

CSIRS Outcome Report

Confidential Safety Information Reporting Scheme (CSIRS)

Routine clipping of catch points

The Office of Transport Safety Investigations (OTSI) received a report that the catch points¹ on the 'locomotive departure road' at Junee were being routinely clipped closed and left unattended in a departure from the requirements of network procedure ANPR 707: Clipping points (Figure 1). The points clip was being used to enable a train to exit the workshops without needing the second person on the ground to hold the weighted ball-operated lever catch points while the train passed. The reporter also advised that this had been occurring over a significant period.

Figure 1: Locomotive departure road catch points



The image shows the points clipped in the 'closed' position. In the absence of a points clip, unless the lever is manually held, the weighted ball will automatically reset the catch points to the 'open' position to derail a train.

Source: Supplied, annotated by OTSI

¹ Catch points: a set of points which intentionally derails a vehicle prior to accessing another track, unless the movement is planned/authorised. In this case, the catch points protected the Junee shunting yard from unauthorised movements on the 1:60 grade from the workshop precinct.

OTSI action

OTSI provided advice of the CSIRS Safety Notification to the Australian Rail Track Corporation (ARTC), who were the rail infrastructure manager (RIM) and Qube Logistics, the rolling stock operator (RSO) involved. Both were asked to investigate the claims made by the reporter.

ARTC response

ARTC advised that it had confirmed the contents of the CSIRS report was correct and immediately requested Qube Logistics to remove the points clip, with unscheduled inspections to occur to ensure ongoing compliance.

Approximately two weeks later, ARTC observed that the catch points had again been clipped closed and left unattended, immediately requesting Qube Logistics to remove the points clip.

Three weeks later, ARTC observed the catch points had again been clipped closed and left unattended. As this was the third identified occurrence in 5 weeks, for safety reasons ARTC immediately closed the locomotive departure road at Junee from use.

OTSI immediate safety action

Given the serious safety implications and multiple instances of an engineered safety system being bypassed, OTSI referred the matter to the Office of the National Rail Safety Regulator (ONRSR) for its attention.

Qube Logistics response

Qube Logistics advised OTSI it had communicated to all its traincrew in NSW, including those based at Junee, of the requirement to follow ARTC network procedure ANPR 707: Clipping points. Specifically, to seek authorisation from the network control officer (NCO) prior to clipping the catch points, and authorisation from the NCO to remove the points clip at the completion of train movements from the locomotive departure road into Junee Yard.

Subsequent rail transport operator actions

After ARTC identified the second occurrence, Qube Logistics received a hazard report from its traincrew. This related to concerns regarding the proximity of moving rolling stock on the locomotive departure road to the manually held ball-operated lever (Figure 1). While Qube Logistics had been operating in Junee Yard for over 10 years, it advised OTSI this was the first hazard report lodged in relation to this safety concern.

As a result of the hazard report raised by Qube Logistics' traincrew, a combined meeting and risk assessment for the task was held which included ARTC and Qube Logistics. Of the 11 attendees, 9 were from ARTC. While ARTC noted in its risk assessment that the '...attendees had the appropriate combined knowledge and experience to identify risks', no traincrew conducting and therefore exposed to the risk of the task being assessed were involved in the risk assessment.²

At the conclusion of the risk assessment, several risk controls were determined, including:

- developing a long-term plan to replace or remove the ball-operated lever points

² ONRSR 2019, *Guideline – Safety Management System*, '6.16 Risk management', <https://www.onrsr.com.au/>

- issuing an updated procedure to Junee traincrew and the ARTC NCOs, which included the method of clipping and unclipping the catch points³ and necessary authorisations
- erecting signage at the catch points to remind traincrew to seek authorisation from the NCO prior to operating / clipping the catch points
- ongoing audits of compliance to the updated procedure.

Once the risk controls had been implemented, ARTC booked the locomotive departure road back into service. In addition, ARTC confirmed to OTSI there were no other ball-operated lever catch points installed on its network, thereby limiting the operational risk of these points to Junee, NSW.

OTSI notes that a consensus was reached by the participants when conducting the risk assessment, that a train-to-train collision resulting from an unauthorised movement (through the clipped catch points) would be a 'low velocity collision'. This was justified on the basis that a speed limit of 15 km/h applied to the locomotive departure road and reduced to 8 km/h in Junee yard.

This assumption was almost certainly incorrect taking into consideration the distance from the workshops to the first point of conflict past the catch points was 700 m, on a 1:60⁴ downhill gradient. Rolling stock involved in an *uncontrolled* movement over a distance, on a descending gradient, could not be expected to maintain or adhere to yard speed limits.

ONRSR response to CSIRS

ONRSR advised that it had reviewed the factual information provided by OTSI and discussed the matter in meetings with both ARTC and Qube Logistics, noting that:

ONRSR was satisfied that the operators took appropriate action to address the issue. ONRSR reviewed occurrence data and there have been no reports of repeat occurrences at that location since the report was received.

If any further information becomes available that indicates a safety issue ONRSR will review and consider an appropriate response in line with its risk-based approach to regulation.

OTSI observations

The purpose of catch points is to protect sensitive operational areas from the risk of unauthorised and potentially uncontrolled train movements, for example, runaway rolling stock. The bypass of catch points, an engineered safety system, removes this risk control and increases the risk of a train-to-train collision with potentially severe outcomes. Of relevance, less than 4 years prior to this CSIRS report the catch points prevented two runaway locomotives from entering uncontrolled into Junee Yard (Figure 2).

Where genuine safety concerns exist, it is imperative that operational staff immediately report these hazards to allow the associated risks to be assessed and appropriate and effective risk controls to be implemented. Unofficial 'work arounds' as in this case, can introduce very real dangers and result in potentially severe consequences.

While a Qube Logistics representative with some train crewing experience was present at the risk assessment, no train crew based at Junee (exposed to the risk and responsible for following any new procedures) were involved. As identified in a recent OTSI investigation report,⁵ risk assessments must include effective and meaningful engagement with all relevant stakeholders, including those

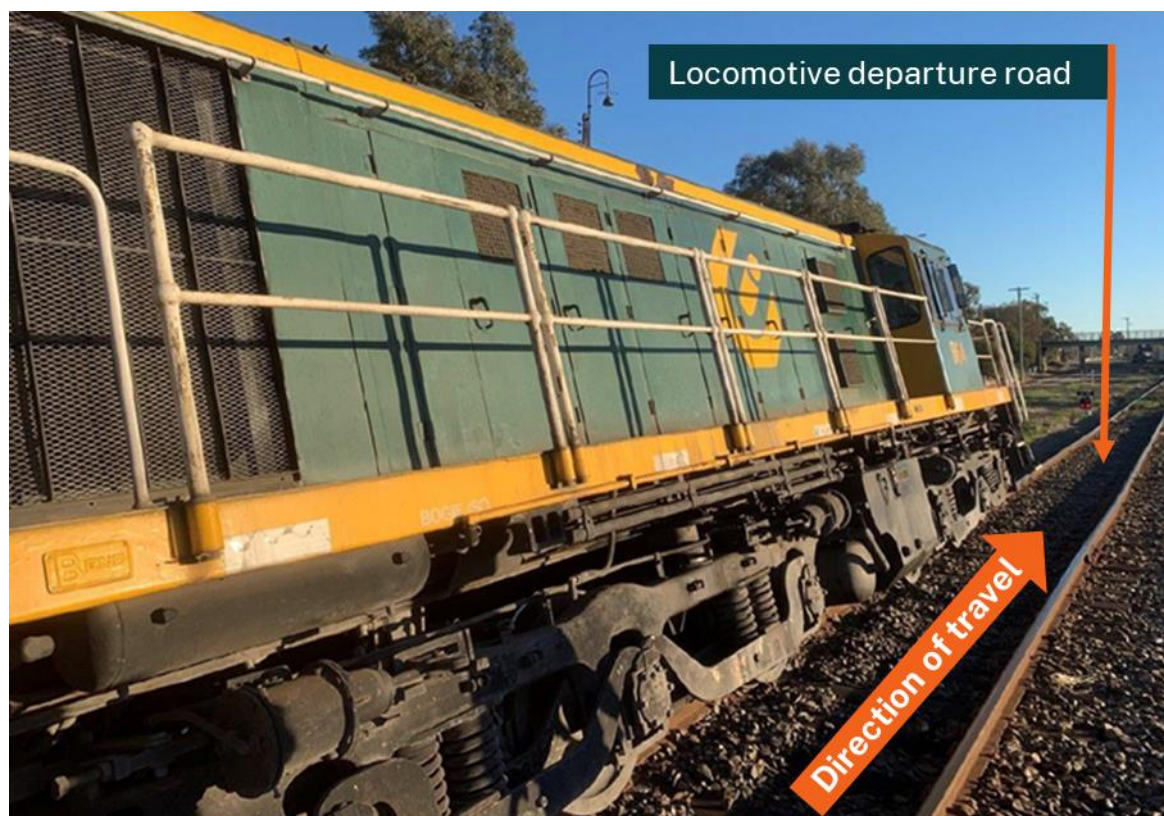
³ The Junee Railway Workshops Rolling Stock Movement Procedure required that both traincrew members on the train would attend the catch points, with the first crew member applying / removing the points clip, while the second crew member held down the ball-operated lever.

⁴ That is, 1 m drop in elevation for every 60 m travelled.

⁵ Refer to OTSI / ATSB investigation RO-2022-001: Collision between banking locomotives and grain train 5446, near Werris Creek, New South Wales, on 6 January 2022.

directly affected by the task. Not doing so limited the opportunity of identifying the incorrectly evaluated risk of runaway rolling stock from the workshop precinct.

Figure 2: Derailment of runaway locomotives by departure road catch points



Source: ARTC, annotated by OTSI

The Confidential Safety Information Reporting Scheme (CSIRS) operates under the provisions of Section 46E of the Passenger Transport Act 1990. It is a voluntary, confidential and non-punitive scheme that enables employees in the public passenger transport sectors of the rail, bus and ferry industries to report safety matters.

OTSI provides feedback to each reporter on the investigation outcomes of a CSIRS report. In selected matters that have significant operational safety matters, OTSI also publishes a CSIRS Outcome Report. For more information on CSIRS, go to otsi.nsw.gov.au