



INDEPENDENT  
TRANSPORT  
SAFETY  
REGULATOR

# Implementation of the NSW Government's response

## to the Final Report of the Special Commission of Inquiry into the Waterfall Rail Accident

Reporting period: July - September 2010

REPORT 23

**ITSR**

Safe transport for NSW

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The Hon. John Robertson MLC  
Minister for Transport  
Governor Macquarie Tower  
Level 30, 1 Farrer Place  
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Dear Minister

I am pleased to provide the 23<sup>rd</sup> quarterly report on the implementation of the NSW Government's response to the recommendations contained within the *Final Report of the Special Commission of Inquiry into the Waterfall Rail Accident*.

This report reflects implementation progress from 1 July to 30 September 2010.

At the close of this period, there are four open recommendations. The Independent Transport Safety Regulator (ITSR) reports publicly on open recommendations.

Recommendations that have been closed subject to implementation of an approved program or plan are monitored as part of ITSR's ongoing regulatory activities to ensure the government's response is fully implemented.

Further information about the history and progress of the implementation of all the inquiry's recommendations can be found on the ITSR website. This information includes:

- copies of previous ITSR quarterly reports
- a table containing all 177 recommendations
- a summary of the 16 recommendations that have been closed subject to the implementation of an approved program or plan.

Yours sincerely

**Simon Foster**  
Acting Chief Executive

## Summary of progress

The Independent Transport Safety Regulator (ITSR) is responsible for overseeing the implementation of the NSW Government's response to the recommendations contained within the *Final Report of the Special Commission of Inquiry into the Waterfall Rail Accident*.

This role includes verifying that recommendations have been effectively implemented or that an approved program or plan is in place for implementation. ITSR produces quarterly public reports on the progress of open recommendations.

At the end of the reporting period, the status of the 177 recommendations (including 127 recommendations and 50 sub-elements) was as follows:

- four remain open
- 16 are closed subject to the implementation of an approved program or plan
- 151 are closed and verified as fully implemented
- one is closed because it is no longer applicable
- five are rejected by the government and these were closed – rejected.

The methodology and taxonomy for the classification system used for the Waterfall recommendations are in Appendix 1 and 2 respectively.

The four open recommendations, which are outlined in further detail in Appendix 3, are:

- 32: RailCorp should progressively implement, within a reasonable time, level 2 Automatic Train Protection (ATP). ATP systems provide automatic enforcement (slowing/braking) of authority (speed/location) if a train is behaving in an unauthorised way. Implementation will involve significant infrastructure change and is the subject of a major project. The business case for the first stage of the rollout of RailCorp's ATP program was approved in June 2010 through the NSW Treasury Gateway Review process. As a result, Cabinet gave full funding approval for the implementation of Stage 1 of the program. The interim target date for the next milestone relating to this recommendation is 31 July 2011 when the contracts for Stage 1 will be awarded.
- 36: ITSR should impose a standard in relation to the collection and use of data from data loggers, which record information on a train's operations. The Minister has agreed to the development of a compliance code for the collection, access and use of data from data loggers for the purposes of accident and incident investigation and to monitor train safety performance; and to consult with industry in the development of the code. The interim target date is 31 October 2010.
- 37: The standard in relation to the collection and use of data from data loggers should provide that such information must be accessed in the circumstances of any accident or incident and can be accessed to monitor driver performance generally.

The Minister has agreed to the development of a compliance code for the collection, access and use of data from data loggers for the purposes of accident and incident investigation and to monitor train safety performance; and to consult with industry in the development of the code. The interim target date is 31 October 2010.

- 38: There must be compatibility of communication systems throughout the rail network. It is essential that all train drivers, train controllers, signallers, train guards and supervisors of trackside work gangs in NSW be able to communicate using the same technology. The target date for implementation of RailCorp's new digital train radio system and the development of a national *Railway Communications Standard* by the Rail Industry Safety and Standards Board (RISSB) is 31 December 2012. RISSB advised ITSR that the national *Railway Communications Standard – AS7660* will be completed and approved for implementation in March 2011.

This statement provides implementation progress on these four recommendations from 1 July to 30 September 2010.

During the reporting period there were no slippages in the agreed timeframes for these recommendations.

## **Progress on recommendations 32 and 38**

### **Recommendation 32**

The business case for the first stage of the rollout of RailCorp's ATP program was approved in June 2010 through the NSW Treasury Gateway Review process. RailCorp advised ITSR that in August 2010, Cabinet had given in-principle funding approval for the rollout of the three stages of the ATP program and full funding approval for the implementation of Stage 1 of the program.

Stage 1 of the program involves the supply of ATP equipment for RailCorp's OSCAR and Tangara train fleets and the installation of ATP equipment to 600 kilometres of the CityRail network. Stages 2 and 3 of the program will involve the installation of ATP equipment across the rest of RailCorp's electrified network and onboard the Waratah and Millennium train fleets.

During September 2010 the government announced that tenders are being called for Stage 1 of the ATP program with submissions for the tender closing 10 November 2010. It is anticipated that the supply contracts for Stage 1 of the program will be awarded in early 2011. The first of RailCorp's trains to be fitted with ATP equipment and introduced into service between Wyong and Berowra is expected to be in 2013, with full rollout of the ATP program completed by 2021. The interim target date for the next milestone relating to this recommendation is 31 July 2011 when the contracts for Stage 1 will be awarded.

### **Recommendation 38**

This recommendation requires implementation of RailCorp's new digital train radio system (DTRS) and the development of a national communications standard by RISSB. The new DTRS currently being designed will enhance communication between trains and network control in an emergency as well as enable communication between other staff for rail operations on the RailCorp network.

During the quarter, RailCorp briefed ITSr on the status of the DTRS project. Progress for delivery of the project is on schedule with expected network fitment to be completed by December 2012. This will include a significant proportion of RailCorp's rolling stock being fitted with DTRS radios.

The Australasian Railway Association is working with operators and rail safety regulators to develop a national approach on communications systems to ensure that agreed functionality and compatibility requirements are included in the national *Railway Communications Standard* being developed by RISSB. RISSB advised ITSr that the *Railway Communications Standard – AS7660*, will be completed and approved for implementation in March 2011.

It should be noted that there already exists compatibility such that trains can already communicate with other trains operating on the rail network through network control in an emergency situation. The existing communications system enables network control to send an emergency broadcast call to all passenger and freight trains in the immediate vicinity of the emergency. Train drivers cannot communicate directly to other train drivers without the call going through network control which is in line with national rail safety principles.

The target date for implementation of RailCorp's new DTRS and the development of a national *Railway Communications Standard* by RISSB is 31 December 2012.

## Appendix 1 – Methodology

This section outlines the processes ITSR has instituted to develop and monitor the implementation plan for the NSW Government's response to the *Final Report of the Special Commission of Inquiry into the Waterfall Rail Accident* (SCOI final report).

### Implementation plan

ITSR has reviewed the SCOI final report and determined action required to implement each recommendation in line with the government's response and which company or agency has responsibility for that action. These expectations then formed the basis for determining whether the response put forward by a company or agency is appropriate to meet the recommendation and/or satisfy the safety objective of the recommendation. Responsible agencies have assigned indicative timeframes for each safety action and ITSR will review the appropriateness of each. Timeframes agreed with responsible companies or agencies have, to the greatest extent possible, been made realistic and achievable. Details of the implementation plan for outstanding issues and progress against it may be found in Appendix 3 on page 9.

### Classification system for recommendations

In order to provide a graduated view of progress against the implementation plan, ITSR has developed a classification system to indicate the relative status of each recommendation. The taxonomy for the classification system has been drawn from accepted international practice and is listed in Appendix 2 on page 7.

The process for assigning status to a recommendation is as follows:

- Step 1            The government's response to the SCOI final report determined which recommendations were accepted. ITSR has articulated its expectations in regards to all remaining recommendations.
  
- Step 2            All accepted recommendations are assigned the status "Open – await response". These recommendations are then referred by ITSR to the relevant company or agency to prepare a response to the recommendation(s) and submit it to ITSR.
  
- Step 3            ITSR reviews the response and determines whether it is acceptable or not. If it is acceptable then the status of the recommendation is assigned either "Open - acceptable response" or "Open – acceptable alternative response". A recommendation would be assigned an "Open – acceptable alternative response" status when the intent of a recommendation will be met but will be implemented by alternative means. If the response is not acceptable then the recommendation is assigned the status of "Open – response rejected". In this case, the company or agency is informed of the decision and requested to re-submit a revised response

taking into account ITSR's concerns. This process continues until the response to the recommendation is accepted by ITSR.

- Step 4 ITSR monitors progress of all accepted responses to ensure a company or agency is meeting agreed implementation timeframes. This is done through both desktop reviews of reports received by agencies and in-field inspections to verify progress claimed.
- Step 5 Once a company or agency has completed a required action it will submit to ITSR a claim for closure of the recommendation. This application indicates that the company or agency believes it has completed the required action. The status of the recommendation is changed to "Open – company claims closure".
- Step 6 In most cases, ITSR will verify closure through an in-field compliance inspection or audit. Once verification has taken place the recommendation status is changed to indicate it is "Closed – verified".

Note 1: some recommendations may be verified by examination of documentation submitted by the agency that claims closure rather than through an in-field inspection. In these cases, recommendation status is indicated by "Closed – not verified".

Note 2: some recommendations may be verified "Closed – subject to the implementation of an approved program or plan". In these cases, ITSR agrees to closure if the chief executive of the organisation has approved the program or plan and ITSR is of the view that it meets the government's response to the recommendation. This categorisation is used generally when implementation may take place over a prolonged period of time and/or capital expenditure is involved.

This process will continue until all recommendations are closed.

## Appendix 2 – Taxonomy for classification system

	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 ITSR.
2.	Open – response received	ITSR has received a response from an affected party and this response is under review by ITSR. It has not yet been accepted by ITSR.
3.	Open – acceptable response	ITSR agrees that the planned action, when completed, meets the recommendation.
4.	Open – acceptable alternative response	ITSR agrees that alternative action, when completed, satisfies the objective of the recommendation.
5.	Open – response rejected by ITSR	ITSR 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 ITSR. ITSR has not yet agreed that the item is closed.
7.	Closed – recommendation rejected	ITSR has determined through further analysis and review that the recommendation is not appropriate (i.e. will not achieve the desired safety outcomes) and has rejected the recommendation. It is therefore closed.

8.	Closed – no longer applicable	<p>The recommendation has been overtaken by events and action is no longer required.</p> <p>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.</p>
9.	Closed – action verified	Completion of the planned or alternate action has been verified by ITSR through a compliance inspection or audit.
10.	Closed – action not verified	<p>ITSR accepts that the planned or alternate action has been completed following a review of documentation submitted. Field verification is not necessary.</p>
11.	Closed – subject to the implementation of the approved program or plan	A long term implementation plan has been approved. ITSR will monitor reported progress against the plan to ensure compliance with delivery schedule.

## Appendix 3 – Implementation plan: outstanding recommendations

NB: This table lists only the recommendations which were closed in the last quarter, or remain to be implemented. Those recommendations closed in previous quarters do not appear. A complete list of all recommendations is available on ITSR's website at: <http://www.transportregulator.nsw.gov.au>

Recommendation	Government response	ITSR expectation	Agency	Status	ITSR assessment	Target date
32. RailCorp should progressively implement, within a reasonable time, level 2 Automatic Train Protection (ATP).	Requires further detailed review. The government supports the implementation of additional train protection systems. Implementation of level 2 ATP as detailed in the recommendation would involve the replacement of all line-side signalling on the RailCorp network with on-train control systems. In addition every intra- and inter-state train accessing the network would also need to be equipped with level 2 ATP technology. RailCorp has already retained consultants to undertake evaluation and risk assessment regarding implementation of additional automatic train protection systems on the RailCorp network. RailCorp will work with the Australian Rail Track Corporation (which operates the interstate network) to develop, in conjunction with ITSR and interstate rail regulators, a national standard for an automatic train	A detailed technical review of available options. This is to be a project led by RailCorp. The major outcome of the project is to be a business case to support a government decision concerning implementation of ATP.	RailCorp	Open	Acceptable response	*31/07/2011

\* This is an indicative timeframe which has been agreed to by the agency responsible and ITSR.

+ This indicates a slippage with a revised date.

# This indicates closure – subject to the implementation of an approved program or plan.

Recommendation	Government response	ITSR expectation	Agency	Status	ITSR assessment	Target date
	protection system. RailCorp will also undertake a comprehensive review which will include a risk assessment, technical feasibility and cost benefit analysis of introducing level 1 ATP as well as level 2 ATP, as recommended by the Commission. Consistent with recommendation 34 any future options will need to be assessed by independent verification of acceptable risk.					
36. ITSR should impose a standard in relation to the collection and use of data from data loggers.	Supported in principle for implementation through other means. ITSR will introduce regulations including for data loggers that set out the expectations (or performance outcomes) required of industry. The regulations will be developed on a national basis, through the National Transport Commission (NTC) process, to ensure consistent application across the Australian rail industry. Notwithstanding the expectation that industry will develop and maintain appropriate safety standards, ITSR will retain the power to mandate such standards if the industry clearly fails to deliver satisfactory safety outcomes.	ITSR will refer matter to NTC for development of national regulation in the interim; ITSR will review existing standards set in access agreements to ensure adequate standards for collection and use of data.	ITSR	Open	Acceptable response	*31/10/2010

\* This is an indicative timeframe which has been agreed to by the agency responsible and ITSR.

+ This indicates a slippage with a revised date.

# This indicates closure – subject to the implementation of an approved program or plan.

Recommendation	Government response	ITSR expectation	Agency	Status	ITSR assessment	Target date
<p>37. The standard in relation to the collection and use of data from data loggers should provide that such information must be accessed in the circumstances of any accident or incident and can be accessed to monitor driver performance generally.</p>	<p>Supported in principle for implementation through other means (see recommendation 36). Information from data loggers can be accessed to monitor for any incident or accident and can be accessed to monitor a driver's performance generally.</p>	<p>ITSR will refer matter to NTC for development of national regulation; ITSR will adopt national regulation in the interim; ITSR will seek from RailCorp, proposals to improve the monitoring of driver performance (especially for training purposes)</p>	<p>ITSR</p>	<p>Open</p>	<p>Acceptable response</p>	<p>*31/10/2010</p>

\* This is an indicative timeframe which has been agreed to by the agency responsible and ITSR.

+ This indicates a slippage with a revised date.

# This indicates closure – subject to the implementation of an approved program or plan.

Recommendation	Government response	ITSR expectation	Agency	Status	ITSR assessment	Target date
<p>38. There must be compatibility of communications systems throughout the rail network. It is essential that all train drivers, train controllers, signallers, train guards and supervisors of trackside work gangs in New South Wales be able to communicate using the same technology.</p>	<p>Supported and being implemented. The National Standing Committee of Transport endorsed the Australasian Railway Association working with operators and regulators, including RailCorp and ITSR, to develop a national approach on communications systems, which has agreed minimum functionality requirements for train radio systems. RailCorp plans to implement a digital train radio system. An objective of this system is for it to be interoperable with existing analogue radio systems. Because of the technical complexities associated with achieving inter-operability, this has been a longer-term initiative and the first stage of its implementation will commence in 2005.</p>	<p>ITSR to ensure functionality and compatibility requirements are included in national standard, currently under development by the Australasian Railway Association. ITSR to ensure RailCorp/ARTC radio functionality for next generation technology meets compatibility requirements.</p>	<p>ITSR</p>	<p>Open</p>	<p>Acceptable response</p>	<p>31/12/2012</p>

\* This is an indicative timeframe which has been agreed to by the agency responsible and ITSR.

+ This indicates a slippage with a revised date.

# This indicates closure – subject to the implementation of an approved program or plan.