Queensland Nickel Pty Ltd		✓	✓		18.04.2013
Queensland Pioneer Steam Railway Co-Operative Ltd	✓	✓		✓	1.07.1997
Queensland Rail Limited	✓	✓	✓		1.07.2000
Ravenshoe Railway Co Ltd	✓	✓		✓	3.10.2006
Rhomberg Rail Australia Pty Ltd		✓	✓		1.06.2012
Rockhampton Regional Council	✓	✓		✓	13.06.2008
SCT Logistics		✓	✓		1.05.2007
Southern Downs Steam Railway Association	✓	✓		✓	29.05.2002
Sucrogen Ltd	✓	✓		✓	22.12.2000
The Big Pineapple Corporation Pty Ltd	✓	✓	✓		2.04.2013
The Rail Motor Society Inc		✓		✓	14.11.2008
Thiess Pty Ltd		✓	✓		30.05.2011
3801 Limited		✓		✓	29.09.2005

Appendix 2: Notifiable occurrences (Category A and Category B)

The *Transport (Rail Safety) Act 2010* specifies that rail transport operators must report certain occurrences that happen on (or in relation to), the rail transport operator's railway premises or railway operations.

Occurrence Classification – Guideline One (OC-G1), classifies occurrences as follows:

- Derailment
- Collision
- Level crossing occurrence
- Signal passed at danger (SPAD)
- Proceed authority exceeded
- Signalling and other proceed authority system irregularities
- Slip, trip or fall
- Load irregularity
- Dangerous goods occurrence
- Safeworking rule or procedure breach
- Track and civil infrastructure irregularity
- Rolling stock irregularity
- Electrical infrastructure irregularity
- Fire
- Explosion
- Suspected or attempted suicide
- Alcohol or drugs irregularity
- Train warning and enforcement system irregularity
- Communications systems failure
- Railway network security
- Runaway

Full details of OC-G1 can be found on the Transport and Main Roads website.