



Procedure

Network Lockout

MD-19-337

QUEENSLAND RAIL OFFICIAL



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4.0	29/01/2021	Whole document	Update safeworking content to align to proposed QNRP Remove Simple and Complex Application of Network Lockout Addition of Linked Lockbox Addition of Electronic Locks Remove Network Lockout Briefing, Workshop and Toolbox Talk. Replaced with SW62 and modularised training. Addition of transitional arrangement for SEQ SCAS
3.0	28/05/2020	Whole document	Update to Function from SEQ to Regional and change to Title, Update to content based on feedback received during trial period, Split contents into general (at the start) and then two sections - Part 1: Simple Application of Network Lockout & Part 2: Complex Application of Network Lockout

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Table of Contents

1 Purpose	4
1.1 Business or technical need	4
2 Requirements of this Procedure	4
2.1 Network Lockout Principles	4
2.2 Network Lockout Equipment	9
2.3 Procedure steps	10
3 Terms and definitions	12
4 Appendices	13
Appendix 1 – Related documents	13
Appendix 2 – Lockout Equipment	14
Appendix 3 – Network Lockout Transitional Arrangements	15



1 Purpose

This procedure sets the requirements for the implementation of Network Lockout, a process which is designed to help reduce the likelihood unintentional release of track protection while workers are working in the danger zone. Network Lockout requires all people working in the Danger Zone to personally lock onto a lockbox, once track protection has been implemented and the appropriate secured safety measure has been placed into the lockbox.

Network Lockout must be implemented in conjunction with the current SEMS requirements, specifically Queensland Network Rules and Procedures (QNRP) MD-12-189 and Safety in Yards, Facilities, Sidings and Workshops Standard MD-10-175.

Network Lockout applies to all workers, including employees, contractors, third parties and business visitors.

This procedure does not apply:

- when using Personal Continual Vigilance
- erecting or removing infield protection
- erecting or removing workgroup delineation
- in the event of an Emergency or Condition Affecting the Network (CAN)
- Work associated with the operation of rail traffic
- when working Alternate Proceed Authority (APA) or Proceed Authority / Restraint Authority / Written Authority for Rail Traffic.

1.1 Business or technical need

This procedure applies principles consistent to those within Lock out / tag out process for plant and equipment Procedure MD-12-73, and overlays the requirements of Queensland Network Rules and Procedures (QNRP) MD-12-189 and Safety in Yards, Facilities, Sidings and Workshops Standard MD-10-175.

2 Requirements of this Procedure

2.1 Network Lockout Principles

2.1.1 Planning works and network lockout

During the planning stage of work in the danger zone network lockout must be considered. This pre-planning must ensure that there is an appropriate amount of time and equipment available to ensure the correct implementation of network lockout, as per this procedure.



The requirements for the person in charge of the workgroup must also be planned, this includes shift change overs and multi-workgroups scenarios.

2.1.2 Pre-start briefing

The Person in Charge of the Workgroup must ensure that the following information is recorded and delivered within the pre-start briefing:

- Indicate who the Person in Charge of the Workgroup is for each lockbox;
- Type of secured safety measure which is being utilised; and
- If the secured safety measure is workgroup delineation boards, the location of the boards.

2.1.3 Visitors

The Person in Charge of the Workgroup is responsible for all visitors entering their worksite. The Person in Charge of the Workgroup must have enough visitor red personal locks for the number of expected visitors to the site.

If the visitor has not completed the Network Lockout modularised training, the visitor must receive Rail Corridor Induction (SW62) Form MD-11-215 prior to receiving a visitor red personal lock and allowing them to access the Danger Zone. The Person in Charge of the Workgroup must keep a record of the name and phone number of the workers who are using visitor locks. This can be done by using the pre-start briefing to note which visitor lock is being utilised by the individual.

Visitors are to return their visitor red personal locks prior to leaving site.

Completing the Rail Corridor Induction (SW62) Form MD-11-215 does not replace the requirement for individuals to complete the Network Lockout modularised training and receive their own personal red lock.

2.1.4 Secured safety measure

The secured safety measure is a collective term used to describe the following:

- The keys to the yellow equipment locks used to secure the workgroup delineation boards, stop signs or points clips; or
- Safeworking form; or
- The keys to the red workgroup locks used to secure the master lockbox in a linked lockbox scenario.



The secured safety measure is placed inside the lockbox.

Type of Track Protection	Secured Safety Measure QNRP V6	Secured Safety Measure Proposed QNRP V7
Track Authority with coded blocking facilities	Active Absolute Signal Blocking / Electronic Authority System Blocking (SW09) Form MD-11-300 Active Track Authority (SW08) Form MD-11-299 or Active Track Authority Walking Inspections - Brisbane (SW08M) Form MD-19-230 or The keys to the Yellow Equipment Locks	Active Track Authority (SW08) Form MD-11-299 or Active Track Authority Walking Inspections - Brisbane (SW08M) Form MD-19-230 or The keys to the Yellow Equipment Locks
Track Authority without coded blocking facilities or Local Possession Authority	The keys to the Yellow Equipment Locks	The keys to the Yellow Equipment Locks
Working in a Yard, Facility, Siding or Workshop	Active Advice of work on/near the Track in Yards, Facilities, Sidings and Workshops (SW60) Form or The keys to the Yellow Equipment Locks	Active Advice of work on/near the Track in Yards, Facilities, Sidings and Workshops (SW60) Form or The keys to the Yellow Equipment Locks
Lookout Working	Active Corridor Safety Planner and Assessment (SW01) Form MD-11-279	Active Corridor Safety Planner and Assessment (SW01) Form MD-11-279
Linked Lockbox	The keys to the Red Workgroup Lock	The keys to the Red Workgroup Lock

2.1.5 Linked lockbox

The linked lockbox process provides efficiency to the teams working within; a track authority with multiple workgroups, associated rail traffic or track vehicles, or provide clear delineation of multi-disciplinary workgroups working together.

In a linked lockbox, the Person in Charge of the Workgroup (or delegate) holds the Master Lockbox with the secured safety measure for the overall track protection inside. Each Person in Charge of the Workgroup working within the protection applies a Red Workgroup Lock, representing their workgroup, onto the Master Lockbox. The key for the Red Workgroup Lock then becomes the secured safety measure for the Workgroup Lockbox.

2.1.6 Lookout Working as a secondary form of protection

In multiple workgroup scenarios, where individual workgroups do not hold the overall secured safety measure for the track protection, mobile workgroups who are unable to erect workgroup delineation boards for their worksite will use Lookout Working as a secondary form of protection.



In this scenario, the steps for implementing Network Lockout will be followed, with the active Corridor Safety Planner and Assessment (SW01) Form MD-11-279 as the secured safety measure.

The processes for multiple workgroups are still required to be followed, as per Managing Multiple Workgroups Instruction MD-14-166.

2.1.7 Joining Workgroups

Workgroups joining must follow this Managing Multiple Workgroups Instruction MD-14-166 and implement the requirements set out in the Separation of people and mobile plant Procedure MD-12-1049.

2.1.8 Hand over

2.1.8.1 Protection Officer hand over

If a hand over for a Protection Officer occurs, the appropriate process must be followed as per Queensland Network Rules and Procedures (QNRP) MD-12-189.

If this requires the handover of safeworking forms, which are being utilised as the secured safety measure, all personnel on site will be required to move to and remain in a safe place and remove their locks from the lockbox for the duration of the Protection Officer handover. Once the handover is complete and the safeworking forms are placed back into the lockbox, the Person in Charge of the Workgroup must activate the lockbox with the Green Activation Lock, before workers can once again lock on and commence working within the danger zone.

2.1.8.2 Person in charge of the workgroup handover

If a hand over for a Person in Charge of the Workgroup occurs, a detailed hand over must be completed, to inform the incoming Person in Charge of the Workgroup of all relevant details such as location of Workgroup Delineation Boards and the type of secured safety measure. The Lockbox and associated Green Activation Lock and key must be handed over to the incoming Person in Charge of the Workgroup once the handover is complete.

2.1.9 Forced lock removal

2.1.9.1 Forced removal of personal lock

Warning: Do not attempt to remove another person's Red Personal Lock. Report to the Person in Charge of the Workgroup. Red Personal Locks are for protection of people against injury. Removal of another person's lock other than by the Person in Charge of the Workgroup is a serious safety breach.



2.1.9.1.1 Worker has not removed their personal lock – Worker is contactable

The Person in Charge of the Workgroup shall carry out the following steps:

- 1) Make all efforts to locate or contact the owner of the Red Personal Lock. This includes calling the person via phone or radio.
- 2) If the person is contacted and can remove their personal lock, have them do so, no further action is required.
- 3) If the person is contacted and cannot remove their lock with their key, then the Person in Charge of the Workgroup may forcibly remove their lock.
- 4) For Queensland Rail works, the Person in Charge of the Workgroup must record the forced lock removal in SafetySuite as a hazard. In the case of Principal Contractor works, the forced lock removal must be reported as a hazard to the Queensland Rail Representative as per the incident reporting process, including the submittal of a Principal Contractor Incident Reporting Form MD-16-276 within 24 hours.

2.1.9.1.2 Worker has not removed their personal lock – Worker is not contactable

The Person in Charge of the Workgroup shall carry out the following steps:

- 1) Make all efforts to locate or contact the owner of the Red Personal Lock. This includes calling the person via phone or radio.
- 2) If the person is unable to be contacted, the Person in Charge of the Workgroup must ensure the site is physically inspected to confirm the worker is not in the danger zone.
- 3) The Person in Charge of the Workgroup shall contact the relevant person, as per the below table, to inform of the situation and gain authorisation to proceeding with the removal of another person’s Red Personal Lock.

	All workgroups within SEQ	Queensland Rail Workgroups within Regional	Principal Contractor workgroups within Regional
Contact	Network Shift Asset Manager (NSAM) 07 3606 5511	Relevant Queensland Rail Level 5 Manager	Queensland Rail Representative

- 4) The Person in Charge of the Workgroup must ensure the Protection Officer informs the Network Control Officer that there is potentially a person in the Danger Zone
- 5) The Person in Charge of the Workgroup can remove the lock from the lockbox.
- 6) For Queensland Rail works, the Person in Charge of the Workgroup must record the forced lock removal in SafetySuite as a hazard. In the case of Principal Contractor works, the forced lock removal must be reported as a hazard to the



Queensland Rail Representative as per the incident reporting process, including the submittal of a Principal Contractor Incident Reporting Form MD-16-276.

- 7) For Queensland Rail workers, the Person in Charge of the Workgroup must provide the removed lock and the SafetySuite number to the level 5 manager.

2.1.9.2 Forced removal of Green Activation Lock or Yellow Equipment Lock

The Person in Charge of the Workgroup shall carry out the following steps:

- 1) Make all efforts to locate the key for the lock
- 2) The person in charge of the workgroup can forcibly remove the lock/s from the lockbox or equipment.
- 3) The person in charge of the workgroup must record the forced lock removal as a hazard in SafetySuite.

2.2 Network Lockout Equipment

Specifications of the network lockout equipment is described in Appendix Two.

2.2.1 Locks

Red personal locks, yellow equipment locks, and green activation locks are used in network lockout.

Locks used for network lockout must:

- Be the appropriate colour (red, yellow or green) as per the procedure requirements
- Uniquely keyed
- Key retaining (key cannot be removed from lock without the lock being returned to the locked state)
- Labelled with “Danger – Do Not Remove”

All red personal locks must have the worker’s name and phone number recorded on the lock. The worker’s name and phone number must always be legible.

Visitor red personal locks must be uniquely labelled (e.g. Visitor #1, Visitor #2), to allow for them to be assigned to an individual for the shift.

Red locks used for Linked lockboxes must be uniquely labelled to allow for them to be assigned to an individual for the shift.

Yellow equipment locks and their keys should be labelled in a way that allows them to be matched up.



Electronic locks can be used to substitute hardware. The electronic locks are to be used as per the Electronic Lock guideline.

2.2.2 Lockbox

The lockbox can be a lockbox, lockboard, or a lockbag. Lockbox is the common term used for all types.

The purpose of the lockbox is to contain the secured safety measure preventing track protection from being removed whilst workers are in the danger zone. The lockbox must contain the secured safety measure, eliminating the risk of them being removed whilst locks remain attached. The combined capacity of the lockbox and hasps must be sufficient for the workgroup size.

The workgroup lockbox is managed by the Person in Charge of the Workgroup for the duration of the work.

2.2.3 Workgroup Delineation Boards

A workgroup delineation board is a device which is locked to the rail with yellow equipment locks, used to identify the limits of a workgroup both to workers and operators of track vehicles. Workgroup delineation boards are the responsibility of the Person in Charge of the Workgroup. The Person in Charge of the Workgroup can direct another worker to erect the workgroup delineation board. If a track vehicle is working or travelling within the authority or permit, the workgroup delineation board must be erected 100 meters from the workgroup. If a track vehicle is not present within the authority or permit workgroup delineation boards are not required.

2.3 Procedure steps

2.3.1 How to implement network lockout

Responsibilities	Process Description
Planner	1. Planning network lockout 1.1. When work is planned in the danger zone, network lockout must be considered and planned.
Protection Officer	2. Implement track protection 2.1. Implement the track protection in accordance QNRP or the Safety in Yards, Facilities, Sidings and Workshops Standard MD-10-175 2.2. Hand over the secured safety measure to the Person in Charge of the Workgroup



Responsibilities	Process Description
Person in Charge of the Workgroup	<p>3. Activate network lockout</p> <p>3.1. Conduct a Network Pre-Start Briefing with all workers</p> <p>3.2. Secure the Secured Safety Measure inside the lockbox</p> <p>3.3. Attach the Green Activation Lock to the lockbox</p> <p>3.4. Instruct all workers to lock onto the lockbox before entering the Danger Zone</p>
Workers	<p>4. Lock on</p> <p>4.1. All workers working in the Danger Zone MUST lock their Red Personal Lock onto the activated lockbox before commencing work in the Danger Zone</p>

2.3.2 How to remove network lockout

Responsibilities	Process Description
Person in Charge of the workgroup	<p>1. Complete work on track</p> <p>1.1. Ensure the Lockbox is positioned in a safe place. Instruct all workers to move to, and remain in, a safe place and remove Red Personal Locks from the Lockbox</p>
Workers	<p>2. Lock off</p> <p>2.1. All workers MUST remove their Red Personal Lock from the Lockbox and remain in a safe place</p>
Person in Charge of the Workgroup	<p>3. De-activate network lockbox</p> <p>3.1. Once satisfied everyone in the workgroup is in a safe place and the track is deemed fit for service, remove the Green Activation Lock from the Workgroup Lockbox and remove the secured safety measure</p> <p>3.2. Notify the Protection Officer that all workers are in a safe place, have removed their Red Personal Lock from the Lockbox and the track is clear and fit for service. Return the Secured Safety Measure to allow for the track protection to be safely suspended or released.</p>
Protection Officer	<p>4. Suspend or release track protection</p> <p>4.1. Suspend or release the Track Protection in consultation with the Network Control Officer as per the requirements of QNRP.</p>

NOTE: To reinstate track protection after suspending, repeat the process above.



3 Terms and definitions

The following key terms and definitions are unique to this Procedure. Please refer to the [Business Glossary](#) for other terms not included in this section.

Term	Definition	Source ¹
Person in Charge of the Workgroup	<p>The “Person in Charge of the Workgroup” means the relevant representative who has direct control over and is responsible for the workgroup or the work program performed by that workgroup.</p> <p>This person can also hold Protection Officer responsibilities at the same time.</p>	
Master Lockbox	<p>A Master Lockbox holds the overarching track protection as the secured safety measure in scenarios where there are multiple workgroups using the linked lockbox application of Network Lockout.</p>	

¹ Where left blank, Source is not applicable.



4 Appendices

Appendix 1 – Related documents

Queensland Rail documents

Document type	Document title
Principle	N/A
Standard	MD-12-189 Queensland Network Rules and Procedures (QNRP) MD-10-175 Safety in Yards, Facilities, Sidings and Workshops
Strategy / Plan	N/A
Specification / Framework	N/A
Procedure	MD-12-73 Lock out / tag out process for plant and equipment MD-18-342 Incident Reporting, Notification and Investigation MD-20-39 Protecting work from rail traffic on adjacent lines Procedure MD-12-1049 Separation of people and mobile plant
Instruction	MD-14-166 Managing multiple workgroups MD-13-545 SEQ Scheduled Corridor Assess System (SCAS) Protocols MD-21-5 Electronic Lock - Network Lockout
Guideline	N/A
Form / Template	MD-11-279 Corridor Safety Planner and Assessment (SW01) MD-11-299 Track Occupancy Authority (SW08) MD-19-230 Track Authority - Walking Inspections – Brisbane (SW08M) MD-11-215 Rail Corridor Induction (SW62) MD-11-300 Absolute Signal Blocking / Electronic Authority System Blocking (SW09)



Appendix 2 – Lockout Equipment

Equipment Type	Description	
Red Personal Lock	<ul style="list-style-type: none"> Red Uniquely keyed Key retaining Labelled with “Danger – Do Not Remove” 	
Electronic Lock	<ul style="list-style-type: none"> Refer to Electronic Lock - Network Lockout Instruction MD-21-5 	
Yellow Equipment Lock	<ul style="list-style-type: none"> Yellow Uniquely keyed Key retaining Labelled with “Danger – Do Not Remove” 	
Green Activation Lock	<ul style="list-style-type: none"> Green Uniquely keyed Key retaining Labelled with “Danger – Do Not Remove” 	
Hasp	<ul style="list-style-type: none"> A device to allow for extra locks to be attached to a Lockbox 	
Lockbox	<ul style="list-style-type: none"> A box, bag or board which ensures its contents cannot be removed whilst locks/hasps are attached Allows for attachment of hasps and locks Combined capacity of the Lockbox and Hasps must be sufficient for the workgroup size 	
Workgroup Delineation Boards	<ul style="list-style-type: none"> Fitted with an Integral railtop or under rail clamp Able to be locked onto the rail 	



Appendix 3 – Network Lockout Transitional Arrangements

Within Queensland Rail, transitional arrangements will be in place for South East Queensland Scheduled Corridor Access Shutdowns (SCAS) and the implementation of Network Lockout. Network Lockout will be implemented in SCASs from 9th April 2021. This will allow for the finalised version of the Network Lockout Procedure to be incorporated into SCAS planning in accordance with SEQ Scheduled Corridor Assess System (SCAS) Protocols Instruction MD-13-545.