

Hon John Eren MP
Chair
Road Safety Committee
The Parliament of Victoria
Parliament House
Spring Street
EAST MELBOURNE VIC 3002

Inquiry into Improving Safety at Level Crossings

Dear Mr Eren

Thank you for the opportunity to provide input to the Road Safety Committee's Inquiry into Improving Safety at Level Crossings.

Level crossing crashes are likely to increase without intervention as the exposure risk can be expected to increase with the increasing growth in transport generally. It is well reported that the human factors are significant in level crossing crashes and incidents. However, road rail crossing design and train speeds are also very important. Clearly, with grade separation, safety is much improved over any level crossing where trains and motor vehicles have potential for direct impacts.

Rail and road investment plans should include the provision of grade-separated crossings where risks are elevated. Risks appear to be elevated wherever high train speeds are involved. Other factor elevating risk include nature of motor vehicle traffic, lines of sight at the crossing, frequency of use, heat shimmer and other distortions effects, and road conditions at the crossing.

Salient Point 1 – Infrastructure investment plans should consider the inclusion of funds to provide for grade separation of crossings with elevated risks.

Two factors that stand out in level crossing incidents: pedestrian involvement is very high, and most motor vehicle train crashes occur during the daytime. Also “local understanding of the railway level crossing” is evident in many cases, and side impacts are significant.

The ATA will not comment on pedestrian incidents.

The ATA notes the majority of level crossings are passive crossings with no active road user warning devices. Clearly, effective “active crossing” interventions must reduce the

human risk factors over reliance on passive crossings. There is doubt about the warning lead times and clearance times on many controlled crossings with higher speed, and longer trains and larger motor vehicles.

Salient Point 2 – Effective active level crossings provide safety improvements over passive crossings. Effective active crossing should involve the use of physical barriers, advance warning devices and adequate clearance periods.

However, the ATA believes there is considerable merit in low cost improvements to train visibility to reduce level crossing incidents generally. Specifically, we support the use of rotating beacons on the locomotives, high visibility reflective strips on all rolling stock and we believe that end outline marker lamps on the last carriage also makes sense. Anything that improves the conspicuity of trains in daytime and night time conditions is likely to have a positive impact on reducing level crossing incidents. Long and/or high speed trains, poor lines of sight, heat shimmer and similar distortions to road users' visibility are significant risk elevators that may be in part mitigated by improved conspicuity of trains.

Salient Point 3 – Trains must be made more visible, especially in poor lighting or periods of poor visibility due to climate factors such as heat shimmer.

Many of the existing passive crossings are inadequate with modern trains and motor vehicles as they were designed for much slower operating environments and lower populations. Passive crossings are numerous and include many "occupational", and private property entry, level crossings. We understand the risks at all of these passive crossings are largely unknown.

There appears to be merit in a proactive campaign to examine the risks at all level crossings and to profile these for planning of remedial works. This risk scoring should be done within a national framework.

High-risk crossings should be identified to road users by additional signage and 'attention getters' like rumble strips.

We do not believe that high speed trains should be allowed to run at speed on tracks with only passive level crossings, as the risks are simply too high. Once risks are identified, programmes of risk minimisation can be adopted. The duties and obligations of rail and road providers are not dissimilar to the obligations on factory owners under OH&S. These parties need to step up to the mark on level crossing safety. We believe there should be high level inter-governmental oversight to this situation.

Salient point 4 – High-speed trains must only operate where grade separation or active crossing are present on any high-speed section.

Salient point 5 – Every level crossing should be risk assessed within a national framework and as minimum outcome, higher risk crossings must be identified to road users.

- A review and reporting end date should be set on achieving this outcome, and made part of the Council Of Australian Governments' transport reform agenda.

Education of road users and train operators is an important adjunct to the points already identified. There is a clear need to provide targeted education campaigns which also address the human factor of 'local understanding' at crossings. May be where train drivers report 'near misses' or schedules for rail use are modified (so that risk may be escalated) portable high intensity programmable signage boards could be deployed to increase local awareness of the risks for a period. We understand this approach has been proven to work in seasonal rail operations in tourist areas.

Salient point 6 – Portable high intensity programmable signage boards could be deployed when 'near miss' or changed circumstances where risks are escalated in order to try to address the "local understanding" human factors in level crossing incidents. The effectiveness of this approach should be monitored.

Level crossing incidents often involve very harsh and traumatic outcomes with the loss of multiple lives, so while they may represent a relatively small percentage of the road user crash rates they are a significant issue for rail operators and communities. All stakeholders need to be engaged, including the trucking industry, but it is clear that the rail industry can do much more in its own right with conspicuity of trains and risk assessment of its own operations. We believe the Committee should comment specifically on the evidence demanding action by the rail industry, on train conspicuity and rail side operational risk mitigation.

Should you or other Committee members have any questions the ATA's contact is David Coonan, on telephone (02) 6253 6933 or Email: coonand@atatruck.net.au.

Yours sincerely



Stuart St Clair
Chief Executive

September 2007

cc: Philippa Dodshon
Senior Transport Safety Investigator
Human Factors
Australian Transport Safety Bureau
PO Box 967
Civic Square ACT 2608