

Network Safeworking Rules and Procedures

Overrun of Limit of Authority

Rule Number: 6001

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Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	03 02 2020	All	Major Review

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1. Purpose

The purpose of this rule is to provide instruction on how *Rail Traffic* is managed when an overrun of its *Limit of Authority* has occurred in the *Network*.

2. General

An overrun of *Limit of Authority* occurs when *Rail Traffic*, without *Authority*:

- passes a signal at STOP;
- passes a sign that shows a *Limit of Authority*;
- exceeds the limit of an *Occupancy Authority*; or
- enters a *Block* without the correct *Authority*.

3. Responding to Overrun of Limit of Authority

3.1 Rail Traffic Crew Responsibilities

Rail Traffic Crews that have overrun a *Limit of Authority* must immediately:

- stop their *Rail Traffic*;
- broadcast an *Emergency* radio call, where the *Rail Traffic Crew* believe there is immediate danger;
- sound the *Rail Traffic Whistle* in accordance with the circumstance;
- take action to prevent a collision with other *Rail Traffic* or *Track Workers*; and
- tell the *Network Controller*.

3.2 Network Controller Responsibilities

The *Network Controller* must:

- where other *Rail Traffic* or *Track Workers* may be in conflict make an *Emergency Radio* call;
- arrange to stop *Rail Traffic* that has overrun its *Limit of Authority* and has not stopped;
- arrange to stop other *Rail Traffic* movements that are at risk;
- tell *Protection Officers* at affected worksites;
- tell affected *Rail Traffic Crew* to wait for further instructions;
- determine the method of working to be used to *Clear Rail Traffic*;
- tell the Approved Operations *Delegate* about the overrun of *Authority*;
- tell the affected *Operator's Representative* about the overrun of *Limit of Authority*; and
- tell other affected *Network Controllers*.

3.3 Authority for Movement to Continue



WARNING: Where an overrun of the *Limit of Authority* occurs at a *Departure Signal*, the *Rail Traffic* must be *Set Back* in accordance with Rule 4015 Setting Back or Propelling on Running Lines.

Where an overrun of the *Limit of Authority* occurs due to:

- a control system fault, the *Network Controller* may *Authorise* the *Rail Traffic* movement to continue for signals other than a *Departure Signal*.
- *Rail Traffic Crew* error, the Approved Operations *Delegate* approval must be given for the *Rail Traffic* movement to continue.

3.3.1 Authorising movement to continue beyond a Departure Signal

Where an overrun of the *Limit of Authority* occurs due to a control system fault at a *Departure Signal*, the Approved Operations *Delegate* may *Authorise* the *Network Controller* to allow the *Rail Traffic* to continue without *Setting Back* provided:

- the signal was at PROCEED, indicating the first *Track Section* was *Clear*; and
- any opposing *Rail Traffic* at or approaching the *Station* in advance has been advised.

4. References

4015 Setting Back or Propelling on Running Lines

5. Effective Date

3 February 2020

Network Safeworking Rules and Procedures

Blocking Facilities

Rule Number: 6003

Arc Infrastructure maintains the master for this document and publishes the current version on the Arc Infrastructure website. All changes and updates to the Network Safeworking Rules and Procedures are authorised by the Arc Infrastructure Rule Book Committee. This document is uncontrolled when printed.

Document History

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1. Purpose

The purpose of this rule is to detail the protocols for using *Blocking Facilities*. These devices are used to prevent the unintended *Issue of Occupancy Authorities* or the operations of *Signalling* or *Point* Equipment.

2. General



WARNING: Unless assured by the *Network Controller, Competent Workers* must not assume that:

- **signals have been set at STOP;**
- ***Points* have been correctly set; or**
- ***Blocking Facilities* have been applied.**

Unless otherwise permitted in the rules:

- equipment with *Blocking Facilities* applied must not be operated; and
- *Network Controllers* must not *Issue Occupancy Authorities* for *Sections* that are shown as *Blocked* out of use on *Network Control Diagrams*.

3. Management of Blocking Facilities

Before applying *Blocking Facilities* to signals, *Points* or *Sections of Track*, *Network Controllers* must make sure that any affected *Points* are set in the correct position.

3.1 Secure Blocking Codes

A *Secure Blocking Code* is a code supplied by the *Competent Worker* to the *Network Control* system electronically or to the *Network Controller* manually if not equipped.

A manually supplied *Secure Blocking Code* must not be recorded by the *Network Controller* anywhere except in the *Network Control* system.



NOTE: *Blocking Facilities* applied to the *Network Control* system by the *Network Controller* as required by the rules for a person that is not a *Competent Worker* will not require a *Secure Blocking Code*.

3.2 Temporary Removal

Blocking Facilities may be temporarily removed from the *Network Control* System, with the approval of the person who requested the application of the *Blocking*, in order to:

- set a different *Route* using the same controls;
- after safe arrangements have been made, *Clear* a signal to permit a movement over the blocked *Route*; or
- maintain and test the signalling equipment.

Network Controllers must restore *Blocking Facilities* to the *Network Control* System as soon as the activity that required their temporary removal has been completed, and confirm that the *Blocking Facilities* have been re-applied with the person who requested the *Blocking*.

3.3 Permanent Removal

Blocking Facilities must be removed from controls when the conditions that required their application no longer exist and with the approval of the person who requested the *Blocking*.

3.4 Secure Blocking Code override

Where a *Secure Blocking* code cannot be removed due to a failure of the *Competent Workers* device, or the manually supplied *Secure Blocking* code being incorrect, the *Network Controller* must confirm with the *Competent Worker* that the:

- *Blocking Facilities* identification is correct; and
- worksite is safe and *Fit for Purpose*;

The *Network Controller* will then contact the *Approved Operations Delegate* who will:

- confirm the *Blocking Facilities* can be safely removed ; then
- follow the procedure to override the *Blocking* code and remove the *Blocking Facilities*.

4. Keeping Records

Network Controllers and the person requesting the *Blocking* must make a *Permanent Record* of the application and removal of *Blocking Facilities*.

5. References

Nil

6. Effective Date

3 February 2020

Network Safeworking Rules and Procedures

Fixed Signals

Rule Number: 6005

Arc Infrastructure maintains the master for this document and publishes the current version on the Arc Infrastructure website. All changes and updates to the Network Safeworking Rules and Procedures are authorised by the Arc Infrastructure Rule Book Committee. This document is uncontrolled when printed.

Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	03 02 2020	All	Major Review

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1. Purpose

The purpose of this rule is to outline the protocols for using *Fixed Signals* to *Authorise* and regulate the movement of *Rail Traffic*.

2. General

Fixed Signals are used to:

- separate and regulate *Rail Traffic*;
- indicate to *Rail Traffic Crews* and other *Competent Workers* the status of the line ahead; and
- show which *Route* is set.

Rail Traffic Crews and *Competent Workers* directing *Shunting* and *Propelling* movements must obey the indications and instructions displayed by signals.

Fixed Signals must be located:

- where they enable *Rail Traffic Crews* to see and respond in sufficient time, in order to safely control *Rail Traffic* movements;
- where they provide a sufficient safe overlap; and
- as far as is practicable:
 - on the left hand side *Adjacent* to; or
 - directly over the *Track* to which they apply.



NOTE: Only in circumstances where it is not safe, or not practical, to place signals on the left hand side or above the *Track* to which they apply, the signals may be placed on the right hand side.

Fixed Signal indications are displayed by coloured lights.

Fixed Signals may be fitted with marker plates for identification.

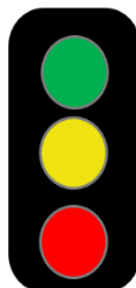
3. Indications of Fixed Signals

The indications of *Fixed Signals* are:

CLEAR indicated by a green light

CAUTION indicated by a yellow light

STOP indicated by a red light



CAUTION and CLEAR are PROCEED Aspects and give the *Rail Traffic Crew* the Authority to proceed.

3.1 STOP

Rail Traffic must stop before a signal displaying a STOP Aspect.

Signals may be passed at STOP only in accordance with Rule 6013 Passing Fixed Signals at STOP.

3.2 PROCEED

A PROCEED Aspect shows that:

- *Interlocked Points* protected by the signal are set in the correct position for the movement;
- no conflicting *Route* has been set; and
- where *Interlocked, Active Control Level Crossing* equipment is operational.

A PROCEED Aspect by a *Running Signal* and a CLEAR Aspect on a *Shunt* signal shows that the *Block* ahead is unoccupied.

A CAUTION Aspect by a *Shunting* signal does **not** indicate that the *Block* ahead is unoccupied.



NOTE: PROCEED Aspects on signals prove Route integrity.

4. Types of Fixed Signals

Fixed Signals are of two types:

- Running, and
- *Shunting*.

4.1 Running Signals

There are two categories of *Running Signals*:

- *Controlled Absolute*; and
- *Absolute*.

4.2 Controlled Absolute Signals



WARNING: *Absolute Signals* must not be passed at STOP without the Authority of the Network Controller.

A *Controlled Absolute Signal* is:

- controlled by the *Network Controller* and the passage of *Rail Traffic*; and
- identified by a white reflectorised marker plate located on the centre of the mast, or more than one signal on the same mast, showing a signal number as shown on the diagram of signalling.

The normal indication of a *Controlled Absolute Signal* is STOP; A *Controlled Absolute Signal* must be maintained at STOP until it is necessary to place it to PROCEED.

4.2.1 Departure Signals

Departure Signals are placed at the entrance to all single line *Block Sections* in *Automatic Signalling Territory* to facilitate *Single Line Working*, and to prevent *Rail Traffic* from meeting head on in a *Section*.

Departure Signals at each end of a *Single Line Automatic Signalling Section* work in conjunction with each other to ensure only one *Departure Signal* can display a PROCEED Aspect at the same time. The opposing *Departure Signal* will not show a PROCEED Aspect until *Rail Traffic* has passed out of the *Section*.

4.3 Absolute Signals

4.3.1 Intermediate Signals

An *Intermediate Signal* is used to divide the *Section* between *Controlled Locations* to facilitate the movement of following *Rail Traffic* and is:

- controlled only by the passage of *Rail Traffic*; and
- identified by a square white reflectorised marker plate located diagonally below and to the right of the signal head. It displays the signal number based on the kilometreage preceded by the letter "D" for Down signal and "U" for Up signal.

The normal indication of an *Intermediate Signal* is *Proceed* (Caution or Clear).

4.3.2 Approach Signals

Approach Signals are *Absolute Signals* that do not divide the *Section*.

Approach Signals are identified by a triangular white reflectorised marker plate located diagonally below and to the right of the signal head and displays the signal number based on the kilometreage preceded by the letter "D" for Down signal and "U" for Up signal.

The purpose of Approach signals is to provide an indication to *Rail Traffic Crews* that they are approaching a *Controlled Location*.



NOTE: Not all *Controlled Locations* have Approach Signals. Where Approach Signals are not provided, an approach to *Controlled Location* sign will be provided.

4.4 Shunting Signals



WARNING: A *Shunting* signal must not be used as the *Authority for Rail Traffic to pass through a Section*.

A *Shunting* Signal authorises a movement at *Restricted Speed* past that signal.



WARNING: *Shunting* signals can be *Cleared* if the line beyond the signal is occupied. *Rail Traffic Crews* must Proceed as if the line is *Occupied*.

A *PROCEED* Aspect by a *Shunting* signal is an *Authority to Proceed* up to, and not beyond, the first of the following limits reached:

- as far as the line ahead is *Clear*;
- a Limit of *Shunt* sign;
- a set of non-interlocked *Points*;
- an indicator showing that *Points* are not set;
- open *Catch Points*;
- a *Derailing Device* on the rail;
- a signal for the direction of *Travel*; or
- a shorter distance defined by the *Network Controller*.

5. Changing Signal Indications

Under normal conditions, if *Rail Traffic* is standing at or approaching a signal, the *Network Controller* must not change the indication of that signal to a more restrictive *Aspect* unless the *Rail Traffic Crew*:

- has been told; and
- is able to respond to the altered indication.

5.1 Responding to a Condition Affecting the Network

If there is a *Condition Affecting the Network (CAN)* and *Rail Traffic* is standing at or *Closely Approaching* a signal, the *Network Controller* may change the indication of the signal to a more restrictive *Aspect*.

The *Network Controller* must tell the *Rail Traffic Crew* about the altered signal *Aspect*:

- prior to altering the signal; or
- as soon as possible after altering the signal.

6. Irregular Signal Indications

A *Fixed Signal* indication must be treated as STOP if:

- it is an illegal signal indication;
- there is no indication;
- there is no indication other than the Junction indicator; or
- it is not understood.

Competent Workers must report irregular signal indications to the *Network Controller*.

The *Network Controller* must tell a *Signals Maintenance Representative* about irregular signal indications.

The *Network Controller* must set affected controlled signals to STOP with *Blocking Facilities* applied, and if the signals do not display a STOP indication, *Issue* the *Rail Traffic* with a *Restraint Authority*.

The *Network Controller* must then *Authorise* signals to be passed at STOP only in accordance with Rule 6013 Passing Fixed Signals at STOP.

If *Absolute Signals* maintain a STOP indication, these signals may be passed at STOP only in accordance with Rule 6013 Passing Fixed Signals at STOP.

If affected *Absolute Signals* maintain a *Clear* indication, the *Network Controller* must implement Rule 5023 Manual Block Working.

Affected Signals must not be used to provide PROCEED indications before they have been *Certified* back into use.

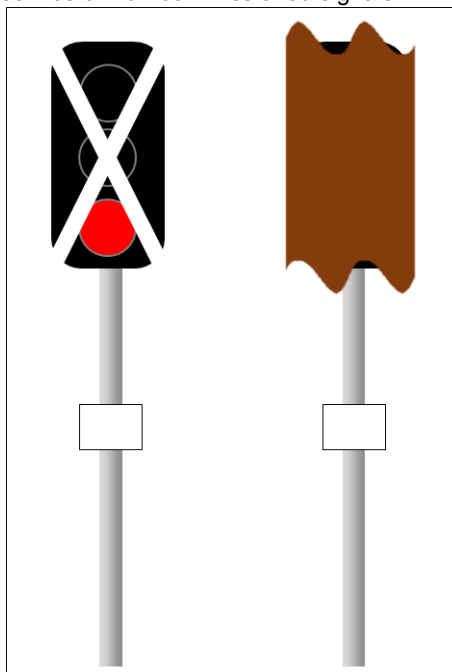
7. Out of Service or Non-Commissioned Signals

Signals may be put in place prior to commissioning, or may remain in place after being taken out of service.

These are identified by:

- an obscuring cover over the signal;
- a white cross affixed to the front of the signal; or
- where next to a functioning signal, having the signal head covered or turned away from the line.

Figure 6005-1 Examples of out-of-service or non-commissioned signals.



8. Testing Signals

A signal must not be tested if:

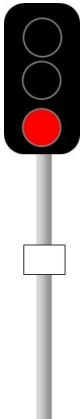

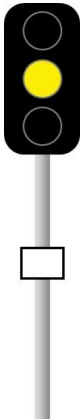

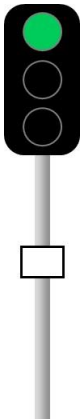

- *Rail Traffic* is *Closely Approaching*; and
- the testing could change the signal indication.

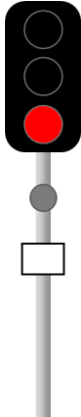
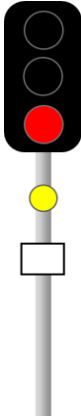
If *Rail Traffic* is standing at a signal at STOP, the *Network Controller* must:

- before testing the signal, tell the *Rail Traffic Crew* that signal testing is about to commence and that their *Rail Traffic* must not move unless instructed to do so; and
- after testing the signal, tell the *Rail Traffic Crew* that the testing has been completed, and if required, give an *Authority to Proceed*.

The *Network Controller* and *Competent Worker* must make a *Permanent Record* of the signal test.



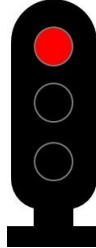





9. Signal Indications and their Meanings

Signal			
Controlled Absolute	Absolute	Meaning	Required Action
		The <i>Block</i> ahead of the signal is <i>Occupied</i> or for any reason that the <i>Rail Traffic</i> has to be stopped.	<i>Rail Traffic</i> must be stopped before reaching the signal.
		The <i>Block</i> ahead of the signal is <i>Clear</i> but the next signal is at STOP.	<i>Rail Traffic</i> is to Proceed at <i>Normal Speed</i> for the <i>Section</i> but be prepared to stop at the next signal.
		The <i>Block</i> ahead of the signal is <i>Clear</i> and the next signal is either at CAUTION or CLEAR.	<i>Rail Traffic</i> is to Proceed at <i>Normal Speed</i> for the <i>Section</i> .

Signal	Type of Signal	Meaning	Action Required
	<i>Controlled Absolute Signal with a Single Aspect Shunt</i> signal on the same mast.	The <i>Block</i> ahead of the signal is <i>Occupied</i> or for any reason the <i>Rail Traffic</i> has to be stopped.	<i>Rail Traffic</i> must be stopped before reaching the signal.
	<i>Controlled Absolute Signal with a Single Aspect Shunt</i> signal on the same mast set at Proceed.	The <i>Route</i> is set but the <i>Block</i> ahead of the signal may be <i>Occupied</i> and movements are to be at <i>Restricted Speed</i> .	<i>Rail Traffic</i> is to Proceed with caution but be prepared to stop short of any <i>Obstruction</i> .

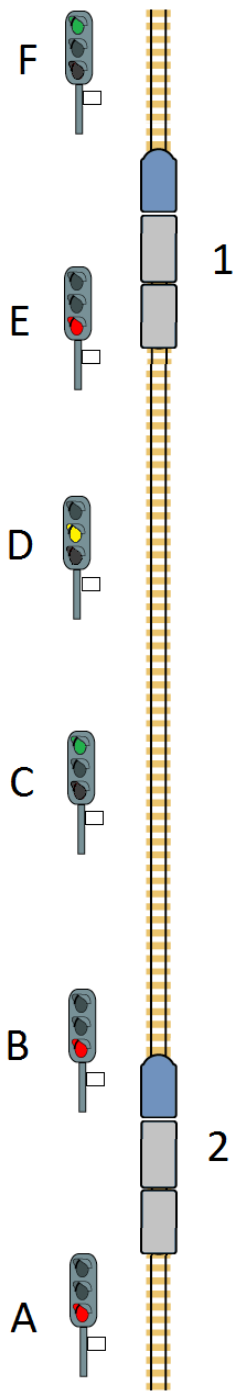


NOTE: At some *Locations*, *Running Signals* will be at a reduced height due to there being insufficient room to fit a signal at its normal height.

Ground Shunt Signals				
Single Aspect	Two Aspect	Three Aspect	Meaning	Action Required
			The <i>Route</i> for the signal is not set.	<i>Rail Traffic</i> must be stopped before reaching the signal.
			The <i>Points</i> are set correctly for the <i>Route</i> .	<i>Rail Traffic</i> is to Proceed at <i>Restricted Speed</i> but be prepared to stop short of any <i>Obstruction</i> .
	Not applicable		The <i>Points</i> are set correctly and the line is <i>Clear</i> to the next signal, which is showing caution, or <i>Clear</i> .	<i>Rail Traffic</i> is to Proceed to the next signal, which is showing caution, or <i>Clear</i> .

10. Three Colour Light Signalling Operation

This diagram represents a series of *Blocks* and how the signals operate as *Trains* move along the *Track*.



Signal F displays a “Clear” (green) *Aspect* as there is no *Train* in the *Block* in advance of the signal.

Train No. 1 will hold Signal E at “STOP” until it has passed *Clear* of the overlap *Track* of signal F.

Signal D displays a “Caution” (yellow) *Aspect* indicating that the next signal, signal E is at STOP.

Signal C displays a “Clear” (green) *Aspect* indicating that the next signal is displaying a “Proceed” *Aspect*.

Signal B displays a “STOP” *Aspect* as Train No. 2 is passing the signal.

Signal A will remain at “STOP” until Train No. 2 has cleared the overlap passed signal B.

11. Repeater Signals

Repeater signals are provided to give *Rail Traffic Crew* advanced information of the indications of the main *Fixed Signal*.

Repeaters are used where the *Fixed Signal* that is to be repeated is *Located* in a position where *Rail Traffic Crews* cannot respond in sufficient time to control *Rail Traffic*.

12. References

5023 Manual Block Working

6013 Passing Fixed Signals at STOP

13. Effective Date

3 February 2020

Network Safeworking Rules and Procedures

Signs

Rule Number: 6007

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Document History

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2.01	03 02 2020	10	New sign added for Level Crossing ahead

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1. Purpose

The purpose of this rule is to detail how signs are to be used to convey information such as safety critical instructions, advice and areas of control.

2. General

Signs must:

- be placed where they can be clearly seen by the intended viewer; and
- as far as is practicable, be located on the left hand side *Adjacent* to, or directly over the *Track* to which they apply.



NOTE: Only in circumstances where it is not safe, or not practical, to place signs on the left hand side or above the lines to which they apply, may signs be placed on the right hand side.

2.1 Appearance

Signs on the *Network* must be:

- reflective; and
- clearly distinguishable.



NOTE: Signs may be provided with a border to improve visibility or to give additional information.

2.2 Size

A sign must be as large as practical to allow *Clear* sighting and interpretation by *Rail Traffic Crews* Travelling at *Normal Speed*.

2.3 Orientation

Signs must be oriented:

- horizontally wherever possible; or
- vertically, only if *Clearance* between *Tracks*, or between *Tracks* and structures, is limited.

2.4 Colour

The background colour of a sign indicates its purpose.

A sign with a background that is mainly:





- red, indicates STOP.
- yellow, conveys a WARNING.
- white and blue, conveys information or advice.







NOTE: Warning signs in the *Network* may have a black background with yellow writing.

3. Permanent Speed Restriction Signs

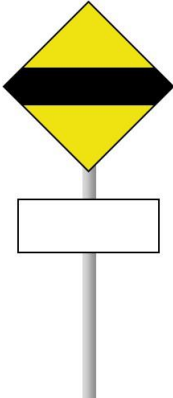
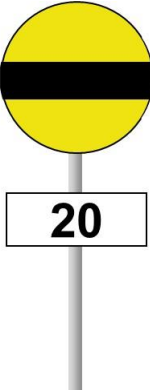
These signs are used where it is necessary for *Rail Traffic* to *Travel* at reduced speed because of *Track* geometry such as curves and gradients or when *Travelling* through an area of high signal congestion.

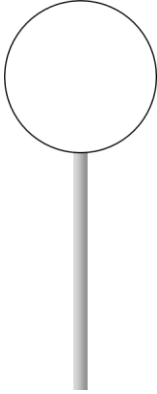
Sign	Name and Description	Required Action
	<p>Permanent Speed Restriction Warning sign</p> <p>This sign is placed 500 metres before the <i>Speed Restriction</i> sign.</p>	<p><i>Rail Traffic</i> should <i>Proceed</i>, being prepared to <i>Travel</i> at the speed shown on the <i>Speed Restriction</i> sign.</p>
	<p>Speed Restriction sign</p> <p>This sign is placed at the start of the <i>Speed Restricted</i> area.</p>	<p><i>Rail Traffic</i> must <i>Proceed</i> at the speed shown on the <i>Speed Restriction</i> sign.</p>
	<p>End of Speed Restriction sign</p> <p>This sign is placed at the end of the area covered by the <i>Speed Restriction</i>.</p>	<p><i>Rail Traffic</i> can return to the <i>Authorised Track</i> speed, once the last vehicle of the <i>Rail Traffic Consist</i>, has passed beyond the <i>End of Speed Restriction</i> sign.</p>
	<p>Turnout Speed Restriction sign.</p> <p>This sign is placed at <i>Facing</i> and <i>Trailing Points</i> to indicate the turnout speed for the reverse setting.</p>	<p><i>Rail Traffic</i> must <i>Proceed</i> at the speed shown on the turnout <i>Speed Restriction</i> Sign, until the <i>Rail Traffic</i> has completely cleared the area covered by the <i>Speed Restriction</i>.</p> <p>Where no sign is in place the maximum speed over the reverse setting is 30 kph.</p>

	<p>Level Crossing Speed Restriction sign.</p> <p>This sign is placed on the approach to the <i>Level Crossing</i> to indicate the approach speed.</p> <p>Used on a <i>Level Crossing</i> with restricted road user view to approaching <i>Rail Traffic</i>.</p>	<p><i>Rail Traffic</i> must Proceed at the speed shown on the <i>Speed Restriction Sign</i>, until the <i>Rail Traffic</i> has reached the <i>Level Crossing</i>.</p>
	<p>Self-Restoring Points (SRP) Speed Restriction sign.</p> <p>This sign is placed on the approach to <i>Self-Restoring Points (SRP)</i> in <i>Train Order Territory</i> to indicate the approach speed.</p>	<p><i>Rail Traffic</i> must Proceed at the speed shown on the <i>Speed Restriction Sign</i>, until the <i>Rail Traffic</i> has reached the <i>Points Track</i>.</p>
	<p>Speed Ramp sign.</p> <p>This sign is placed at the point where acceleration must commence to overcome severe gradients.</p>	<p><i>Rail Traffic</i> may need to increase to the speed shown on the <i>Speed Ramp Sign</i> in order to create enough momentum to travel up the severe gradient ahead, the speed increase applies only until the <i>Rail Traffic</i> has reached the <i>Speed Ramp Termination Sign</i>.</p>
	<p>Speed Ramp Termination sign.</p> <p>This sign is placed at the summit of the gradient.</p>	<p><i>Rail Traffic</i> must return to the <i>Authorised Track</i> speed, once the <i>Rail Traffic</i> has reached the <i>Speed Ramp Termination Sign</i>.</p>

4. Temporary Speed Restriction Signs



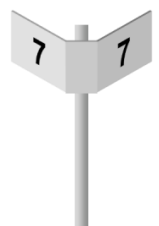


These signs are used where it is necessary for *Rail Traffic* to *Travel* at reduced speed because of *Track* maintenance work or for any other cause in accordance with Rule 3025 Temporary Speed Restrictions.

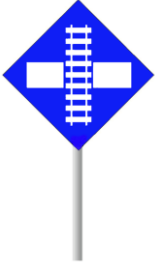




Sign	Name and Description	Required Action
	<p>Temporary Speed Restriction (TSR) Ahead sign.</p> <p>This sign is placed 2500 metres before the <i>Temporary Speed Restriction (TSR) Sign</i>.</p> <p>Placed below the <i>Temporary Speed Restriction (TSR) Ahead Sign</i> is a <i>Speed Restriction</i> sign displaying the maximum speed permitted for the restricted area.</p>	<p><i>Rail Traffic</i> should <i>Proceed</i>, being prepared to <i>Travel</i> at the speed indicated on the sign placed below the <i>Temporary Speed Restriction (TSR) Ahead Sign</i>.</p> <p>Note: If no maximum speed is displayed below the <i>Temporary Speed Restriction (TSR) Ahead Sign</i>, <i>Rail Traffic</i> must be prepared to reduce speed to the speed detailed in the <i>Drivers Information Documentation</i>, or to 15km/h through the <i>TSR</i>.</p>
	<p>Temporary Speed Restriction (TSR) Start sign.</p> <p>This sign is placed 50 metres before the area covered by the <i>Temporary Speed Restriction (TSR)</i>.</p> <p>Placed below the <i>Temporary Speed Restriction (TSR) Sign</i> is a <i>Speed Restriction</i> sign displaying the maximum speed permitted for the restricted area.</p>	<p><i>Rail Traffic</i> must <i>Proceed</i> at the speed indicated on the sign placed below the <i>Temporary Speed Restriction (TSR) Start Sign</i>.</p> <p>Note: If no maximum speed is displayed below the <i>Temporary Speed Restriction (TSR) Start Sign</i>, <i>Rail Traffic</i> must reduce speed, to the speed detailed in the <i>Drivers Information Documentation</i>, or to 15km/h through the <i>TSR</i>.</p>

	<p>Temporary Speed Restriction (TSR) End sign.</p> <p>This sign is placed 50 metres beyond the <i>Temporary Speed Restriction (TSR)</i> area.</p> <p>Note:</p> <p>In <i>Bi-Directional</i> areas where the <i>TSR</i> applies in both directions, the back of the <i>TSR</i> start sign will indicate to <i>Rail Traffic</i> that they are leaving the limits of the <i>TSR</i>.</p>	<p><i>Rail Traffic</i> can return to the <i>Authorised Track</i> speed, once the <i>Rail Traffic Consist</i>, has passed beyond the End of <i>Speed Restriction</i> sign.</p>
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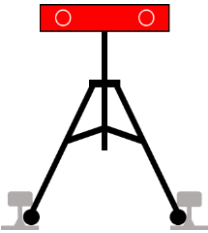

5. Permanent Signs

Permanent signs are placed in the *Network* to provide information and advice to *Competent Workers*.



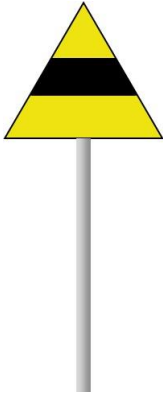
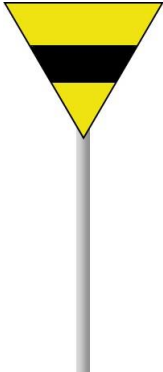
Sign	Name and Description	Required Action
	<p>Station Limits sign</p> <p><i>Station Limits</i> signs are used to define <i>Station Limits</i> where <i>Fixed Signals</i> are not provided.</p>	<p><i>Rail Traffic Crews</i> must not Proceed beyond the <i>Station Limits</i> sign until authorised by the <i>Network Controller</i>.</p>
	<p>Limit of Shunt sign</p> <p>Limit of <i>Shunt</i> Signs determine the end <i>Location</i> within <i>Station Limits</i> to which <i>Shunt</i> movements may Proceed.</p>	<p>All <i>Rail Traffic</i> movements beyond the <i>Limit of Shunt</i> sign must be <i>Authorised</i> with the <i>Issue</i> of an <i>Authority</i> for the <i>Section</i> ahead.</p>
	<p>Kilometre markers.</p> <p>This sign displays the distance from the start <i>Location</i> of the line or Junction.</p>	
	<p>Approach to a Controlled Location Sign.</p> <p>This sign is placed 1600 metres from the first <i>Controlled Absolute Signal</i> of a <i>Controlled Location</i> where an <i>Approach Signal</i> is not provided.</p>	<p><i>Rail Traffic</i> should Proceed, being prepared to reduce speed or Stop.</p>
	<p>Predictor sign.</p> <p>Selected <i>Level Crossings</i> are fitted with a Predictor to detect <i>Rail Traffic</i> approaching the crossing.</p>	<p><i>Rail Traffic</i> must not increase speed, above the speed they were doing at the time they passed the predictor sign, until the leading vehicle has passed over the <i>Level Crossing</i>.</p>

	<p>Conditional Level Crossing Ahead sign.</p> <p>This sign on or adjacent to a <i>Controlled Absolute Signal</i> where activation of the <i>Level Crossing Protection</i> is dependent on the signal being at <i>Proceed</i>.</p>	<p><i>Rail Traffic Crews</i> must treat this crossing as Potentially faulty, in accordance with <i>Rule 2015 Active Control Level Crossing Management</i> section 8, when <i>Authorised</i> to pass this <i>Controlled Absolute Signal</i> at STOP.</p>
	<p>“Z” Track indicator sign.</p> <p>“Z” Tracks are provided between a <i>Level Crossing</i> and a <i>Station</i> or <i>Stopping Place</i>.</p>	<p><i>Rail Traffic</i> must stand with the <i>Motive Power Unit</i> on the “Z” <i>Track</i> if stopping at the <i>Station</i>.</p>
	<p>Signal Location sign.</p> <p>This sign is placed 2500 metres from a <i>Departure Signal</i> where viewing distance and signal spacing to the <i>Departure Signal</i> is restricted.</p>	<p><i>Rail Traffic</i> should Proceed, exercising caution due to restricted viewing distance.</p>
	<p>Whistle sign.</p> <p>This sign is placed on the approach to <i>Level Crossings</i>.</p>	<p><i>Rail Traffic</i> must sound their <i>Motive Power Units Whistle</i> to warn of the <i>Rail Traffics</i> approach to <i>Level Crossings</i>.</p>
	<p>Level Crossing and Bridge Indicator signs.</p> <p>This sign displays the name of the <i>Level Crossing</i> or <i>bridge</i> the <i>Rail Traffic</i> is approaching</p>	<p><i>Rail Traffic</i> may use these as <i>Location</i> identifiers for reporting.</p>

6. Track Work Signs

Sign	Name and Description	Required Action
	<p>STOP sign.</p> <p>This sign is placed 500 metres before an <i>Obstruction</i> (work area) and used in conjunction with 3 <i>Railway Track Signals (RTS)</i> to provide <i>In-Field Protection</i>.</p>	<p><i>Rail Traffic</i> must Stop before reaching the STOP sign.</p> <p>Where <i>Rail Traffic</i> passes over a STOP sign the <i>Rail Traffic Crew</i> must STOP and act in accordance with Rule <u>6001 Overrun Limit of Authority</u></p>
	<p>Track Closed Warning Device.</p> <p>This device is placed on the departure side of a <i>Controlled Absolute Signal</i> or as required before an <i>Obstruction</i> (work area) to provide <i>In-Field Protection</i> in accordance with Procedure <u>9018 Using Track Closed Warning Devices and Rail Clamped Stop Sign.</u></p>	<p><i>Rail Traffic</i> must Stop before reaching the <i>Track Closed Warning Device</i>.</p> <p>Where <i>Rail Traffic</i> passes over a <i>Track Closed Warning Device</i> the <i>Rail Traffic Crew</i> must STOP and act in accordance with Rule <u>6001 Overrun Limit of Authority</u></p>
	<p>Rail Clamped STOP sign.</p> <p>This device is placed on the departure side of a <i>Controlled Absolute signal</i> or as required before an <i>Obstruction</i> to provide <i>In-Field Protection</i> in accordance with Procedure <u>9018 Using Track Closed Warning Devices and Rail Clamped Stop Sign.</u></p>	<p><i>Rail Traffic</i> must Stop before reaching the Rail Clamped STOP sign.</p> <p>Where <i>Rail Traffic</i> passes over a Rail Clamped STOP sign the <i>Rail Traffic Crew</i> must STOP and act in accordance with Rule <u>6001 Overrun Limit of Authority</u></p>

7. Train Order Territory Signs

Sign	Name and Description	Required Action
	<p>Commencement of <i>Train Order Territory</i> sign.</p> <p>This sign is placed at a point where <i>Train Order</i> working takes effect.</p>	<p>All rail workers are to work and operate under the Rules applicable to <i>Train Order Working</i></p>
	<p>End of <i>Train Order Territory</i> sign.</p> <p>This sign placed at the point where <i>Train Order</i> working ceases.</p>	<p>All rail workers are to work under the applicable Rules for the system of working that they are entering.</p>
	<p><i>Train Order Crossing Station Indicator</i> sign.</p> <p>This sign is placed not less than 500 metres before the <i>Station Limits</i> sign, and indicates to <i>Rail Traffic</i> they are approaching a <i>Crossing Station</i> in <i>Train Order Territory</i>.</p>	<p><i>Rail Traffic</i> should Proceed, being prepared to reduce speed or stop the <i>Rail Traffic</i> based on instructions detailed on an active <i>Train Order</i>.</p>
	<p><i>Train Order Non Crossing Station Indicator</i> sign.</p> <p>This sign is placed not less than 500 metres before the <i>Station Limits</i> sign, and indicates to <i>Rail Traffic</i> they are approaching a <i>Non-Crossing Station</i> in <i>Train Order Territory</i>.</p>	<p><i>Rail Traffic</i> should Proceed, being prepared to reduce speed or stop the <i>Rail Traffic</i> based on instructions detailed on an active <i>Train Order</i>.</p>

8. References

3025 Temporary Speed Restrictions.

9018 Using Track Closed Warning Devices and Rail Clamped Stop signs.

9. Effective Date

3 February 2020

Network Safeworking Rules and Procedures

Indicators

Rule Number: 6009

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Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	03 02 2020	All	Major Review

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1. Purpose

The function of this rule is to describe the protocols for using indicators. They are provided to give *Rail Traffic Crew* information on the *Route* setting of *Points* and may be used in conjunction with *Fixed Signals*.

2. General



WARNING: Indicators do not indicate the line ahead is clear.

When used in conjunction with signals, the Indicator when illuminated does not authorise the *Rail Traffic Crew* to pass a signal at Stop. The signal must show PROCEED for *Authority* to pass.

Where a *Fixed Signal* is not provided to govern the movement, *Rail Traffic Crews* must not proceed through the *Points* until verbally or *Handsignalled* to do so.

Indicators work in conjunction with the *Points* to which they apply, solely to indicate the way the *Points* are set.

Points Indicators take several forms:

- Junction indicators;
- electrically illuminated *Points Indicators*; and
- mechanical *Points Indicators*.

The different forms of indicators may be used in combination with each other.

2.1 Driver's Proceed Indicators

Driver's Proceed indicators are provided on the approach to some *Active Controlled Level Crossings* to indicate to *Rail Traffic Crews* that the *Level Crossing Protection* is active.

3. Junction Indicators

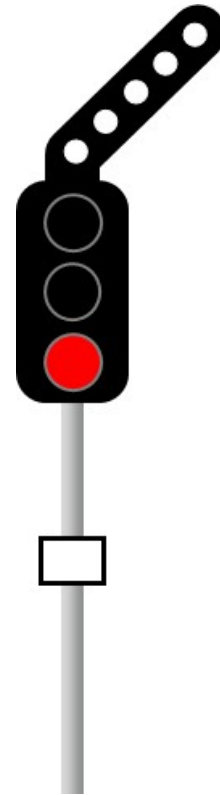
A Junction Indicator is mounted above the *Controlled Absolute Signal* with which it is associated and exhibits an indicator for each diverging *Route* in conjunction with a PROCEED indication on the signal.

A Junction Indicator may be provided with up to six arms fixed at 45 degree intervals. Diverging routes only are indicated. No indication is provided for the non-diverging line.

Each arm of the Junction Indicator contains five white lights. A minimum of three white lights must be illuminated before a PROCEED Indication can be displayed on the signal.

A Junction Indicator, when illuminated, does not *Authorise Rail Traffic Crew* to pass a signal at STOP. The signal must show a PROCEED indication for *Authority* to pass it.

Signals with Junction Indicators attached can only be passed at STOP in accordance with Rule 6013 Passing Fixed Signals at STOP.



4. Electrically Illuminated Points Indicator

An electrically illuminated *Points* Indicator is located *Adjacent* to and works in conjunction with, the electric *Point* motor attached to *Self-Restoring Points*.

The operations of *Self-Restoring Points* are detailed in Procedure 9022 Operation of Self Restoring Points.

The indicator:-

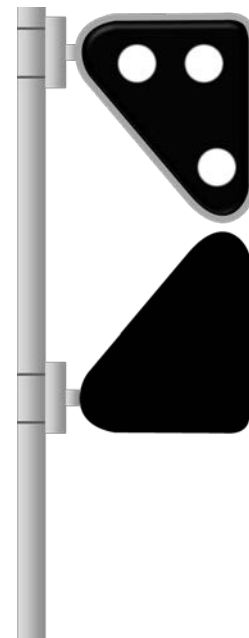
- consists of two triangular shaped indicators mounted one above the other on a single mast:
 - the upper indicator applies to *Rail Traffic* approaching in the *Facing* direction; and
 - the lower indicator applies to *Rail Traffic* approaching in the *Trailing* direction.
- has a matte black finish on both sides with a strip of white reflectorised tape surrounding the outline of the indicator and contains three lights as an indication to approaching *Rail Traffic*.

4.1 White Light Type

Only two white lights will be visible at any one time on each indicator and, for an approaching *Rail Traffic Crew*, will indicate that:

- when there are two lights in a vertical position, that the *Points* are set and locked for the normal setting.
- when there are two lights at a 45°, the *Points* are set and locked for the reverse setting.
- if only one light or no lights are visible, *Rail Traffic* must not pass over the *Points* until they have been examined by the *Rail Traffic Crew*. The *Rail Traffic Crew* in this instance must ensure the *Points* are correctly set for the safe passage of the *Rail Traffic*.

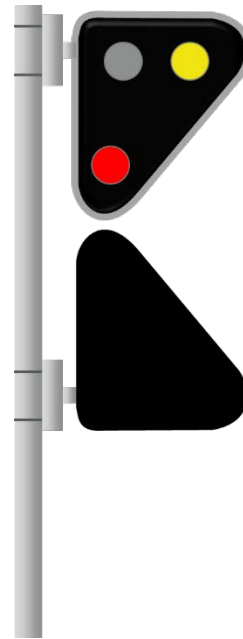
The indicator lights may be lit when a *Train* is within approximately 400 metres of the *Station*.



4.2 Coloured Light Type

Only one light will be visible at any one time on each indicator and, for an approaching *Rail Traffic Crew*, will indicate:

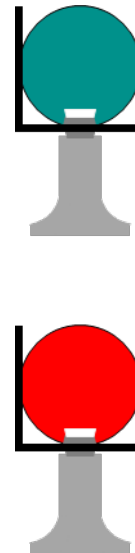
- when there is a white light, that the *Points* are set and locked for the normal setting.
- when there is a yellow light, that the *Points* are set and locked for the reverse setting.
- when there is a red light, that the *Points* are out of correspondence and not set, *Rail Traffic* must not pass over the *Points* until they have been examined by the *Rail Traffic Crew*. The *Rail Traffic Crew* in this instance must ensure the *Points* are correctly set for the safe passage of the *Rail Traffic*.



5. Mechanical Points Indicator

5.1 Round Type Points Indicator

Round type *Point* Indicators, attached to *Main Line Points* in *Train Order Territory*, have a round reflectorised green target when set in the normal *Main Line* position and a round reflectorised red target when set in the reverse position.

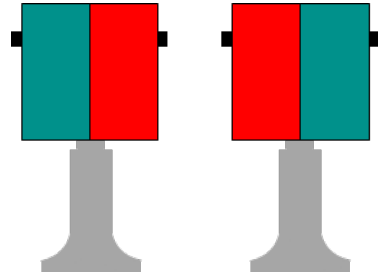


5.2 Square Type Points Indicator

Square type *Point* Indicators have a square half red and half green reflectorised target.

The green is exhibited in the direction for which the *Points* are set.

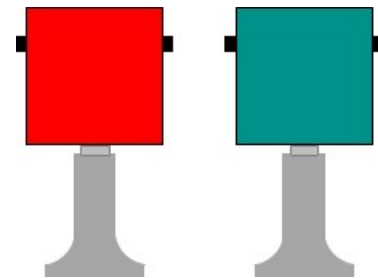
These indicators are usually found in *Station* yards and at Junctions.



5.3 Catch Points Indicator

Catch Point Indicators have a square red reflectorised target when in the normal derail position and a square green reflectorised target when reversed to the running position.

These indicators are found in *Station* yards attached to *Catch Points*.



5.4 Cheese Knob Points

Cheese knob *Points* are painted:

- white on one side to indicate *Points* are set to the right; and
- black on the other side to indicate the *Points* are set to the left.



6. Driver's Proceed Indicators (DPI)

Operations of DPIs are included in the Local Instructions for the *Location* concerned. Local Instructions are detailed in *Arc Infrastructure's*:

- Rail Access Management System;
- Intranet site "The Depot"; and
- Internet site www.arcinfra.com.

Driver's Proceed indicators (DPI) use white, yellow and red lights to indicate the status of *Active Control Level Crossing Protection* equipment.



7. Passing Indicators at Unattended Train Order Crossing Stations

Rail Traffic Crews must not proceed through the *Points* until verbally or *Hand signalled* to do so.

If no Crossing, passing or Shunting is to take place, the *Rail Traffic* shall enter the *Station* on the Main Line, or as directed on the *Train Order*, and a verbal or *Hand signal* is not required.

Where the *Rail Traffic* is not required to stop for the *Issue* of a further *Train Order* or for any other reason, the *Rail Traffic Crew* shall proceed at *Authorised Speed*.

8. Passing Defective Indicators

Rail Traffic Crews must not pass mechanical or Electrically Illuminated *Points* Indicators that display no indication or display an *Illegal Indication* until:

- the *Points* have been checked and set for the *Route*; and
- if necessary, the *Points* have been *Secured*.

If the DPIs are not working correctly, *Rail Traffic Crews* must act in accordance with Rule 2015 Active Control Level Crossing Management.

9. References

2015 Active Control Level Crossing Management.

6013 Passing Fixed Signals at STOP.

9022 Operation of Self Restoring Points.

10. Effective Date

3 February 2020

Network Safeworking Rules and Procedures

Passing Fixed Signals at Stop

Rule Number: 6013

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Document History

Version	Effective Date	Pages updated	Reasons for change
2.0	03 02 2020	All	Major Review

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1. Purpose

The purpose of this rule is to describe how to manage *Rail Traffic* when passing *Fixed Signals* at STOP in the *Network*.

2. General

The authority for passing *Fixed Signals* at STOP applies to signals that cannot be *Cleared* for an intended movement.

For signals other than a *Controlled Absolute Departure Signal*, *Rail Traffic* must not pass a *Fixed Signal* at STOP unless it is authorised to do so by:

- verbal permission from the *Network Controller*;
- a *Handsignaller* acting under the *Network Controller's* instructions; or
- the *Possession Protection Officer* in charge of a *Local Possession Authority (LPA)*.

2.1 Controlled Absolute Departure Signal

Where the *Fixed Signal* to be passed at STOP is a *Controlled Absolute Departure Signal*, the authority to pass it at STOP must be verbal permission from the *Network Controller* and:

- a written *Authority* on an *Alternative Movement Authority* in accordance with Rule 5019 Alternative Movement Authority; or
- for Relief Rail Traffic, on an *Alternative Movement Authority* form in accordance with Rule 4009 Removing Disabled Rail Traffic.

Where associated *Rail Traffic* is to enter the limits of an *LPA* or *Work on Track Authority (WoTA)* past a *Controlled Absolute Departure Signal* at STOP, the movement must be *Authorised* by the *Possession Protection Officer* in charge of an *LPA* or the *Protection Officer* in charge of a *WoTA*.

2.2 Changing Over of Locomotives

A *Network Controller* may verbally *Authorise* the *Rail Traffic Crew* to pass a *Departure Signal* at STOP during a *Locomotive* change-over provided a *Competent Worker* is available to *Handsignal* movements as directed by the *Network Controller*.

Where the lead *Locomotive* is changed over, the *Rail Traffic* must be behind or *Set Back* behind the *Departure Signal* at the completion of the *Shunt* to obtain the *Authority* for the *Section*.

Where *Distributed Power Units (DPU)* are changed over and the *Departure Signal* was at PROCEED for the *Rail Traffic* to enter the *Section*, the *Rail Traffic* may continue through the *Section* without *Setting Back* at the completion of the *Shunt* provided the *Section* remained *Occupied* by the *Rail Traffic*.



WARNING: A Shunting signal must not be used as the Authority for Rail Traffic to pass through a Section.

3. Stopped at a Fixed Signal

The *Rail Traffic Crew* must contact the *Network Controller* if a signal at STOP does not change to PROCEED.

The *Rail Traffic Crew* must tell the *Network Controller*:

- the *Rail Traffic* identification; and
- the signal identification and *Location*.

4. Condition of the Block Ahead

The *Network Controller* must get available information about the condition of the affected *Block*.

The *Network Controller* must tell the *Rail Traffic Crew*:

- that the *Block* is *Clear*;
- if the *Block* is *Occupied* and, if known, the *Location* of the last *Rail Traffic* to enter the *Block*; or
- the *Location* of any *Obstructions* or failed *Infrastructure* in the *Block*.

If the condition of the *Block* is not known, the *Rail Traffic Crew* of the first *Rail Traffic* to transit the *Block*, must:

- report the condition of the *Block* to the *Network Controller* as soon as practical; and
- report when the *Rail Traffic* has exited the *Block*.

The *Network Controller* must make sure that the *Route* to be taken by *Rail Traffic* is:

- set and *Secured*; or
- will be set and *Secured* by a *Competent Worker*.

5. Passing Fixed Signals

The *Rail Traffic Crew* must obtain the *Authority* of the *Network Controller* to pass a *Fixed Signal* at STOP.

The *Network Controller* must ensure that any opposing *Rail Traffic* has been *Restrained* before *Authorising* the *Rail Traffic Crew* to pass a signal at STOP.

An *Authority* to pass a *Fixed Signal* at STOP must include details of:

- the identity of the *Rail Traffic* for which it is intended;
- the identity of the signal to be passed at STOP;
- the *Location* of the signal to be passed at STOP;
- the condition of the *Block* ahead;
- the *Limit of Authority*;
- any *Points* to be manually set;
- instructions to inspect *Points* before passing over them;
- *Level Crossing* warnings; and
- the maximum speed to be observed.

Where no *Competent Worker* is present and the *Rail Traffic Crew* are instructed to pass a signal at STOP, the *Rail Traffic Crew* must, before moving across each set of *Points*, stop and examine the *Points* to ensure that they are set for the safe passage of the *Rail Traffic*.

6. Speed of Travel

6.1. Beyond a Fixed Signal

Based on the information provided by the *Network Controller* about the condition of the *Block* ahead, *Rail Traffic* may *Travel* up to *Normal Speed*.

6.2. Unknown Cause

If a *Fixed Signal* displays a STOP indication due to an unknown cause and the integrity of the *Block* or *Section* cannot be assured, *Rail Traffic* must be instructed to *Travel* at *Restricted Speed*.

The *Rail Traffic* movement must *Travel* at *Restricted Speed* until the movement has passed the next *Fixed Signal* displaying a PROCEED indication.

6.3. Known Cause

If a *Fixed Signal* displays a STOP indication due to a known cause, the *Authority* to pass the signal at STOP must include a speed instruction based on one of the following:

- where the cause is a known *Track* condition, *Rail Traffic* must proceed at a speed determined by the *Infrastructure Representative*;
- where the cause is known to be a faulty *Interlocking* condition, *Rail Traffic* must *Travel at Restricted Speed* over the faulty *Interlocking*, or
- where the cause is not an unsafe *Track* condition, and the integrity of the *Block* has been confirmed, *Rail Traffic* may be *Authorised to Travel at Normal Speed*.

7. Within Work on Track Authority Limits

Within the limits of an *LPA*, the *Rail Traffic Crew* must get the *Authority* of the *Possession Protection Officer* to pass *Fixed Signals* at STOP.

Within the limits of a *Work on Track Authority (WoTA)*, the *Rail Traffic Crew* must get the *Authority* of the *Network Controller* to pass *Fixed Signals* at STOP.

8. Keeping Records

Network Controllers and, where necessary, *Rail Traffic Crew* must keep a *Permanent Record* of the details of *Fixed Signals* passed at STOP.

9. References

4009 Removing Disabled Rail Traffic

5019 Alternative Movement Authority

10. Effective Date

3 February 2020