

**systems of safeworking****NSY 500 Rail Vehicle Detection System****Purpose**

To prescribe the rules for using the system of Safeworking used in axle counter territory and continuously track-circuited territory in the Network.

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**System principle**

The Rail Vehicle Detection system uses continuous track-circuiting or axle counters to:

- detect the presence of rail traffic in a block
- prevent following rail traffic entries into occupied blocks.

The Rail Vehicle Detection system is used on:

- single lines, for bidirectional movements
- double lines, for bidirectional or unidirectional movements.

Entry to and exit from sections is authorised by controlled signals.

Controlled signals are operated by:

- signalling equipment controlled by Signallers
- axle counters or track-circuits.

Automatic signals are operated by continuous track-circuiting.

If the Rail Vehicle Detection system of Safeworking fails, a method of special working may be introduced.

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**System description**

Interlocking of axle counters, track-circuits, points and protecting signals prevents a running signal from displaying a proceed indication unless:

- the block beyond the signal is not occupied
  - there are no conflicting routes set
  - the points are correctly set.
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# NSY 500 Rail Vehicle Detection System

## Proceed Authority

Authority to enter and proceed through a block is given by clearance of the signal that controls entry.

Drivers and Track Vehicle Operators must:

- obey signals
- pass signals at STOP only in accordance with *NSG 608 Passing signals at STOP*.

Signallers must report rail traffic details to adjacent Signallers, as necessary.

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## Issuing a Proceed Authority

Clearing of the relevant signal gives a Proceed Authority.

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## Switching in and out

Qualified Workers must switch a signal box or a local control panel in or out only with:

- the authority of the Network Controller
- the agreement of the Signallers responsible for controlled signals that will be affected
- the agreement of the Protection Officer, if a work on track authority or work on track method has been issued for the affected portion of track.

A signal box or a local control panel must not be switched in while rail traffic is closely approaching the location.

A signal box or a local control panel must not be switched in or out for management of rail traffic, if rail traffic is travelling under manual block working conditions on the affected portion of track.

A signal box or a local control panel must not be switched out if the associated signals are being used to prevent rail traffic entry into a worksite.

If a signal box or a local control panel is switched out, the closing keys must be secured.

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## Related Documents

- NPR 721 Spoken and written communication*
- NPR 737 Switching a signal box or local control panel in and out*
- NPR 738 Operating powered interlocking machines*
- NPR 739 Operating mechanical interlocking machines*
- NPR 742 Manually operating cranked electric points*
- NPR 743 Manually operating hand throw electric points*
- NPR 744 Manually operating electro pneumatic points*
- NPR 746 Authorising rail traffic to pass an absolute signal at STOP*