

Network Safeworking Rules and Procedures

Absolute Signal Blocking

Rule Number: 3011



Brookfield
Rail

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Adam Sidebottom
Rail Safety Manager
Brookfield Rail
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Glossary for this Rule

<i>Absolute Signal Blocking (ASB)</i>	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.
<i>Access</i>	A designated safe way into, along, across or out of the Rail Corridor.
<i>Adjacent</i>	Near to, close to, parallel to.
<i>Aspect</i>	The displayed pattern or position of lights used to give a signal indication.
<i>Authority</i>	Formal name for a written Authority (e.g. Local Possession Authority, Alternative Proceed Authority).
<i>Blocking Facilities</i>	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.
<i>Centralised Traffic Control (CTC) Territory</i>	The portions of line where the Centralised Traffic Control system of Safeworking is used.
<i>Centralised Traffic Control (CTC)</i>	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.
<i>Clear</i>	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.
<i>Competent</i>	Having the ability, skill and certification to carry out a relevant task.
<i>Complete</i>	Rail traffic where the consist has not parted.
<i>Controlled Absolute Signals</i>	A signal that is controlled or operated by a Network Controller. The signal must not be passed at STOP without authority.
<i>Danger Zone</i>	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.
<i>Level Crossing</i>	A location where the railway line and a road or pedestrian walkway cross paths on the same level (at grade).

<i>Local Possession Authority (LPA)</i>	An authority that closes a defined portion of track from non-associated rail traffic for a specified period.
<i>Location</i>	A place in the Network with a designated name, identification number, or signalling reference.
<i>Lookout</i>	A Competent Worker responsible for <ul style="list-style-type: none"> • keeping watch for approaching rail traffic; and • warning other workers to stand clear of the line before the rail traffic arrives.
<i>Network</i>	A combination of track and other associated infrastructure controlled by Brookfield Rail.
<i>Network Controller</i>	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.
<i>Permanent Record</i>	A record made in writing or in an electronic system, and kept for reference and audit.
<i>Points</i>	A track component consisting of paired pieces of tapered rail (blades) that can be moved and set to allow tracks to diverge or converge.
<i>Possession Protection Officer</i>	The Competent Worker responsible for coordinating protection of worksites under a Local Possession Authority.
<i>Protecting Signal</i>	A fixed signal that is held and maintained at Stop to prevent rail traffic entry into a worksite. A signal that protects a train from conflicting movements and/or obstructions.
<i>Protection</i>	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.
<i>Protection Officer</i>	The Competent Worker responsible for managing the rail safety component of worksite protection (i.e. compliance with Network Safeworking Rules and procedures).
<i>Rail Traffic</i>	Trains and track vehicle or vehicles travelling on the Network.
<i>Rail Traffic Crew</i>	Competent Workers responsible for the operation of the Motive Power Unit.

<i>Safe Place</i>	<p>A Safe Place is:</p> <ul style="list-style-type: none"> • 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.
<i>Safety Assessment</i>	An assessment process used to identify hazards for all work planned for the Rail Corridor and its potential to intrude on the Danger Zone.
<i>Section</i>	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.
<i>Secure</i>	To safeguard against accidental or unauthorised access or movement.
<i>Station</i>	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.
<i>Track</i>	The combination of rails, rail connectors, sleepers, ballast, points and crossings.
<i>Track-Circuit Shorting Device</i>	A cable that can be clamped to a line's rails to activate track-circuits.
<i>Track Vehicle</i>	A vehicle, usually self-propelled, used for inspecting and/or maintaining infrastructure.
<i>Unauthorised</i>	Not given approval, or exceeding the limit of authority.
<i>Train</i>	A locomotive or self-propelled vehicle, alone or coupled to one or more vehicles. Rail Traffic.
<i>Uni-Directional</i>	Allowing for normal travel in one direction only according to the infrastructure and system of Safeworking in use.
<i>Work on Track</i>	The work performed in the Danger Zone.
<i>Work on Track Authority</i>	An authority to perform work on track. See Local Possession Authority (LPA); Track Occupancy Authority (TOA) and Track Work Authority (TWA),

1. Purpose

The function of this Rule is to outline the protocols for authorising and using *Absolute Signal Blocking (ASB)* in *Centralised Traffic Control (CTC) Territory*.

2. General

This is a method of working in the *Danger Zone* by maintaining *Controlled Absolute Signals* at STOP to exclude *Rail Traffic* from a portion of *Track*.

The *ASB* method must not be used for work that breaks the *Track* or alters *Track* geometry or structure.

Only *Network Controllers* may approve *ASB* for *Track* under their control.

The *Protection Officer* applying this Rule must have a minimum *Protection Officer Level 1 (PO1) Competency* in accordance with Rule 1004 Track Access Accreditation.



WARNING: If the *Safety Assessment* shows that a *Work on Track Authority* is necessary, work must not be done using the *ASB* method.

If a *Safety Assessment* shows that it is safe, some kinds of work may be done in the *Danger Zone* without a *Work on Track Authority*. *ASB* is one of those methods of working.

ASB may be used only:

- to allow livestock to cross the *Track*;
- for work not requiring tools;
- for work using tools which can be easily and immediately removed from the *Track* by **one worker** without mechanical assistance;
- work involving light tools powered by a cord or hose (i.e compressed air, gas or electricity);
- for minor signalling maintenance activities;
- at *Level Crossings*, to allow vehicles to cross the *Track*; or
- to allow vehicles to directly cross the *Track*.

If *ASB* is used, one worker may work alone. In this case, that worker is also the *Protection Officer*.

The *ASB* method of *Protection* must be applied to *Controlled Absolute Signals* only.

3. Authorisation

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

- a *Track Occupancy Authority* is not in use within the proposed limits;
- any *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*.
- stabled *Rail Traffic* that is within the limits of the *ASB*, must not be authorised to move;
- the *Protection Officer* knows about any existing obstructions;
- the *Protecting* signals have been identified; and
- *Blocking Facilities* have been applied in accordance with Rule 6003 Blocking Facilities to prevent *Unauthorised Rail Traffic* entry into the proposed limits.



WARNING: The *Network Controller* must not permit *ASB* if there is any doubt about the *Location* of the proposed worksite.

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;
 - by the use of a Track Circuit Shorting device
 - 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 Joint Occupancy

An ASB cannot be authorised for a portion of track where a Track Occupancy Authority (TOA) is current.

The *Network Controller* may authorise an ASB for a portion of Track where another *ASB* or *TWA* is current.

The *Network Controller* may Issue the ASB only if the *Protection Officers* have consulted and agree that an ASB may be issued.



NOTE: Where a Local Possession Authority is in place, only the *Possession Protection Officer* for that LPA can approve the work.

4. Protection Officer

A *Protection Officer* is required for the period of the work, except if the *ASB* is used to allow livestock or vehicles to directly cross the *Track*; in these circumstances the *Network Controller* may apply *ASB*.

If authorised by the *Network Controller*, the *Protection officer* must remove and safeguard the *Points* control mechanism or place the *Points* in manual mode.

A *Protection Officer* must:

- make sure that work in the *Danger Zone* does not begin before the required safety measures are in place;
- before work begins, tell workers about the:
 - types and limits of *Protection* in place;
 - *Locations of Safe Places*;
- be responsible for the *Protection* of workers from *Rail Traffic*;
- make sure the *Tracks* between worksites and *Protecting Locations* remain *Clear* of obstructions;
- make sure that worksites are *Protected* against the *Unauthorised* entry of *Rail Traffic*; and
- confirm with the *Network Controller* that *Blocking Facilities* have been applied to prevent the *Unauthorised* entry of *Rail Traffic*.



NOTE: A *Protection Officer* must be satisfied that other work will not interfere with *Protection* duties

4.1 Request for ASB from a Person other than a Protection Officer

The *Network Controller* may apply *ASB* to allow livestock or vehicles to directly cross the *Track*.

The *Network Controller* must:

- confirm the *Location* and the work to be done;
- make sure the line is *Clear* between the *Protecting Signals* and the proposed worksite and any *Rail Traffic* that has passed the worksite will not return;
- set the *Protecting Signals* at STOP and apply *Blocking Facilities*;
- advise the person of the arrangements and authorise the work; and
- when told that the area is *Clear*, remove *Blocking Facilities*.

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; and
- make a *Permanent Record* of the handover.

5. Obtaining Approval for ASB

The *Network Controller* and the *Protection Officer* must confirm and record on the Blocking Request for *Work on Track* form:

- the *Location* of the work;
- a unique identifying number;
- that *Blocking Facilities* have been applied, or where approved by the *Network Controller*, the *Points* control mechanism has been removed, placing the *Points* into manual mode to prevent entry of *Rail Traffic* into the portion of *Track* within the proposed limits;
- the blocking *Authority* number from the Train Control System;
- the *Points* to be clipped, in accordance with Procedure 9000 Clipping Points, or placed in manual mode, if required;
- the duration of the work;
- the *Protection Officer's* name and contact details;
- the approving *Network Controller's* name;
- the time of approval; and
- the date of approval.



NOTE: After receiving the Blocking Request form from the *Network Controller* the *Protection Officer* must repeat the details back as per Procedure 9016 Written Authorities and Forms.

When the ASB is approved the *Protection Officer* must ensure the required *Protection* is in place before work commences.

6. Protection



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

The *Protection Officer* must arrange for:

- *Controlled Absolute Signals* to be set at STOP with *Blocking Facilities* applied; or
- *Points* control mechanism to be removed or *Points* to be placed in manual mode to set *Controlled Absolute Signals* at STOP.

6.1 Protecting Signal

Where the proposed worksite is within 500 metres of the *Protecting Signal* then:

- two consecutive *Controlled Absolute Signals* must be set at STOP with *Blocking Facilities* applied; or
- one *Controlled Absolute Signal* must be set at STOP with *Blocking Facilities* applied, with:
 - *Points Secured* to prevent Access; or
 - an easily reached *Safe Place* available and a *Lookout* provided.

If *Rail Traffic* can approach from more than one direction, the *Protection Officer* must protect all points of entry into the *ASB* limits.

6.2 Network Controller

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

- the protecting *Controlled Absolute Signals* have been set at STOP with *Blocking Facilities* applied;
- the line is *Clear* between the *Protecting Signals* and the proposed worksite; and
- any *Rail Traffic* that has passed *Complete* beyond the worksite will not return.

Network Controllers must not authorise movements into portions of line where *ASB* is in use.

6.3 Temporary Removal of Blocking Facilities

Blocking Facilities may be temporarily removed in accordance with Rule 6003 Blocking Facilities.

6.4 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. 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.

If the work is to exceed the agreed time, 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.

8. Ending ASB

Before ending the *ASB* the *Protection Officer* must make sure and tell the *Network Controller* that:

- all workers and equipment have *Cleared the Danger Zone*;
- *Points* operation has been restored; and
- *Blocking Facilities* can be removed and signals restored to normal use.

The *Network Controller* must make sure that the *Points* and signals are working correctly after the *Points* have been restored to normal operation.

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

9. Keeping Records

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

10. References

1004 Track Access Accreditation

4017 Overdue Occupancies

6003 Blocking Facilities

9000 Clipping Points

9010 Protecting Work from Rail Traffic on Adjacent Lines

9016 Written Authorities and Forms

11. Effective Date

01 October 2016