ANSY 500

Rail Vehicle Detection System

Applicability

NSW

SMS

Publication Requirement

External Only

Document Status

<table>
<thead>
<tr>
<th>Issue/Revision #</th>
<th>Effective from</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>11 October 2015</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Procedure Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANPR 721</td>
<td>Spoken and written communication</td>
</tr>
<tr>
<td>ANPR 737</td>
<td>Switching a signal box or local control panel in and out</td>
</tr>
<tr>
<td>ANPR 738</td>
<td>Operating powered interlocking machines</td>
</tr>
<tr>
<td>ANPR 739</td>
<td>Operating mechanical interlocking machines</td>
</tr>
<tr>
<td>ANPR 741</td>
<td>Manually operating electrohydraulic points</td>
</tr>
<tr>
<td>ANPR 742</td>
<td>Manually operating cranked electric points</td>
</tr>
<tr>
<td>ANPR 743</td>
<td>Manually operating handthrow electric points</td>
</tr>
<tr>
<td>ANPR 744</td>
<td>Manually operating electropneumatic points</td>
</tr>
<tr>
<td>ANPR 746</td>
<td>Authorising rail traffic to pass an absolute signal at STOP</td>
</tr>
</tbody>
</table>

Effective Date

11 October 2015