Network Safeworking Rules and Procedures

Track Occupancy Authority

Rule Number: 3005

Brookfield Rail

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Table of Contents

Glossary for this Rule

Adjacent	Near to, close to, parallel to.
Advertise	To give written or electronic notice, usually in advance, of planned activities.
Aspect	The displayed pattern or position of lights used to give a signal indication.
Associated Rail Traffic	Rail traffic that performs track maintenance or construction tasks for the work.
At Grade Rail Crossing	A point where two or more railway lines cross over at the same elevation, commonly known as a "Diamond Crossing".
Authority	Formal name for a written Authority (e.g. Local Possession Authority, Alternative Proceed Authority).
Blocking Facilities	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.
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.
Centralised Traffic Control (CTC) Territory	The portions of line where the Centralised Traffic Control system of Safeworking is used.
Certified	To classify infrastructure or rolling stock as fit for purpose.
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.
Controlled Absolute Signal	A signal that is controlled or operated by a Network Controller. The signal must not be passed at STOP without authority.
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.
Delegate	A Competent Worker authorised and designated to act in place of another.
Departure Signal	A Controlled Absolute signal controlling the entrance to a Single line section in CTC territory.

Exclusive Occupancy	Sole occupancy of track within defined limits.
Fixed Signals	A signal that is located permanently near the line.
Fulfil	To advise the Network Controller that the instructions on, and associated activities for, an Occupancy Authority have been completed and can be terminated.
Half Pilot Keys	A metal key located at the end of a single line CTC section and interlocked with the Departure signals' circuits. Two half pilot keys can be joined to provide a full pilot key for Pilot Key Working through the section.
Handsignaller	A Competent Worker who gives handsignals to rail traffic crew
In-Effect	Activate, become current, in force.
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.
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.
Network Controllers	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.
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.
Protecting Signals	A Controlled Absolute Signal that is held and maintained at Stop to prevent rail traffic entry into a worksite.
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's (RTS)	A device attached to a rail that explodes on impact, used to attract attention of rail traffic crews.
Restrained	To prevent movement of rail traffic with signals, signalling equipment, blocking facilities, or the issue of a written warning.
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.
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.
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.
Siding	A portion of track where vehicles can be placed clear of the running lines. Also see intermediate siding.
Single Line Automatic Signalling	The portions of line where the Single Line Automatic Signalling system of Safeworking is used.
Special Train Notice(STN)	A notice issued by Brookfield Rail which contains safeworking information for competent workers.
Stabled	To leave rail traffic unattended and secured, usually in a 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.

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.
Track Occupancy Authorities (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.
Train	A locomotive or self-propelled vehicle, alone or coupled to one or more vehicles. Rail Traffic.
Train Order	An authority issued by the Network Controller for the movement of rail traffic.
Travel	Planned or purposeful movement from one location to another.
Unauthorised	Not given approval, or exceeding the limit of authority.
Uni-Directional	Allowing for normal travel in one direction only according to the infrastructure and system of Safeworking in use.
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 Rule details the protocols for *Issuing* and using *Track Occupancy Authorities (TOA).* These *Authorities* are used to close a defined portion of *Track* for a specified period.

2 General

Only *Network Controllers* may authorise a *TOA* for *Track* under their control.

A *TOA* is *Issued* to the *Protection Officer* and gives *Exclusive Occupancy* unless issued in accordance with Section 3.1 of this rule.

The *Protection Officer* applying this Rule must have a minimum of *Protection Officer* Level 2 (PO2) *Competency* in accordance with Rule 1004 Track Access Accreditation.

A single work group, including that group's equipment, and *Associated Rail Traffic*, may occupy the portion of *Track* defined by the *TOA*.

The *Track* may be broken or *Obstructed*.

3 Authorisation

Before authorising the *TOA*, the *Network Controller* must make sure that:

- another *Work on Track Authority* is not in use within the proposed limits;
- approaching *Rail Traffic* can be *Restrained* at the ends of the *Section* that includes the proposed limits;
- *Stabled Rail Traffic* not associated with the *TOA*, but is within the limits of the *TOA*, must not be authorised to move;
- *Rail Traffic* associated with the *TOA* within the limits has been identified and is being managed as agreed by the *Protection Officer* and the *Network Controller*;
- the *Protection Officer* knows about any existing obstructions; and
- *Blocking Facilities* have been applied in accordance with Rule 6003 Blocking Facilities to prevent *Unauthorised Rail Traffic* entry into the proposed limits.

The *Network Controller* must confirm with the *Protection Officer* the:

- Name, Track Access Permit number and contact details of the *Protection Officer*;
- type of work;
- intended start and finish times; and
- *Location* using two or more of the following identifiers:
  - a kilometre sign and *Section*;
  - *Station* name;
  - a *Points* number;
  - a signal number;
  - an observance of *Points* or signal *Aspect* change;
  - permanent structures, such as a bridge, roadway or overpass used only in conjunction with one of the above identifiers; or
  - another identifier.

3.1 Authorising a TOA where rail traffic is holding a Unidirectional Authority.

A TOA may be authorised when *Rail Traffic* holding a *Uni-Directional Authority* has *Cleared* the limits of the proposed worksite by confirming:

- with the *Protection Officer*, the *Rail Traffic* identification number of the lead vehicle of a *Train* or the last vehicle of a *Track Vehicle* movement;
- with the *Rail Traffic Crew*, the *Location* of their *Rail Traffic*; or
- that the *Section* is *Clear*.

4 Protection Officer

4.1 Protection Officer

There must be a *Protection Officer* present at the worksite until the TOA is *Fulfilled* unless otherwise approved by the *Manger Network Operations*.

A *Protection Officer* must:

- make sure that work in the *Danger Zone* does not begin before the required safety measures are in place;
- be responsible for the *Protection* of workers from *Rail Traffic*;
- make sure the *Tracks* between the worksite and protecting *Locations* remain *Clear* of obstructions;
- make sure that the worksite is *Protected* against the *Unauthorised* entry or exit of *Rail Traffic*; and
- tell workers about the *Locations* of *Safe Places*.

4.2 Change of Protection Officer

An outgoing *Protection Officer* must tell an incoming *Protection Officer* about the worksite *Protection* arrangements.

The incoming *Protection Officer* must:

- tell affected *Network Controllers* about the changed contact arrangements;
- confirm with the *Network Controller* the *TOA Authority* number; and
- make a *Permanent Record* of the handover of the *TOA*.

5 Obtaining a TOA

The *Network Controller* and the *Protection Officer* must confirm and record on the *TOA form*:

- the number of the *Special Train Notice (STN) Advertising* the *TOA*;
- the *TOA* limits;
- the unique identifying number;
- that *Blocking Facilities* have been applied to prevent entry of *Rail Traffic* into the portion of *Track* within the proposed limits;
- in *Single Line Automatic Signalling Territory*, that the *Half Pilot Keys* have been removed from both ends of the affected *Section*;
- the *Points* to be clipped, in accordance with Procedure 9000 Clipping Points, if required;
- the anticipated duration of the *TOA*;
- the *Protection Officer's name* and contact details;
- the name of the *Issuing Network Controller*;
- the time of *Issue*; and
- the date of *Issue*.

The *Protection Officer* must repeat the details of the *TOA* back to the *Network Controller*.

When the *TOA* is *Issued* the *Protection Officer* must ensure the required *Protection* is in place before work commences.

The *Network Controller* must make sure that other affected *Network Controllers* are aware of the *Protection*.

6 Protection

WARNING: Work must not start in the *Danger Zone* until the required *Protection* is in place.

The *Network Controller* must apply *Blocking Facilities*, where available, to prevent *Unauthorised Rail Traffic* from entering the *TOA*. Where required, the *Protection Officer* must place *In-Field Protection* at all points of entry to the *TOA*.

6.1 In-Field Protection

In-Field Protection can be one of the following:

- *Railway Track Signal's (RTS)* and *Handsignaller*;
- *RTS* and a STOP sign;
- *Track Closed Warning Device*; or
- *Points* clipped to prevent *Rail Traffic* entry.

NOTE: *RTS* must be used in accordance with Procedure 9004 Using Railway Track Signals.

6.2 Terminal Lines

In-Field Protection is not required between the worksites and the end of a Terminal Line if the *Network Controller* tells the *Protection Officer* that there are no planned *Rail Traffic* movements from that direction.

Where there is *Stabled Rail Traffic* not associated with the *TOA*, within the limits of the *TOA*, the *Protection Officer* must place *In-Field Protection* to prevent entry in to the *TOA*.

6.3 Centralised Traffic Control (CTC) Territory

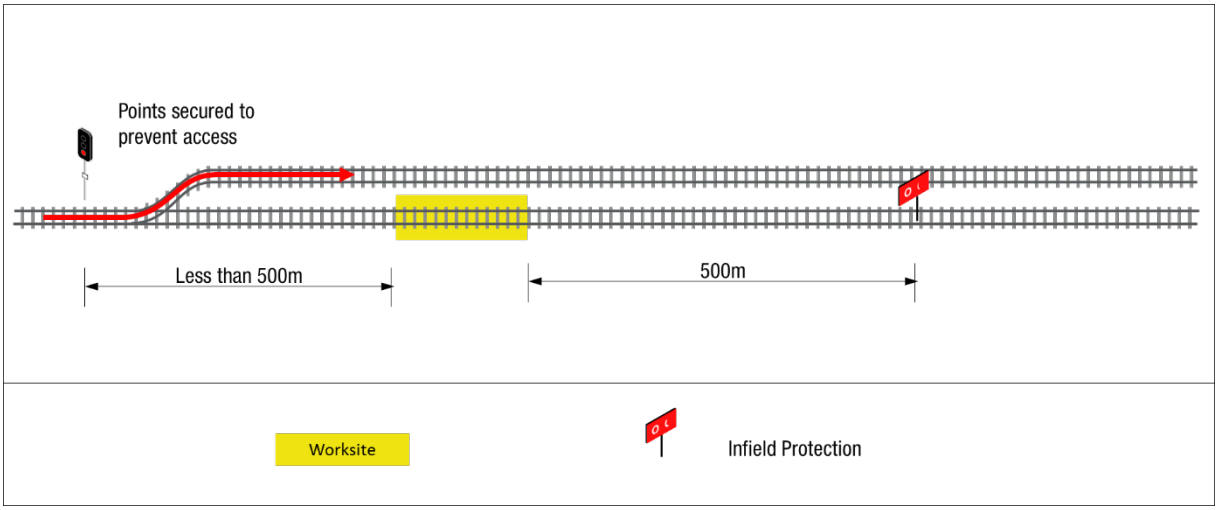
Protecting Signals must be placed to STOP with *Blocking Facilities* applied and *In-Field Protection* placed:

- at that *Protecting Signal*; or
- at least 500 metres from the worksite in such a position that any *Rail Traffic* entering the *TOA* limits must pass over that *In-Field Protection*.

Where a *Departure Signal* is the *Protecting Signal* the *Protection Officer* must also take possession of the *Half Pilot Key*.

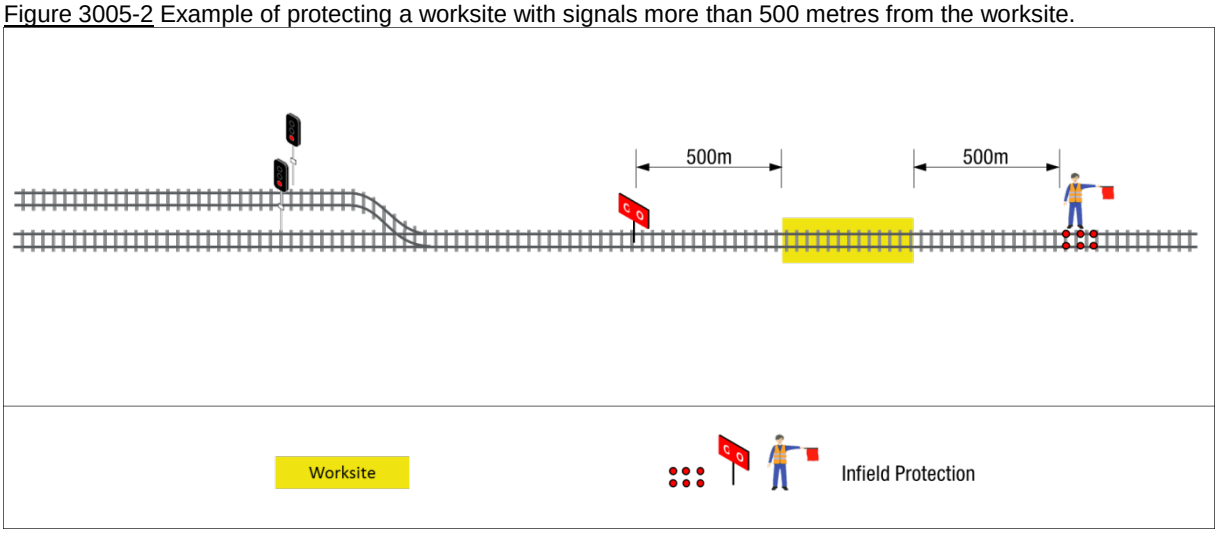
If a *Controlled Absolute Signal* less than 500 metres from the worksite is used to prevent access to the portion of *Track* within the *TOA* limits, and a set of *Points* is available for a different *Route*, then set and *Secure* the *Points* for the different *Route*.

Figure 3005-1 Example of a protecting signal less than 500 metres from the worksite and points secured for a different route.



If *Points* cannot be *Secured* for a different *Route*, a *Controlled Absolute Signal* at least 500 metres from the worksite must be used.

Figure 3005-2 Example of protecting a worksite with signals more than 500 metres from the worksite.



6.4 Train Order Territory

Where available, *Blocking Facilities* must be applied to the *Train Order* System and *In-Field Protection* placed at the entry to the *TOA* limits.

Figure 3005-3 Example of protection arrangements for an individual worksite on a single line

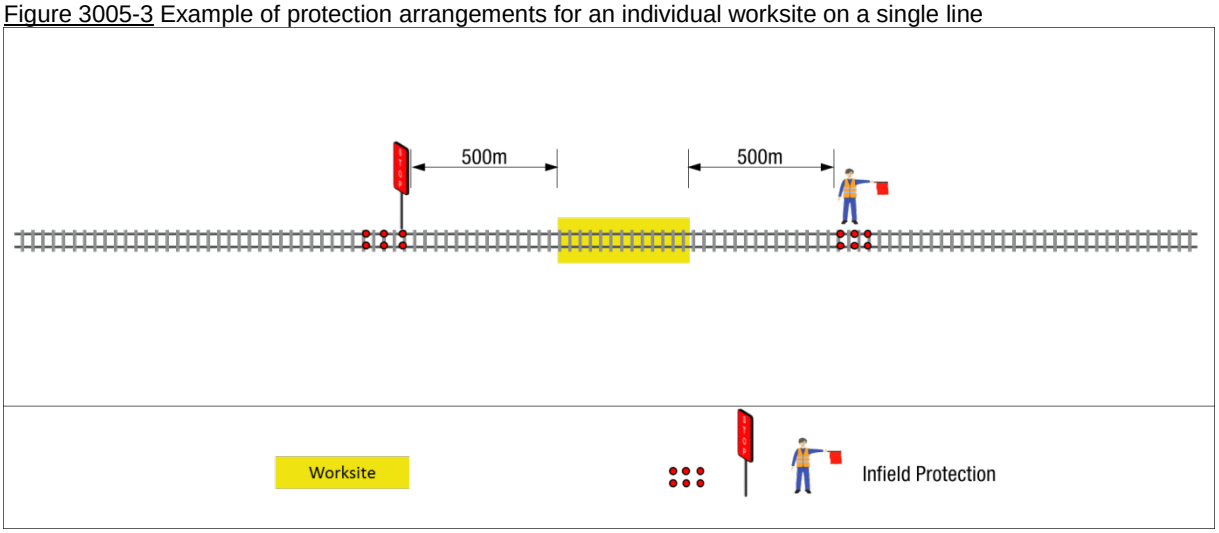
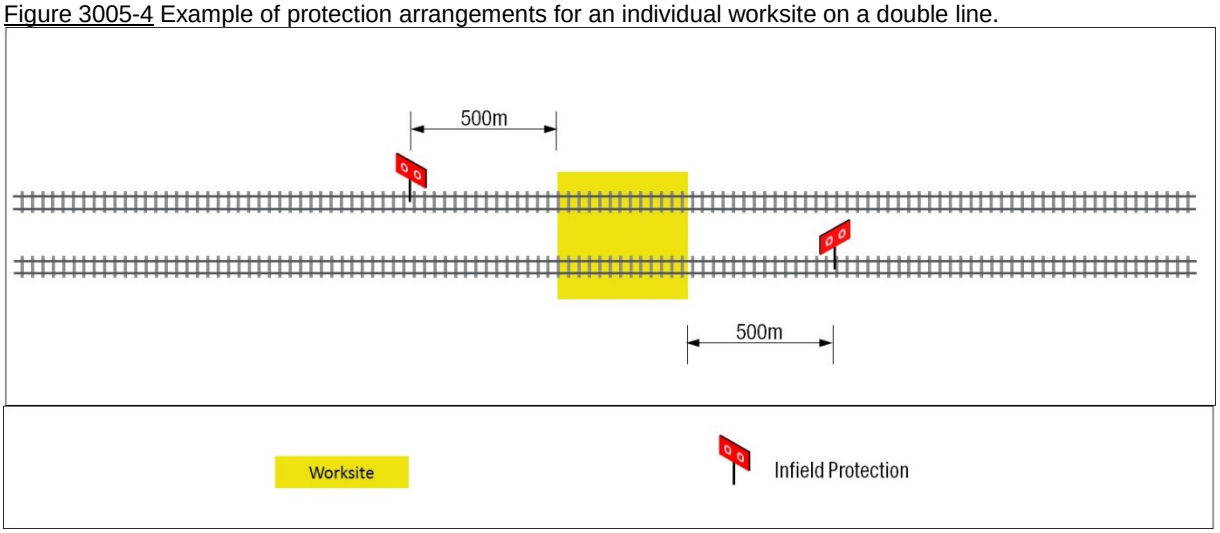


Figure 3005-4 Example of protection arrangements for an individual worksite on a double line.



6.5 Adjacent Line

If the *Safety Assessment* indicates that workers need to be protected from *Rail Traffic* on *Adjacent* lines, the *Protection Officer* must arrange for *Adjacent* lines to be *Protected* in accordance with Procedure 9010 Protecting Work from Rail Traffic on Adjacent Lines.

The *Protection Officer* may arrange for the speed of *Rail Traffic* on *Adjacent* lines to be restricted.

7 Rail Traffic

Only *Rail Traffic* associated with the *TOA* may enter the limits of the *TOA unless the TOA has been suspended in accordance with section 8 of this rule*.

Other *Rail Traffic* may cross the *TOA* to enter or exit a *Running Line*, *Siding* or *At Grade Rail Crossing*, but only with the *Protection Officer's* agreement.

Before entering the *TOA*, *Rail Traffic Crews* must verify with the *Protection Officer* that the *TOA* is *In-Effect*.

7.1 Rail Traffic Entering or Travelling Within the TOA Limits

The *Protection Officer* must manage all *Rail Traffic* movement within the *TOA*.

Where a *Pilot* is used, the *Protection Officer* or a *Delegate* must act as the *Pilot*.

The *Protection Officer* must make sure that *Rail Traffic* associated with the *TOA* does not exceed the limits of the *TOA*.

If Temporary Speed Restriction signs have not been erected, *Rail Traffic*, entering and *Travelling* within the *TOA* limits must:

- be *Piloted*; or
- Receive written or verbal instructions from the *Protection Officer*.

7.2 Fixed Signals

Fixed Signals within the limits of the *TOA* must, where possible, be placed to PROCEED for *Rail Traffic* movements.

Where *Fixed Signals* cannot be placed to PROCEED for *Rail Traffic* movement, they must be passed in accordance with Rule 6013 Passing Fixed Signals at Stop.

NOTE: Inside a TOA, the *Protection Officer* must *approve* all *Rail Traffic* movements passed *Fixed Signals* and would request the *Network Controller* to place *Fixed Signals* at PROCEED, the *Network Controller* can only place *Fixed Signals* at PROCEED on the request of the *Protection Officer*..

7.3 Rail Traffic Departing the TOA

Rail Traffic may depart the limits of the *TOA* only on the authority of the *Network Controller*.

8 Communications with Network Control

The *Protection Officer* must be the only point of contact between *Network* Control and work groups for matters of worksite *Protection*.

The *Protection Officer* must tell affected *Network Controllers* about:

- the *Protection* arrangements;
- *Protection* arrangements on *Adjacent* lines; and
- work progress at agreed times.

The Protection Officer must, if necessary, seek an extension of time.

When the agreed time limit has been exceeded by 15 minutes and the Protection Officer has not requested an extension of time the *Network* Controller must act in accordance with Rule 4017 Overdue Occupancies.

9 Suspending a TOA

A *TOA* is suspended when the *Protection Officer* tells the *Network Controller* that:

- work sites is clear of workers, tools and equipment, including any *Associated Rail Traffic*;
- *In-Field Protection* has been removed;
- *Half Pilot Keys* have been replaced, if necessary;
- the portion of track included in the *TOA* has been confirmed as fit for the *Rail Traffic* passage; and
- *Blocking Facilities* can be removed.

The Protection Officer must tell the Network Controller and the Rail Traffic Crew about operating restrictions that have been placed or removed in accordance with section 7.1 of this rule.

10 Reinstating a TOA

The *TOA* can be reinstated after the rear of the *Rail Traffic* has cleared the section or the worksite and the *Rail Traffic* is not returning.

The *Protection Officer* must:

- confirm with the *Network Controller* the *TOA* number*;*
- ask the *Network Control* to re-instate the *TOA* and apply new *Blocking Facilities;* and
- ensure all *Protection* has been replaced before allowing workers to re-enter the *Danger Zone.*

11 Fulfilling the TOA

Before *Fulfilling* the *Authority* the *Protection Officer* must make sure and tell the *Network Controller* that:

- *Associated Rail Traffic* and all equipment has *Cleared* the *Track*;
- all work groups have *Cleared* the worksites;
- *In-Field Protection* has been removed;
- if necessary, signals have been restored to normal use; and
- the portion of *Track* included in the *Authority* is *Certified* as available for use.

The *Protection Officer* and the *Network Controller* must *Fulfil* the *Authority*.

The *Network Controller* must confirm with the *Protection Officer* that:

- *Blocking Facilities* can be removed; and
- in *Single Line Automatic Signalling Territory*, the *Half Pilot Keys* have been replaced.

NOTE: The *Network Controller* must test the *Departure Signals* after *Half Pilot Keys* have been replaced before the *Protection Officer* leaves the site.

Testing of signals must be carried out in accordance with Rule 6005 Fixed Signals.

The *Protection Officer* must tell the *Network Controller* about operating restrictions that have been placed or removed.

12 Keeping Records

Network Controllers and the *Protection Officer* must keep *Permanent Records* about the details, including *Protection* arrangements and changes to the worksite *Protection* arrangements.

13 References

1004 Track Access Accreditation

4017 Overdue Occupancies

6003 Blocking Facilities

6005 Fixed Signals

6013 Passing Fixed Signals at Stop

9000 Clipping Points

9004 Using Railway Track Signals

9010 Protecting Work from Rail Traffic on Adjacent Lines

14 Effective Date

1 April 2017