

# Network Safeworking Rules and Procedures Rules Update

Arc Infrastructure is introducing a new Network Control System called Safe Train Control (STC). The Network Safeworking Rules and Procedures have been updated to align with the processes introduced as part of the first phase implementation of STC, which will see our existing Train Order System (TOS) replaced by STC for dark territory only. This material highlights the changes with most impact to the TAP holder; however for all changes to the Rules please refer to the Arc Network Safeworking Rules and in full, located on our website.

This document includes the following:

1. Updates to Glossary
2. Updates to Rule 1001 – Scope of Networking Safeworking Rules and Procedures
3. Updates to Rule 4009 - Removing Disabled Rail Traffic
4. Updates to Rule 5017 Train Order Working
5. Updates to Procedure 9016 - Written Authorities and Forms
6. Forms required to transition from TOS to STC

## Glossary

The glossary in the Network Safeworking Rules and Procedures has been modified to ensure alignment to the updated rules. The modified terms are outlined below:

TERM	DEFINITION
<i>Added</i>	
Track Element	A term to describe the lowest level representation of track for the purpose of network control and operations. These are detailed on diagrams of signalling and station sketches.
<i>Amended</i>	
Alternative Movement Authority (AMA)	Previously: Alternative Proceed Authority An AMA may be used to authorise rail traffic movements when the Movement Authority normally provided by the system of Safeworking is not available.
Movement Authority	An Authority (e.g. a PROCEED aspect on a signal, Train Order, Alternative Movement Authority) that allows rail traffic to enter and occupy a portion of line and proceed in the forward direction.
<i>Removed</i>	
Advance Train Order	The Authority is described in the rule.
Shunt Authority	The Authority is described in the rule.

## Rule 1001 Scope of the Network Safeworking Rules

- Minor changes have been made to ensure abbreviations are now written out in full.
- Document links have been updated to align with Arc's website.

### *Section 3.3 Interface locations between Arc Infrastructure and the Public Transport Authority (PTA) Network.*


- The position title of Train Controller has been amended to reflect the correct Public Transport Authority position title of Network Controller.


## Rule 4009 Removing Disabled Rail Traffic

A Train Order will no longer be issued for Relief Rail Traffic. Instead, an Alternative Movement Authority will be issued.

In Train Order Territory where a Train Order for failed Rail Traffic, the Rail Traffic Crew must be issued with a Restraint Authority even if their Train Order is cancelled. Rail Traffic need to be aware that they need to carry both the Restraint Authority and Alternative Movement Authority forms.

- For example: A down service train XB73Y has failed at the 382.50 km in the Leda to Dean Section. An Up relief locomotive HQ77B is at Dean. Network Control will issue an Alternative Movement Authority (AMA). The AMA will be issued to enter the section and then to travel at restricted speed 3 kilometres from the failed Rail Traffic (from 385.5km). They will then stop 500 metres from the failed Rail Traffic (at 383km) where they will be piloted to the disabled Rail Traffic.

 Head of Operations and Customer Management has approved Rail Traffic Crews to delete portion of 3.2 if the box is ticked to align with new form. **This will allow continued use of existing stock of Alternative Movement Authority forms. (As shown in the example). This will apply through to 30 June only.**

 <b>Alternative Movement Authority (Receipt)</b> <small>In accordance with Rules 4009 Removing Disabled Rail Traffic, 5019 Alternative Movement Authorities, 5027 Single Line Working</small>	
Authority No. <input type="text" value="(Authority Number) Authority No."/>	
DELEGATION	1. To the Rail Traffic crew of; Rail Traffic No. <input type="text" value="HQ77B"/> Train No. ID No. <input type="text" value="B1234"/> Railcar/TM No. at, 1.2 <input checked="" type="checkbox"/> at <input type="text" value="Dean Main"/> station or location identifier <sup>1</sup> station / location / kilometre-.
VALIDATION	2. Condition of the <sup>1</sup> block / section; The last Rail Traffic movement to enter the section was <input type="text" value="XB73Y"/> No. 2.1 <input checked="" type="checkbox"/> and <sup>1</sup> has / has not arrived complete at <input type="text"/> Location Identifier station <sup>1</sup> at <input type="text" value="08:00"/> hours. 2.2 <input checked="" type="checkbox"/> and failed at <input type="text" value="382.50"/> Location Identifier kilometre. 2.3 <input checked="" type="checkbox"/> Opposing signal/s at STOP. <input type="text"/> Signal No/s 2.4 <input checked="" type="checkbox"/> Blocking facilities Block code <input type="text" value="(Secure Code)"/> Authority No. <input type="text"/> Control System Authority No. <input type="text"/> Blocking facilities have been applied? <input type="checkbox"/> Y/N <small>These blocking facilities are provided to prevent the issue of Movement Authorities to opposing Rail Traffic.</small> 2.5 <input checked="" type="checkbox"/> An Approved Non Crossing Station/s <sup>1</sup> is / are located at the <input type="text"/> KM <sup>1</sup> and <input type="text"/> KM location.
AUTHORISATION	3. You are authorised to; 3.1 <input checked="" type="checkbox"/> <sup>2</sup> Pass signal No. <input type="text"/> Signal No at "STOP". 3.2 <input checked="" type="checkbox"/> Pass signal No. <input type="text"/> Signal No at "STOP", and enter the <input type="text" value="Dean"/> Station Name to <input type="text" value="Leda"/> Station Name section/s on the <sup>1</sup> Up / Down / Bidirectional main, 3.3 <input checked="" type="checkbox"/> then proceed to Station Limits <input type="text"/> Station name/location identifier <sup>1</sup> station / Non-crossing station. <small>All other signals at STOP must be passed in accordance with Rule 6013 Passing Fixed Signals at Stop.</small>
INSTRUCTION	4. You must; 4.1 <input checked="" type="checkbox"/> Inspect and manually set and secured points for the movement? <input type="checkbox"/> Y/N 4.2 <input checked="" type="checkbox"/> <sup>5</sup> Travel at "Restricted Speed" from <input type="text" value="385.50"/> / KM <sup>1</sup> Signal / Kilometre, then Stop at <input type="text" value="383"/> kilometre, where you must be piloted to the disabled rail traffic. After attaching to the disabled rail traffic proceed to <input type="text" value="Dean"/> Station Limits. 4.3 <input checked="" type="checkbox"/> Check level crossings as they may be faulty at the following locations; <input type="text"/> KM location <input type="text"/> KM location <input type="text"/> KM location 4.4 <input checked="" type="checkbox"/> Other instruction e.g. authorised speeds, speed restrictions etc. <div style="border: 1px solid black; padding: 5px; text-align: center; margin-top: 10px;">                         Authorised section speeds, speed restrictions                     </div>
CONFIRMATION	5. Issue; 5.1 Issued by <input type="text" value="Midwest"/> Network Controller Area control 5.2 Received by <input type="text" value="Rail Traffic Crew Name"/> 5.3 Read back confirmed correct at <input type="text" value="Time"/> hours. Date <input type="text" value="Date dd/mm/yyyy"/>
<small>NOTE: <sup>1</sup> Delete non applicable. <sup>2</sup> Applies to single line automatic signalling. <sup>3</sup> Applies to single line working in double line territory. <sup>5</sup> Applies to Relief Rail Traffic.</small>	

## Rule 5017 Train Order Working

Rule 5017 has been updated to align with Train Order Working in Safe Train Control (STC).

The most significant change is that in STC, the Network Controller must issue a train order to a track element, i.e. to the track element “Main” or “Loop” etc. *within* a station. A train order can still be issued to Station Limits.

### Section 4 Station limits

#### 4.1 Crossing Stations

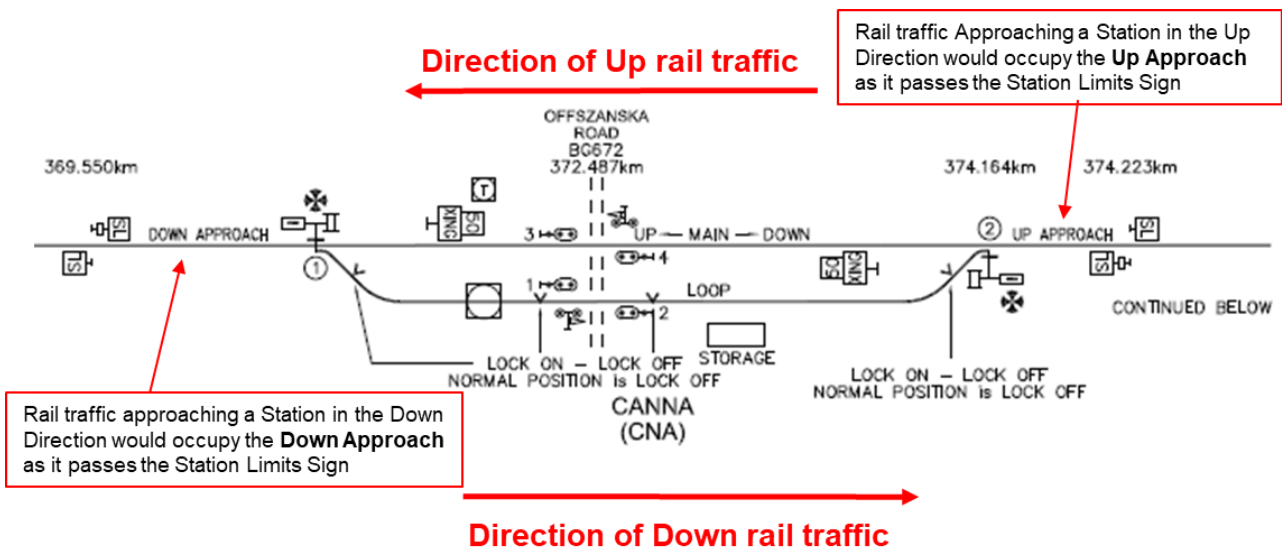
The track element from the Station Limits sign to the Facing Points is known as the Up Approach or Down Approach. The first track element the rail traffic will occupy is based on the usual direction of travel.

- *For example:* Rail Traffic Approaching a Station in the Up Direction would occupy the Up Approach as it passes the Station Limits Sign, and Rail Traffic approaching a Station in the Down Direction would occupy the Down Approach as it passes the Station Limits Sign.

#### Up and Down Approach

Safe Train Control requires all track elements to have an identification. The changes only apply to Train Order Territory as the Centralised Traffic Control system already have these sections identified.

The new terms identify track locations between the Station Limit Sign and the toe of the points. The terms are identified by the line direction not the train running direction. e.g.



Non – Crossing Stations and stations where the Station Limit sign is located closer than 50 metres will not require this element to be listed.

## Procedure 9016 Written Authorities and Forms

The key change is to add clarity to the types of Movement Authorities and Alternative Movement Authorities.

### Section 3 – Forms Used

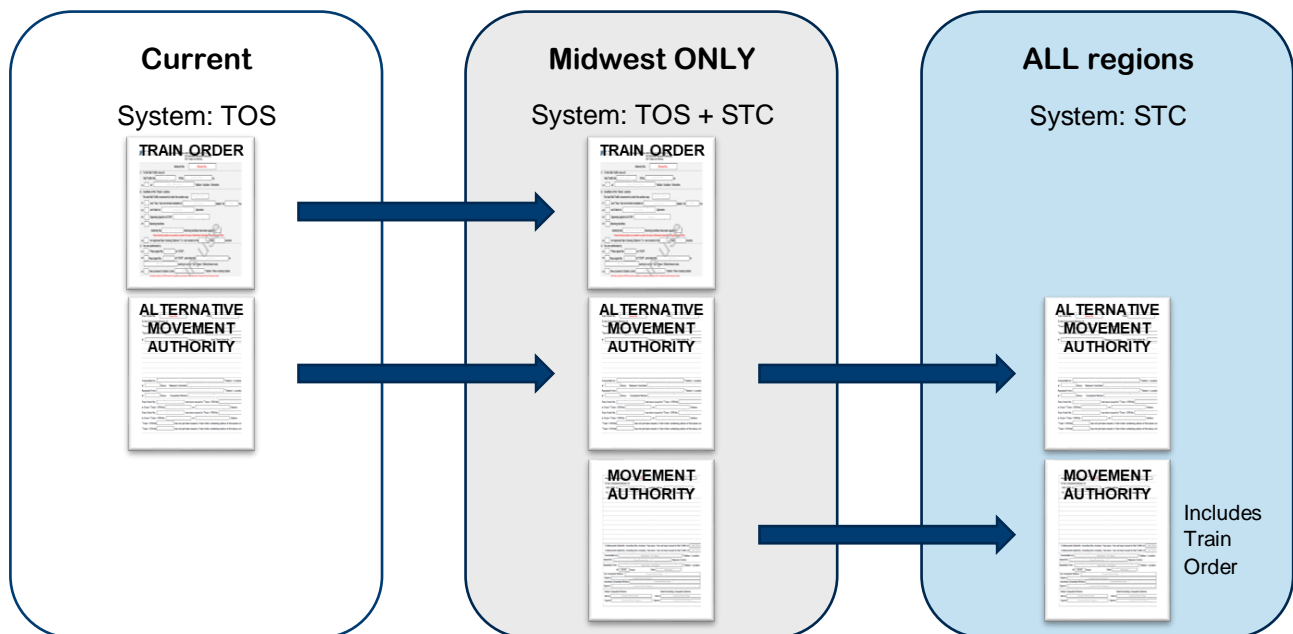
#### 3.1 Rail Traffic Forms

Authorities and Safeworking instructions are issued to Rail Traffic Crews on one of the following forms. Forms highlighted in **bold** have been added to this rule:

- Movement Authority which includes:
  - Train Order; and
  - **Road Rail Vehicle Authority (RRVA)**
- Alternative Movement Authority to be used for:
  - **Passing Departure Signals at Stop in Single Line Automatic Signalling areas;**
  - **Single Line Working in Double Line Automatic Signalling areas;** and
  - Relief Rail Traffic Authority.
- Restraint Authority.

### Forms required to transition from TOS to STC dark territory only

The approach to implementing STC in dark territory will be to start with the Midwest region before rolling out the system to all other regions. To reflect this sequence of steps, there will be a transition period where **three** different forms will be required, as depicted below:



When STC has been commissioned in all regions, the Train Order Form will cease to be used as train orders will be issued on Movement Authority Forms. A further notification will be sent when this milestone has been reached.