



Transport Accident
Investigation
Commission

Watchlist 2024

Safety for workers in the rail corridor

What is the problem?

Anyone working in the rail corridor is at risk of serious harm if a train is allowed to enter their worksite. The Commission is concerned about continuing occurrences where workers have been put at risk. In some accidents we have inquired into, workers have died or been seriously injured.

What is the solution?

Workers in the rail corridor will be safer if systems and processes support people to make safe decisions. This requires three key factors working together:

- Operators have robust safety procedures.
- Workers are trained to use non-technical skills (such as communicating clearly)
- Systems are in place that ensure workers are fit for duty.

The Transport Accident Investigation Commission has inquired into accidents where people working in the rail corridor have died, been seriously injured, or have had their lives put at risk. We have identified several safety issues in these inquiries: procedures that did not meet the national standards, procedures not being adhered to, miscommunication, and impairment from fatigue. The consequences of these safety issues can be severe.

How are workers in the rail corridor kept safe?

The protection of people working in the rail corridor is a safety-critical process. It needs several things working together: policies and rules to ensure a work area is clear of personnel and machinery before trains are authorised to enter, guidance and training for workers on how to adhere to the rules in practice, and systems to ensure workers are fit for duty.

Technology can also contribute to keeping workers safe. Examples are GPS tracking of trains and the technology that automatically stops a train if it enters a section of track without authorisation. We cover this in another Watchlist item, *Technologies to Track and to Locate*.

What recommendations have we made?

We have made recommendations to KiwiRail about ensuring comprehensive rules are in place.

- In 2020, we recommended it review the New Zealand Rail Operating Rules and Procedures to give guidance to those involved in operating work trains.¹
- In 2022, we made recommendations about ensuring a practicable process for obtaining a permit to enter the rail corridor for anyone needing to work there (for example, roading contractors).²

Rules and procedures are effective only if they are put into practice and adhered to. Non-compliance and miscommunication have been recurring themes in our inquiries over several years.^{1,3,4,5,6,7,8} We've made recommendations about improving non-technical skills and mitigating the risks of miscommunication.

- In 2012, we recommended NZTA (now Waka Kotahi NZTA) ensure that the Executive of the National Rail System Standard develop standards to ensure all rail participants meet a consistently high level of non-technical skills (for example, communication, leadership and teamwork).⁸
- In 2021, we recommended KiwiRail analyse engineering control measures that would minimise the risks of human factors in effective protection for track workers.⁹

Workers in safety-critical roles can make unsafe decisions if they are fatigued or otherwise impaired. We have recommended to KiwiRail:

- in 2018, to develop and implement a comprehensive fatigue risk management system.¹⁰
- in 2017, to review its Fitness for Work Policy to mitigate the risk of fatigue.³

Why is the Commission concerned?

Any confusion about the procedures to be followed, or a lack of adherence to them for whatever reason – such as miscommunication or impairment – can significantly increase the likelihood of a serious, potentially fatal, event. The Commission continues to be concerned about the number of occurrences we see of workers potentially being put at risk. Since September 2021, we have published four reports of inquiries into such occurrences,^{2,7,9,11} one of them fatal.

References to reports and recommendations

- ¹ RO-2019-104: *Unsafe entry into worksite, Taimate, 5 June 2019*
[RO-2019-104 | TAIC](#)
Safety recommendation 009/20
- ² RO-2021-102: *Freight Train 391, Collision with light truck Saunders Road, Marton, 13 May 2021*
[RO-2021-102 | TAIC](#)
Safety recommendations 018/22 and 019/22
- ³ RO-2014-105: *Near collision between train and hi-rail excavator, Wairarapa Line near Featherston, 11 August 2014*
[RO-2014-105 | TAIC](#)
Safety recommendation 017/17
- ⁴ RO-2017-106: *Mainline locomotives, Wrong-routing and collision with work vehicle, Invercargill, 16 November 2017*
[RO-2017-106 | TAIC](#)
- ⁵ RO-2019-101: *Safe-working occurrence, Westfield yard, Ōtāhuhu, Auckland, 24 March 2019*
[RO-2019-101 | TAIC](#)
- ⁶ RO-2014-104: *Express freight train striking hi-rail excavator within a protected work area, Raurimu Spiral, North Island Main Trunk line, 17 June 2014*
[RO-2014-104 | TAIC](#)
- ⁷ RO-2020-102: *Express freight Train 932, strikes hi-rail vehicle at Limeworks Road public level crossing, between Milton and Henley, 24 April 2020*
RO-2020-102 | TAIC
- ⁸ RO-2011-101: *Wrong line running irregularity, leading to a potential head-on collision, Papakura - Wiri, 14 January 2011*
[RO-2011-101 | TAIC](#)
Safety recommendation 002/12
- ⁹ RO-2020-104: *Safe Working Irregularity, East Coast Main Trunk Line, Hamilton Eureka, 21 September 2020*
[RO-2020-104 | TAIC](#)
Safety recommendation 009/21
- ¹⁰ RO-2017-101: *Signal Passed at Danger 'A' at compulsory stop boards protected worksite, Pongakawa, Bay of Plenty, 7 February 2017*
[RO-2017-101 | TAIC](#)
Safety recommendation 019/18
- ¹¹ RO-2023-103: *Safe Working Irregularity, Johnsonville Line, Wellington, 4 May 2023*
RO-2023-103 | TAIC

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Te Kōmihana Tirotiro Aituā Waka

Transport Accident Investigation Commission

www.taic.org.nz

The Transport Accident Investigation Commission is an independent Crown entity established to determine the circumstances and causes of accidents and incidents with a view to avoiding similar occurrences in the future rather than to ascribe blame to any person.