Network Safeworking Rules and Procedures

Clipping Points

Procedure Number: 9000

Brookfield Rail

Version 1.0, 31 March 2016

Clipping Points

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Adam Sidebottom
Rail Safety Manager
Brookfield Rail
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Glossary for this Procedure

Authority	Formal name for a written Authority (e.g. Local Possession Authority, Alternative Proceed Authority).
Competent Worker	A worker certified as competent to carry out a relevant task.
Facing Points	Points with the switch blades facing approaching rail traffic where the track diverges.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
Points	A track component consisting of paired pieces of tapered rail (blades) that can be moved and set to allow tracks to diverge or converge.
Rail Traffic	Trains and track vehicle or vehicles travelling on the network.
Route	The rail traffic path from one limit of authority to the next in the direction of travel.
Running Line	A line (other than a siding) that is used for through movement of rail traffic, not normally used for stabling rail vehicles.
Secure	To safeguard against accidental or unauthorised access or movement.
Special Padlock	A padlock other than any standard issue rail padlock.
Travel	Planned or purposeful movement from one location to another.
Wrong Running-Direction	The direction opposite to the normal direction of travel on unidirectional lines.

1. Purpose

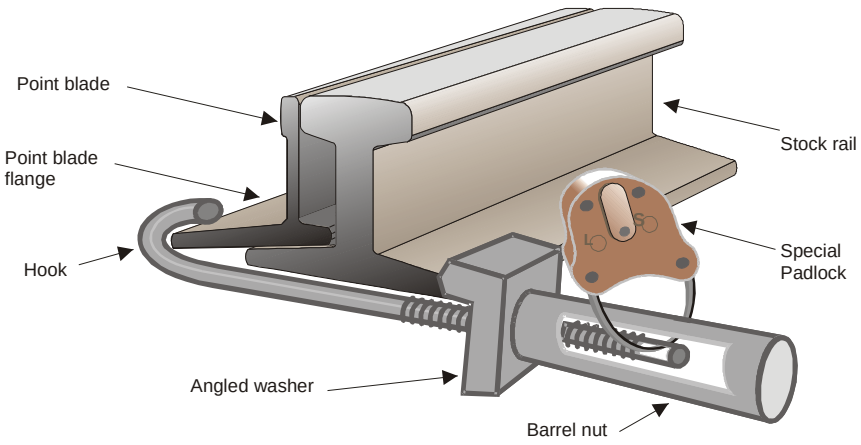
The purpose of this Procedure is to outline how *Points* clips are used to *Secure Points* in the normal or reverse position. They may also be used to *Secure* expansion joints for *Wrong Running-Direction* movements.

2. General

Facing Points on *Running Lines* must be locked. The *Points* must be clipped if it cannot be assured that the *Points* will remain in the correct position.

Where possible a *Points* clip must be padlocked using a *Special Padlock*. If the *Points* clip cannot be padlocked, the *Points* must be inspected before each *Rail Traffic* movement.

Figure 9000-1 Example of a fitted points clip



3. Fitting a Points Clip

3.1. Competent Worker

Make sure that you can do the work safely.

Where necessary, get *Authority* from the *Network Controller* to clip the *Points* and an assurance the *Points* will not be operated.

Make sure that you use the correct type of *Points* clip.

Make sure that the *Points* are in the correct position.

Fit the *Points* clip at the correct position, as close to the toe of the *Point* blade as possible, for that set of *Points*.

WARNING: Over tightening the *Points* clip can cause rail roll that may lead to derailment.

Make sure that the *Points* clip is fitted:

- to the underside of the rail;
- between the sleepers;
- with the jaws of the *Points* clip positioned on the rails and tighten; and
- where practicable, use a *Special Padlock* to padlock the *Points* clip;

Where “K” blades are in use, make sure the “K” blades are aligned with the main *Points* and clip the closed “K” blade;

NOTE: In some cases, such as when connecting rods have been disconnected for maintenance, it may be necessary to clip all *Points* blades to ensure the safe passage of *Rail Traffic* over them.

Make sure that the *Points* are properly closed and that the *Route* is correct before allowing *Rail Traffic* to *Travel*.

4. References

Nil

5. Effective Date

4 May 2016

Network Safeworking Rules and Procedures

Using Railway Track Signals

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Using Railway Track Signals

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Rail Safety Manager
Brookfield Rail
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Glossary for this Procedure

Brookfield Rail	Brookfield Rail Pty. Ltd.
Competent Worker	A worker certified as competent to carry out a relevant task.
Emergency	Incident requiring urgent action. The incident might involve death or serious injury, health or safety effects, significant damage to property or infrastructure.
Fixed Signal	A signal that is located permanently near the line.
Handsignal	A signal given by hand or lights movements, hand signals may be with or without flags.
Handsignaller	A Competent Worker who gives handsignals to rail traffic crew
Location	A place in the Network with a designated name, identification number, or signalling reference.
Network	A combination of track and other associated infrastructure controlled by Brookfield Rail.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
Platform	A designated raised or level area, next to the line, that allows passengers to enter and leave trains.
Protection	The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.
Protection Officer	The Competent Worker responsible for managing the rail safety component of worksite protection (i.e. compliance with Network Safeworking Rules and procedures).
Rail Traffic	Trains and track vehicle or vehicles travelling on the network.
Rail Traffic Crew	Competent Workers responsible for the operation of the Motive Power Unit.
Railway Track Signal (RTS)	A device attached to a rail that explodes on impact, used to attract attention of rail traffic crews.
Restricted Speed	Restricted speed is a speed that allows rail traffic to stop short of an obstruction within half the distance of clear track that is visible ahead. Restricted speed must not exceed 25 km/h.
Secure	To place and keep something in a known or prepared place or position to safeguard it against accidental or unauthorised access or movement.
Track	The combination of rails, rail connectors, sleepers, ballast, points and crossings.

Travel	Planned or purposeful movement from one location to another.
Whistle	A device such as a bell, whistle, siren, horn or hooter, fitted to rail traffic to give audible warning.

1. Purpose

This Procedure outlines how *Railway Track Signals* are used to warn *Rail Traffic Crews*.

2. General

Railway Track Signals consist of an orange plastic disc containing a chemical composition and is sealed. A wire piece is attached and is used to *Secure* the *Railway Track Signal* to the *Track*.

When the *Rail Traffic Travels* over the *Railway Track Signal* a chemical reaction takes place due to the pressure and a loud noise is created.

Railway Track Signals are used to protect workers, worksites and obstructions on *Track* in the *Network*.

The number of *Railway Track Signal* explosions together with associated signs and flags indicates what *Rail Traffic Crews* must do.

3. Railway Track Signal Response Table

Figure 9004-1 RTS response table.

Number of explosions	Rail Traffic Crew response
Two	Sound one long *Whistle*. Reduce to and *Travel* at *Restricted Speed*. Look for and obey any warning signals. In the absence of any warning or *Handsignal*, be prepared to stop within 2500 metres.
Three	Sound one long *Whistle*. Stop immediately. If not advised by a *Protection Officer* as to the cause, contact the *Network Controller*.

3.1. Responding to a Single Railway Track Signal

If Rail Traffic has not previously travelled over any Railway Track Signals and explodes a single Railway Track Signal the Rail Traffic Crew must:

- Sound one long *Whistle*.
- Reduce to and *Travel* at *Restricted Speed*.
- Look for and obey any warning signals.
- tell the *Network Controller*.
- In the absence of any warning or *Handsignal*, be prepared to stop within 2500 metres.

If Rail Traffic has already travelled over Two Railway Track Signals and explodes a single Railway Track Signal the Rail Traffic Crew must:

- Sound one long Whistle.
- Stop immediately.
- If not advised by a Protection Officer as to the cause, contact the *Network Controller*.

4. Placing Railway Track Signals

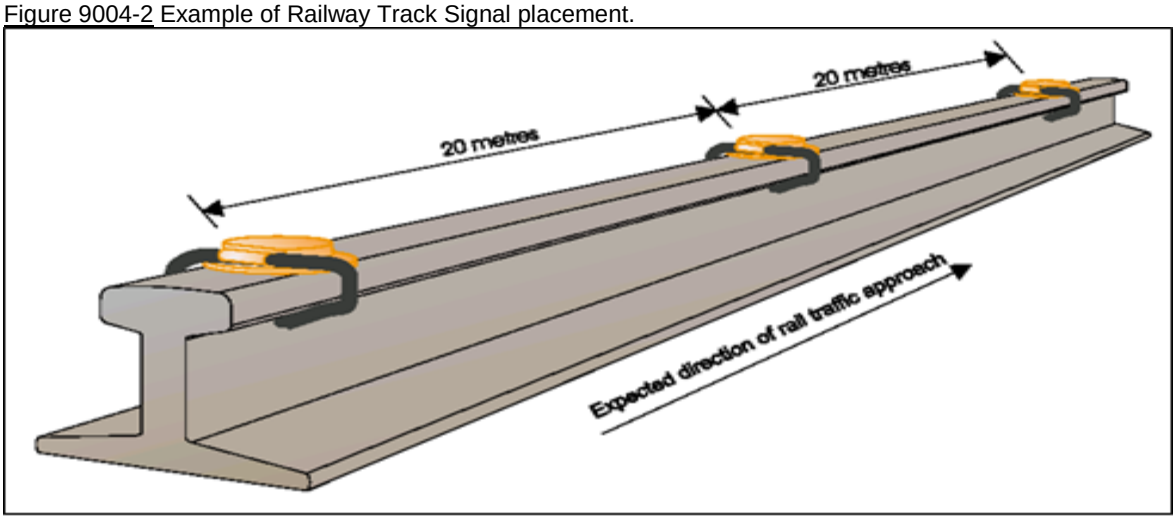
WARNING: Except in *Emergencies*, do not use *Railway Track Signals*:

- **underground;**
- **in tunnels;**
- **in steep-sided cuttings;**
- **within 20 metres of workers; or**
- **where prohibited by *Brookfield Rail*.**

Competent Workers must place *Railway Track Signals*:

- on all rails of the line to be *Protected*, including all 3 rails where there is dual gauge track:
  - opposite each other to ensure they explode simultaneously;
- on the rail at least 20 metres before the *Handsignaller's* position;
- on the departure side of *Fixed Signals*;
- on the approach side of stop signs, stop ahead signs, flags and *Handsignallers*;
- centrally on the railhead with the clasp facing towards the expected direction of *Rail Traffic* approach;
- by bending the clasps around the railhead; and
- 20 metres apart to ensure distinct and separate explosion.

Figure 9004-2 Example of Railway Track Signal placement.



Placing of Railway Track Signals Near Public Crossings and Platforms

Railway Track Signals must not be placed within 50 metres of any *Level Crossing* or *Platform*. Where necessary, the distance must be increased beyond the *Level Crossing* or *Platform*.

5. Removal of Unused Railway Track Signals

Where the placement of *Railway Track Signals* required for *Protection* no longer exists, all unused *Railway Track Signals* must be removed from all rails and accounted for.

6. Storing Railway Track Signals

Competent Workers must:

- return unused *Railway Track Signals* to their containers; and
- keep packed *Railway Track Signals* in a *Secure* place.

7. Dealing with Failed Railway Track Signals

If *Railway Track Signals* do not explode when run over by *Rail Traffic*:

- leave failed *Railway Track Signals* on the rail;
- report the failure immediately to a supervisor; and
- if necessary, place new *Railway Track Signals* on the railhead.

NOTE: When dealing with failed *Railway Track Signals*, *Competent Workers* must refer to the Manufacturer's Material Safety Data Sheet.

8. References

Nil

9. Effective date

4 May 2016

Network Safeworking Rules and Procedures

Piloting Rail Traffic

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Brookfield Rail

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Piloting Rail Traffic

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Adam Sidebottom
Rail Safety Manager
Brookfield Rail
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Glossary for this Procedure

Associated Rail Traffic	Rail traffic that performs track maintenance or construction tasks for the work.
Authority	Formal name for a written Authority (e.g. Local Possession Authority, Alternative Proceed Authority).
Clear	A proceed indication displayed by a signal. In reference to a track circuit, block, section or signal route, the absence of rail traffic. In reference to track workers being clear of track.
Competent	Having the ability, skill and certification to carry out a relevant task.
Competent Worker	A worker certified as competent to carry out a relevant task.
Crossover	A portion of line that is used to divert rail traffic from one continuing line to another.
Effective Communication	The ability to successfully send, receive and understand information. The communication does not need to be continuous.
In-Field Protection	One or more devices approved by Brookfield Rail that provide warning to protect rail traffic crew and workers. The device or devices may be used in conjunction with signalling or blocking facilities.
Local Possession Authority (LPA)	An authority that closes a defined portion of track from non-associated rail traffic for a specified period.
Location	A place in the Network with a designated name, identification number, or signalling reference.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
Permanent Record	A record made in writing or in an electronic system, and kept for reference and audit.
Pilot	To direct or guide rail traffic crews and tell them about local conditions and operating restrictions on running lines and at worksites.

Points	A track component consisting of paired pieces of tapered rail (blades) that can be moved and set to allow tracks to diverge or converge.
Possession Protection Officer	The Competent Worker responsible for coordinating protection of worksites under a Local Possession Authority.
Protection	The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.
Protection Officer	The Competent Worker responsible for managing the rail safety component of worksite protection (i.e. compliance with Network Safeworking Rules and procedures).
Rail Traffic	Trains and track vehicle or vehicles travelling on the network.
Rail Traffic Crew	Competent Workers responsible for the operation of the Motive Power Unit.
Route	The rail traffic path from one limit of authority to the next in the direction of travel.
Secure	To safeguard against accidental or unauthorised access or movement.
Track Occupancy Authority (TOA)	An authority for Competent Workers and their equipment to occupy a defined portion of track for a specified period.
Travel	Planned or purposeful movement from one location to another.
Work on Track Authority	An authority to perform work on track. See Local Possession Authority (LPA); Track Occupancy Authority (TOA) and Track Work Authority (TWA),

1. Purpose

This Procedure details the protocols where, when required, *Pilots* accompany *Rail Traffic Crews* to direct *Rail Traffic* movements.

2. General

WARNING: *Rail Traffic Crews* are responsible for the safe operation of *Piloted Rail Traffic*.

A *Pilot* must be used when the *Rail Traffic Crew* is unfamiliar with the *Route,* the *Pilot* must be qualified for the *Route*.

A *Pilot* may be used when *Rail Traffic* is to *Travel* through a *Work on Track Authority* and the Rules allow for *Rail Traffic* entry to the worksite.

The *Pilot* must:

- confirm with the *Network Controller*, *Possession Protection Officer* or *Protection Officer*, as required by this Procedure, when and where to meet the *Rail Traffic* to be *Piloted*;
- have knowledge of the *Route*;
- give clear directions to the *Rail Traffic Crew*; and
- tell *Rail Traffic Crews* about operating restrictions and conditions in a timely manner.

3. Piloting Over an Unfamiliar Route

To *Pilot Rail Traffic* over a *Route* unfamiliar to the *Rail Traffic Crew*, the *Pilot* must:

- be *Competent* in the operation of *Rail Traffic* over the *Route*;
- ensure that the *Rail Traffic* has an *Authority* to *Travel* over the *Route*; and
- ensure that *Rail Traffic* is operated safely over the *Route*.

4. Piloting Rail Traffic Through Work on Track Authorities

The *Possession Protection Officer* or *Protection Officer* must appoint a suitably qualified worker to act as the *Pilot*.

The *Pilot* must:

- establish and maintain *Effective Communication* with the *Network Controller* and the *Possession Protection Officer* or the *Protection Officer*;
- confirm how entry into, and exit from, a *Work on Track Authority* will be authorised;
- confirm with the *Possession Protection Officer* or *Protection Officer*:
  - the *Route* to be taken;
  - the *Locations* of all worksites; and
  - the contact details of all *Protection Officers* within the *Work on Track Authority*.

4.1. Rail Traffic Entering a Work on Track Authority

WARNING: Only *Rail Traffic Associated* with an *LPA* or *TOA* may enter the *LPA* or *TOA*

The *Pilot* must get authority to enter a:

- *Local Possession Authority (LPA)* from the *Possession Protection Officer*; or
- *Track Occupancy Authority (TOA)* from the *Protection Officer*.

The *Pilot* must:

- act under the direction of the *Possession Protection Officer* or *Protection Officer*;
- make sure that *Points* and *Crossovers* are set and *Secured* correctly before *Travelling* over them; and
- tell the *Rail Traffic Crew* the *Locations* of worksites.

4.2. Rail Traffic Entering a Worksite

Before making a movement within a *Work on Track Authority* the *Pilot* must contact the *Possession Protection Officer* or *Protection Officer* and get:

- authority for the movement; and
- an assurance that the intended *Route* is *Clear* and that no conflicting movements have been, or will be, authorised.

If there is no *Competent Worker* at the *Location* of the *In-Field Protection* the *Pilot* must:

- get the authority of the *Possession Protection Officer* or *Protection Officer* to remove the *Protection*;
- remove or arrange to remove the *Protection* before passing the *Location*; and
- replace or arrange to replace the *Protection* after passing the *Location*.

4.3. Rail Traffic Departing the Authority

The *Pilot* must get the *Network Controller's* authority for *Rail Traffic* to exit a *Work on Track Authority*.

The *Pilot* must tell the *Network Controller* and *Possession Protection Officer* or *Protection Officer* when the *Rail Traffic* has exited the *Work on Track Authority*.

5. Keeping Records

The *Network Controller*, *Possession Protection Officer* and *Protection Officer* must make a *Permanent Record* of relevant details, including the details of entry into and exit from worksites and *Work on Track Authorities*.

6. References

Nil

7. Effective Date

4 May 2016

Network Safeworking Rules and Procedures

Protecting Work from Rail Traffic on Adjacent Lines

Procedure Number: 9010

Brookfield Rail

Version 1.01, 01 October 2016

Protecting Work from Rail Traffic on Adjacent Lines

Procedure Number: 9010

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Adam Sidebottom
Rail Safety Manager
Brookfield Rail
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Glossary for this Procedure

Absolute Signal Blocking (ASB)	A method used by Competent Workers to carry out work on track using controlled absolute signals set and kept at STOP, without a formally issued work on track authority.
Access Provider	An organisation that provides and manages a Rail Network and safe method of entry to that network for Access Users.
Adjacent	Near to, close to, parallel to.
Brookfield Rail	Brookfield Rail Pty. Ltd.
Competent Worker	A worker certified as competent to carry out a relevant task.
Danger Zone	Everywhere within 3m horizontally from the nearest rail and any distance above or below this 3m, unless a safe place (see Safe Place) exists or has been created.
Demarcation Fencing	Easily-seen, continuous worksite safety boundary markers approved by Brookfield Rail.
Local Possession Authority (LPA)	An authority that closes a defined portion of track from non-associated rail traffic for a specified period.
Lookout Working	A safety measure used by Competent Workers to carry out work on track without a formally issued work on track authority.
Network	A combination of track and other associated infrastructure controlled by Brookfield Rail.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
Possession Protection Officer	The Competent Worker responsible for coordinating protection of worksites under a Local Possession Authority.
Protection	The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.
Protection Officer	The Competent Worker responsible for managing the rail safety component of worksite protection (i.e. compliance with Network Safeworking Rules and procedures).
Rail Traffic	Trains and track vehicle or vehicles travelling on the Network.
Safety Assessment	An assessment process used to identify hazards for all work planned for the Rail Corridor and its potential to intrude on the Danger Zone.
Sighting Distance	The distance that someone can clearly see along the track.

Temporary Speed Restriction (TSR)	An imposed reduction of the normal speed for a portion of track.
Track Occupancy Authority (TOA)	An authority for Competent Workers and their equipment to occupy a defined portion of track for a specified period.
Track Work Authority (TWA)	An authority for non-exclusive occupancy of track by track workers and equipment within a defined portion of track for a specified period.
Train Order System Blocking (TOSB)	A facility used by a Network Controller to protect rail traffic, track workers and prevent the unintended issue of an Occupancy Authority on the Train Order System.
Work on Track	The work performed in the Danger Zone.

1. Purpose

The object of this Procedure is to provide instruction for the *Protection* of workers from *Rail Traffic* on *Adjacent* lines in the *Network*.

2. General

Rail Traffic on lines *Adjacent* to *Work on Track* is a danger to workers. Workers must be *Protected* from all *Rail Traffic*.

Excluding *Rail Traffic* from *Adjacent* lines gives the highest level of *Protection*.

WARNING: *Adjacent* lines may be under the control of a different *Network Controller* or Rail Infrastructure Manager.

During the *Safety Assessment* for the work, and as *Protection* requirements change, the *Possession Protection Officer* or the *Protection Officer* must decide on the best means to reduce the risk from *Rail Traffic* on *Adjacent* lines.

3. Means of Risk Reduction

If the *Safety Assessment* indicates that workers need to be *Protected* from *Rail Traffic* on *Adjacent* lines, the *Possession Protection Officer* or the *Protection Officer* must choose one or more of the following means to reduce risk.

3.1 Local Possession Authority

A *Local Possession Authority (LPA),* in accordance with Rule 3001 Local Possession Authority (LPA), may be taken out over *Adjacent* lines to exclude *Rail Traffic*.

3.2 Track Occupancy Authority

A *Track Occupancy Authority (TOA),* in accordance with Rule 3005 Track Occupancy Authority (TOA), may be taken out over *Adjacent* lines to exclude R*ail Traffic.*

3.3 Track Work Authority

A *Track Work Authority (TWA),* in accordance with Rule 3009 Track Work Authority (TWA), may be used on *Adjacent* lines to manage *Rail Traffic*.

3.4 Absolute Signal Blocking

An *Absolute Signal Blocking (ASB),* in accordance with Rule 3011 Absolute Signal Blocking (ASB), may be used to exclude *Rail Traffic* on *Adjacent* lines.

3.5 Train Order System Blocking

A Train Order System Blocking (TOSB), in accordance with 3023 Train Order System Blocking (TOSB), may be used to exclude Rail Traffic on Adjacent Lines.

3.6 Lookout Working

Lookout Working may be used, in accordance with Rule 3013 Lookout Working, to provide warning of approaching *Rail Traffic* on *Adjacent* lines.

NOTE: The use of Rule 3025 Temporary Speed Restriction may be used to reduce the speed of approaching *Rail Traffic* on the *Adjacent* line to ensure correct *Sighting Distance* for *Lookout Working*.

3.7 Using Demarcation Fencing

Demarcation Fencing may be used to define:

- a boundary;
- a *Safe Place*; or
- an exclusion area.

The *Protection Officer* must:

- Put appropriate *Protection* or *Safety Measures* in place to *Protect* workers installing *Demarcation Fencing*.
- Make sure that the *Demarcation Fencing* is installed before starting other work.
- Make sure that the *Demarcation Fencing* can withstand disturbances caused by passing *Rail Traffic*.
- Keep workers and equipment on the safe side of the *Demarcation Fencing*.
- If necessary, place *Competent Workers* to make sure that workers stay within the *Demarcation Fencing*.
- Make sure that the *Demarcation Fencing* is kept in good condition throughout the work.
- Make sure that nothing is stacked or placed against the *Demarcation Fence*.

3.7.1 Demarcation Fencing

WARNING: *Demarcation Fencing* is only a warning that a boundary exists. It may not stop workers from entering a *Danger Zone* on an *Adjacent* line and may not indicate a *Safe Place*.

Demarcation Fencing is an easily seen, continuous boundary marker, placed between a worksite and an *Adjacent* line.

Demarcation Fencing used within the *Network* must be of a type approved by *Brookfield Rail.*

4. References

3001 Local Possession Authority (LPA)

3005 Track Occupancy Authority (TOA)

3009 Track Work Authority (TWA)

3011 Absolute Signal Blocking (ASB)

3013 Lookout Working

3025 Temporary Speed Restriction

5. Effective Date

01 October 2016

Network Safeworking Rules and Procedures

Operation of Points

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Adam Sidebottom
Rail Safety Manager
Brookfield Rail
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Access	A designated safe way into, along, across or out of the Rail Corridor.
AKOL	Annett's Key on Locomotive.
Catch Points	Single or double bladed points used to derail rail traffic that might enter or foul an adjacent running line.
Centralised Traffic Control (CTC) Territory	The portions of line where the Centralised Traffic Control system of Safeworking is used.
Centralised Traffic Control (CTC)	A system where points and signals at a number of locations are remotely controlled from a centralised control room or other locations along the route.
Clear	A proceed indication displayed by a signal. In reference to a track circuit, block, section or signal route, the absence of rail traffic. In reference to track workers being clear of track.
Communication Equipment	A device that supports effective communication between Network Controllers, Rail Traffic crews, Track Workers and other Competent Workers.
Competent Worker	A worker certified as competent to carry out a relevant task.
Danger Zone	Everywhere within 3m horizontally from the nearest rail and any distance above or below this 3m, unless a safe place (see Safe Place) exists or has been created.
Dual Gauge Track	Track that allows rail traffic of different gauges to transit using a common rail.
Facing Points	Points with the switch blades facing approaching rail traffic where the track diverges.
Infrastructure Representative	An authorised Brookfield Rail employee or an organisation contracted to Brookfield Rail, responsible for maintaining network infrastructure.
Location	A place in the Network with a designated name, identification number, or signalling reference.
Locomotive	Self-propelled, non-passenger-carrying railway vehicles used for hauling other (typically freight or passenger) rolling stock.
Main Line	The running line (not including Loops) normally used for running rail traffic through and between locations

Network	A combination of track and other associated infrastructure controlled by Brookfield Rail.
Network Control Diagram	A diagram used by Network Controllers showing operational information for a Rail Traffic control area, also known as a Network Control graph to create a permanent record.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
Obstruct	To make a line unsafe for the passage of rail traffic by the placing of tools, equipment or plant on the track.
Permanent Record	A record made in writing or in an electronic system, and kept for reference and audit.
Points	A track component consisting of paired pieces of tapered rail (blades) that can be moved and set to allow tracks to diverge or converge.
Points Indicator	An indicator showing the position of points.
Rail Traffic	Trains and track vehicle or vehicles travelling on the Network.
Rail Traffic Crew	Competent Workers responsible for the operation of the Motive Power Unit.
Route	The rail traffic path from one limit of authority to the next in the direction of travel.
Running Line	A line (other than a siding) that is used for through movement of rail traffic, not normally used for stabling rail vehicles.
Safe Place	A Safe Place is: • where there is at least three metres clearance from the nearest Running Line; • on a Platform behind the safety lines; • within a purpose-built refuge or shelter; • where a structure or physical barrier has been erected to provide a position of safety; or • immediately in front of stationary and Secured Rail Traffic.
Secure	To safeguard against accidental or unauthorised access or movement.
Self Restoring Points (SRP)	Points which can be operated remotely or by push button that automatically restores to their normal position following the movement of rail traffic. (refer to Points)
Set Back	To move in the reverse direction to that provided in the current Proceed Authority.
Shunt	To move rail traffic, rakes of vehicles, or vehicles on lines for purposes other than through movement.

Siding	A portion of track where vehicles can be placed clear of the running lines. Also see intermediate siding.
Station	A system of tracks within station limits at the beginning or end of a section at which rail traffic may cross, pass or run around.
Switchlock	A device used to lock a points lever. The device must be initially released by the Network Controller or by the positioning of the rail traffic prior to a Competent Worker operating a lever. Usually found on points leading to or from an intermediate siding or non-signalled portions of yards in CTC territory.
Trailing Points	Points with the switch blades facing away from approaching rail traffic.
Train Order Territory	The portions of line where the Train Order system of Safeworking is used.
Travel	Planned or purposeful movement from one location to another.

1. Purpose

The purpose of this Procedure is to provide instructions for operating and managing *Points* in the *Network*.

2. General

The normal position of *Points* will be indicated by the Diagram of Signalling in *Centralised Network Control (CTC) Territory* and the *Station* Sketch in *Train Order Territory*.

Points on *Running Lines* over which *Rail Traffic* is to pass must be *Secured* for the safe passage of *Rail Traffic*.

Points may be operated by electric motors or mechanically by the use of a hand lever.

Electric motor operated *Points* in *CTC Territory* are remotely operated by the *Network Controller*.

The different types of motors in use are:

- Type “D84M”.
- Type “X”.
- Type “Y”.
- Type “Modified Y”.
- Type “W”.
- Type “Z”.

Should one or more of the motors fail to operate or if electronic detection of the *Points* is lost, an indication will be displayed in Network Control. Signals controlling *Routes* over *Points* with no detection will only display a STOP indication.

When a *Points* failure or loss of detection occurs, the *Points* may be required to be manually operated by a crank handle or manual lever attached to the electric *Points* motor. The crank handle is kept in a cabinet close to the electric *Points* motor.

Locally operated *Points* are provided in yards, depots and *Train Order Territory*, for the setting of *Routes* for *Rail Traffic* movements, these *Points* can be either electrically or mechanically operated by a *Competent Worker*.

Locally operated *Points* are:

- *Self-Restoring Points (SRP)*;
- Little David levers;
- Rigid levers (May be a D84M);
- Cheese Knobs;
- Racor levers.

Non moveable *Points* include:

- Transposition of Common rail;
- Gauntlets.

Points giving *Access* to *CTC Territory* may be *Secured* by a *Switchlock*. Refer to Procedure 9024 Operation of Switchlocks.

3. Setting Points

3.1 Indications of Points Setting

The setting of *Points* must be communicated to *Rail Traffic Crews*, by:

- signal indication;
- *Points Indicators*;
- direct observation of the *Points*; or
- other *Competent Workers*.

Points that are operated by hand must be examined to ensure that the *Points* are set for the intended *Route*.

Points on *Running Lines* must be *Secured* to prevent *Points* blade movement or unintended operation.

3.2 Hand Operated Points

The *Network Controller* must authorise the operation of *Points* on *Running Lines* for *Shunting* or maintenance purposes

3.3 Restoration of Points

WARNING: At approved junctions and other approved *Locations*, *Points* may be left set for the movement and not restored.

***Rail Traffic Crews* must be prepared to find the *Points* incorrectly set at these *Locations*.**

Points and locking mechanisms on *Running Lines* must be restored to their normal position after use unless otherwise instructed by the *Network Controller*.

In *Train Order Territory*, other than *Self-Restoring Points (SRP)*, *Rail Traffic Crews* must advise the *Network Controller* that the *Siding* is *Secured* and the *Annett's Key Is On The Locomotive (AKOL).*

4. Movement Over Points

WARNING: *Points* must not be operated while *Rail Traffic* is moving over or standing on the *Points*.

4.1 Rail Traffic

Rail Traffic must remain *Clear* of the *Points* until they are correctly set for the movement.

4.2 Competent Workers

Competent Workers must stand in a *Safe Place*, well *Clear* of *Points* and operating mechanisms, when *Rail Traffic* is passing through *Points*.

4.3 Trailing Points

Rail Traffic must not run through *Trailing Points* that are not correctly set for the movement.

WARNING: *Points* must not be operated while *Rail Traffic* is moving over or standing on the *Points*. *Rail Traffic Crews* must not *Set Back* after *Points* have been run through until the *Points* have been inspected and declared safe.

If *Rail Traffic* runs through a set of *Trailing Points*, the *Infrastructure Representative* must be advised and:

- the movement must continue in the same direction; and
- the *Points* must be inspected by a *Competent Worker* before another movement is made over them.

5. Damaged Points

WARNING: *Competent Workers* required to inspect or hand operate *Points* must make sure that:

- **safety measures are in place before starting work in the *Danger Zone*; and**
- **there is an easily reached *Safe Place* near the *Points*.**

If *Points* are found to be defective or damaged the *Network Controller* must be advised and the *Points* must not be used until:

- the *Points* are inspected by a *Competent Worker* and found safe for the intended movement;
- a *Competent Worker* makes the *Route* safe for the *Rail Traffic* movement by clipping the *Points* in accordance with Procedure 9000 Clipping Points; or
- the *Points* are inspected and repaired by a *Infrastructure Representative.*

6. Failed Electrically Operated Points

If the electrically operated *Points* are unable to be operated correctly the *Points* must be:

- placed into the hand operated mode;
- isolated by the removal of the crank handle; or
- set and clipped for the intended *Route*, in accordance with Procedure 9000 Clipping Points.

7. Manual Operation of Electric Points

7.1 Network Controller Responsibilities

When *Points* fail or have lost detection the *Network Controller* must:

- Make further attempts to operate the *Points* and if they still do not work correctly, arrange for a *Competent Worker* to attend the *Points*.
- Advise the *Infrastructure Representative* and record on the *Network Control Diagram*:
  - the number of the defective *Points*; and
  - when repairs have been completed.
- Electronically lock the *Points*. This will ensure that the *Points* cannot move should the power be reinstated.
- Instruct the *Competent Worker* to visually check the *Points* for *Obstructions*. If an *Obstruction* is found, instruct the *Competent Worker* to safely remove the *Obstruction*.
- If no *Obstruction* is found, give permission to remove the crank handle and manually operate the *Points* into either the normal or reverse position.
- Instruct the *Competent Worker* not to replace the crank handle until authorised to do so.
- When advised by the *Competent Worker* that the *Points* are in the required position, authorise the *Rail Traffic Crew* to pass the relevant signal at STOP in accordance with Rule 6013 Passing Fixed Signals at STOP
- Advise the *Rail Traffic Crew* to ensure that the *Points* are set correctly before *Travelling* over them.

7.2 Competent Worker Responsibilities

- **WARNING: When removing an *Obstruction* from *Points* mechanisms do not place hands between or near parts that can move**

The *Competent Worker*, when instructed to manually crank *Points* must:

- have *Communications Equipment* and, during periods of darkness and poor visibility, a torch;
- visually check the *Points* for any *Obstruction* that may be preventing the blades from closing. If an *Obstruction* is found, contact the *Network Controller*, then safely remove the *Obstruction*;
- If the failure of the *Points* is not due to an *Obstruction*, the *Network Controller* will advise which sets of *Points* are to be cranked, and the position (Normal or Reverse);
- obtain permission from the *Network Controller* before removing the crank handle from the switch in the cabinet;
- not replace the crank handle until *Rail Traffic* has passed completely over the *Points*, and then only when instructed to do so by the *Network Controller*;
- ensure all *Points* with the same number and K Blades, if present, have been cranked to the position nominated by the *Network Controller*;
- once the *Points* have been cranked to the required position, check that all the *Points* are set correctly for the passage of the *Rail Traffic*; and
- advise the *Network Controller* that the *Points* are set correctly.

7.3 Responsibilities of the Rail Traffic Crew

Where no *Competent Worker* is present and the *Rail Traffic Crew* are instructed to pass a signal at STOP, the *Rail Traffic Crew* must, before moving across each set of *Points*, stop and examine the *Points* to ensure that they are set for the safe passage of the *Rail Traffic*.

7.4 Resumption of Normal Working

When normal working is to resume, the *Network Controller* will instruct the *Competent Worker* to return the crank handle to its switch.

When the crank handle has been returned to its switch the *Network Controller* must be advised.

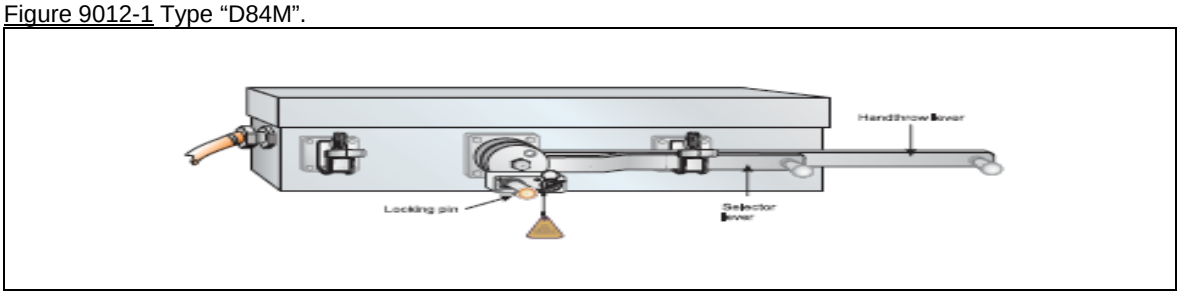
NOTE: *Points* are to be tested after the crank handle is restored to the switch.

8. Points Motors

8.1 Type “D84M”

The following instructions are to be followed when using a Type “D84M” *Points* motor.

Figure 9012-1 Type “D84M”.

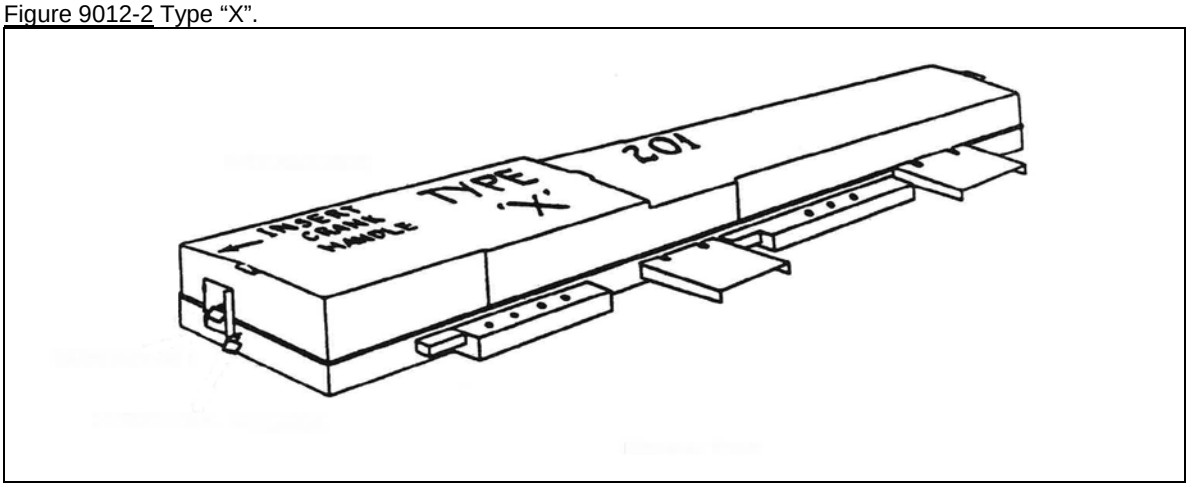


- Obtain the *Network Controller’s* permission to operate the *Points* machine.
- Find the correct Emergency Operating Lock (EOL) cabinet for the *Points*.
- Unlock the cabinet with a Traffic Standard key.
- If there are instructions in the cabinet to help you operate the *Points*, read and follow them.
- Turn the EOL keys from LOCKED to UNLOCKED. Take them from the cabinet in the correct order; Removing them will cause Network Control to lose detection of the *Points*.
- Check the key labels to make sure they are the correct keys.
- Unlock the Traffic Standard lock securing both the handthrow and the selector levers.
- Turn the EOL key in the EOL lock on the *Points* machine. The lock captures the key.
- Pull out the locking pin to allow the levers to be moved.
- Lift the catch holding the selector lever.
- Move the selector lever from MOTOR to HAND. Keep the lever in place with the catch.
- Lift the catch holding the handthrow lever.
- Move the handthrow lever to move the *Points* to the required position.
- Make sure that the switch rail is hard against the stock rail.
- *Secure* the handthrow lever with the Traffic Standard lock.
- Keep the handthrow lever in place with the catch. If it is not held by the catch when the switch rail is hard against the stock rail, tell the *Network Controller*.

8.2 Type “X”

The following instructions are to be followed when using a Type “X” *Points* motor.

Figure 9012-2 Type “X”.

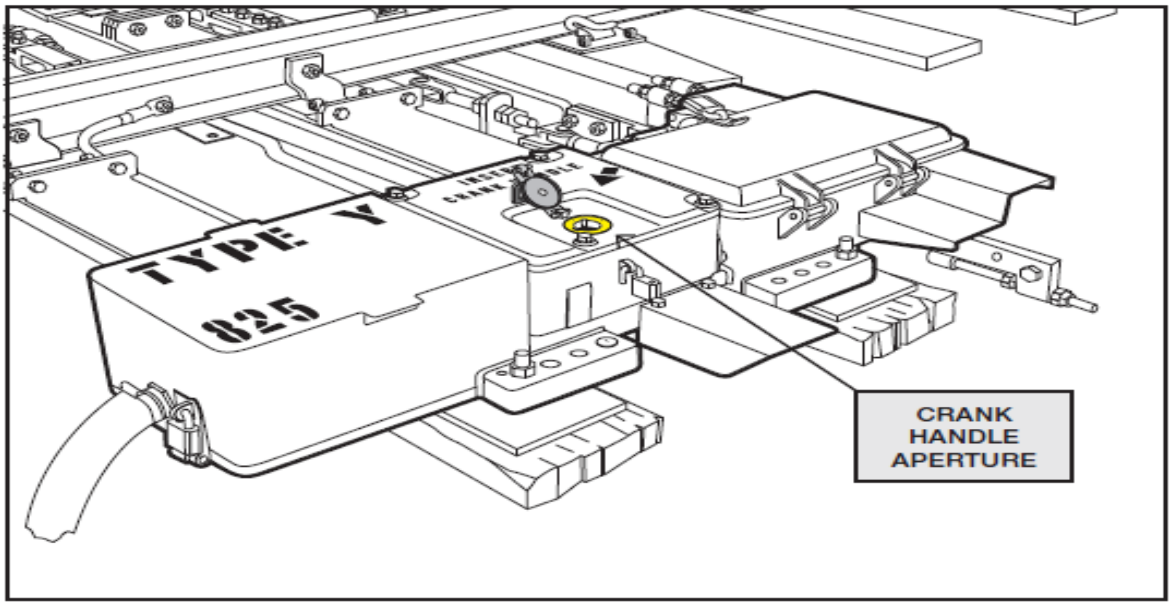


- Unlock the Traffic Standard lock and open the hinged cover plate at the end of the machine above ground level.
- Insert the crank handle through the slotted guide plate, lift the plate with the handle against the spring and then push crank handle through guides.
- Rotate slowly to locate the nibs in the slotted guide plate and push them home to engage the motor shaft.
- The crank handle must be wound until it will go no further.
- Check all the *Points* to ensure that they are set correctly and then contact the *Network Controller*.
- Follow the instructions from the *Network Controller*.
- When the *Network Controller* advises normal working is to resume, remove the crank handle and then close and padlock the cover plate.
- Replace the crank handle into the crank handle switch.
- Contact the *Network Controller* before leaving the area and ensure that the crank handle cabinet is locked.

8.3 Type “Y” and “Modified Y”

The following instructions are to be followed when using Type “Y” and “Modified Y” *Points* motors.

Figure 9012-3 Type “Y” and “Modified Y”.

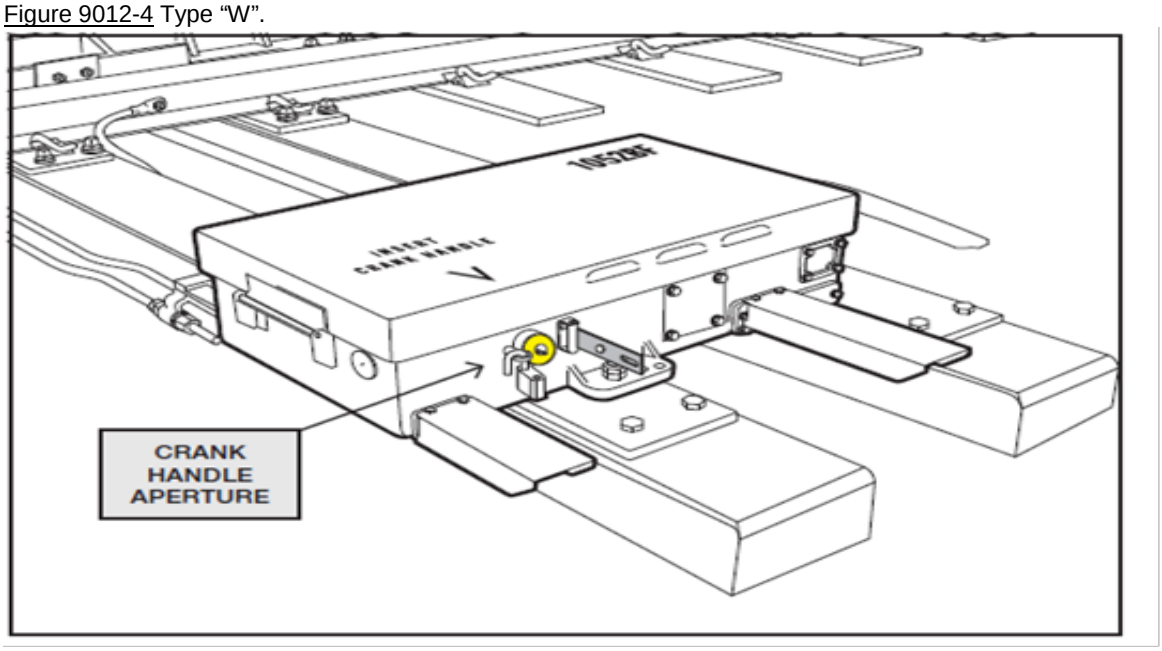


- Unlock the Traffic Standard lock and open the crank handle aperture cover by exerting downward pressure on the hasp to release it.
- On the type ”Y”, remove the plug under the aperture cover using the crank handle.
- Insert the crank handle into the motor.
- Locate the indicator which shows the position of the *Points*.
- The crank handle must be wound until it will go no further and the indicator shows the required position.
- Check all the *Points* to ensure that they are set correctly and then contact the *Network Controller*.
- Follow the instructions from the *Network Controller*.
- When the *Network Controller* advises normal working is to resume, remove the crank handle, and replace and padlock the hasp.
- On the type ”Y”, replace the plug under the aperture cover.
- Replace the crank handle into the crank handle switch.
- Contact the *Network Controller* before leaving the area and ensure that the crank handle cabinet is locked.

8.4 Type “W”

The following instructions are to be followed when using a Type “W” *Points* motor.

Figure 9012-4 Type “W”.



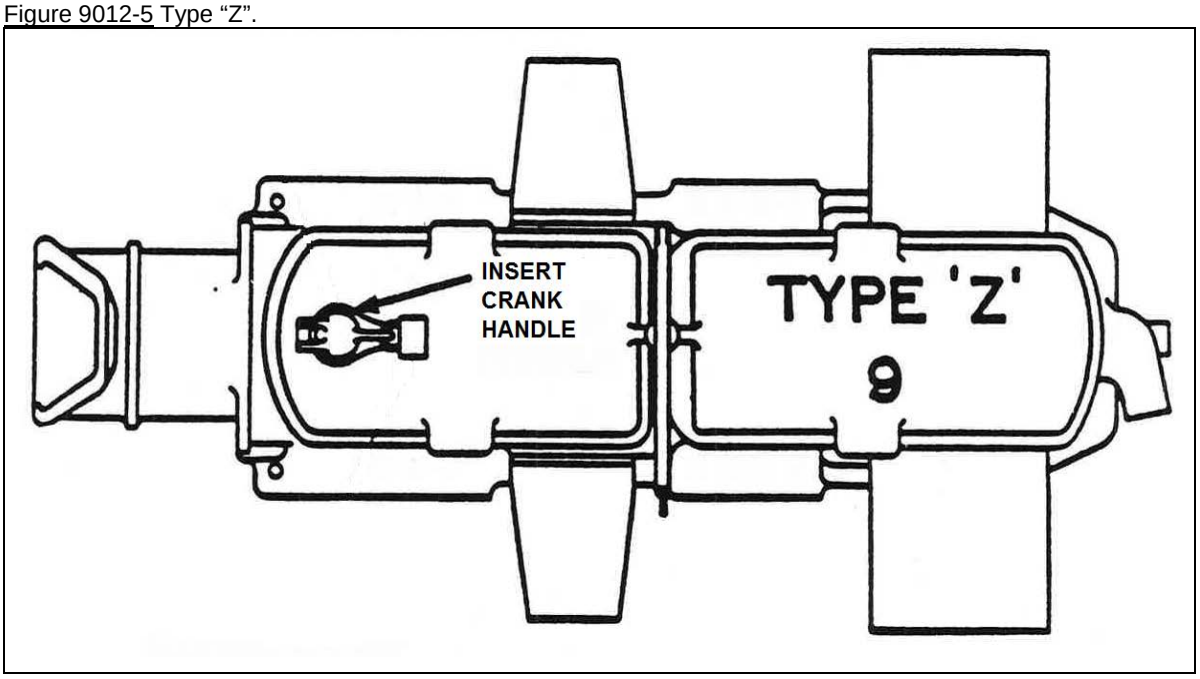
WARNING: Care should be taken when turning the crank handle (as instructed below) to ensure that the operator’s hands are not damaged by the heads of the bolts in the sleeper. It is recommended that gloves be worn.

- Unlock the Traffic Standard lock and open the hinged cover plate on the side of the machine.
- Insert the crank handle into the circular hole behind the cover plate.
- Wind the crank handle until there is an audible “click”, at which point the indicator will show the required position of the *Points*. (Note: continue to crank even after the point where the blade appears to be flush with the rail).
- Follow the instructions from the *Network Controller*.
- When the *Network Controller* advises normal working is to resume, remove the crank handle and then close and padlock the cover plate.
- Replace the crank handle into the crank handle switch.
- Contact the *Network Controller* before leaving the area and ensure that the crank handle cabinet is locked.

8.5 Type “Z”

The following instructions are to be followed when using a Type “Z” *Points* motor.

Figure 9012-5 Type “Z”.



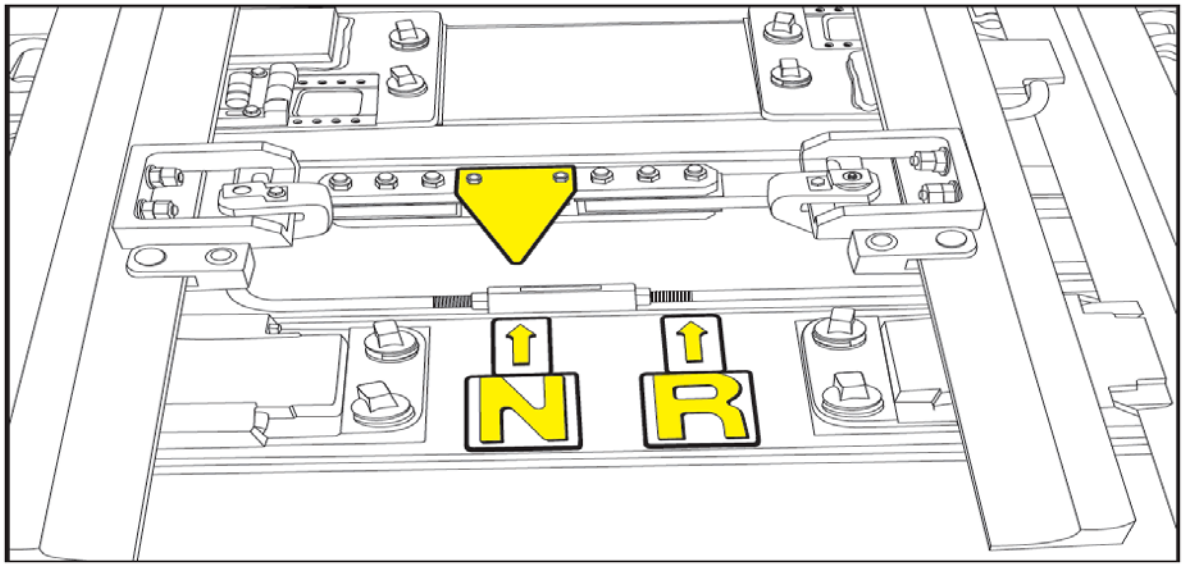
- Unlock the Traffic Standard lock and open the crank handle aperture cover.
- Move the slide directly over the crank handle socket and insert the crank handle into the motor.
- The crank handle must be wound until it will go no further and the indicator shows the required position.
- Check all the *Points* to ensure that they are set correctly and then contact the *Network Controller*.
- Follow the instructions from the *Network Controller*.
- When the *Network Controller* advises normal working is to resume, remove the crank handle, ensure the slide has moved aside to the fullest extent possible and replace and padlock the hasp.
- Replace the crank handle into the crank handle switch.
- Contact the *Network Controller* before leaving the area and ensure that the crank handle cabinet is locked.

9. Additional Information

9.1 Normal or Reverse Indicators

To indicate the normal and reverse setting of the *Points*, metal letters are provided, fixed on the sleeper at the toe of each blade. “N” indicates the *Points* are set normal; “R” indicates the *Points* are set for reverse.

Figure 9012-6 Normal or Reverse indicator.



9.2 K Blades

At some *Dual Gauge* turnouts where a conflict of gauge occurs, the *Points* may be provided with K Blades. For this reason it is necessary to thoroughly examine the *Points* before *Rail Traffic* is permitted to *Travel* over them.

Figure 9012-7 K Blades.

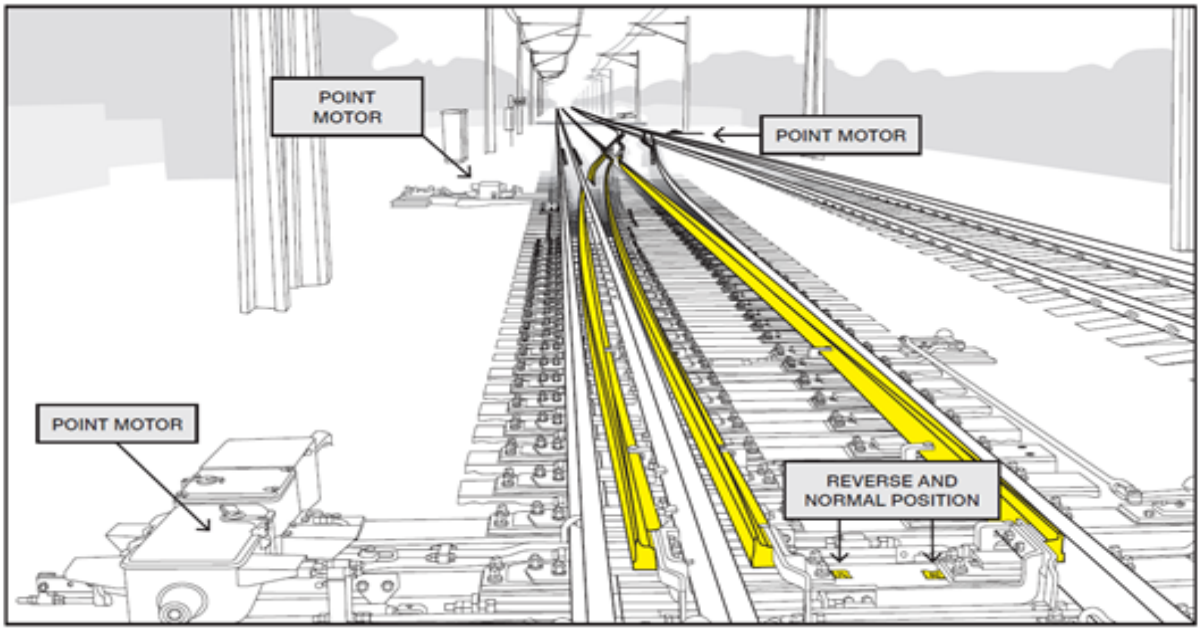
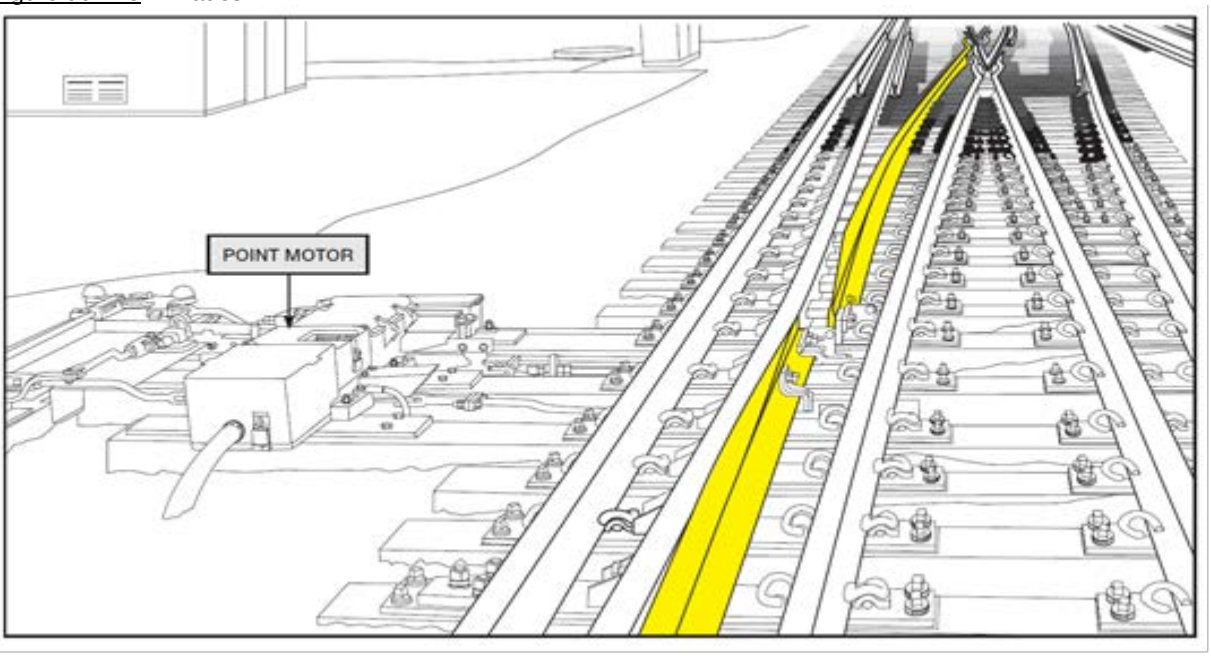


Figure 9012-8 K Blades.



9.3 Catch Points

Catch Points are *Points* placed at depots and *Sidings*. The purpose of these *Points* is to derail any vehicle which might run out onto a *Running Line* and become a danger to *Rail Traffic* movements on that line.

Usually they are a single blade that will lead the *Rail Traffic* away from the *Main Line*. These single blades can be controlled by any of the types of *Point* motors that have been described already in this instruction.

Space for single blade *Catch Point*

10. Clipping of Points

If it cannot be assured that the *Facing Points* on *Running Lines* will remain in the correct position, the *Points* are to be clipped in accordance with Procedure 9000 Clipping Points.

11. Permanent Record

The *Network Controller* and the *Infrastructure Representative* must keep a *Permanent Record* of the *Points* failure.

12. References

6013 Passing Fixed Signals at STOP

9000 Clipping Points

9024 Operation of Switchlocks

13. Effective Date

4 May 2016

Network Safeworking Rules and Procedures

Written Authorities and Forms

Procedure Number: 9016

Brookfield Rail

Version 1.01, 01 October 2016

Written Authorities and Forms

Procedure Number: 9016

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Adam Sidebottom
Rail Safety Manager
Brookfield Rail
01 October 2016

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Table of Contents

Glossary for this Procedure

Absolute Signal Blocking (ASB)	A method used by Competent Workers to carry out work on track using controlled absolute signals set and kept at STOP, without a formally issued work on track authority.
Alternative Proceed Authority (APA)	An APA may be used to authorise rail traffic movements when the Proceed Authority normally provided by the system of Safeworking is not available.
Authority	Formal name for a written Authority (e.g. Local Possession Authority, Alternative Proceed Authority).
Cancel	To withdraw permission for or to end previously authorised activities, such as Occupancy Authorities, without completing them.
Clear	A proceed indication displayed by a signal. In reference to a track circuit, block, section or signal route, the absence of rail traffic. In reference to track workers being clear of track.
Competent Worker	A worker certified as competent to carry out a relevant task.
Condition Affecting the Network (CAN)	A situation or condition that affects or has potential to affect the safety of the Network.
Effective Communication	The ability to successfully send, receive and understand information. The communication does not need to be continuous.
Fulfil	To advise the Network Controller that the instructions on, and associated activities for, an Occupancy Authority have been completed and can be terminated.
In-Effect	Activate, become current, in force.
Issue	To provide or send copies of authorities, warnings, notices and Network publications to affected Competent Workers by voice, hand delivery or electronic means.
Local Possession Authority (LPA)	An authority that closes a defined portion of track from non-associated rail traffic for a specified period.
Location	A place in the Network with a designated name, identification number, or signalling reference.
Lookout Working	A safety measure used by Competent Workers to carry out work on track without a formally issued work on track authority.

Motive Power Unit	A rail vehicle used to provide the power to move itself or other vehicles.
Network	A combination of track and other associated infrastructure controlled by Brookfield Rail.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
Pilot Key	Where two half pilot keys from each end of a section have been joined to provide a full pilot key for the section.
Pilot Key Caution Authority	A written authority issued after a rail traffic crew has seen the full pilot key for a section.
Possession Protection Officer	The Competent Worker responsible for coordinating protection of worksites under a Local Possession Authority.
Protection Officer	The Competent Worker responsible for managing the rail safety component of worksite protection (i.e. compliance with Network Safeworking Rules and procedures).
Rail Traffic	Trains and track vehicle or vehicles travelling on the network.
Rail Traffic Crew	Competent Workers responsible for the operation of the Motive Power Unit.
Road Rail Vehicle	A road vehicle fitted with additional rail gear that enables the vehicle to be driven on rail.
Route	The rail traffic path from one limit of authority to the next in the direction of travel.
Special Train Notice (STN)	A notice issued by Brookfield Rail which contains safeworking information for competent workers.
System of Safeworking	An integrated system of operating procedures and engineered systems used on the Network, for safe operation of rail traffic, and protection of people and property.
Temporary Speed Restriction (TSR)	An imposed reduction of the normal speed for a portion of track.
Track	The combination of rails, rail connectors, sleepers, ballast, points and crossings.
Track Occupancy Authority (TOA)	An authority for Competent Workers and their equipment to occupy a defined portion of track for a specified period.
Track Vehicle	A vehicle, usually self-propelled, used for inspecting and/or maintaining infrastructure.

Track Work Authority (TWA)	An authority for non-exclusive occupancy of track by track workers and equipment within a defined portion of track for a specified period..
Track Workers	Competent rail safety workers whose primary duties are associated with work on or around infrastructure in the Rail Corridor.
Wrong Running-Direction	The direction opposite to the normal direction of travel on unidirectional lines.

1. Purpose

This Procedure describes how to compile, *Issue*, *Cancel* and *Fulfil* written *Authorities* and forms used in the *Network*.

2. General

Written *Authorities* and forms are used:

- in *Systems of Safeworking* in certain circumstances; and
- to make sure Safeworking instructions and information are clear, complete and *Issued* in a consistent way.

Rail Traffic Crews and *Competent Workers* must establish *Effective Communication* with the *Network Controller*.

Written *Authorities* and forms may be:

- transmitted using voice communication and recorded in writing in accordance with Rule 2007 Network Communications; or
- sent electronically.

All *Cancelled* and *Fulfilled* endorsed *Authorities* and forms must be forwarded to the *Network Rail Operations Manager* and retained for at least 3 months.

3. Forms Used

3.1 Rail Traffic Authorities

Authorities and Safeworking instructions are *Issued* to *Rail Traffic Crews* on one of the following forms.

- *Alternative Proceed Authority (APA)*:
  - which incorporates a Pilot Key Caution Authority for Pilot Key working;
- Relief *Rail Traffic Authority* (RRTA):
  - which incorporates a Wrong Direction *Authority* for *Wrong Running-Direction* movements on Double Line;
- *Road Rail Vehicle Authority* (RRVA).
- *Restraint Authority.*
- *Train Order.*

3.2 Work on Track Authorities

Work on Track Authorities and Safeworking instructions are *Issued* to *Track Workers* on one of the following forms:

- *Work on Track Authority:*
  - which incorporates *Local Possession Authority (LPA)*, *Track Occupancy Authority (TOA)* and *Track Work Authority (TWA)*; and
- Blocking Request for *Work on Track*:
- which incorporates Absolute Signal Blocking (ASB) and Train Order System Blocking (TOSB).

3.3 Other Safeworking Forms

Other forms that may be required in relation to Safeworking for *Rail Traffic Crews* and other workers are:

- Worksite Protection Planner;
- *Infrastructure Booking Advice (IBA);*
- *Institution of Single Line Working on Double Line Automatic Signalling;*
- *Rail Traffic Working Advice;*
- *Rail Traffic Information Advice;*
- *Condition Affecting the Network (CAN)*; and
- *Special Train Notices (STN).*

3.4 No Safeworking Forms

In the event there is no safe working forms available, the *Competent Worker* may write out the form and the information required to be captured (text only) on a blank sheet of paper. In that event, the Competent Worker must confirm all information is captured as required by section 5.4 of this rule.

4. Issuing Authorities

4.1 Preparation of an Authority

Authorities Issued by the *Network Controller*, must:

- be uniquely identified;
- contain only information or instructions essential to the specific task;
- be filled out and recorded in an approved format;
- be filled out and recorded without deletions, alterations, or additions;
- not contain any letters, words or numerals surrounded by circles, brackets or other characters; and
- contain only authorised abbreviations.

4.2 Assurances

Before preparing an *Authority*, the *Network Controller* must ensure all information is up to date relating to:

- *Rail Traffic* identification;
- *Authorities* currently *In Effect*;
- the *Location* of *Rail Traffic* affected by, or having an effect on, the *Authority*;
- the *Location* of worksites affected by, or having an effect on, the *Authority*;
- the integrity of the *Route*;
- *Track* conditions; and
- any *Temporary Speed Restrictions (TSR's)* or other warnings for which advice is required.

4.3 Authority Format

The following information must be recorded in the spaces provided on the *Authority* form:

- *Authority* type.
- identification number of *Authority*.
- date and time of *Issue*.
- identity of *Rail Traffic*.
- as required, the leading *Motive Power Unit* or all *Track Vehicle* numbers.
- *Location* names in upper case block letters.
- limits of the *Authority*.
- name of the *Network Controller*.
- identity of the recipient of the *Authority*.
- any other instructions; and
- date and time at which read back is confirmed correct.

4.4 Transmission

When dictating an *Authority*, the *Network Controller* must dictate at a speed that allows the recipient to record it during transmission.

The *Network Controller* must:

- clearly pronounce all information;
- pronounce each digit individually (e.g. ONE – SIX – TWO);
- spell *Location* names immediately after they are spoken (e.g. ALPHA, A-L-P-H-A); and
- pause if conditions do not allow the transmission to continue clearly.

Voice communications are to be carried out in accordance with Rule 2007 Network Communications.

4.5 Error During Transmission

If an error is detected during transmission of the *Authority*, the *Network Controller* must:

- cease *Issuing* the *Authority*;
- endorse “NOT *ISSUED*” in upper case block letters with the date, time, name and signature diagonally across the face of the *Network Controller's* copy;
- tell the recipient to endorse “NOT *ISSUED*” in upper case block letters with the date, time, recipient name and signature diagonally across the face of each copy of the partially prepared form; and
- *Issue* a new *Authority*.

NOTE: Where the system allows it, the new *Authority* may be *Issued* with the same number as the one marked NOT *ISSUED*.

5. Receipt of Authority

During transmission the recipient must legibly record:

- the *Authority* as it is being transmitted;
- *Location* names in upper case block letters; and
- details as they are being transmitted, not from memory, presumption or notes.

5.1 Challenging Errors

If an error or inconsistency is identified or suspected during transmission of an *Authority*, the recipient must:

- challenge the *Authority*; and
- seek clarification.

5.2 Error During Receipt

If the recipient makes an error during receipt of the *Authority* the recipient must:

- cease recording the *Authority*;
- advise the *Network Controller* that an error has been made;
- when advised to do so, endorse “NOT *ISSUED*” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of the recipient’s copy of the partially prepared form; and
- prepare to receive another *Authority*.

5.3 Forms Transmitted Electronically

If an *Authority* or form is delivered electronically, the recipient must make sure that the *Authority* or form is legible and contains no omissions.

5.4 Read Back of Authorities or Forms

The recipient must read back their copy of the *Authority* or form to the *Network Controller*.

The *Network Controller* must:

- during the read back, verify that the *Authority* or form matches the *Authority* or form that has been transmitted;
- underline each word as it is read back; and
- tell the recipient the time at which the read back is confirmed as correct.

5.5 Error During Read Back

If an error is detected during read back of the *Authority* or form, the *Network Controller* must:

- ask for that portion of the *Authority* or form to be read back again;
- if it is confirmed that the *Authority* or form contains an error:
  - tell the recipient of the error;
  - tell the recipient to endorse “NOT *ISSUED*” in upper case block letters with the date, time, and recipient’s name and signature diagonally across the face of each copy of the form; and
  - re-*Issue* the *Authority* or form.

5.6 Authority In-Effect

An *Authority* is deemed to be *In-Effect* at the time of confirmation of the correct read back.

An *Authority* remains *In-Effect* until it is:

- *Fulfilled*, or
- *cancelled*.

When an *Authority* is *In-Effect* it must not be altered or rewritten.

6. Fulfilling an Authority

An *Authority* is *Fulfilled* after all instructions contained within it, have been carried out.

When an *Authority* is *Fulfilled*, the *Rail Traffic Crew*, *Possession Protection Officer* or *Protection Officer* must:

- endorse "*FULFILLED*" in upper case block letters with the date, time, and recipient's name and signature diagonally across the face of each copy; and
- advise the *Network Controller* of the time that the *Authority* was *Fulfilled*.

When an *Authority* that was manually prepared is *Fulfilled*, the *Network Controller* must endorse "*FULFILLED*" in upper case block letters with the date, the time the *Authority* is *Fulfilled*, the *Network Controller's* name and signature diagonally across the face of their copy.

7. Cancelling an Authority

If it is not possible to carry out all of the instructions contained within an *Authority*, the *Authority* must be *Cancelled*.

The *Authority* currently *In-Effect* must be *Cancelled* before a replacement *Authority* containing altered instructions can be *Issued*.

The manner of *Cancellation* and the type of a replacement *Authority* is determined by the *System of Safeworking* in use.

When an *Authority* is *Cancelled* the *Network Controller* must:

- tell the recipient to endorse "*CANCELLED*" in upper case block letters with the date, time, and recipient's name and signature diagonally across the face of each copy; and
- if manually prepared, endorse "*CANCELLED*" in upper case block letters with the date, time, *Network Controller's* name and signature diagonally across the face of the *Network Controller's* copy.

8. References

2007. Network Communications

9. Effective Date

01 October 2016

Network Safeworking Rules and Procedures

Using Track Closed Warning Devices

Procedure Number: 9018

Brookfield Rail

Version 1.0, 31 March 2016

Using Track Closed Warning Devices

Procedure Number: 9018

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Document title	Number	Version	Date
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Authorisation

Adam Sidebottom
Rail Safety Manager
Brookfield Rail
31 March 2016

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1. Glossary for this Procedure

Authority	Formal name for a written Authority (e.g. Local Possession Authority, Alternative Proceed Authority).
Blocking Facility	A facility used by a Network Controller to prevent either the unintended issue of an Occupancy Authority, or the operation of points or signalling equipment.
Brookfield Rail	Brookfield Rail Pty. Ltd.
Crossover	A portion of line that is used to divert rail traffic from one continuing line to another.
Fit for Purpose	Able to be used for the function required.
Fixed Signal	A signal that is located permanently near the line.
In-Field Protection	One or more devices approved by Brookfield Rail that provide warning to protect rail traffic crew and workers. The device or devices may be used in conjunction with signalling or blocking facilities.
Level Crossing	A location where the railway line and a road or pedestrian walkway cross paths on the same level (at grade).
Location	A place in the Network with a designated name, identification number, or signalling reference.
Network	A combination of track and other associated infrastructure controlled by Brookfield Rail.
Points	A track component consisting of paired pieces of tapered rail (blades) that can be moved and set to allow tracks to diverge or converge.
Protection	The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.
Protection Officer	The Competent Worker responsible for managing the rail safety component of worksite protection (i.e. compliance with Network Safeworking Rules and procedures).
Rail Traffic	Trains and track vehicle or vehicles travelling on the network.
Rail Traffic Crew	Competent Workers responsible for the operation of the Motive Power Unit.
Route	The rail traffic path from one limit of authority to the next in the direction of travel.
Section	The line between the departure end station limit of one location and the arrival end station limit of another location. A section consists of one or more blocks.
Station Limits	A defined operational limit of controlled locations or a running line.

Special Padlock	A padlock other than any standard issue rail padlock.
Track	The combination of rails, rail connectors, sleepers, ballast, points and crossings.
Track Closed Warning Device	A Brookfield Rail approved Stop sign designed to lock into the gauge as part of in-field protection.
Travel	Planned or purposeful movement from one location to another.
Work on Track Authority	An authority to perform work on track. See Local Possession Authority (LPA); Track Occupancy Authority (TOA) and Track Work Authority (TWA),

1. Purpose

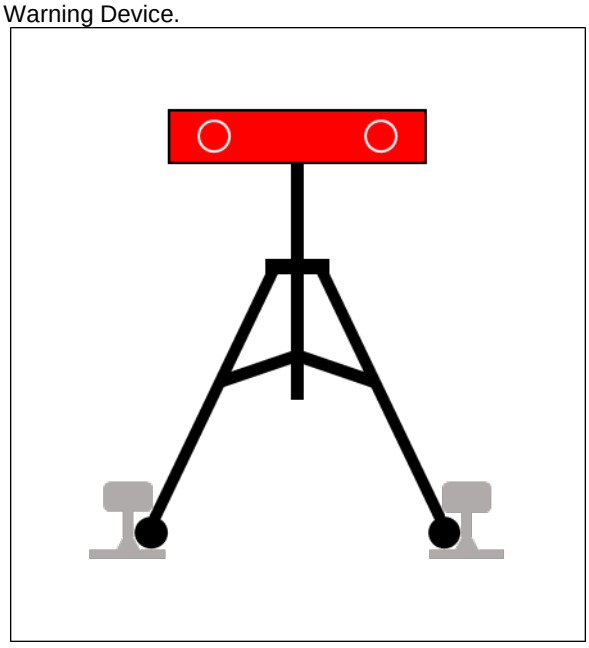
The purpose of this Procedure is to detail the protocols for using *Track Closed Warning Devices*. These devices are used to warn *Rail Traffic Crews* that the *Track* beyond the device is closed to *Rail Traffic*.

2. General

Track Closed Warning Devices must:

- be of metal construction;
- facilitate the locking of the legs into different gauge *Tracks*;
- be locked into position using a *Special Padlock*;
- include a headboard which should:
  - be a minimum of 300mm high by 900mm wide;
  - have a red reflectorised face board equipped with two red lights;
- be between 1600mm and 2000mm above the head of the rail when fixed to any *Track*; and
- be insulated so as not to activate:
  - signals; or
  - *Protection* for *Level Crossings*.

Figure 9018-1 Track Closed Warning Device.



Rail Traffic must be brought to a stand before reaching the *Track Closed Warning Device*.

Track Closed Warning Devices must only be used:

- in accordance with a *Work on Track Authority*; or
- as approved by *Brookfield Rail.*

3. Placing a Track Closed Warning Device

The *Protection Officer* must ensure that the *Track Closed Warning Device* is *Fit for Purpose* and:

- that the lights are working correctly; and
- spare batteries and globes are available.

The *Protection Officer* must place the *Track Closed Warning Device*:

- in accordance with the *In-Field Protection* requirements of the *Work on Track Authority*;
- inside the rail gauge with the leg supports under the rail head;
- in such a position that any *Rail Traffic* entering the affected *Section* must pass over it; and
- where located at a signal, on the departure side of *Fixed Signals*.

The *Protection Officer* must not place the *Track Closed Warning Device* on fish plates or within *Points* or *Crossovers*:

Figure 9018-2 Example of the position of the Track Closed Warning Device when only one main line is obstructed.

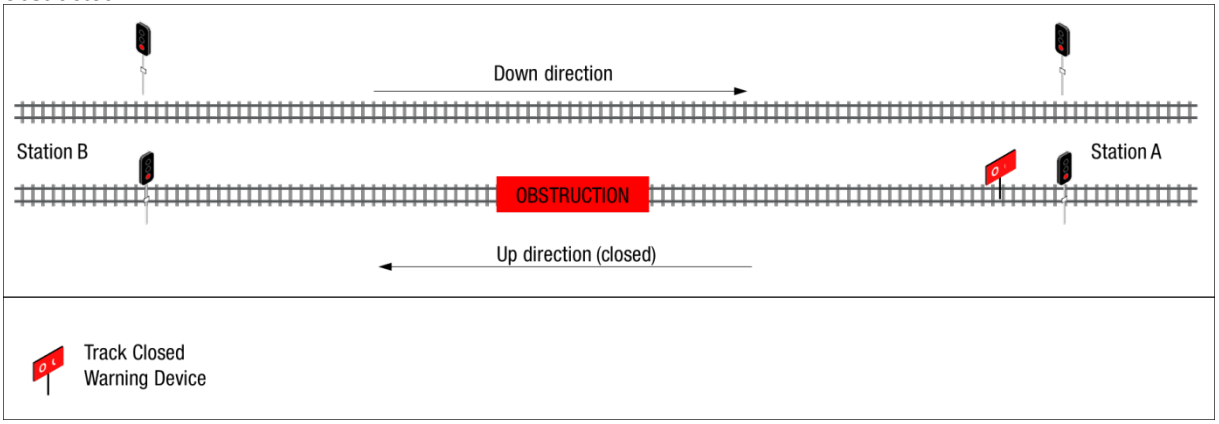
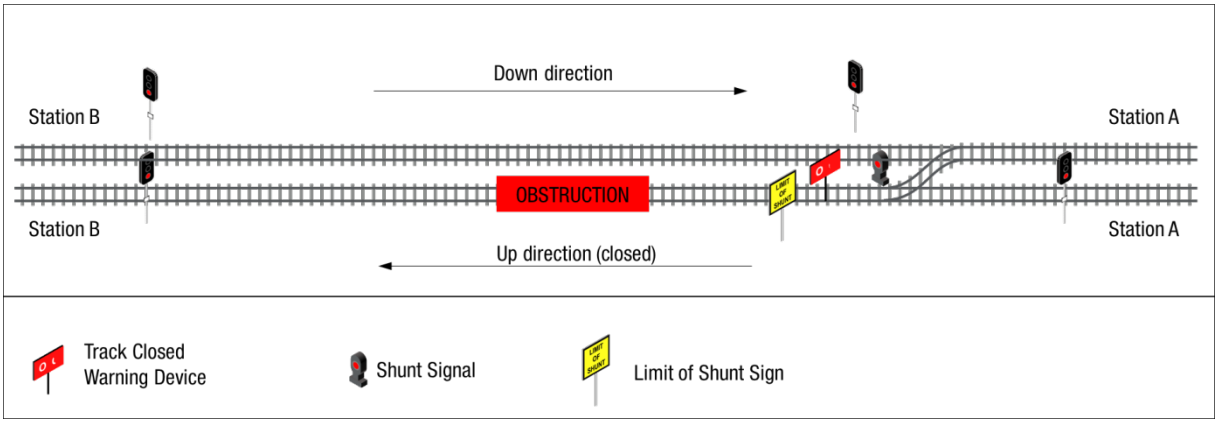


Figure 9018-3 Example of the position of the Track Closed Warning Device when placed at limit of shunt board and a cross over.



4. References

Nil

5. Effective date

4 May 2016

Network Safeworking Rules and Procedures

Using Standing Rail Traffic for Protection

Procedure Number: 9020

Brookfield Rail

Version 1.0, 31 March 2016

Using Standing Rail Traffic for Protection

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Authorisation

Adam Sidebottom
Rail Safety Manager
Brookfield Rail
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Glossary for this Procedure

Adjacent	Near to, close to, parallel to.
Authority	Formal name for a written Authority (e.g. Local Possession Authority, Alternative Proceed Authority).
Automatic Brake	A brake which operates automatically in the event of a reduction of Brake Pipe pressure through any cause.
Competent Worker	A worker certified as competent to carry out a relevant task.
Complete	Rail traffic where the consist has not parted.
Consist	A listed order of the vehicles arranged to make up a complete train.
Danger Zone	Everywhere within 3m horizontally from the nearest rail and any distance above or below this 3m, unless a safe place (see Safe Place) exists or has been created.
Foul	In a position to obstruct rail traffic on adjacent lines.
Fulfil	To advise the Network Controller that the instructions on, and associated activities for, an Occupancy Authority have been completed and can be terminated.
Handsignal	A signal given by hand or lights movements, hand signals may be with or without flags.
Issue	To provide or send copies of authorities, warnings, notices and Network publications to affected Competent Workers by voice, hand delivery or electronic means.
Location	A place in the Network with a designated name, identification number, or signalling reference.
Main Line	The running line (not including Loops) normally used for running rail traffic through and between locations
Network	A combination of track and other associated infrastructure controlled by Brookfield Rail.
Network Control Diagram	A diagram used by Network Controllers showing operational information for a Rail Traffic control area, also known as a Network Control graph to create a permanent record.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.

Permanent Record	A record made in writing or in an electronic system, and kept for reference and audit.
Platform	A designated raised or level area, next to the line, that allows passengers to enter and leave trains.
Protection	The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.
Protection Officer	The Competent Worker responsible for managing the rail safety component of worksite protection (i.e. compliance with Network Safeworking Rules and procedures).
Rail Traffic	Trains and track vehicle or vehicles travelling on the network.
Rail Traffic Crew	Competent Workers responsible for the operation of the Motive Power Unit.
Rail Traffic Integrity	The requirements that must be met for rail traffic to be deemed to be fit for purpose as required by Brookfield Rail and Accreditation requirements to travel in the Network.
Restraint Authority	The Restraint Authority directs Rail Traffic not to depart the location irrespective of any available Proceed Authority.
Safe Place	A Safe Place is: • where there is at least three metres clearance from the nearest Running Line; • on a Platform behind the safety lines; • within a purpose-built refuge or shelter; • where a structure or physical barrier has been erected to provide a position of safety; or • immediately in front of stationary and Secured Rail Traffic.
Section	The line between the departure end station limit of one location and the arrival end station limit of another location. A section consists of one or more blocks.
Secured	To safeguard against accidental or unauthorised access or movement.
Track	The combination of rails, rail connectors, sleepers, ballast, points and crossings.
Track-Circuit	An electric circuit where current is carried through the rails and used to detect the presence of trains. Track-circuits are used in the operation and control of points, signalling and level crossing equipment.
Travel	Planned or purposeful movement from one location to another.

1. Purpose

The object of this Procedure is to detail how this method is used to provide a *Safe Place* for workers in the *Danger Zone*, by stopping *Rail Traffic* on the *Main Line*. In addition, it allows *Rail Traffic* to transport workers to a worksite.

2. General

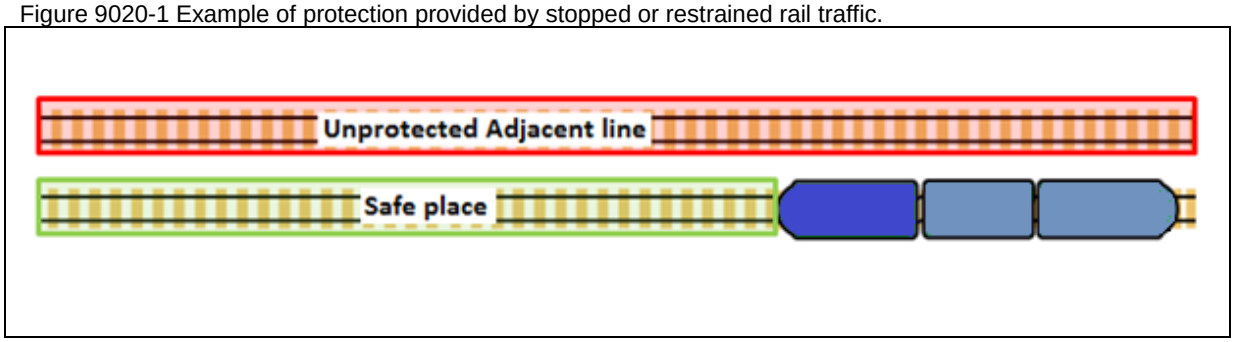
Some areas of the *Network* are not able to be reached safely; many *Locations* have no *Safe Place* for workers and repair work may need to be carried out on rail vehicles or the *Track* under the standing *Rail Traffic*.

To enable minor work to be carried out, this Procedure may be applied.

Using *Rail Traffic* to provide *Protection* should only be used in circumstances where it is not reasonably practicable to use a *Protection* method as prescribed in Rule 3000 Planning Work in the Rail Corridor.

WARNING: The *Safe Place* created by the *Rail Traffic* prevented from moving does not apply to any *Adjacent* line.

Figure 9020-1 Example of protection provided by stopped or restrained rail traffic.



3. Communication with Network Control

The *Protection Officer* must contact the *Network Controller* and give the following details:

- their name;
- their *Track* access permit number;
- the type of work that is going to be carried out;
- the *Location* of the work; and
- the anticipated time for completion of the task.

4. Using Rail Traffic to Provide a Position of Safety

WARNING: *Rail Traffic* being used to provide a position of safety must reliably activate *Track-Circuits*, or the *Rail Traffic Crew* is in possession of an *Authority* for the *Section*.

4.1 The Network Controller

The *Network Controller* must:

- give permission before this method of *Protection* is used;
- advise the *Protection Officer* which *Rail Traffic* is to *Travel* to the worksite;
- agree with the *Protection Officer*, the time required to do the work;
- tell the *Rail Traffic Crew* the *Location* of the worksite; and
- advise *Rail Traffic* on the line, that workers will be working using *Rail Traffic* to provide a *Safe Place*.

4.2 Rail Traffic Crew

The *Rail Traffic Crew* must:

- stop 20 metres short of the worksite, to enable the workers to detrain and move forward to the worksite;
- advise the *Network Controller* on their arrival at the worksite; and
- place the *Rail Traffic* into neutral and apply a full application of the *Automatic Brakes*.

4.3 Protection Officer

WARNING: The workers shall remain on the *Track* which is *Protected* by the stationary *Rail Traffic*. They are not permitted to walk across to the *Adjacent* line or let equipment or tools *Foul* the *Adjacent* line unless the workers are *Protected* in accordance with Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines.

The *Protection Officer* must ensure that the *Rail Traffic Crew*:

- places the *Rail Traffic* into neutral; and
- makes a full application of the *Automatic Brakes*.

4.4 Extending the Time for Work

Where the work is likely to overrun the anticipated time, the *Network Controller* must be advised and a decision made to continue, or to make the area safe and finish the work at a later time.

4.5 Departing the Worksite

Once work is completed, the *Protection Officer* will return to the *Rail Traffic*.

The *Rail Traffic Crew* shall contact the *Network Controller* and advise that they are leaving the worksite.

NOTE: If work is being carried out beyond a *Platform*, and the positioning of the railcar would mean that the railcar is partially *Platformed*, then the whole of the railcar is to remain at the *Platform*.

5. Working Under Standing Rail Traffic

Using standing *Rail Traffic* for *Protection* is permitted for repairs to failed *Infrastructure* and rail vehicles where it would be unsafe for *Rail Traffic* to continue until the necessary repairs are carried out.

NOTE: Failed *Infrastructure* may be a broken rail that is under the *Rail Traffic Consist*.

Where possible, and it is safe to do so, the *Rail Traffic Consist* should be divided and *Secured*, in accordance with Rule 4003 Rail Traffic Integrity, to enable the work to be carried out without a rail vehicle standing over the failed *Infrastructure*, or the rail vehicle requiring work should be isolated from the remainder of the *Consist*.

The *Competent Worker* carrying out the repairs must advise the *Network Controller* that:

- Standing *Rail Traffic Protection* is required;
- the reasons why; and
- the anticipated duration of the work.

The *Network Controller* must *Issue* a *Restraint Authority,* in accordance with Rule 4001 Protecting Rail Traffic*,* to the *Rail Traffic Crew*

NOTE: Where the *Rail Traffic* is to be divided for the work, the *Restraint Authority* must not be *Issued* until the *Rail Traffic Consist* has been divided and is again stationary.

After the *Rail Traffic Crew* is in possession of the *Restraint Authority* the *Competent Worker* carrying out the repairs must request the *Rail Traffic Crew* to apply three step protection to the *Rail Traffic*.

Three step protection is:

- a full application of the *Automatic Brakes*;
- the controller placed in neutral; and
- the generator field switch turned off.

Where the Rail Traffic is a Railcar set without a generator field switch, three step protection is:

- a full application of the *Automatic Brakes*;
- the controller placed in neutral; and
- the park brake on.

Work must not start until confirmation from the *Rail Traffic Crew* that the three step protection has been applied.

5.1 Rail Traffic to Continue

The *Competent Worker* must advise the *Network Controller* when the *Infrastructure* or rail vehicle has been repaired sufficiently for the *Rail Traffic* to continue safely.

The *Network Controller* will then *Cancel* the *Restraint Authority* held by the *Rail Traffic Crew.*

The *Competent Worker* will advise the *Rail Traffic Crew* when it is safe to remove the three step protection.

Where the *Consist* was divided for the repairs the *Consist* must be recoupled and *Rail Traffic Integrity* re-established before the *Rail Traffic* continues.

6. Using the Rail Traffic for Accessing Worksites

6.1 Rail Traffic Crew

The *Rail Traffic Crew* must:

- stop 20 metres short of the worksite, to enable the *Competent Worker* to detrain and move forward to the worksite; and
- advise the *Network Controller* on arrival at the worksite.

The *Rail Traffic Crew* can depart the worksite only after receiving a *Handsignal* from the *Protection Officer*.

6.2 Protection Officer

Where a *Competent Worker* is working alone, that *Competent Worker* will be the *Protection Officer*.

The *Protection Officer* must:

- complete a radio check with the *Network Controller*; and
- when ready, give an “all clear” *Handsignal* to the *Rail Traffic Crew*.

The *Protection Officer* shall agree with the *Network Controller* on the time to be picked up if the communications fail.

The *Protection Officer* must not move from the position of safety until the nominated *Rail Traffic* has stopped, to take them from the worksite.

6.3 Departing the worksite

Once work has been completed, the *Protection Officer* shall contact the *Network Controller* and advise that the work is complete.

The *Network Controller* will arrange for the *Protection Officer* to be picked up by the next available *Rail Traffic*.

The *Rail Traffic Crew* who will pick up the *Protection Officer* from the worksite, shall stop 20 metres short of the worksite and advise the *Network Controller*.

Once the Protection Officer is on the Rail Traffic, the crew shall contact the Network Controller and advise that they are leaving the worksite, and the Network Controller will make a notation on the Network Control Diagram.

7. Keeping Records

The *Network Controller* and the *Protection Officer* must make a *Permanent Record* of the *Protection* arrangements.

8. References

3000 Planning work in the rail corridor

4001 Protecting Rail Traffic

4003 Rail Traffic Integrity

9010 Protecting Work from Rail Traffic on Adjacent Lines

9. Effective Date

4 May 2016

Network Safeworking Rules and Procedures

Operation of Self Restoring Points

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Brookfield Rail

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Operation of Self Restoring Points

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Adam Sidebottom
Rail Safety Manager
Brookfield Rail
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Glossary for this Procedure

Clear	A proceed indication displayed by a signal. In reference to a track circuit, block, section or signal route, the absence of rail traffic. In reference to track workers being clear of track.
Crossing Locations/Stations	May consist of single or double ended portion of track, to hold rail traffic, connected to a main line that is used to permit other rail traffic to cross or pass.
Facing Points	Points with the switch blades facing approaching rail traffic where the track diverges.
Issue	To provide or send copies of authorities, warnings, notices and Network publications to affected Competent Workers by voice, hand delivery or electronic means.
Location	A place in the Network with a designated name, identification number, or signalling reference.
Locomotive	Self-propelled, non-passenger-carrying railway vehicles used for hauling other (typically freight or passenger) rolling stock.
Main Line	The running line (not including Loops) normally used for running rail traffic through and between locations
Occupancy	Presence of rail traffic or track workers on track.
Points	A track component consisting of paired pieces of tapered rail (blades) that can be moved and set to allow tracks to diverge or converge.
Points Indicator	An indicator showing the position of points.
Rail Traffic	Trains and track vehicle or vehicles travelling on the network.
Rail Traffic Crews	Competent Workers responsible for the operation of the Motive Power Unit.
Road Rail Vehicle	A road vehicle fitted with additional rail gear that enables the vehicle to be driven on rail.

Self Restoring Points (SRP)	Points which can be operated remotely or by push button that automatically restores to their normal position following the movement of rail traffic. (refer to Points)
Shunt	To move rail traffic, rakes of vehicles, or vehicles on lines for purposes other than through movement.
Sidings	A portion of track where vehicles can be placed clear of the running lines. Also see intermediate siding.
Track-Circuit	An electric circuit where current is carried through the rails and used to detect the presence of trains. Track-circuits are used in the operation and control of points, signalling and level crossing equipment.
Trailing Points	Points with the switch blades facing away from approaching rail traffic where the track converges.
Station	A system of tracks within station limits at the beginning or end of a section at which rail traffic may cross, pass or run around.
Track	The combination of rails, rail connectors, sleepers, ballast, points and crossings.
Track Circuits	An electric circuit where current is carried through the rails and used to detect the presence of trains. Track-circuits are used in the operation and control of points, signalling and level crossing equipment.
Trailing (Points) Direction	Points with the switch blades facing away from approaching rail traffic.
Train Order Territory	The portions of line where the Train Order system of Safeworking is used.

1. Purpose

The purpose of this Procedure is to describe *Self Restoring Points (SRP)* and outline the means by which they are used to control the access of *Rail Traffic* to and from *Crossing Locations*, *Sidings* or junctions.

2. General

SRP:

- are electrically operated *Points*;
- are installed at various *Stations* and *Sidings* in *Train Order Territory*; and
- when reversed, under certain conditions and subject to a time delay, will automatically restore to their normal position after the passage of *Rail Traffic*.

NOTE: Automatic restoration of *SRP* is determined from sequential *Track-Circuit Occupation* and therefore does not occur for *Rail Traffic* with insulated axles.

SRP systems provide:

- an indication that *Points* are locked for through movements of *Rail Traffic* in either the normal or reverse positions;
- electrical operation by:
  - remote operation from the *Rail Traffic* cabin; or
  - by local push button.

2.1 Associated Equipment

Equipment associated with *SRP* include:

- electric *Points* motor;
- illuminated triangular shaped *Points Indicators*;
- flashing *Points* free indicator (coloured light type);
- push button and crank handle case;
- *Track-Circuits*;
- white wayside indicator posts “A” to “F”;
- remote UHF radio receiver.

2.2 Types of SRP

The two types of *SRP* are:

- White light; and
- Coloured light (white, yellow, red).

SRP Points Indicators consist of upper and lower triangular shaped indicators. The upper indicator applies to approaching *Rail Traffic* in the *Facing* direction and the lower indicator applies to *Rail Traffic* approaching in the *Trailing* direction.

3. White Light Type

3.1 Through Movements

WARNING: Normally *SRP* are left set in the normal position; however *Rail Traffic Crews* should be prepared to stop short of the *Points* in the event they have been left in the reverse position or have lost detection.

If not already illuminated, approaching *Rail Traffic* may see the upper *Points Indicator* illuminate. The *Points Indicator* will display two white lights in a vertical alignment if the *Points* are set, locked and detected in the normal position.

Figure 9022-1 Typical SRP Layout – white light type

The same indication will be displayed on the lower *Points Indicator* if *Rail Traffic* is approaching from the *Trailing* direction.

As the last vehicle of the departing *Rail Traffic Clears* the *Track-Circuits* of the *SRP*, the *Points Indicator* lights may extinguish.

Where the *Rail Traffic Crew* approaches the *SRP* and observes the *Points Indicators* are flashing or due to a system failure they are not illuminated, the approaching *Rail Traffic* must be brought to a stand *Clear* of the *Points* and confirm the *Points* are correctly set and locked before traversing the *Points*.

All faults or failures of the *SRP* must be reported in accordance with Rule 2009 Reporting and Responding to Condition Affecting the Network (CAN).

Points Indicators will flash to indicate either:-

- loss of detection; or
- for a predetermined time:
  - when the door for the manual operation button is first opened; and
  - when the *Points* are requested to move, before movement of the *Points* begins.

3.2 Reversing Points

3.2.1 Remote radio operation

Where remote control is provided, the on board radio equipment may be used by the *Rail Traffic Crew* to move *Points* to reverse. The control equipment will only accept a call for the *Points* to move after the *Rail Traffic* has been detected as being stationary on one of the approaches to the *Points*.

Radio operation requires the *Rail Traffic Crew* to enter the 3 digit code displayed on the radio code sign into their radio on UHF channel 50.

This code ensures that where there are more than one set of *SRP* in any area, only the correct set will respond.

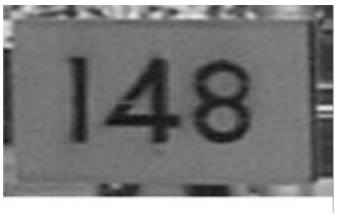


Figure 9022-2 SRP radio code sign

The *Rail Traffic Crew* can either send the 3 digit code by selecting the appropriate command on the *Locomotive* touch screen display or by entering the code on their portable UHF radio handset.

NOTE: The code varies from site to site and is displayed on a sign located alongside the *Points*.

No in cab indications are provided, the *Rail Traffic Crew* must check the indicators to confirm the *Points* setting.

When the *Points* are set in the reverse position, the two white lights on the upper and lower *Points Indicator* will be illuminated at 45 degrees, indicating the *Points* are set for reverse.

When the *Points* are moved to reverse or normal, they remain time locked for 30 seconds. After this time it is possible to move the *Points*.

3.2.2 Manual operation

A manual “PRESS TO OPERATE POINTS” button is provided in the crank handle case to give manual operation of *Points* in the event that radio operation is not working.

Provided the *Track-Circuit* is *Occupied*, an indicator in the push button case will display “*Points* free” after 30 seconds.

When the push button is operated, the *Points Indicator* lights will extinguish and the *Points* will move to reverse. After the *Points* are set into reverse and become locked and detected, the *Points Indicator* will illuminate to correspond with the lie of the *Points*.

Figure 9022-3 Local control panel/crank handle case

At some *SRP* the *Points* free indicator may remain lit until the *Points* are set and detected, at which time the *Points* locked indicator will illuminate.

At other *SRP Locations* the *Points* free indicator will be extinguished when the button is pushed, followed by a delay before the *Points* move to reverse. During this time the *Points Indicator* lights will flash until the *Points* are set and detected.

The *Points* locked indicator will only illuminate at some *Locations* when they are locked by *Track* locking as the *Rail Traffic* traverses the *Points* or after the *Points* are called to move whilst the *Points Indicators* are flashing.

3.2.3 Shunt movements

For *Shunt* movements from the *Main Line* to the loop or junction, the *Points Indicator* will illuminate, if not already illuminated, when *Rail Traffic* comes to a stand at a predetermined distance from the *Points*.

The indicator will display two white lights in a vertical alignment indicating the *Points* are set in the normal position.

The *Rail Traffic Crew* may then operate the *Points* using either the remote or manual operation methods.

3.3 Points Restoration

After any *Rail Traffic* movement where the *Points* have been set to reverse and the last vehicle of the *Rail Traffic* has *Cleared* the *SRP Track-Circuits*, the *Points Indicator* may extinguish after a predetermined period and the *Points* will automatically move back to the normal position.

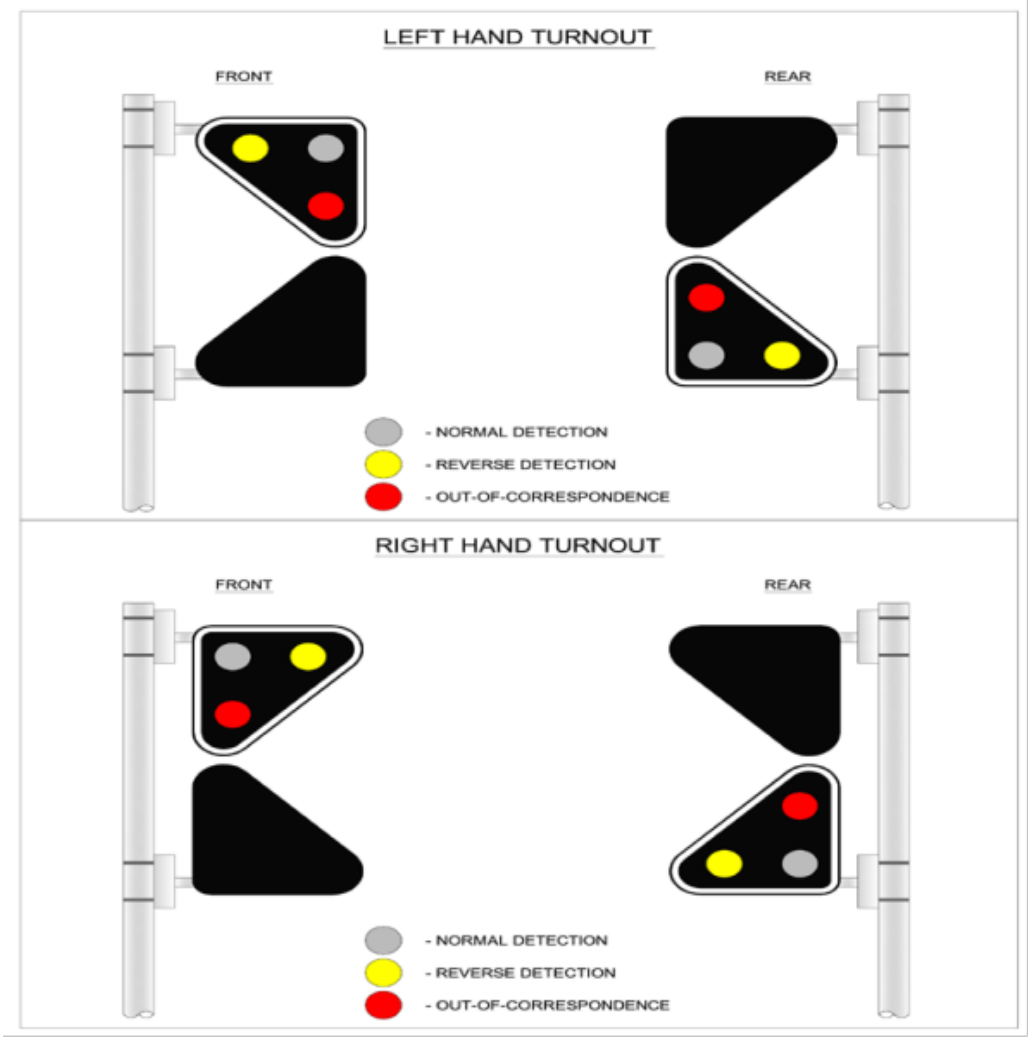
4. Coloured Light Type

There are three LED lights (white, yellow, red).

- White – indicates the *Points* are set and detected in the normal position.
- Yellow – indicates the *Points* are set and detected in the reverse position.
- Red – indicates the *Points* are not detected or, are about to move.

NOTE: A coloured light type *SRP Points Indicator* is continually illuminated.

Figure 9022-4 Typical SRP *Points Indicators* layout – coloured light type



4.1 Through Movements

WARNING: Usually *SRP* are left set in the normal position; however *Rail Traffic Crews* should be prepared to stop short of the *Points* in the event they have been left in the reverse position or have lost detection.

When *Rail Traffic* approaches the *SRP* in the *Facing* direction, the top indicator should be illuminated with a white light provided the *Points* are set, locked and detected in the normal position.

If *Rail Traffic* is to pass through the *Points* on the *Main Line* in the normal position, there is no requirement to stop provided there is a white light displayed on the *Points Indicator*.

The same indication will be displayed on the lower *Points Indicator* if *Rail Traffic* is approaching from the *Trailing* direction.

Where the *Rail Traffic Crew* are approaching *SRP*, and the *Points Indicator* is at red or due to electrical failure the *Points Indicator* is not illuminated, *Rail Traffic* must:

- be brought to a stand *Clear* of the *Points*; and
- confirm the *Points* are correctly set and locked before traversing the *Points*.

All faults or failures of the *SRP* must be reported in accordance with Rule 2009 Reporting and Responding to Condition Affecting the Network (CAN).

4.2 Reversing Points

4.2.1 Remote radio operation

Where remote control is provided, on board radio equipment may be used by the *Rail Traffic Crew* to move the *Points* to reverse.

Radio operation requires the *Rail Traffic Crew* to enter the 3 digit code displayed on the radio code sign into their radio on UHF channel 50. This code ensures that where there are more than one set of *SRP* in any area, only the correct set will respond.

The control equipment will only accept a call for the *Points* to move after the *Rail Traffic* has been detected as being stationary on one of the approaches to the *Points*. Approaches are indicated by wayside white posts in both the *Facing* and *Trailing* directions.

Once the *Rail Traffic* has been detected as stationary a blue flashing light will illuminate and the 3 digit code can be used to call the *Points*.

The *Rail Traffic Crew* either sends the 3 digit code by selecting the appropriate command on the *Locomotive* touch screen display or by entering the code on their portable UHF radio handset.

If the code is accepted, the blue flashing light will extinguish and the *Points Indicator* will change to red. After 30 seconds the *Points* will move and the indicator will display a white or yellow indication once the *Points* are detected in the required position. The *Points* will lock for 2 minutes before becoming free again.

If the *Points* fail to be detected in the called position, they will immediately become free again to allow them to be returned to their original position.

The *Points* will re-lock and the blue flashing indicator light will extinguish if the *Points* are not called within 5 minutes of becoming free.

For *Rail Traffic* departing in the *Trailing* direction and waiting for a passing movement, the *Points* will become free for a further 5 minutes once the incoming *Rail Traffic* has passed over the *Points*.

4.2.2 Manual operation

WARNING: *Rail Traffic Crews* must close the crank handle case door before leaving the *SRP* site.

A manual push button switch is provided in the crank handle case to give manual operation of *Points* in the event that radio operation is not working or the *Points* have re-locked.

Once the crank handle case has been opened, the *Points* free indicator light will illuminate and the *Points* can be called by using the push button.

If the call has been accepted the *Points* will activate in the same way as using the remote radio procedure.

The *Points* will remain free as long as the crank handle case door is left open.

4.2.3 Shunting movements

Rail Traffic Shunting to or from the *Main Line* to the loop, *Siding* or branch line via the *Points* being in reverse, must stop at the *SRP* and operate the *Points* to the reverse position using either the remote or manual operation methods.

When the *Points* are set in reverse, the indicator will display a yellow light.

4.2.4 Points restoration

After any *Rail Traffic* movement where the *Points* have been set to reverse and the last vehicle of the *Rail Traffic* has *Cleared* the *SRP Track-Circuits*, the *Points Indicator* will change from yellow to red, and after a predetermined period, the *Points* will automatically move back to the normal position.

5. Signage

The maximum permissible speed approaching *SRP* is 40 Km/h, which applies 400m either side of the *Points*. “40 *SRP*” speed restriction signs are provided at all *Locations*.

“NO STANDING BEYOND THIS POINT” signs are provided on the approach to the *Points Indicator*.

6. Electrical Failures

WARNING: *SRP* that have been moved manually must be returned to their designated normal position.

A crank handle is provided for manual operation of the *Points* during electrical failures. Once the crank handle is removed, *Point* detection is lost and power to the *Points* machine is removed.

When manually working *Rail Traffic* through a set of *SRP*, the crank handle must be kept out of the crank handle case until all of the *Rail Traffic* has passed over the *Points*.

6.1 Restoring SRP to Normal

When crank handle operation has been used, the *Points* must be returned to their normal position after the *Rail Traffic* movement and the *Network Controller* advised.

To avoid undue delays to *Rail Traffic*, the *Network Controller* may give permission for the *Rail Traffic Crew* to leave the *Points* in the reverse position and the crank handle out of the crank handle switch.

The *Network Controller* must:

- record on the *Network Control Diagram* the position of the *Points* and that the crank handle is out of the crank handle switch;
- *Issue* a warning in accordance with Rule 2009 Reporting and responding to a Condition Affecting the Network (CAN) to the *Rail Traffic Crew* of *Rail Traffic* approaching that *Location*;
- Continue to *Issue* warnings until the *SRP* has been restored to normal and the crank handle restored to the crank handle switch.

The *Network Controller* can arrange for the next *Rail Traffic Crew* or other *Competent Worker* to restore the *SRP* and crank handle to normal.

7. Use by Road Rail Vehicles

When *Road Rail Vehicles* and *Track* machines are required to traverse over *SRP*, the *Points* must be operated using the manual operation method.

The *Points* must be manually restored to normal when the *Road Rail Vehicle* or *Track* machine has moved *Clear* of the *Points*.

8. References

2009 Reporting and responding to a Condition Affecting the Network (CAN)

9. Effective Date

4 May 2016

Network Safeworking Rules and Procedures

Operation of Switchlocks

Procedure Number: 9024

Brookfield Rail

Version 1.0, 31 March 2016

Operation of Switchlocks

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Authorisation

Adam Sidebottom
Rail Safety Manager
Brookfield Rail
31 March 2016

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Table of Contents

Glossary for this Procedure

Aspect	The displayed pattern or position of lights used to give a signal indication.
Centralised Traffic Control (CTC) Territory	The portions of line where the Centralised Traffic Control system of Safeworking is used.
Clear	A proceed indication displayed by a signal. In reference to a track circuit, block, section or signal route, the absence of rail traffic. In reference to track workers being clear of track.
Competent Worker	A worker certified as competent to carry out a relevant task.
Emergency	Incident requiring urgent action. The incident might involve death or serious injury, health or safety effects, significant damage to property or infrastructure.
Fixed Signal	A signal that is located permanently near the line.
Infrastructure Representative	An authorised Brookfield Rail employee or an organisation contracted to Brookfield Rail, responsible for maintaining Network infrastructure.
Interlocking	Interaction of interconnected locking equipment controlling points and/or signals to prevent conflicting movements to make sure routes are set correctly.
Intermediate Siding	A siding located within a section, generally used for purposes other than crossing or passing of rail traffic.
Location	A place in the Network with a designated name, identification number, or signalling reference.
Main Line	The running line (not including Loops) normally used for running rail traffic through and between locations
Network	A combination of track and other associated infrastructure controlled by Brookfield Rail.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
Points	A track component consisting of paired pieces of tapered rail (blades) that can be moved and set to allow tracks to diverge or converge.
Rail Traffic	Trains and track vehicle or vehicles travelling on the Network.
Rail Traffic Crew	Competent Workers responsible for the operation of the Motive Power Unit.
Section	The line between the departure end station limit of one location and the arrival end station limit of another location. A section consists of one or more blocks.

Secure	To safeguard against accidental or unauthorised access or movement.
Shunt	To move rail traffic, rakes of vehicles, or vehicles on lines for purposes other than through movement.
Siding	A portion of track where vehicles can be placed clear of the running lines. Also see intermediate siding.
Signals Maintenance Representative	A competent and authorised signals maintenance worker.
Station	A system of tracks within station limits at the beginning or end of a section at which rail traffic may cross, pass or run around.
Switchlocks	A device used to lock a points lever. The device must be initially released by the Network Controller or by the positioning of the rail traffic prior to a Competent Worker operating a lever. Usually found on points leading to or from an intermediate siding or non-signalled portions of yards in CTC territory.
Track-Circuit	An electric circuit where current is carried through the rails and used to detect the presence of trains. Track-circuits are used in the operation and control of points, signalling and level crossing equipment.

1. Purpose

The purpose of this Procedure is to provide instruction in the operation of *Switchlocks* in *Centralised Traffic Control (CTC) Territory* within the *Network*.

2. General

A *Switchlock* is a device used to lock a *Points* lever. The *Switchlock* must be initially released by the *Network Controller* or by the positioning of the *Rail Traffic* prior to a *Competent Worker* operating a lever.

*Switchlock*s are usually found on *Points* leading to or from an *Intermediate Siding* or non-signalled portions of yards in *CTC Territory*.

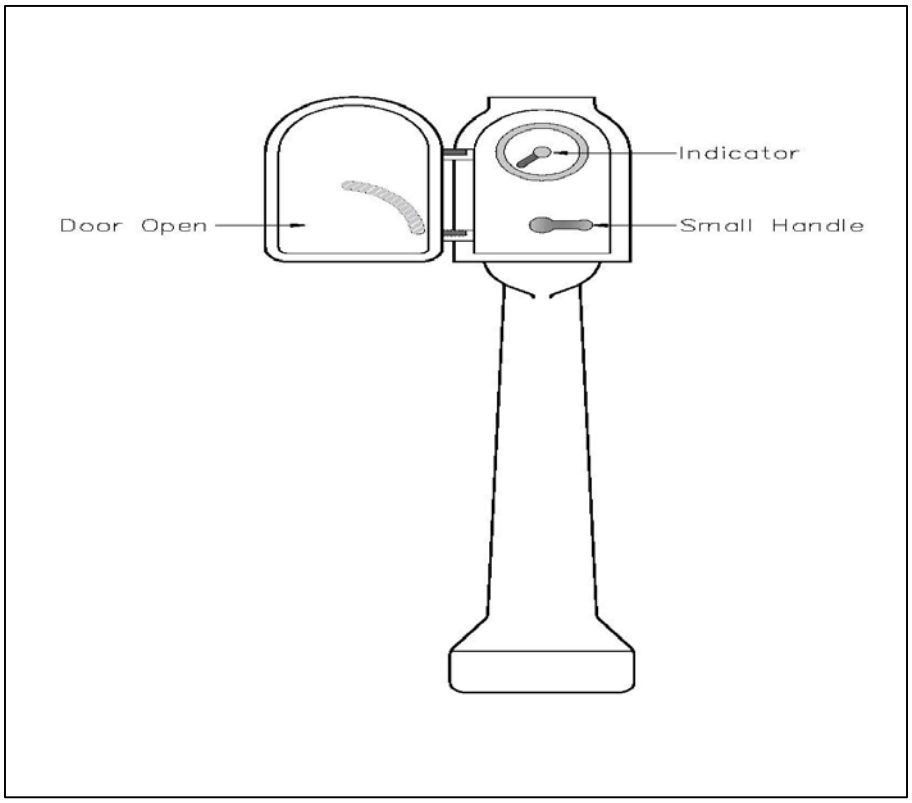
In *CTC Territory*, the *Points* leading into *Intermediate* and *Interlocked Sidings* are controlled by electric *Switchlocks*.

Switchlocks at *Interlocked Sidings* are controlled by the *Network Controller*.

Switchlocks contain an indicator to indicate the condition of the lock, a small handle to lock the *Points* and a door which is normally kept closed and locked.

Refer to local instructions as *Switchlock* procedures vary at some *Locations*.

Figure 9024-1 Typical Switchlock.



3. Operation

3.1 Interlocked Sidings

When it is necessary to operate a *Switchlock* at an *Interlocked Siding*, the *Rail Traffic Crew* or *Competent Worker* must:

- contact the *Network Controller* for permission and release of the *Switchlock*;
- open the *Switchlock* door, and once the free indication is displayed;
  - turn the small handle to the left position;
  - set the *Points* to the required direction; return the small handle to the right; and
  - close and *Secure* the *Switchlock* door.
- advise the *Network Controller*.

The *Network Controller* can then return the *Switchlock* to the locked position and confirm with the *Rail Traffic Crew* or *Competent Worker* that the *Switchlock* is normal.

3.2 Rail Traffic Acceptance Buttons (TAB)

WARNING: The TAB button must be depressed until the *Rail Traffic* has passed the corresponding *Shunt* signal at Proceed.

A *Rail Traffic* Acceptance Button (TAB) is provided on the side wall of the *Switchlock* which, when pressed will permit a Proceed indication to be exhibited on the corresponding signal, provided the *Network Controller* has set the signal for the movement.

When the movement of *Rail Traffic* is *Clear* of the *Points* the *Rail Traffic Crew* or *Competent Worker* must:

- open the *Switchlock* door;
- turn the small handle to the left;
- restore the *Points* to their normal position;
- return the small handle to the right to the normal position;
- close and *Secure* the *Switchlock* door; and
- advise the *Network Controller*.

The *Network Controller* can then return the *Switchlock* to the locked position.

The *Rail Traffic Crew* or *Competent Worker* must then depress and hold the TAB to allow the signal to display a PROCEED *Aspect*

NOTE: The *Network Controller* must be advised that the *Points* have been restored to normal and the *Switchlock* is *Secured*.

3.3 Emergency Release

At some *Locations* the *Switchlock* has been fitted with and *Emergency* release to allow the *Switchlock* to be operated during a signalling failure.

The *Network Controller* must ensure there are no conflicting *Rail Traffic* movements approaching the *Switchlock* and it is safe to use the *Emergency* release.

The *Competent Worker* operating the *Switchlock* during a signalling failure must:

- Contact the *Network Controller* to obtain permission to use the *Emergency* release;
- break the seal and push the *Emergency* release down as far as it will move;
- hold the *Emergency* release down and move the small handle to the left; and
- operate the *Switchlock* as required.

The *Emergency* release can only be restored by a *Signalling Maintenance Representative*.

NOTE: The *Fixed Signals* affected by the *Switchlock* will remain at STOP until the *Signalling Maintenance Representative* has restored the *Emergency* release.

3.4 Intermediate Sidings

Small white posts marked “A”,”B” and “C” are provided alongside the line near the *Points* to indicate the limits of the *Track-Circuit*.

NOTE: *Rail Traffic Crews* are required to contact the *Network Controller* for permission to operate *Switchlocks*.

3.4.1 Shunting rail traffic and leaving a portion standing on the main line

When it is necessary to release a *Switchlock* so that a *Siding* can be *Shunted*, the *Rail Traffic Crew* must:

- contact the *Network Controller*;
- stop the *Rail Traffic*;
- detach the portion to be left standing on the *Main Line Track-Circuit* opposite the *Siding* on the approach side of post “C”, and *Clear* of the *Points* to be *Shunted* through.

The front portion of the *Rail Traffic* to be *Shunted* must be moved forward and the rear wheels of the last vehicle must be standing on the *Track-Circuit* beyond the *Points*, and between posts “A” and “B”. Then, with permission from the *Network Controller*, the *Rail Traffic Crew* must:

- open the *Switchlock* door; and
- turn the small handle over to the left.

The *Points* may then be operated to the required position by means of the *Points* lever, in accordance with Procedure 9012 Operation of Points.

WARNING: At *Intermediate Sidings* where a portion of *Rail Traffic* is left standing on the *Main Line*, if the *Points* are reset and the *Switchlock* handle has been returned to the normal position, the *Switchlock* will fail to release again and an *Infrastructure Representative* will need to be advised and attend.

At *Intermediate Sidings* when the small handle has been turned to the left, it must not be restored until:

- *Shunting* has been completed;
- the *Points* have been reset for the *Main Line*; and
- the *Points* lever has been *Secured*.

When all *Shunting* has been completed, the *Points* have been reset for the *Main Line* and, the *Points* lever has been *Secured*, the Rail Traffic Crew must:

- turn the small handle back over to the right, to its normal position;
- close and lock the *Switchlock* door; and
- advise the *Network Controller*.

3.4.2 Shunting rail traffic clear of the main line

When required to *Shunt Rail Traffic Clear* of the *Main Line*, the *Rail Traffic Crew* must position the *Rail Traffic* so that the wheels of the first or last vehicle of the *Rail Traffic* are standing on the short *Track-Circuit* between posts "A" and "B", the *Rail Traffic Crew* may then operate the *Switchlock*.

When the *Rail Traffic* is *Clear* of the *Main Line* and the *Fouling* point, indicated by post "C", the *Rail Traffic Crew* can restore the *Points* and *Switchlock* to their normal positions, then advise the *Network Controller*.

Before leaving the area the *Rail Traffic Crew* must be satisfied that it is all *Clear* and safe for the passage of other *Rail Traffic*.

Where *Rail Traffic* is to resume its journey, the *Rail Traffic Crew* must:

- obtain permission from the *Network Controller* to open the *Switchlock* door;
- observe the indicator and if displaying "Free", set the *Points* to the required position, in accordance with Rule 9012 Operation of Points; and
- hand signal the *Rail Traffic* onto the *Main Line*, in accordance with Rule 2003 Handsignals and Verbal Commands.

When the *Rail Traffic* is *Clear* of the *Points* onto the *Main Line*, the *Rail Traffic Crew* may restore the *Points* and *Switchlock* to their normal positions and advise the *Network Controller* before proceeding.

NOTE: On some types of *Switchlocks*, if the hasp that *Secures* the door is not tightly closed, the signal in the rear of the *Siding* will be held in the stop position.

WARNING: *Rail Traffic* must restore the *Points* to their normal position and be locked away inside a *Switchlocked Intermediate Siding,* before returning to a *Station* in the rear to prove no following *Rail Traffic* has entered the *Section*.

3.4.3 Returning to the originating station

Where it is necessary on single line, for *Rail Traffic* to depart a *Station*, *Shunt* an *Intermediate Switchlocked Siding* and return to that *Station*, the *Rail Traffic Crew* before returning to the *Station* must:

- place the whole of the *Rail Traffic* into the *Siding*, completely *Clear* of the *Main Line*;
- restore the *Points* to normal; and
- close the door of the *Switchlock*;

This must be done to prove that any following *Rail Traffic* has not entered the *Section* from the *Station* in the rear.

The *Rail Traffic* can then operate the *Switchlock* as described in 3.3.2 when ready to return to its originating *Station*.

4. Reporting Faults

When a fault or failure of a *Switchlock* at an *Interlocked Siding* occurs, the *Network Controller* must advise an *Infrastructure Representative* to repair the fault.

All faults or failures must be reported in accordance with Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN).

5. References

2003 Handsignals and Verbal Commands

2009 Reporting and Responding to a Condition Affecting the Network (CAN).

9012 Operation of Points

6. Effective Date

4 May 2016

Network Safeworking Rules and Procedures

Annett's Keys

Procedure Number: 9026

Brookfield Rail

Version 1.0, 31 March 2016

Annett's Keys

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Authorisation

Adam Sidebottom
Rail Safety Manager
Brookfield Rail
31 March 2016

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Table of Contents

Glossary for this Procedure

AKOL	Annett's Key on Locomotive.
Brookfield Rail	Brookfield Rail Pty. Ltd.
Competent Worker	A worker certified as competent to carry out a relevant task.
Cross	To cross or pass other rail traffic.
Crossing Locations/Stations	May consist of single or double ended portion of track, to hold rail traffic, connected to a main line that is used to permit other rail traffic to cross or pass.
Crossover	A portion of line that is used to divert rail traffic from one continuing line to another.
Fulfil	To advise the Network Controller that the instructions on, and associated activities for, an Occupancy Authority have been completed and can be terminated.
Infrastructure Representative	An authorised Brookfield Rail employee or an organisation contracted to Brookfield Rail, responsible for constructing or maintaining network infrastructure.
Issue	To provide or send copies of authorities, warnings, notices and Network publications to affected Competent Workers by voice, hand delivery or electronic means.
Locomotives	Self-propelled, non-passenger-carrying railway vehicles used for hauling other (typically freight or passenger) rolling stock.
Main Line	The running line (not including Loops) normally used for running rail traffic through and between locations
Network Control Diagram	A diagram used by Network Controllers showing operational information for a Rail Traffic control area, also known as a Network Control graph to create a permanent record.
Network Controller	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
Points	A track component consisting of paired pieces of tapered rail (blades) that can be moved and set to allow tracks to diverge or converge.
Protection	The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.
Rail Traffic	Trains and track vehicle or vehicles travelling on the network.
Rail Traffic Crew	Competent Workers responsible for the operation of the Motive Power Unit.

Restraint Authority	The Restraint Authority directs rail traffic not to depart the location irrespective of any available Proceed Authority.
Section	The line between the departure end station limit of one location and the arrival end station limit of another location. A section consists of one or more blocks.
Secure	To safeguard against accidental or unauthorised access or movement.
Shunting	To move rail traffic, rakes of vehicles, or vehicles on lines for purposes other than through movement.
Siding	A portion of track where vehicles can be placed clear of the running lines. Also see intermediate siding.
Station	A system of tracks within station limits at the beginning or end of a section at which rail traffic may cross, pass or run around.
Terminal Line	A dead-end line.
Track Vehicle	A vehicle, usually self-propelled, used for inspecting and/or maintaining infrastructure.
Train Order	An authority issued by the Network Controller for the movement of rail traffic or issue of LPA track work authorities.
Train Order Territory	The portions of line where the Train Order system of Safeworking is used.

1. Purpose

This Procedure details the protocols for using Annett's Keys, which provide access to *Crossing Locations* or *Sidings* in *Train Order Territory* that are *Secured* by Annett's locks.

2. General

Annett's locks *Securing Main Line Points* at *Crossing Locations* and *Sidings* in *Train Order Territory* can only be unlocked by means of an Annett's key. The Annett's key can only be removed from the lock when the *Points* have been returned to their normal position and securely locked.

Except where otherwise authorised, Annett's locks are not attached to *Main Line Points* at *Terminal Stations* or on *Main Line Crossovers* at Junction *Stations*.

Annett's keys are *Issued* in accordance with W110-200-032 Procedure for the Issue and Control of Annett's Keys.

All *Locomotives* operating in *Train Order Territory* are provided with an Annett's key that is branded with the *Locomotive* number.

Rail Traffic Crews must ensure the Annett's key is in its receptacle on the *Locomotive* at all times when not in use.

3. Shunting and Crossing Rail Traffic

On completion of *Shunting* a *Siding* or *Crossing Rail Traffic* at a *Crossing Location* that is *Protected* with an Annett's lock, the *Rail Traffic Crew*, including *Track Vehicles* must advise the *Network Controller* that;

- the *Points* have been restored to normal "*Siding Secured*" (*SS*); and
- the Annett's key is in their possession, or the *Annett's key is on the Locomotive. (AKOL)*

The *Network Controller* must endorse the *Network Control Diagram* "*AKOL"* and "*SS"* once confirmed with the *Rail Traffic Crew* or *Competent Worker*.

When required to *Shunt* a *Siding* using two Annett's keys the *Network Controller* must confirm with the *Rail Traffic Crew* that both keys are in their possession or on the *Locomotive*, and endorse the *Network Control Diagram* "*2AKOL*".

4. Fulfilling Train Orders

Upon arrival at a *Station* where a *Train Order* is to be *Fulfilled*, the *Rail Traffic Crew* must:

- confirm the *Annett's key is on the Locomotive (AKOL)*;
- endorse the *Train Order* "*FULFILLED*" and "*AKOL*"; and
- advise the *Network Controller*; who will endorse their copy of the *Train Order*.

The *Network Controller* must also endorse the *Network Control Diagram* "*FULFILLED*" and "*AKOL*".

NOTE: If a *Train Order* is to be "*FULFILLED*" where two Annett's keys have been used, the *Train Order* and the *Network Control Diagram* must be endorsed "*2AKOL*".

5. Missing Annett's Keys

If the Annett's key is missing from the *Rail Traffic*, the *Network Controller* must:

- initiate action to recover the missing Annett's key; and
- advise the *Rail Traffic Crew* of the next *Rail Traffic* movement to check the *Points* at the preceding *Station* before traversing them.

If the key is not recovered before the next *Rail Traffic* approaches a *Siding* that has been previously *Shunted* by means of an Annett's key prior to the *Train Order* being *Fulfilled*, or is required to Proceed through the *Section*, the *Rail Traffic Crew* must be warned, in accordance with Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN).

NOTE: If the Annett's key is not on the *Locomotive*, the *Network Controller* must be advised.

6. Faults

If an Annett's key becomes jammed in a lock, the *Rail Traffic Crew* must advise the *Network Controller* who will report the fault to the relevant *Infrastructure Representative*. The *Network Controller* must also warn any *Rail Traffic* entering the *Section* towards the *Siding*, in accordance with Rule 2009 Reporting and Responding to a Condition Affecting the Network (CAN).

7. Lost Annett's Keys

If an Annett's key becomes lost and cannot be found, arrangements must be made for a replacement key to be provided.

If an Annett's key becomes lost, refer to W110-200-032 the Procedure for the Issue and Control of Annett's Keys.

NOTE: If the original Annett's key is subsequently found, it must be returned to *Brookfield Rail.*

8. References

2009 Reporting and Responding to a Condition Affecting the Network.

W110-200-032 Procedure for the Issue and Control of Annett's Keys.

9. Effective Date

4 May 2016