

Investigations are a fundamental aspect of managing safety within the railway. While rail companies work very hard to ensure safety, unfortunately things occasionally go wrong; an investigation is a structured approach to understanding that better. In this regard, most investigations will follow some kind of failure, however it is becoming more common to investigate 'when things go right' to understand which parts of the system work well, and perhaps uncover weaknesses before they lead to a failure.

Who Carries out Investigations

In the Australian railway there are many parties that can carry out, and/or be involved in investigations, such as:

- The Office of the National Rail Safety Regulator (ONRSR);
- The Australian Transport Safety Bureau (ATSB);
- The Police;
- The Coroner; and
- Rail companies themselves (Rail Transport Operators - RTOs).



Types of Investigations

There are 2 main reasons to do an Investigation, and they're not necessarily mutually exclusive:

1. To objectively and scientifically understand the sequences of events leading up to, or associated with, the failure. Usually so that the relevant parties can learn from the failure and take actions to reduce the risk of it happening again.
2. To understand the situation in terms of culpability, especially where it is suspected that there has been some breach of a policy, or even the law.

The various parties above carry out investigations for one or both of those reasons. For example, the Australian Transport Safety Bureau carries out 'no blame' investigations (discussed further below) for the purpose of uncovering learning opportunities for the rest of the railway (and others).

No Blame Versus Just Culture

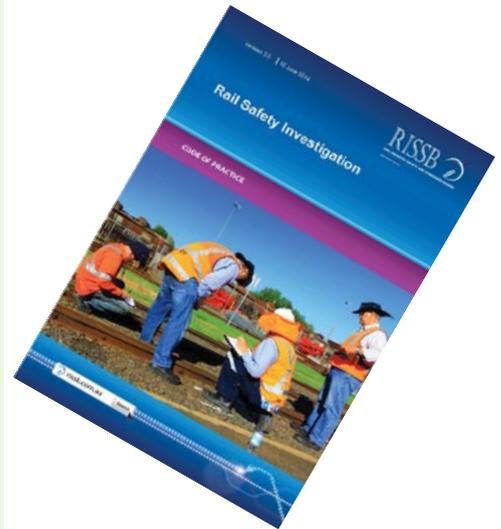
A 'no blame' investigation will simply be a factual account of events leading up to a failure, without offering opinions or ascribing accountabilities. Investigations are carried out this way because they get honest, and undefensive responses from people interviewed. They are carried out purely for the learning opportunities these failures can present.

It is common for rail companies to carry out investigations within a just culture framework, which is sympathetic to the fact that human beings get tired, distracted, and make mistakes. A 'just culture' recognises that people shouldn't be punished for that, in fact if a system was designed so that it was not resilient to these things then within a 'just culture' framework such a failure would be considered a systemic failure, not a human failure. On the other hand, if a person was reckless, negligent or even deliberately harmful then they should be held to account.

When a failure occurs - preparing for an investigation

After a railway failure the following steps are usually enacted, especially in preparation for an investigation:

- Activate emergency response procedures;
- Make the site safe;
- Attend to the injured;
- Notify relevant authorities;
- Isolate as much as you can of the scene for the investigation;
- Put in place evidence controls;
- Progressive release of the site may be possible to permit restoration to commence but only after all evidence is collected;
- Conduct drug and alcohol testing if relevant;
- Photograph, sketch or video the scene before changes are made;
- Obtain witness statements or records of interview if appropriate; and
- Identify and secure perishable electronic data.



At the ONRSR website you can find out more about how and why they do investigations, as well as their expectations of RTO investigations. Information about ATSB investigations is available at their website.

RISSB maintains a 'Rail Safety Investigation' Code of Practice for the railway, available to RISSB member organisations at the RISSB website. The Code defines industry "good practice" for anyone in the Australian rail industry who is involved in, or likely to be involved in, the investigation of rail safety occurrences. It also provides a suite of tools to assist investigators.

RISSB also provides the:

- 'National Rail Safety Investigators Course' which is aligned to the Australian Quality Training Framework and covers: basic rail safety investigation theory; site investigation; evidence collection and recording; and report writing.
- 'National Derailment Investigation and Analysis Workshop' which is a focused workshop for the people who are investigators, those who wish to refresh their existing skills or who are looking for new perspectives in derailment investigations.

RISSB hosts the cross-industry 'sharing investigation outcomes' forum which is a knowledge sharing event carried out twice a year under the Chatham House Rule.

About RISSB

We develop and maintain the Australasian Rail Industry Standards, Rules, Codes of Practice and Guidelines. Our vision is to be the trusted leader in the rail safety co-regulatory environment, providing products and services that enhance safety and efficiency.

Learn More

If you want to know more, visit the RISSB website, or email info@rissb.com.au