

ANSY 500

Rail Vehicle Detection System

Applicability

NSW

SMS

Publication Requirement

External Only

Document Status

Issue/Revision #	Effective from
2.0	11 October 2015

Purpose

To prescribe the rules for using the *system of Safeworking* used in *axle counter territory* and continuously *track-circuited territory* in the *Australian Rail Track Corporation (ARTC) NSW Network*.

System Principle

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

- detect the presence of *rail traffic* in a *block*, and
- 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*, and
- 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.

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, and
- there are no conflicting *routes* set, and
- the points are correctly set.

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, and
- pass signals at STOP only in accordance with Rule *ANSG 608 Passing signals at STOP*.

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

Signallers must record, in *permanent form*, details about:

- rail traffic movements, and
- *work on track authorities*.

Issuing a Proceed Authority

Clearing of the relevant signal gives a *Proceed Authority*.

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

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 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 line.

A signal box or 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*.

Related ARTC Network Procedures

ANPR 721	Spoken and written communication
ANPR 737	Switching a signal box or local control panel in and out
ANPR 738	Operating powered interlocking machines
ANPR 739	Operating mechanical interlocking machines
ANPR 741	Manually operating electrohydraulic points
ANPR 742	Manually operating cranked electric points
ANPR 743	Manually operating handthrow electric points
ANPR 744	Manually operating electropneumatic points
ANPR 746	Authorising rail traffic to pass an absolute signal at STOP

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