

Network Safeworking Rules and Procedures

Signs

Rule Number: 6007



Brookfield
Rail

Signs

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Table of Contents

Glossary for this Rule.....	4
1. Purpose	7
2. General	7
2.1 Appearance	7
2.2 Size	7
2.3 Orientation.....	8
2.4 Colour	8
3. Permanent Speed Restriction Signs.....	9
4. Temporary Speed Restriction Signs.....	11
5. Permanent Signs.....	12
6. Track Work Signs.....	14
7. Train Order Territory Signs	15
8. References	16
9. Effective Date.....	16

Glossary for this Rule

<i>Adjacent</i>	Near to, close to, parallel to.
<i>Authority</i>	Formal name for a written Authority (e.g. Local Possession Authority, Alternative Proceed Authority).
<i>Bi-Directional</i>	Normal movement of rail traffic in either direction according to the infrastructure and system of Safeworking in use.
<i>Clear</i>	A proceed indication displayed by a signal. In reference to a track circuit, block, section or signal route, the absence of rail traffic. In reference to track workers being clear of track.
<i>Competent Worker</i>	A worker certified as competent to carry out a relevant task.
<i>Consist</i>	A listed order of the vehicles arranged to make up a complete train.
<i>Controlled Absolute Signal</i>	A signal that is controlled or operated by a Network Controller. The signal must not be passed at STOP without authority.
<i>Controlled Location</i>	A location where a Network Controller controls the signalling and Safeworking operations remotely.
<i>Crossing Location/Station</i>	May consist of single or double ended portion of track, to hold rail traffic, connected to a main line that is used to permit other rail traffic to cross or pass.
<i>Departure Signal</i>	A Controlled Absolute signal controlling the entrance to a Single line section in CTC territory.
<i>Driver Information System</i>	A system that can provide Rail Traffic Crews with: <ul style="list-style-type: none"> • Train Consist • Temporary Speed Restrictions • Permanent Speed Restrictions • Standard Timetable • Special Train Notices • Instructions • Track Warnings • Vehicle Restrictions
<i>Facing Points</i>	Points with the switch blades facing approaching rail traffic where the track diverges.
<i>Fixed Signal</i>	A signal that is located permanently near the line.

<i>In-Field Protection</i>	One or more devices approved by Brookfield Rail that provide warning to protect rail traffic crew and workers. The device or devices may be used in conjunction with signalling or blocking facilities.
<i>Level Crossing</i>	A location where the railway line and a road or pedestrian walkway cross paths on the same level (at grade).
<i>Local Possession Authority (LPA)</i>	An authority that closes a defined portion of track from non-associated rail traffic for a specified period.
<i>Location</i>	A place in the Network with a designated name, identification number, or signalling reference.
<i>Motive Power Unit</i>	A rail vehicle used to provide the power to move itself or other vehicles.
<i>Network</i>	A combination of track and other associated infrastructure controlled by Brookfield Rail.
<i>Network Controller</i>	A Competent Worker who authorises and issues Occupancy Authorities, and works points, signals and other signalling equipment to manage routes for safe and efficient transit of rail traffic in the Network.
<i>Normal Speed</i>	A speed that does not exceed the speed limit currently in effect for the section of line and type of rail traffic.
<i>Obstruct</i>	To make a line unsafe for the passage of rail traffic by the placing of tools, equipment or plant on the track.
<i>Protection</i>	The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic entering a level crossing.
<i>Rail Traffic</i>	Trains and track vehicle or vehicles travelling on the network.
<i>Rail Traffic Crew</i>	Competent Workers responsible for the operation of the Motive Power Unit.
<i>Railway Track Signal (RTS)</i>	A device attached to a rail that explodes on impact, used to attract attention of rail traffic crews.
<i>Section</i>	The line between the departure end station limits of one location and the arrival end station limits of another location. A section consists of one or more blocks.
<i>Self-Restoring Points (SRP)</i>	Points which can be operated remotely or by push button that automatically restores to their normal position following the movement of rail traffic. (refer to Points)
<i>Station</i>	A system of tracks within station limits at the beginning or end of a section at which rail traffic may cross, pass or run around.
<i>Station Limits</i>	A defined operational limit of controlled locations or a running line.
<i>Stopping Place</i>	A designated location, next to the line, that may allow personnel to enter and leave trains.

<i>Temporary Speed Restriction (TSR)</i>	An imposed reduction of the normal speed for a portion of track.
<i>Track</i>	The combination of rails, rail connectors, sleepers, ballast, points and crossings.
<i>Track Closed Warning Device</i>	A Brookfield Rail approved Stop sign designed to lock into the gauge as part of in-field protection.
<i>Trailing Points</i>	Points with the switch blades facing away from approaching rail traffic.
<i>Train Order</i>	An authority issued by the Network Controller for the movement of rail traffic or issue of LPA track work authorities.
<i>Train Order Territory</i>	The portions of line where the Train Order system of Safeworking is used.
<i>Travel</i>	Planned or purposeful movement from one location to another.
<i>Whistle</i>	A device such as a bell, whistle, siren, horn or hooter, fitted to rail traffic to give audible warning.

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

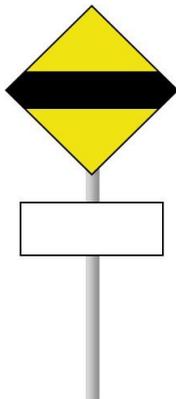
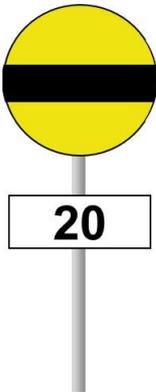
These signs are used where it is necessary for *Rail Traffic* to *Travel* at reduced speed because of *Track* geometry such as curves and gradients or when *Travelling* through an area of high signal congestion.

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

	<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 Speed Restriction Sign, 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 Speed Restriction Sign, 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 Speed Ramp Sign 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 speed ramp termination sign.</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 authorised <i>Track</i> speed, once the <i>Rail Traffic</i> has reached the Speed Ramp Termination Sign.</p>

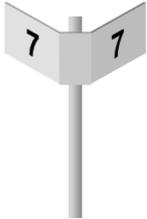
4. Temporary Speed Restriction Signs

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)</i> Sign.</p> <p>Placed below the <i>Temporary Speed Restriction (TSR)</i> Ahead Sign is a Speed Restriction sign displaying the maximum speed permitted for the restricted area.</p>	<p><i>Rail Traffic</i> should Proceed, being prepared to <i>Travel</i> at the speed indicated on the sign placed below the <i>Temporary Speed Restriction (TSR)</i> Ahead Sign.</p> <p>Note: If no maximum speed is displayed below the <i>Temporary Speed Restriction (TSR)</i> Ahead Sign, <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)</i> Sign is a Speed Restriction sign displaying the maximum speed permitted for the restricted area.</p>	<p><i>Rail Traffic</i> must Proceed at the speed indicated on the sign placed below the <i>Temporary Speed Restriction (TSR)</i> Start Sign.</p> <p>Note: If no maximum speed is displayed below the <i>Temporary Speed Restriction (TSR)</i> Start Sign, <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: 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 leaving the limits of the <i>TSR</i>.</p>	<p><i>Rail Traffic</i> can return to the authorised <i>Track</i> speed, once the <i>Rail Traffic Consist</i>, has passed beyond the End of Speed Restriction sign.</p>

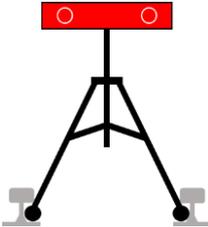
5. Permanent Signs

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

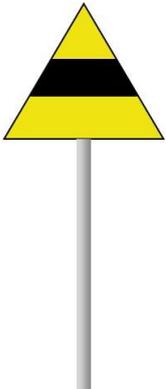
Sign	Name and Description	Required Action
	<p>Station Limits sign <i>Station Limits</i> signs are used to define <i>Station Limits</i> where <i>Fixed Signals</i> are not provided.</p>	<p><i>Rail Traffic Crews</i> must not Proceed beyond the <i>Station Limits</i> sign until authorised by the <i>Network Controller</i>.</p>
	<p>Limit of Shunt sign <i>Limit of 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 authorised with the <i>Issue</i> of an <i>Authority</i> for the <i>Section</i> ahead.</p>
	<p>Kilometre markers. This sign display's the distance from the start <i>Location</i> of the line or Junction.</p>	
	<p>Approach to a Controlled Location Sign. 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. 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>“Z” Track indicator sign. “Z” <i>Tracks</i> 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. 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. 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. This sign displays the name of the <i>Level Crossing</i> or bridge 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>Stop Ahead Sign.</p> <p>This sign is placed 3,000 metres before an <i>Obstruction</i> (work area) and used in conjunction with 2 <i>Railway Track Signals (RTS)</i> to provide <i>In-Field Protection</i>.</p>	<p><i>Rail Traffic</i> should Proceed and be prepared to stop at the Stop sign.</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</u>.</p>	<p><i>Rail Traffic</i> must stop before reaching the <i>Track Closed Warning Device</i>.</p>
	<p>Rail Clamped STOP sign.</p> <p>Used in a <i>Local Possession Authority (LPA)</i> and used in conjunction with 3 <i>Railway Track Signals (RTS)</i> to provided <i>Protection</i> between separated worksites in accordance with Procedure <u>9008 Managing Multiple Worksites in a Local Possession Authority</u>.</p>	<p><i>Rail Traffic</i> must stop before reaching the Rail Clamped STOP sign</p>

7. Train Order Territory Signs

Sign	Name and Description	Required Action
	<p>Commencement of Train Order Territory 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 the <i>Train Order</i> System.</p>
	<p>End of Train Order Territory 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>Train Order Crossing Station Indicator 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>Train Order Non Crossing Station Indicator 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.

9008 Managing Multiple Worksites in a Local Possession Authority.

9018 Using Track Closed Warning Devices.

9. Effective Date

01 October 2016