

Our Ref: MCR-21-619

Without Prejudice

Ms Sue McCarrey
National Rail Safety Regulator
Office of the National Rail Safety Regulator
PO Box 361, Rundle Mall
Adelaide SA 5000


Dear Ms McCarrey

Near miss incidents near Thorneside

I am writing to you with reference to the Enforceable Voluntary Undertaking (EVU) Queensland Rail submitted for ONRSR's consideration in my letter to you dated 10 September 2021.

Queensland Rail has subsequently clarified some of the deliverables in '*Appendix 1 – Trackside Safety Initiatives*' and now invites ONRSR to further consider the attached EVU, which includes an updated and clarified Appendix 1.

We look forward to hearing from you in relation to our proposed EVU.

Yours sincerely



Nick Easy
Chief Executive Officer

 October 2021

Attachment (1)



Enforceable Voluntary Undertaking

OFFERED TO THE OFFICE OF THE NATIONAL RAIL SAFETY REGULATOR
BY QUEENSLAND RAIL LIMITED (ACN 132 181 090)

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1 Introduction

- a) Queensland Rail Limited (**Queensland Rail**) holds accreditation as both a rolling stock operator (**RSO**) and a rail infrastructure manager (**RIM**), in accordance with the Rail Safety National Law (Queensland) (**RSNL**) and the Rail Safety National Law National Regulations 2012 (**RSNLR**). Queensland Rail employs in excess of a 7,800 strong workforce that delivers services across South East Queensland and Regional networks, including Travel and Tourism services and Regional Freight.
- b) At Queensland Rail, *Safety comes first. Always.* Our safety commitments are:
- Accountability - we take personal accountability for the safety of ourselves, colleagues, customers and the public.
 - Planning - we plan work to ensure it is carried out safely and we constantly review our safety performance and lessons learned for improvement opportunities.
 - Capability - we ensure people have the required information, skills and equipment to work safely.
 - Leadership - we provide visible safety leadership and never walk past an unsafe act; and
 - Innovation - We foster innovation to find new ways to improve safety and we align our capital investment to strategic safety outcomes.

These commitments are supported through the delivery of key activities aligned to four strategic safety enablers, these being, Leadership, Learning, Capability and Risk Reduction.

- c) As an RSO, our South East Queensland team provides over 7,800 services each week, supporting our customers to reach their destination safely and on-time. In 2019-2020, 44 million passenger trips were taken on the South East Queensland (**SEQ**) Network.
- d) As a RIM, Queensland Rail manages a network of more than 7,000 track kilometres across the state and provides access to third-party RSOs.

2 Purpose

- a) The purpose of this Enforceable Voluntary Undertaking (**EVU**) is to document Queensland Rail's proposed undertakings under section 251 of the RSNL, in connection with an incident that occurred at Thorneside, QLD on 7 March 2020 (**Incident**) to demonstrate that Queensland Rail is committed to effective long-term rectification of the matters that have given rise to the alleged contraventions of the RSNL.
- b) Queensland Rail sincerely regrets the Incident, and acknowledges the seriousness of the potential consequences. We are genuinely committed to ensuring that an incident of this nature does not occur again. Learnings from the Incident have been shared with our people and their feedback taken on board. We are also committed to sharing our learnings with the Australian rail industry to help prevent incidents more broadly.
- c) The commitments within this EVU are offered to the National Rail Safety Regulator (Regulator) by Queensland Rail Limited (ACN 132 181 090) in connection to the Incident as an alternative to enforcement action.

- d) The offering of this EVU does not constitute an admission of guilt in respect of the alleged contraventions of the RSNL to which this EVU relates.
- e) To this end, without making any admissions as to liability, Queensland Rail has committed to undertakings herein which address the systems and processes involved in the Incident, identify and address organisational and culture changes and also focus on providing training, tools, and support to individuals (both front-line and supervisory). These undertakings are described in detail in appendix 1.

3 Background

3.1 Incident Overview

- a) At approximately 01:08 hours on Saturday 7 March 2020, the Rail Traffic Driver of Train 1898, travelling in the direction of Thorneside Station, applied the emergency brake after observing an excavator in the Danger Zone ahead of the train.
- b) The excavator was facing towards the train and moved off to the side of the track onto the embankment upon realising the train was approaching. Train 1898 came to a stop approximately 75 metres past the location of the excavator.
- c) The excavator remained stationary in the Danger Zone and at approximately 01:34 hours, the driver of Train 18A0, travelling in the direction of Manly Station, reported a second near miss with the stationary excavator as it had not been moved clear of the Danger Zone after the first near miss with Train 1898.
- d) On the date of the Incident, Queensland Rail had management and control of the railway and was the accredited RIM for the purposes of the RSNL as it applies in the state of Queensland.
- e) The Office of the National Rail Safety Regulator (**ONRSR**) is conducting a compliance investigation into the Incident. The ONRSR has formed the view that Queensland Rail has contravened the following sections of the RSNL in relation to the Incident:
 - (i) Section 59 of the RSNL
 - (ii) Section 101 (1) and (2) of the RSNL.
- f) Queensland Rail has cooperated fully with the ONRSR's investigation of the Incident and related matters.

3.2 Continual improvement since the Incident

Queensland Rail is committed to the ongoing safety of our people, our contractors, our customers and the community.

Following the Incident, the following has occurred at Queensland Rail:

- a) The incident was escalated to the Executive and Board, with updates provided regularly.
- b) On 10 March 2020, a Critical Safety Alert (**CSA**) was issued to all Protection Officers, Infrastructure workers and their Supervisors and Managers across Queensland Rail by the

Manager Rail Safety Systems (Safeworking Discipline Head). The CSA detailed interim findings and reminded employees of:

- The requirement to receive a prestart briefing prior to entering the Rail Corridor;
- The requirement for the Protection Officer to provide the rail safety component of the prestart briefing (e.g. limits and types of track protection that will be used);
- The requirement of Workgroup Supervisors to only allow workers into the Danger Zone once they have confirmation from the Protection Officer;
- The requirement of workers to only enter the Danger Zone once permission is given by the Workgroup Supervisor;
- Incident reporting processes.

- c) On 10 March 2020, the Executive General Manager SEQ Assets held a Safety Pause for applicable SEQ Assets employees to raise awareness of the incident and help focus employee mindsets on safe behaviours.
- d) On 12 March 2020, the Head of SEQ facilitated a Management Safety Workshop with key managers and supervisors to review details of several recent incidents (including reviewing interim findings of this Incident) to determine actions to help prevent future recurrence of similar incidents.
- e) On 30 April 2020, Queensland Rail commenced reporting on implemented lead indicators for key controls regarding trackside safety to the Executive Safety Committee on a monthly basis
- f) On 18 May 2020, the Senior Manager SEQ Signalling & Telecommunications issued a CSA mandating that planned work in the Danger Zone must be advertised on Train Notice within SEQ Network Assets.
- g) On 18 May 2020, the Senior Manager Rail Safety and Accreditation clarified terminology to be used when communicating safety critical information when working in the Network within all Protection Officer training and the revised pre-start briefing training.
- h) On 1 June 2020, the Senior Manager SEQ Signalling & Telecommunications implemented a process for ensuring plans for work in the Danger Zone within SEQ are endorsed and approved including an escalation process for approving a change to an approved plan.
- i) On 14 July 2020 Queensland Rail updated its safety management system, including its pre-start briefing training to better outline the role of employees prior to entering the Rail Corridor. Part of these updates included further explaining the purpose of pre-start briefings, what makes a good pre-start and the importance of asking questions and developing good site sketches.
- j) On 29 July 2020, the Senior Manager Assurance & Capability implemented first-line and second-line assurance regimes for compliance with safety procedures and processes for working in the corridor throughout the SEQ network.
- k) Queensland Rail updated its safety management system, including its pre-start briefing training to better outline the role of employees prior to entering the Rail Corridor. Part of these updates included further explaining the purpose of pre-start briefings, what makes a good pre-start and the importance of asking questions and developing good site sketches

4 Undertaking

4.1 Overview

- a) This EVU has been developed in consultation with the Queensland Rail Board, People and Safety Committee, Board and Executive Leadership Team, Executive Safety Committee Queensland Rail Trackside Safety Program Control Group (**PCG**), and Queensland Rail Trackside Safety Common Outcome Group (**COG**) which includes senior management and subject matter expert representation from across the Queensland Rail organisation. We have also consulted more generally with our workforce in relation to the strategies.
- b) The undertakings documented within this EVU consider the phases of track protection implementation, from safety critical worker competency, planning, track accessibility, implementation of safeworking controls, through to assurance.
- c) The EVU comprises four objectives which will deliver the 13 initiatives identified to achieve the project outcomes as stated in the Trackside Safety Initiatives at appendix 1. We believe these strategies, when combined, will lead to an improved overall safety outcome and is consistent with our commitment to put safety first, always.
- d) By **30 June 2023**, the cumulative effect of these initiatives is expected to deliver tangible health and safety benefits to Queensland Rail workers, industry, and the broader community via:
 - (i) Improved planning processes for track access
 - (ii) Improved Safeworking control framework
 - (iii) Improved capability of safety critical workers
 - (iv) Improved effectiveness of safety assurance and performance
- e) These outcomes will provide confidence to Queensland Rail and the ONRSR that the issues which were identified as part of the alleged contraventions have been sufficiently and adequately addressed by this EVU.

4.2 EVU Governance

- a) Nominated safety initiative leads will deliver the initiatives documented within this EVU. The respective officers documented within Appendix 1 will be accountable for implementation.
- b) The EVU delivery will be managed by an appointed senior manager within the organisation, who is the single point of accountability for delivery of the EVU. The role will be a direct report to an executive.
- c) The EVU will be governed by the Queensland Rail Trackside Safety PCG, sponsored and attended by the Group Executive Safety, Risk & Assurance (**SRA**), the Head of SEQ and the Head of Regional.
- d) Progress of the EVU implementation will be reported monthly to the Queensland Rail Executive Safety Committee (**ESC**), chaired by the Chief Executive Officer.

- e) Progress of the EVU implementation will be reported regularly to the Queensland Rail People and Safety Committee and Board.
- f) Queensland Rail is committed to providing the ONRSR with updates on this EVU on a basis suitable to the ONRSR. Queensland Rail will:
 - (i) report against its progress on the matters set out in this EVU to the ONRSR on an agreed basis;
 - (ii) provide evidence to the ONRSR that internal assurance has been undertaken to verify the effective completion of initiatives;
 - (iii) appoint (at Queensland Rail’s expense) an independent party to monitor progress of this EVU, and to provide the ONRSR with updates as required. This independent party will have full oversight and access to all components of this EVU delivery, including specific project plans associated with the initiatives;
 - (iv) With respect to the independent party, Queensland Rail will identify a suitable candidate and consult with the ONRSR prior to formal appointment. The independent party will be appointed after acceptance of this EVU by the ONRSR and will be obligated to provide Queensland Rail regular reports to the Queensland Rail PCG regarding progress of the initiatives. The ONRSR shall have access to any reports produced and shall have access to the independent party on a reasonable basis if desired.
- g) Timeframes for each initiative documented within Appendix 1 includes management of change, including but not limited to embedding within the Safety Management System, post implementation reviews and independent verification.
- h) A final report to close-out this EVU will be provided by Queensland Rail to the ONRSR within three months of completion of the final milestone.

4.3 Cost of EVU implementation

- a) The approximate cost of delivering the EVU is summarised below. This is funding specifically allocated to deliver the EVU as priority work within Queensland Rail and is fully budgeted:

Trackside Safety Objectives	Estimated Cost
Improve planning processes for track access	\$750,000
Improve Safeworking control framework	\$2,175,000
Improve capability of safety critical workers	\$300,000
Improve the effectiveness of safety assurance and performance	\$35,000
Total Trackside Safety Objectives	\$3,260,000
Program Management	\$700,000
Total EVU Cost	\$3,960,000

- b) Queensland Rail will ensure that resource costs associated with this undertaking are appropriately tracked.

Appendix 1 - Trackside Safety Initiatives

Objective	Initiative Ref.	Initiative	Target Outcomes	Baseline Completion Date	Target Verification Date
1. Improve planning processes for track access	1a	Improve planning and communication between track workers and NCO's in SEQ	<p>This initiative improves planning and track access control. It will result in safety critical information regarding track work to be undertaken being communicated early to the Protection Officer. This will result in less time pressures and changes to track protection on the day of operations, which is prone to errors and increased safety risk. Project Outcome:</p> <p>Interim Control:</p> <ul style="list-style-type: none"> Issue Critical Safety Alert requiring that all planned work in the Danger Zone must be advertised on a Train Notice (within SEQ Network Assets) <p>Final Project Outcome:</p> <ul style="list-style-type: none"> Formalise and publish minimum criteria for train notice applications Develop criteria for routine repeatable tasks suitable for pre-determined protection plans Develop specification to support quality of safety critical information detailed within train notices and routine protection plans Develop predetermined protection plans for routine repeatable tasks across the SEQ network Conduct external review of like operator/s protection planning process 	31 Dec 2022	31 Mar 2023
	1b	Implement Track Access System (TAS)	<p>This initiative will provide a common interface between the Network Control Officer and Protection Officer which will reduce the risk of communication errors and incorrect application of Work on Track Authorities. The system will allow infield workers to validate the correct implementation of blocking facilities and has potential for efficiency gains therefore reducing workloads of rail safety workers.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Conduct comparable organisation benchmarking Conduct desktop and in-field TAS trials Conduct data analysis on Protection Officers who frequently implement Track Authorities Complete risk-based justification to confirm number of Protection Officers to be trained in TAS Train identified Protection Officers in TAS (100 SEQ POs, 96 Regional POs, equating to approximately 80% coverage rate for track authorities) Make TAS available for trained Protection Officers Target 50% of Track Authorities for Minor Works implemented via TAS Explore applicability of using integrated GPS location system across the network 	30 Jun 2023	30 Sep 2023
2. Improve Safeworking control framework	2a	Queensland Network Rules & Procedures (QNRP)	<p>Queensland Rail has undertaken extensive cross business collaboration and consultation over the past three years to simplify and refine its track and trackside safety rules and procedures. Changes involve replacing several different authority types for conducting work during normal business operations to a single "Track Authority", with protection aligned to tasks and location (i.e., risk). All workers who plan and apply track protection have undergone training as part of the transition to the new rules, which included reinforcement of safety critical elements and principles.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Establish Working Group and develop scope and deliverables for Writing / Development Group Writing Group established and initial draft complete Consultation complete Develop transition training for Protection Officers and Network Control Officers Develop new start training for Protection Officers Facilitate transition training and refresher workshops QNRP v7 implemented Review and assurance of implementation (assurance plan developed by Rail Safety) 	31 Dec 2021	30 Apr 2022
	2b	Network Lockout	<p>This initiative has resulted in a process which is designed to reduce the likelihood of unintentional release of track protection while workers are working in the Danger Zone.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Conduct benchmarking with Aurizon Conduct Trial Simple Implementation Trial of complex through to end of Nov 2020 Consultation of process Implementation on 1 Feb 2021 (non-complex activities) Full implementation (all activities) Embed process within SMS Conduct review of process 	31 Dec 2021	30 Apr 2022

Objective	Initiative Ref.	Initiative	Target Outcomes	Baseline Completion Date	Target Verification Date
	2c	Cease using Lookout Working within SEQ mainline	<p>Due to the complexities of the mainline SEQ Network and the potential consequences of incorrect application, this initiative has resulted in higher levels of track protection being implemented.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Issue Critical Safety Alert mandating that Lookout Working is prohibited as the primary form of protection when working in the Danger Zone on the Main Line in the SEQ Network (issued 20 March 2020) Desktop review completed March 2021 Risk based infrastructure review to determine applicability of lookout working in SEQ yards/sidings Monitoring of post incident data to ensure no Lookout Working being used on mainline SEQ Network in accordance with CSA Embed process into SMS 	31 Mar 2022	30 Jun 2022
	2d	Review Lookout Working within Regional	<p>This initiative will review the practicability of ceasing Lookout Working within the Regional Network or provide alternate control measures for track access.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Risk based infrastructure review to determine applicability of lookout working Regional Business decision on use of lookout working in Regional as per recommendations from review Communicate outcome of business decision to Regional workgroups 	30 Mar 2022	30 Jun 2022
3. Improve capability of safety critical workers	3a	Improve trackside Pre-start Briefings	<p>This initiative reviewed the existing pre-start briefing training and upskilled workers in identifying and communicating site specific hazards and controls.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Review trackside Prestart Briefing training package Facilitate training to affected SEQ & Regional workforce Explore options for implementing an electronic prestart process and document in a feasibility paper 	30 Jul 2020	31 Mar 2021
	3b	Non-Technical Skills Development Program (NTSDP) for Protection Officers	<p>This initiative will improve and upskill Protection Officers in non-technical safety skills. The training will use an incident as a case study.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Conduct Risk Based Training Needs Analysis Embed NTSDP training within Protection Officer new start training Train identified TAS Protection Officers in NTSDP Train existing Protection Officers in NTSDP Train contract Protection Officers in NTSDP Review efficacy of providing NTSDP training to Managers of Protection Officers 	30 Jun 2023	30 Sep 2023
	3c	Non-Technical Skills Development Program (NTSDP) for Trackside Worksite Supervisors	<p>This initiative will improve and upskill Trackside Worksite Supervisors in non-technical safety skills. The training will use an incident as a case study.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Identify all positions with Trackside Worksite Supervisor responsibilities Complete risk-based justification to identify which existing Trackside Worksite Supervisors will be NTSDP trained Train existing Trackside Worksite Supervisors in NTSDP Embed NTSDP training within Trackside Worksite Supervisors new start training Review efficacy of providing (NTSDP) training to Managers of Trackside Worksite Supervisors 	30 Jun 2023	30 Sep 2023
	3d	Learning framework	<p>Use internal and external incidents to review QR processes for any deficiencies. Cascade of learning packages to frontline staff.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Conduct monthly industry incident review and communicate to affected stakeholders Conduct comparison on reports of interest to Queensland Rail operations Communicate findings to executive Information cascade to rail safety workers where practicable Obtain feedback regarding effectiveness from rail safety workers Embed process within SMS Develop and communicate industry wide learnings linked to Thorneside Incident 	28 Feb 2022	31 Mar 2022
4. Improve the effectiveness of safety assurance and performance	4a	Level 1 Protection Officer assurance	<p>This initiative has resulted in an approved tool for conducting first-line assurance regarding compliance with safety procedures and processes for working in the rail corridor.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> Develop form aligned with QNRP v7 (safeworking assurance form) Develop assurance plan for SEQ (targets, work areas, risk based) Develop assurance plan for Regional (targets, work areas, risk based) Develop into Lead indicator for inclusions in ESC due diligence report 	30 Jun 2022	30 Sep 2022

Objective	Initiative Ref.	Initiative	Target Outcomes	Baseline Completion Date	Target Verification Date
	4b	Safety critical communications	<p>This initiative will result in an organisationally consistent assurance tool and supporting process for assessing both technical and non-technical components of communications between Network Control Officers and Protection Officers during the application of Work on Track Authorities.</p> <p>Project Outcome:</p> <ul style="list-style-type: none"> • Lead indicator workshop • NCO / PO communications lead indicator workshop • SME (safeworking / HF) form development • Pilot assessments • Qualtrics form and dashboard developed • Regional consultation workshop • SEQ consultation workshop • Regional implementation meeting • SEQ implementation meeting • Implement first line assurance process 	31 Dec 2021	31 Mar 2022