

work on track

# Absolute Signal Blocking

## Purpose

To prescribe the rules for working in the Danger Zone using Absolute Signal Blocking (ASB) where the Advanced Train Running Information Control System (ATRICS) is in use.



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### NOTE

Where ATRICS is not used, and the safety assessment shows that ASB is the minimum protection required, then work must be carried out using a work on track authority.

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## General

ASB excludes rail traffic from a defined portion of track for a specified period.

The Protection Officer must correctly define the nominated worksite location.

The Signaller must identify all protecting signals and points to exclude rail traffic from the nominated worksite location.



### WARNING

If the safety assessment shows that a work on track authority is necessary, work must be carried out using:

- *NWT 302 Local Possession Authority, or*
- *NWT 304 Track Occupancy Authority, or*
- *NWT 306 Track Work Authority.*

## Absolute Signal Blocking

ASB may be used if a Protection Officer has assessed that the work to be performed will not:

- involve multiple worksites
- require a work on track authority
- break the track
- alter track geometry or structure.

ASB can be used by a single worker, in which case, the worker is also the Protection Officer.

ASB may be used to exclude rail traffic for work:

- not requiring tools, or
- using tools which can be easily and immediately removed from the track by one person and are:
  - light, non-powered hand tools
  - light, battery powered tools or devices
  - light, powered hand tools.

ASB may be used at Network access level crossings, to allow vehicles to cross the track.



**NOTE**

Network access level crossings are defined in *NGE 216 Level crossings*.

## Absolute Signal Blocking

### Authorisation

Signallers may authorise ASB where rail traffic can be excluded from a portion of track.

ASB must only be authorised where all protecting assets are able to be blocked using ATRICS.

ASB must not be authorised if the proposed worksite location is within the limits of:

- a Local Possession Authority, or
- a Track Occupancy Authority, or
- the protection arrangements for a Track Work Authority.

If the proposed ASB requires more than one Signaller to exclude rail traffic from a portion of track, the affected Signallers must:

- confer to make sure that all points of entry are protected
- nominate an authorising Signaller.

The authorising Signaller must use a system-generated electronic ASB form, or if that is unavailable, an *NRF 018 Absolute Signal Blocking (ASB)* form, to record the ASB details, and issue the protection number to the Protection Officer.

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## Absolute Signal Blocking

### Protection Officer

At all times there must be a nominated Protection Officer for ASB.

The Protection Officer must:

- be the only person to tell workers about:
  - the locations of safe places
  - the safety measures in place
  - the extent of the area protected.
- be the only person to speak to the Signaller about safety arrangements
- make sure that the protection is in place before work starts.

When requesting ASB, the Protection Officer must:

- identify the line name and define the nominated worksite location as being:
  - from one signal to another signal, or
  - from a signal to the end of a terminal line.
- tell the Signaller the planned type of ASB protection.

If the nominated worksite location is on more than one line, the Protection Officer must define the nominated worksite location separately for each line.

Signals used to define the nominated worksite location must be associated with the specific lines and identified by their numbers.

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## Absolute Signal Blocking

### ASB Protection

Unless otherwise specified in this Rule, rail traffic must be excluded from the nominated worksite location by:

- at least two consecutive controlled absolute signals kept at **STOP** with blocking facilities applied, or
- at least one controlled absolute signal kept at **STOP** with blocking facilities applied, and:
  - removing an ESML/EOL key, or
  - securing points to prevent access, or
  - there being an easily-reached safe place available and providing a Lookout.



#### **NOTE**

Unless ASB is suspended or has been ended, rail traffic must not be authorised to enter the ASB worksite location.

If using Lookouts as part of ASB protection, the Protection Officer must make sure that minimum warning time requirements are satisfied.

Before allowing work to start, the Signaller must make sure and confirm with the Protection Officer that:

- all points of entry into the nominated worksite location are protected
- there is no approaching rail traffic between the protection and the nominated worksite location.

Signallers must not authorise unsignalled movements into the nominated worksite location.

## Absolute Signal Blocking

### Intermediate sidings

If an intermediate siding is occupied by rail traffic and movements from the siding could enter the nominated worksite location, the points for the siding must be secured by:

- the Protection Officer clipping and locking points, or
- the Signaller applying blocking facilities to points release controls.

If an intermediate siding is unoccupied:

- rail traffic must not be authorised to occupy the siding while ASB is in place
- protection against movements from the siding is not required.

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### Alternative routes

If the nominated worksite location is protected by two consecutive controlled absolute signals, rail traffic may be authorised to pass the first protecting signal reached by approaching rail traffic only after:

- the Protection Officer has been told about the movement and has confirmed the alternative route
- a set of points has been set and secured to prevent rail traffic from entering the nominated worksite location.

Controlled absolute signals immediately protecting the nominated worksite location must remain at **STOP**.

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## Absolute Signal Blocking

### Adjacent lines

Protecting signals on adjacent lines may be cleared only for movements that do not allow rail traffic to enter the nominated worksite location.

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### Temporarily suspending ASB

ASB may be temporarily suspended to allow rail traffic movements over the nominated worksite location.

Before temporarily suspending ASB, the Signaller must make sure that:

- the Protection Officer's name, the nominated worksite location and the protection number provided correspond with details of the ASB to be suspended
- the workers and their equipment are clear of the Danger Zone.

The Protection Officer may ask to re-establish ASB, if agreed to by the Signaller and there is no change of:

- the protection arrangements
- the nominated worksite location.

The Signaller must tell the Protection Officer if a new protection number is used.

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## Absolute Signal Blocking

### Ending ASB

To end ASB, the Protection Officer must tell the Signaller:

- their name, the worksite location and the protection number
- that workers and their equipment are clear of the Danger Zone
- that ESML/EOL keys that were removed have been restored
- that points that were secured are available for use.

The Signaller may end the ASB after making sure that:

- the Protection Officer's name, the nominated worksite location and the protection number correspond with the ASB details
- the track is clear.



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#### **NOTE**

If the protection number is not available to end ASB, the Protection Officer must provide:

- their name
  - the nominated worksite location
  - their contact phone number.
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### Keeping records

Signallers and the Protection Officer must record, in permanent form, the ASB details.

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# Absolute Signal Blocking

## Network Procedures

*NPR 703 Using Absolute Signal Blocking*

*NPR 711 Using Lookouts*

*NPR 712 Protecting work from rail traffic on adjacent lines*

*NPR 751 Calculating Minimum Warning Time*

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## Effective date

22 October 2021

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