



Australian Government
Australian Transport Safety Bureau

Chief Commissioner

*Our reference: ATSB13/369
Contact: John Taylor*

9 December 2013

Ms Sara-Jane McIntyre
Coroner's Legal Support
Coroners Court of Victoria
Level 11 Exhibition Street
MELBOURNE VIC 3000



Dear Ms McIntyre

CORONIAL INVESTIGATION OF TWENTY SIX RAIL CROSSING DEATHS IN VICTORIA

Thank you for the Coroner's Court correspondence dated 22 October 2013 enclosing a copy of the Findings of Coroner Hendtlass with respect to the investigation of twenty-six rail crossing deaths in Victoria. Thank you also for your clarification of some issues for the purpose of this response.

In the findings Coroner Hendtlass made the following recommendation to the ATSB:

15. That the Australian Transport Safety Bureau through the Transport Safety Victoria continue to apply the systematic analysis procedures in their analysis of fatal rail accidents.

You have advised that this recommendation should be read in conjunction with the explanatory text at paragraph 3.3.6.82 which reads:

*Accordingly, and in particular as a first stage, I recommend that the Australian Transport Safety Bureau, through the Transport Safety Victoria, trial the root cause analysis procedures advocated by James Reason in their systematic analysis of rail incidents. This multifactorial understanding of contributing factors can then feed into their advice to rail operators and into the work of Transport Safety Victoria in allocating priority to level crossing upgrades. **Recommendation 15.***

You have clarified that this is intended to mean that while the ATSB has its investigative methodology, further development of that methodology to be closer to the Reason model is encouraged. Where the recommendation is for the ATSB to work through Transport Safety Victoria (TSV) this is intended to mean cooperatively and in consultation. Finally while it is understood the ATSB undertakes systemic investigations "systematic" is intended to mean in accordance with established policies and procedures.

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ATSB Response

The ATSB's current investigation analysis methodology and its existing relationships with Transport Safety Victoria, the Chief Investigator, Transport Safety (CITS), and other rail industry stakeholders, are sufficient to address this recommendation.

Summary of ATSB reasons

The ATSB's reasons for its response are summarised as follows:

- The ATSB investigates accidents and incidents using a systemic analysis model that seeks to find the safety factors that are connected with both the actions of individuals and with their operating environment. The ATSB investigation analysis methodology is based on the Reason model but has been advanced over time by the ATSB as the Reason model has limited utility for investigations. The enhancements made by the ATSB ensure that the ATSB can share a greater amount of safety knowledge from its investigations and therefore better discharge its function of improving safety.
- The ATSB has statutory functions of cooperation with agencies including TSV. It is also in a collaborative arrangement with the Chief Investigator, Transport Safety for the investigation of rail matters in Victoria and provision of accident and incident information to the ATSB.
- The ATSB routinely provides safety information to TSV and other rail industry stakeholders.

Detailed Reasons

Recommendation 15 refers to an ATSB Rail Investigation and states that the Reason model was 'adopted' for the purpose of that investigation. The ATSB advises that the investigation of that occurrence did not adopt the Reason model but rather used a methodology based upon it.¹

ATSB analysis methodology

The ATSB investigation analysis methodology is based on the Reason model. The Reason model is very important in safety because it emphasises the importance of systemic or organisational contributions to accidents and provides a useful framework for identifying safety factors. However, the Reason model has limits for the ATSB's purposes as it is not an investigative method. It is a model that describes only some of the factors that can contribute to an accident.

¹ ATSB, 2003 Level Crossing Collision between Steam Passenger Train 8382 and Loaded B-double Truck http://www.atsb.gov.au/media/1525711/rair2002003_001.pdf at p.3.

Over time, the ATSB has progressively made enhancements to the Reason model to better suit its broad investigative function to improve transport safety. These enhancements include:

- The ATSB model uses the term 'risk controls' instead of 'defences' and applies the term to a broader range of issues than Reason model.
- The ATSB model places a greater emphasis on the distinction between the things an organisation puts in place at the operational level to minimise risk and the aspects of an organisation which influence the effectiveness of those measures.
- The ATSB model uses neutral terms. The Reason model has been associated with terms that can be perceived as being unnecessarily negative and judgemental.
- The ATSB model better enables the analysis of technical failures to be integrated with the analysis of other safety factors rather than focus on organisational and human factors.²

The ATSB considers that its analysis methodology is consistent with international best practice. The ATSB is currently benchmarking its methodology as part of an independent review being conducted by the Transportation Safety Board of Canada.³ Moreover, as far as the ATSB is aware, the ATSB has explicitly included Reason-model concepts in its methodology to a greater extent than any other similar independent transport safety investigation agency.

The ATSB undertakes its investigations in accordance with the provisions of the *Transport Safety Investigation Act 2003* (TSI Act). The legislation is supported by a comprehensive suite of documentation setting out policies and procedures and guidelines for the conduct of those investigations.

Cooperation with other agencies

Section 12AA(2) of the TSI Act provides that the ATSB has functions of cooperation with other Commonwealth, State and Territory agencies or persons who have functions or powers relating to transport safety or functions affected by the ATSB's function of improving transport safety.

Where the ATSB is investigating a rail matter in Victoria, in the usual course of the investigation the ATSB keeps TSV informed of investigation progress, invites comment on the ATSB report if matters pertinent to TSV are raised or recommendations relevant to TSV are being contemplated. TSV also receives a copy of any Final Report in relation to any rail investigation conducted in Victoria.

² Walker, MB 2007 'Improving the quality of investigation analysis', ISASI Forum January–March 2007; Walker MB and Bills, KM 2008 'Analysis, causality and proof in safety investigations', Aviation Research and Analysis Report AR—2007-053; (<http://www.atsb.gov.au/publications/2008/ar2007053.aspx>) and Walker, MB, 'Causation: What is it, and does it really matter?' ISASI Forum April June 2009.

³ <http://www.atsb.gov.au/newsroom/news-items/2013/canadian-investigators-to-review-atsb.aspx>

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Collaboration with Victoria

Historically, by agreement with the States and Territories, the ATSB exercised a limited jurisdiction for investigation of rail incidents. The States and Territories maintained their own investigative jurisdiction. The ATSB would also assist States and Territories with their investigations or, by agreement, conduct an investigation for that State or Territory.

On 20 January 2013, as part of the National Rail Safety Reforms the ATSB became the national no-blame safety investigator for rail in participating States. The ATSB has expanded its investigation activities in those States.⁴

To fulfil its role in Victoria, the ATSB made arrangements to work collaboratively with the existing state based investigator, CITS.⁵ The thrust of the arrangements is that the majority of the investigations in Victoria are carried out by the ATSB and CITS working together under the TSI Act.

Safety information from those investigations is shared with other agencies and rail industry stakeholders

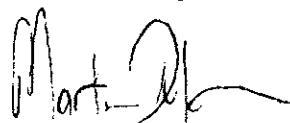
Further Comment

The ATSB notes at paragraph 3.3.6.73 that the Coroner has referenced the ATSB Annual Review of 2006 where it was recommended there be improved data collection. In that respect the ATSB considers that analysis of rail incidents is not confined to analysis arising from investigations of rail incidents and occurrences. It also extends to analysis of the broader range of notifications data.

As part of the National Rail Safety Reforms amendments were made to the *Transport Safety Investigation Regulations 2003* relating to reporting of rail occurrences. The regulations made arrangements for the sharing of rail safety data between the ATSB and the Office of the National Rail Safety Regulator (ONRSR). It was also envisaged that the ATSB would hold the national rail safety data set.⁶ Currently, however the ATSB does not have the full data set, nor is it funded to undertake broader analysis of all rail incident and occurrence data.

Many thanks for the opportunity to provide a response to the findings. If you have any further queries in relation to this response please contact John Taylor, Principal Lawyer, ATSB Legal Services on (02) 6274 6416 or Patrick Hornby, Manager, ATSB Legal Services on (02) 6274 8136.

Yours sincerely



Martin Dolan

⁴ The reforms to establish the ATSB as the national no blame safety investigator also included the establishment of the Office of the National Rail Safety Regulator (ONRSR). The reforms arose from the signing of the Intergovernmental Agreement on Rail Safety Regulation and Investigation Reform at the Council of Australian Governments (COAG) meeting on 19 August 2011. It is intended that the ONRSR will become the rail regulator in Victoria

⁵ See the Collaboration Agreement between the ATSB and the Office of Transport Safety Investigations (NSW) and Office of the Chief Investigator, Transport Safety (Vic): http://www.atsb.gov.au/media/4108390/CollaborationAgreement_Jan2013.pdf

⁶ http://www.atsb.gov.au/media/3621980/atsb_rail_reporting_consultation_paper1.pdf p.4

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