

NSW STAYSAFE INQUIRY: UPDATING PROGRESS ON RAILWAY LEVEL CROSSING SAFETY: RTBU NSW BRANCH SUBMISSION

Executive Summary

The StaySafe Inquiry Update occurs at a crucial time for rail and road level crossing safety in NSW, and indeed, nationally. The recommendations of the 2004 NSW StaySafe Inquiry represented the most comprehensive review of rail level crossings ever undertaken by an Australian Parliament. It set the benchmark.

Substantial changes in the rail industry have occurred since 2004. These include structural changes incorporating substantial federal funding through a number of programs including the AusLink corridor programs, the recently announced \$150m 2 year rail level crossing upgrading program and grants and equity funding of \$1.2b to ARTC.

The RTBU submission analyses a range of developments which impact on rail level crossing strategies and a number of issues which have arisen since the 2004 Inquiry.

These include a greater appreciation of the role of heavier and longer trucks for rail level crossing safety, the potential application of technologies which impact on the interface between the road and rail industries at level crossings and the outcomes of the research undertaken into road vehicle driver behaviour.

The RTBU submission discusses the various parliamentary Inquiries undertaken in other jurisdictions in relation to various aspects of rail level crossing safety and the lessons which may be learned from them.

The RTBU analyses the various StaySafe 2004 Recommendations and notes that their implementation has been patchy. The RTBU makes a number of recommendations to the StaySafe Update Inquiry about these issues.

The advances made in several areas in improving rail level crossing safety are referred to in the RTBU submission. These include the adoption of: Australian Standards for Lighting and Visibility, the ALCAM risk assessment model and rail safety legislation which requires rail and road infrastructure managers to address risk at level crossings by the introduction of Interface Coordination Plans.

The RTBU submission argues the StaySafe Committee Inquiry has a unique opportunity to weld together and create a forward looking, comprehensive rail level crossing strategic action plan for NSW. This strategic plan, the RTBU concludes, should be integrated into a national rail level crossing strategic plan.

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Introduction

The Australian Rail, Tram and Bus Industry Union, NSW Branch (RTBU), is an industry union representing 12,000 rail, tram and public sector bus workers in NSW. The RTBU's members who are directly impacted by this Inquiry are drivers of passenger and freight trains, on train crew including hospitality staff and infrastructure workers undertaking the maintenance and upgrading of rail level crossings and associated equipment.

The RTBU, as part of Unions NSW, made a detailed submission and gave evidence to the 2004 Inquiry. A specific Chapter 6, Train Crew Matters was included in the 2004 StaySafe Report.

The RTBU believes that rail level crossings are the major safety risk for the Australian rail industry. As shown by the Kerang rail accident of June 2007 rail level crossing accidents have the potential to be catastrophic with major loss of life. A chilling reminder for this Committee and the entire rail industry is that this accident could have occurred in any mainland state.

For the RTBU membership rail level crossing accidents across Australia present the greatest risk of death or serious injury. Five train drivers have been killed in rail level crossing accidents across Australia since 2002. None of these deaths occurred in NSW.

The RTBU welcomes the opportunity to make a submission to StaySafe. This Inquiry into Updating Progress on railway level crossing is timely because of developments in NSW and nationally. These include on going structural change, legislative change, recent and current parliamentary inquiries, new national rail level crossing investment initiatives and new research opportunities.

RTBU Comments on the Status of StaySafe Recommendations

A. Matters relating to the administration of railway level crossings

The RTBU notes the NSW Government has announced an enhanced level of funding with \$7m available for each year to 2010/11. The RTBU also notes the \$150m, 2-year federal government level crossing program. The RTBU argues that the NSW enhanced program should continue but that StaySafe give consideration to recommending the reprioritising of the NSW program and giving emphasis to road driver education, including an operation lifesaver type of program, increased enforcement, NSW playing a leading role in the development of coordinated research programs and the development of a strategic level crossing plan for NSW that is integrated with a national rail level crossing strategy.

The RTBU is disappointed that the LCSC has not developed a strategic plan for the management of NSW level crossings in the five years since the original StaySafe recommendation.

The RTBU urges StaySafe to make the following recommendations: that the NSW strategic plan be subject to discussion with StaySafe and major stakeholders, including the RTBU before it is implemented; that a key component of the plan be ensuring that it dovetails with a national rail level crossing plan, that it be of five or 10 years duration and that it ensure that a key strategic objective is for NSW to play a lead role at ATC and Safety and Security Group and Sub Group level to ensure a national direction is set for technological developments particularly IAP and ITS; low cost technologies; enhanced driver education programs and risk assessments concerning B triple networks and their impacts on rail level crossings. In addition NSW should, at ATC level, argue for rail level crossing upgrades to be directly linked to AusLink corridor strategies and these commence with the next AusLink funding cycle.

Rail level crossing closure strategy: there some 3800 level crossings in NSW, the majority of which have passive controls and are located in regional and rural areas. StaySafe recommended that agencies actively seek the closure of level crossings. The LCSC reported that over the period 2006/07 to 2002/08 the Minister of Transport approved the closure of 57 level crossings, the majority of which were on private property.

The RTBU notes the comments of the Panel made in the report of the Canadian Parliament about the Review of the Railway Safety Act “ *the railways recommended that the crossing closure program be given greater priority by Transport Canada, and that crossing reduction targets be developed, as has*

been done successfully in the United States. The Panel agrees that more emphasis should be put on identifying crossings that should be closed.”¹

The RTBU supports the comments of the Canadian Review Panel and believes they should be applied to NSW.

B. Matters relating to the road environment at railway level crossings

The RTBU acknowledges the participation by NSW agencies in the review of AS 1724.7 on level crossings. **The RTBU urges this Committee to recommend that an audit be conducted of all NSW rail infrastructure managers to identify those level crossings that may be not up to these standards, the time and cost to implement these standards and the inclusion of this item in the NSW level crossing strategic plan.**

The RTBU elsewhere in this submission has made a number of recommendations concerning the consideration of new technologies.

The RTBU notes the NSW contribution to the behavioral strategy research project and urges **this Committee to recommend a targeted education and enforcement project in NSW as has been done in Victoria and WA.**

The RTBU in its 2004 StaySafe submission focused extensively on road driver behavior and the flagrant disregard of the road rules.

The RTBU argues that a key component of the NSW strategic plan for level crossings should be the adoption of new technology for enforcement and in particular NSW police targeting drivers at railway crossings and the trialing, in a number of locations, of level crossing cameras.

C. Matters relating to train crew recommendations 46-47

The RTBU through the peak union body, Unions NSW made an extensive submission and train driver representatives gave evidence to the Committee in 2004.. Chapter 6.5 of the StaySafe Report indicated that train drivers identified two major issues

- The ability of train drivers to detail the regularity of “*near misses*” which occur each week at NSW level crossings
- The level of train driver frustration in relation to having safety concerns addressed.

¹ Canadian Parliament: Stronger Ties : A Shared Commitment to Railway Safety p111

A survey of train drivers conducted by the RTBU formed part of the submissions and StaySafe noted *“the major issue was the constant disregard by motorists and truck drivers of the laws and safety warnings governing level crossings...and that train drivers and their union were critical of these mechanisms for reporting incidents”*.

StaySafe also examined the impact of incidents and crashes on train crew and believed there were benefits from a co-ordinated approach to dealing with these issues rather than to leave each organization or agency to support its own staff. StaySafe made two recommendations relating to train crew.

1. Recommendation 46 concerned the implementation of a confidential reporting system. This was implemented as part of the package of reforms pursued by the NSW Government following the McInerney recommendations. OTSI has a confidential reporting system for railworkers.
2. Recommendation 47 concerned the review of support provided for train crews and other personnel involved in attending level crossing crashes to identify best practice principles and to identify and implement improved programs.

The RTBU is extremely disappointed the analysis of best practice has not as yet occurred since the StaySafe recommendation made five years ago. The LCSC submission notes that a number of organizations have a program in place. None of these programs appear to have been analysed against best practice principles.

The RTBU argues that the policies of rail organizations contractors will also need to be examined. None of the companies referred to by LCSC employs freight train drivers.

The RTBU urges the Committee to recommend that train drivers and their representatives be included in the proposed WorkCover program which is to be organised in early 2009.

The Victorian Inquiry referred to the increasing risk to train crew and passengers and how crew fatalities arising from heavy vehicle crashes is of growing concern. The RTBU in this submission has raised a number of matters concerning risk assessments for B triple networks, truck driver licensing and education, driver behavior, a common road and rail approach to new technologies such as IAP and ITS and the need for new approaches to enforcement which include the use of detection cameras at level crossings.

D. Matters relating to locomotives and rolling stock

The RTBU has made a number of comments about train conspicuity in the context of an analysis of the Federal Parliamentary Inquiry.

StaySafe Recommendation 49 envisaged rail unions would be involved. The Government response of 2006 noted that SCOT was addressing train conspicuity. The RTBU was not consulted in the SCOT process about these issues. The RTBU is unaware whether train conspicuity matters will be on the agenda when the new consultative arrangements at national level come into place. The RTBU has not been consulted.

The RTBU urges the Committee to recommend that the new national rail level crossing structures be made transparent and accountable with major stakeholders such as the RTBU regularly consulted and minutes of meetings made available to industry stakeholders.

ATC structures in the past have been remote from unions and their members and little if no information, other than perhaps a passing reference in an ATC communiqué, has been available.

The RTBU notes the ARA announcement that existing locomotives were expected to comply with Lighting and Visibility Standards by 2008. The RTBU notes the ARA audit of compliance with the new standards and the indicative standards of fleet compliance.

The RTBU urges that StaySafe recommend that the NSW rail regulator as part of their audit program ascertain fleet compliance and include in their annual report the degree of compliance and the names of companies which are not compliant.

The RTBU poses the question why shouldn't standards such as the Lighting and Visibility Standards be mandatory?

E. Matters relating to motor vehicles at railway level crossings.

The circumstances of the Kerang investigation and the Californian rail commuter accident in 2008 when twenty-six passengers were killed underline the importance of this issue. In response to the US accident Australian rail regulators have issued a safety alert to rail companies concerning the use of mobile phones.

The RTBU is concerned there appears to be little progress on this issue since the 2004 StaySafe Recommendations. This reinforces in the view of the RTBU that there needs to be an action plan with timelines and reporting against those timelines. It also reinforces the need for integrated rail safety action plans

between NSW and the new national level crossing working group which we understand has yet to meet. Unless this integration of strategies is formalized AND funded a degree of cynicism could be encountered that the matter has merely been “kicked upstairs.”

The 2006 response noted that a research project about issues related to driver distraction would be better conducted through a national forum and the matter would be raised by the RTA. The further comments of LCSC noted a letter had been sent to the new national level-working group. For the RTBU this raises issues about modal cooperation. The road industry has a separate national structure through the National Road Safety Council with direct access to the Federal Minister .If ever there was project which required the closet collaboration between road and rail interests this has to at the very forefront.

The RTBU urges that the Committee recommend an integrated approach between the modes at a national level and that NSW commit to funding of this important project.

F. Matters relating to drivers and other road users at railway level crossings.

The RTBU in its StaySafe 2004 submission highlighted the importance of this issue to train driver members. The RTBU notes that NSW has allocated funding to the behavioral strategy research project. The RTBU argues that the targeted education and enforcement projects undertaken in Victoria and WA should be extended to NSW and included in the NSW strategic plan. The RTBU believes that NSW should continue to fund BCG research.

The RTBU notes and supports the Level Crossing Strategy of the ARA and believes a number of its components have direct application to, and should be included in, the NSW and national rail level crossing strategic plans.

The RTBU notes the StaySafe 2004 observation at 9.81 of its Report that “*in many reviews of the safety of railway level crossings, issues associated with pedestrians, cyclist and people using wheelchairs when crossing railway lines are often overlooked.*”

The Victorian inquiry said in respect of pedestrians that it was a concern noting that in the past 10 years from 1998 to 2007 the proportion of pedestrian fatalities increased to 51%. Evidence to that Inquiry suggested there was very little published research on train pedestrian crashes. One report quoted that 66% of train crashes were likely to be caused by pedestrians disregarding or ignoring warning devices that indicated a train was approaching. The Victorian Inquiry made no specific recommendations in relation to this matter.

StaySafe Recommendation 54 covered both motorists and pedestrians. The emphasis of the NSW response seems to focus on motorists. The RTBU notes that Recommendations 61 and 62 related to pedestrians and that evidence to the 2006 Inquiry included evidence on a program of activity being pursued by RailCorp in respect of these issues.

The RTBU urges the Committee to recommend that pedestrian issues be examined in the non-metro area, that the BCG program be examined for its coverage of pedestrian issues, that specific research programs be initiated at state and national level and that this issue be incorporated within the strategic plans being developed at both levels of Government.

The RTBU is concerned that in relation to recommendation 63 no work is being undertaken outside individual enterprises. The 2006 NSW Government response argues that the LCSC has no remit (The RTBU asks who at government level is responsible and does the same hold for the national level crossing group?) and the further comments section of the LCSC Report indicates each network manager has its their own process. The RTBU further asks is this non-engagement the same in each state?

The RTBU urges this Committee to recommend an examination of the practices of each of the NSW track managers and interstate in order to gain an insight into whether best practice is being pursued by rail infrastructure managers in NSW.

The RTBU notes that Recommendation 66 concerned the review of the Operation Lifesaver program in Canada and the US for possible use when adapted to Australian conditions and culture in NSW. The response from the Government and has been these programs and others will continue to be considered when education and awareness campaigns are considered and that the RTA and rail network managers will continue to monitor and review them.

The 2004 Federal Inquiry and Government response referred to this particular StaySafe recommendation. There does not appear to have been a review of the operation lifesaver program undertaken by the RTA, local councils or rail network managers. The core of the Operation Lifesaver program was community and rail organizations involvement in addressing level crossing issues. It was a bottom up, inclusive approach of all stakeholders.

The current LCSC campaign takes a quite different approach, with minimal rail industry and community involvement. The RTBU believes there are many advantages to an operation lifesaver style program.

The RTBU urges this Inquiry to again recommend in the strongest terms that a thorough, transparent review of operation lifesaver and its possible use be undertaken by the Ministry of Transport in conjunction with its

federal counterpart and this be included in the strategic level crossing plans at both NSW and national levels.

The RTBU notes that the 2007 Review of the Rail Safety Act by the Canadian Parliament² in its recommendations included “*Public education programs such as operation lifesaver and Direction 2006 to reduce the trespassing and accidents at crossings have been successful and should be reviewed and, where necessary, enhanced.*”

General Developments since 2004

1. Australian Government funding for railway level crossing Upgrades. In February 2009 a \$150 m, 2-year program “*Boom Gates for Rail Crossings*” was announced by the Federal Government. It was in the context of a \$42b Nation and Building and Jobs Plan. The NSW allocation under this program is \$42.7m which will be spent on upgrading 45 higher risk crossings.

The importance of the federal government funding initiative is that this 2-year program for NSW exceeds the total \$40m allocation for the NSW level crossing improvement program funding for the last 8 years.

The Australian Government initiative is the first ever funding it has made for rail level crossings. They have traditionally been a state government initiative. The RTBU notes the intense structural change in the NSW rail industry whereby the major infrastructure and operational companies in non-metropolitan areas are national rail companies, ARTC and Asciano respectively.

The Federal Government since 2004 has initiated a land transport funding strategy where national road and rail corridors and their interconnecting links are funded by the Federal Government. In the period 2004 to 2009 this funding will total \$16b. In addition the Federal Government has, in December 2008, announced grants and equity funding for ARTC totally \$1.2 b. The greater percentage of this federal funding will be spent in NSW, particularly in the Hunter Valley.

The RTBU recommends that StaySafe request the Ministry of Transport to pursue at ATC level the linking of federal corridor funding initiatives to upgrading rail level crossings, land transport safety initiatives including ITS and IAP linked to potential rail safety crossing improvements and specific research programs for rail level crossings.

2. Legislative Changes

² Ibid p

The NSW Parliament in late 2008 approved of changes to the NSW Railway Safety Act to reflect changes included in the national model rail safety legislation endorsed by ATC in July 2006.

A major change was the introduction of legal obligations on both road and rail infrastructure managers to enter into negotiations for the purpose of producing a risk based road and rail level crossing interface coordination plan. (ICP) ICP's will require rail infrastructure track managers and relevant road authorities (RTA and local councils) to identify potential risks at individual level crossings and share the on going safety arrangements.

This is a major step forward in addressing risk at level crossings because of the historical differences between the two industries as to the priority which should be accorded to managing risk at rail level crossings. Given the total deaths and injuries which occur on roads on a yearly basis the risks of railway level crossings have traditionally been given a low priority by road authorities.

The new legislative requirements are to be phased in over three years commencing from 01/01/09. ITSRR has taken a proactive stance and prepared a template ICP and is conducting meetings to explain the new legislative requirements.

The RTBU notes the actions of the Victorian Road Safety Committee³ in analyzing the distribution of level crossing responsibilities between road and rail infrastructure managers in that state, the application of the ALCAM model to the states level crossings to determine how many action items need to be addressed and how these were distributed between the road and rail infrastructure managers.

The RTBU urges StaySafe to recommend that a similar analysis be undertaken by the Ministry of Transport of the responsibilities of the various road and rail infrastructure managers, the issues likely to have to be addressed, the annual reporting by the LCSC on the progress between the infrastructure managers to in reaching ICP's and that funding for local councils for level crossing upgrades be encompassed by the recent \$1.5b grants to local councils from the Federal Government and this allocation be pursued by NSW through ATC.

Heavy Road Vehicles

The StaySafe 20004 ad 2006 Inquiries did not consider in detail, nor were any recommendations made concerning rail level crossing safety and heavy road vehicles. The tendency for larger gvm and longer road freight vehicles together

³ Parliament of Victoria: Road Safety Committee: Inquiry into improving safety at level crossings. December 2008.

with B double networks and the push for B triple networks, necessarily focus attention on the interaction of heavy trucks and trains.

In April 2008 the ATSB released a Railway Level Crossing Bulletin. It noted ⁴

- Between April 2006 and December 2007 the ATSB investigated 12 level crossing accidents of which nine involved heavy road vehicles, four of which have been collisions with long distance passenger trains. State authorities had investigated an additional three significant accidents between heavy vehicles and passenger trains.
- The accidents had cost the lives of 19 people, 13 on board trains and 6 occupants of road vehicles. Over 60 people were injured and the damage bill is well over \$100m. (To this list can be added the two recent level crossing accidents in Queensland at Cardwell and Innisfail both involving trucks and 3 fatalities, including two train drivers.)
- Heavy road vehicles such as road trains and larger freight trains have become the norm .It used to be somewhat rare to hear of a train derailing and/ or significant casualties on board the train as a result of a collision with a road vehicle. This is not the case today.
- Most level crossing accidents are the result of a failure by motorists to abide by the simple rule of motorists giving way to trains at level crossings.
- The underlying factors behind motorists not giving way were analysed by the ATSB in its various investigations and these included: failing to drive according to the conditions, fatigue, familiarity, sighting, expectation, distraction, operational aspects of heavy road vehicles and driver impairment. The ATSB Bulletin examined the underlying casus of a number of accidents including 1. Lismore “ *the calculated speed of the B double truck at impact was 78kph...the truck was not being driven according to environmental conditions...fatigue could have affected his driving performance*” ⁵2.Ban Ban Springs several underlying causes that contributed to the truck drivers failure...expectation, familiarity, medical issues and the operation of heavy vehicles 3. Albury: the deceased driver of the sedan was found to have a cannabis concentration to a level where his driving performance was certainly impaired.

⁴ ATSB Railway Level Crossing Bulletin. ATSB web site.

⁵ Ibid

- Conclusion *“There are many underlying factors, which have led to recent collisions at level crossings. Almost every time the primary factor in the accident was the failure of the motorist to abide by the traffic control measures at the crossing. Given the operational limitations of trains, the onus to avoid a collision is primarily is on the motorist.”*⁶

The Role of Heavy Vehicles and rail level crossings

The Kerang Inquiry, the Victorian 2008 Parliamentary Inquiry together with the research work of the ATSB has focused attention on this issue.

Neither the 2004 Federal Inquiry nor the NSW StaySafe Inquiry of 2004 and 2006 gave any attention to this issue.

The Victorian Inquiry referred to the significant increase in heavy vehicles and distances traveled between 1991-2001. These trends are likely to accelerate given the projected doubling of the freight task by 2020 and the concentrated focus by policy makers on improving road freight productivity by the introduction and extension of performance based standards which will mean heavier trucks and the extension of B double and B triple networks.

The RTBU urges that StaySafe recommends that given the importance of heavy road vehicles and collisions with trains that increased education, training and oversight of truck drivers, the upgrading of truck driver health standards to the equivalent of category 1 standard for rail safety critical workers and that risks assessments of rail level crossings on proposed B triple network are undertaken before any decisions are made about the expansion of this network.

Other Parliamentary Inquiries

Victoria

What distinguished the Victorian Inquiry from all others was the explicit concentration on existing technology in use at public level crossings, new technology that is being trialed and planned and what types of developing technologies that should be monitored for future application.

In this regard the work of the Victorian Committee has taken a quantum leap from the directions of past inquiries and the workshops held to explore these issues potentially ground breaking. The application of new technology in both the road and rail industries has the ability to transform our approaches to safety at rail level crossings.

⁶ Ibid

These developments, particularly the recommendations for further investigation are potentially of great significance and include

1. The feasibility of incorporating the monitoring and the enforcement of driver behavior at level crossings into the Intelligent Access Program, and
2. A scheme for the phased introduction of the Intelligent Transport System into heavy vehicles and buses

The RTBU makes the following observations about the Victorian Inquiry.

1. Many of the Victorian recommendations will require national cooperation and coordination. Changes to Australian standards, heavy vehicle networks and the application of new technologies are national issues. For the rail industry surely we have learned from the three rail gauges. These matters go to the heart of what the National Transport Plan is about. National solutions for national problems. The rail industry has been slower than most to adapt to this new reality and this applies equally to road/rail interface issues. However in some jurisdictions there is an understandable reluctance to wait until the national will for reform and the accompanying architecture is in place for progress to occur. The Victorian Inquiry specifically referred to this.

2. The level of research taking place reveals a convergence between technologies and systems in transport generally and road /rail in particular. The level of research dollars going into road safety issues is large compared to rail and the latter needs to be given more resources. There is also a need for more common research work to be undertaken by the two industries and the role of government at all levels needs to be more coordinated.

The large land transport investments being undertaken by the Federal Government through AusLink with at least \$16b over 4 years and whilst some 85% to 90% has gone to roads, there exists the potential to incorporate new technologies as a part of the scope of these projects and for government to use its significant infrastructure funding to steer new directions concerning the application of technology.

For example, ARTC is the recent recipient of billion-dollar federal funding to upgrade national rail infrastructure mainly in NSW. How will these funds be allocated to the development of new technologies for improving rail level crossing safety or the upgrading or elimination of rail level crossings?

ARTC together with RailCorp are investing in train management system technologies, which are aimed at greater safety and productivity. They will be based on GPS and have the ability to affect train behavior. The reference by the Victorian Inquiry to development of Intelligent Speed Adaptation technology and the adaptation of Intelligent Access Program solutions to level crossing are

potentially significant developments. The RTBU suggests that there needs to be a greater interface between the two industries and the role of the federal government though tying development to AusLink funding needs to be seriously considered.

The use of technology to enforce and reinforce driver behavior differs considerably between the two industries. The overwhelming majority of railway locomotives has been fitted with data loggers, which allow the monitoring of both crew and equipment and has been a standard practice for many years. The fact that industry wide practices in this area have been very slow to be implemented in the road industry is of great concern to the RTBU and should be given priority.

House of Representatives

As the StaySafe Committee is aware the House of Representatives Standing Committee on Infrastructure, Transport, Regional Development and Local Government is conducting an Inquiry into updating its 2004 Report on Train Illumination. The RTBU made a submission to that Inquiry.

The RTBU argues that the national inquiry was constricted by the very narrow terms of reference and was recognized in their report in the following terms *“the Committee focuses on only one aspect of the problem with level crossings; however it sees the report as further contribution to the safe and efficient operation of the Australian transport industry”*.

The RTBU submission said that in terms of the magnitude of issues train illumination was a low order of magnitude issue. The Unions’ examination of the railways safety investigation reports since 2005 indicated that train visibility was not a major contributing cause and that in none of the investigation reports was a recommendation made concerning train visibility.

In relation to specific recommendations made by the Federal 2004 Inquiry and the subsequent response by the then Federal Government⁷ the RTBU submission made the following points

1. Recommendation 1: Additional lighting and reflective strips. The RISSB has produced standard AS 1724.7 concerning train lighting. The RTBU does not believe the case has been made out for strobe lights to be fitted to locomotives. Based on limited evidence the Victorian Inquiry recommended that the Victorian Transport Department, undertaken within 12 months a trial of low profile strobe lights. The RTBU is unaware of the Victorian Government as yet responding to the various recommendations.

⁷ Train Illumination: Response of the Australian Government, December 2005.

They also made a recommendation that trains be annually inspected to ensure reflectors fitted on trains are kept in a clean and well maintained condition and penalties apply to rail operators who disregard the standard.

The RTBU supports this recommendation and urges the NSW Committee to include it in its recommendations.

2. Recommendation 2 concerned the adoption of the Queensland developed risk based scoring system. This was subsequently adopted.

The RTBU notes that the ATSB has made comments about the ALCAM model and the need for further examination of it. The RTBU Locomotive Division has concerns that ALCAM does not involve consultation with train drivers and their representatives and does not take into account rail operating issues such as gradients and curves of the rail infrastructure on approaches to rail level crossings.

3. Recommendation 3 concerned rumble strips. It was not supported by Government who noted trials in WA and StaySafe recommendations in NSW. One of the Victorian Government responses to the Kerang accident was spending \$11.7m on installing rumble strips to more than 200 sites. On going trials of rumble strips are occurring in Victoria. The Victorian Inquiry recommended that once the evaluation of rumble strips is completed Vic Roads determine whether additional rumble strips should be installed.

The RTBU recommends that once the results of the trials are known the matter, if appropriate, be taken up and pursued by the Ministry of Transport.

4. Recommendation 4 related to ATC supported, continued research into train activated rumble strips. This was opposed by the Federal Government who noted opposition from the ARA and lack of support from ARCSIG who considered they were less effective than flashing lights. It also referred to low cost activation trials in SA and the NSW StaySafe recommendation that RTA and RIC assess the feasibility of installing train activated rumble strips at passive railway level crossings.

5. The Inquiry under the heading "*Education*" referred to evidence about the role education can play in helping to reduce level crossing fatalities and the support by AusRoads for the adaptation of the Canadian based education program "Operation Lifesaver". The final recommendation of the Inquiry was that "*DOTARS, with state transport departments, formally look at the Canadian based level crossing program "Operation Lifesaver" for the possible adoption into Australian state road safety programs.*"

The Federal Government response gave in principle support for this recommendation. It noted that the responsibility for the management of the

investigation rested with ARCSIG and the ARA. The response referred to a number of initiatives underway including the inclusion in the national level strategy of looking at the possible adoption of "Operation Lifesaver" in national roads safety action plans.

It noted the Federal Government had not funded DOTARS or the ATSB to engage in national level crossing coordination and education role and the support for Operation Lifesaver concepts by the ARA, and a workshop held by the ARA on developing a long-term plan to improve rail level crossing safety by changing road user behavior. The response indicated that the ARA was to present a national plan for endorsement by SCOT with a launch proposed for July 2006. ATC did endorse a rail research program on road user behavior, to be undertaken in a limited number of states.

The Federal Governments response further noted the NSW StaySafe Committee recommended that a review of the Canadian Operation Lifesaver be undertaken for possible adoption to Australian conditions and culture in NSW. The RTBU is unaware of the outcomes of the national level crossing strategy action item 4 concerning reviewing Operation Lifesaver and understands the NSW StaySafe Recommendation has not been pursued.

It would appear, that despite the in principle support for the concept driving Operation Lifesaver it has not come to fruition and has been dissolved into generalised programs pursued by state road authorities. Without the Federal Government championing the Operation Lifesaver review and providing the funding for this project, it will continue to languish. The RTBU argues that driver behavior issues, particularly heavy vehicle drivers, are a crucial issue if we are going to address the biggest rail safety risk issue the rail industry faces, a repeat of the Kerang rail disaster.

Canadian Parliament

In 2007 the Canadian Parliament established a Panel to review the Canadian Rail Safety Act. The Canadian experience has particular relevance for Australia because of the federal structure of government, the principles and framework for rail safety management are similar and many of the operating characteristics of Australian rail operations are broadly similar: vast distances, long and heavy trains etc. In their Report Chapter 7.2 Crossing Safety and 7.3 Community Outreach by Railways cover many of the issues concerning rail level crossing safety.

The report noted the direct involvement by the Federal Governments of Canada and the US in rail safety crossing issues. The Federal Railroad Administration in the US dedicates 260 employees to grade crossing and trespass issues and administers a \$220m per year program to eliminate hazards at public and private level crossings. Funding is also given to individual states.

The Parliamentary Report refers to the Canadian level crossing program “Direction 2006” that originated from a 1994 Parliamentary Review. It was a “*ten year national initiative intended to halve the grade crossings and railway trespassing accident rate from 1996 to 2006. Partners included Transport Canada, provincial and municipal governments, law enforcement agencies, safety organizations and railway companies and their unions.*”⁸

The program focused on research education, enforcement, legislation, outreach, performance measurement, legislation, resources and communications. Direction 2006 developed the Community Trespassing Prevention Guide and was instrumental in establishing the TDC Highway –Railway Grade Crossing Research Program (is investigating innovative technologies to increase the effectiveness and lower the cost of warning systems. It also looked at the human factors that contribute to grade crossing collisions) as well as initiatives to include rail safety awareness in provincial driver education programs.

The report said “*Although the program did not meet its target of 50% reduction in accidents, it did reduce them by 26% and is considered to have been successful in raising rail safety awareness.*”⁹

The Committee noted the close relationship between road awareness programs and educative campaigns promoting rail safety and called for the development of a crossing closure program with crossing reduction targets as had been done in the US.

The Committee made a number of recommendations concerning rail level crossings and these included:

- The development of a five year action plan with increased funding for grade crossing improvements and the plan to identify where crossings can be closed, limiting the number of new crossings and improving safety at existing crossings
- Railway companies expanding their outreach programs to encourage better communication with the entire community
- Public education programs such as Operation Lifesaver and Direction 2006 to reduce the trespassing and accidents at crossings have been successful and should be reviewed and, where necessary, enhanced.

National Initiatives

1. National Transport Plan.

⁸ Parliament of Canada op cit

⁹ ibid

The engine room of the new direction in National Transport Policy is the National Transport Plan endorsed at the meeting of Transport Ministers held in February 2008. The NTC web site indicates "*Ministers agreed to begin an ambitious program of national reform to address significant national challenges across all modes including climate change, safety, efficiency, congestion and the skills crisis.*"¹⁰

Ministers further agreed to pursue priority national reforms including a single national road safety council and a single rail safety regulator and investigation framework.

Individual Ministers from each jurisdiction have responsibility for taking responsibility for developing aspects of a national transport policy through ten working groups, which includes a Safety and Security Working Group to be developed by Queensland. Rail level crossing policy is to be developed by a sub group of this working group. What the work program of the group is, timelines and funding, frequency of meetings and consultative arrangements including with the Union, the RTBU is unaware. The sub group has made no contact with the RTBU. This was the modus operandi of previous committees of ATC, SCOT and their working groups.

2. National Level Crossing and Road Safety Strategies. The May 2008 ATC meeting adopted the following program in respect of "*Rail level crossing safety*"

- A major trial of low cost level crossing treatments
- National media and enforcement initiatives for level crossings; and
- Other best practice initiatives to improve level crossing safety.

The RTBU argues the success of earlier national strategies has been very modest. The RTBU argues there exists the opportunity for the NSW StaySafe Committee to have a major influence on a forward looking, five year strategic national rail level crossing action plan.

In May 2008 ATC detailed a specific 6-point program for road safety. The scope and ambitious nature of the program is in sharp contrast to the modest rail program, which focuses on only a few areas of rail level crossing safety. In the view of the RTBU it lacks strategic direction.

A number of the road safety measures have the potential to pick up a range of issues raised by the various rail level crossing Parliamentary Inquiries over the last five years e.g. in vehicle and road side technology, other rural crash problems, establishing better linkages between road construction and safety outcomes.

¹⁰ NTC web site -National Transport Pan

3. National Road Safety Action Plan. The November 2008 ATC meeting endorsed a two-year road safety action plan for 2009 and 2010.¹¹ The summary of key actions of the plan indicates it “*introduces measures with potential to significantly reduce road trauma over the next few years and to lay the foundation for longer term gains*”.

The Action Plan is complemented by national strategies and activities in specific areas of road safety including

- National heavy vehicle safety strategy
- National railway level crossing strategy

The Action Plan under safer vehicles, highest impact items indicates: develop a program of in vehicle technologies to promote road safety, including

- Digital tachographs and GPS enabled solutions for heavy vehicles, to support the implementation of speed and fatigue management reforms
- Development of a policy framework to enable the adoption of intelligent speed adaptation technology.

A number of the action plan items have the potential to impact on road/rail level crossing safety e.g. pedestrians, sources of driver distraction and the encouragement of road users to change their behavior over short time periods by effective deterrent measures such as integrated enforcement and publicity campaigns. There is significant potential overlap between the road action plan and rail level crossing issues.

The RTBU urges StaySafe to recommend there are integrated road/rail safety action plans.

The action plan under the section safer roads and roadsides indicates under highest impact actions: maintain or increase the current level of investment in Blackspot and other safety-targeted programs.

¹¹ ATC Communiqué, November 2008 National Road Safety Action Plan 2009 and 2010

4. NTC Strategic Plan¹². The NTC's work program is closely aligned to the national transport policy framework. New reform proposals for 2008/09 are listed under a table with the heading "High priority": Enforcement Guidelines to support improved safety at level crossings. The RTBU understands that item has been deferred. The NTC Strategic Plan has a number of projects relating to heavy vehicle safety, heavy vehicle braking, road safety charter and heavy vehicle safety benchmarking.

5. Rail Research program.¹³ In August 2008 the Minister for Innovation, Industry, Science and Research launched the Cooperative Research Centre (CRC) for Rail innovation. The Centre will receive a program grant of \$21m over 7 years. The Ministers press release notes that the grant is the single biggest research program in the history of Australian railways.

The CRC web site ¹⁴outlines their research program. It includes project R3.11- New affordable level crossing protection systems for crossings in regional areas and occupational crossings in areas with high-speed passenger trains.

The project objective is: *"aims to look at options using new technologies that are cheaper to install and maintain. Combinations of non-vital technology such as GPS will be considered by including a vital systems integrity backup which delivers reduced functionality if needed...the industry wide application of this project is an estimated 10% reduction in collisions."*

¹² NTC Strategic Plan: 2008-09 to 2010-11, NTC web site

¹³ Media Release: Minister of Innovation, Industry, Science and Research, 27 August 2008

¹⁴ www.railcrc.net.au/research