

ANSG 606

Responding to Signals and Signs

Applicability

NSW

SMS

Publication Requirement

External Only

Document Status

Issue/Revision #	Effective from
4.0	11 October 2015

Purpose

To prescribe the rules for responding to signal indications and signs in the *Australian Rail Track Corporation (ARTC) NSW Network*.

Principle

Fixed signals are devices near lines to:

- separate and regulate *rail traffic*, and
- tell *Drivers, track vehicle operators* and other *Qualified Workers* about the status of the line ahead, and
- show which *route* is set.

There might be permanent or temporary signs instead of fixed signals.

Drivers, track vehicle operators, *Pilots* and *Qualified Workers* directing *shunting* and *propelling* movements *must* obey the indications and instructions displayed by signals, indicators and signs.

Changing signal indications

If rail traffic is *closely approaching* a signal, the *Signaller* must not change the indication of the signal to a more restrictive *aspect* unless there is a *Condition Affecting the Network (CAN)*.

If a *train* is standing at a signal, the *Signaller* must not change the indication of the signal to a more restrictive aspect unless:

- there is a CAN, or
- the route needs to be altered, and it is safe to do so.

Where possible, the *Signaller* must arrange for the *Driver* to be told about the change of the signal aspect.

Signals must be tested in accordance with Rule *ANSG 616 Precautions during signal testing*.

Route and locality knowledge

Qualified Workers who observe, operate or maintain fixed signals must know the *locations* and purposes of signals in their areas of work.

Limit of authority

The clearing of a signal gives authority to enter the *block* for which the signal has been cleared, provided that, in *token* systems, the Driver or track vehicle operator has the token for the movement or in *Train Order* systems, the Driver or track vehicle operator has the Authority for the movement.

Running signals

A *running signal* authorises a *through-movement* between that signal and the next running signal.

Other than for shunting movements, Signallers must not clear a running signal if the block ahead is occupied.

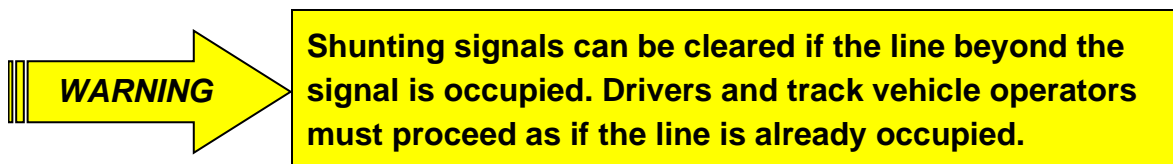
A Signaller *may* use a running signal to authorise a shunting movement if:

- there is no *shunting signal* available, and
- the Driver or track vehicle operator has been told.

Shunting signals

A shunting signal authorises a movement at *restricted speed* past that signal.

If possible, Signallers must use shunting signals to authorise shunting movements.



Unless the Signaller instructs that a movement is to proceed for a shorter distance, a PROCEED indication by a shunting signal is an authority to proceed up to and not beyond the first of the following limits reached:

- SHUNT LIMIT sign
- STOP sign
- indicator showing that *points* are not set, *catch points* are open, or a *derail device* is set on the rail
- set of non-interlocked points
- signal for the direction of *travel*.

A Signaller may use a subsidiary shunting signal to authorise rail traffic to pass a home signal, if the running signal:

- fails to clear, or
- cannot be cleared because rail traffic occupies the line beyond the signal.

A Signaller must not use a subsidiary shunting signal as the sole authority for rail traffic to pass a starting or home/starting signal for a through-movement. The movement must be made in accordance with Rule *ANSG 608 Passing signals at STOP*.

If a subsidiary shunting signal is used to authorise rail traffic to pass a running signal at STOP, a Driver or track vehicle operator must proceed at restricted speed.

Signal indications

STOP

Rail traffic must stop before a signal at STOP.

Drivers or track vehicle operators must keep the signal indication clearly in view.

If both a *co-acting signal* and the associated primary signal display STOP, rail traffic may pass the co-acting signal but must stop at the associated primary signal.

Signals may be passed at STOP only in accordance with Rule *ANSG 608 Passing signals at STOP*.

PROCEED

A PROCEED indication shows that:

- interlocked points protected by the signal are set in the correct position for the movement, and
- no conflicting route has been set.

Other than for shunting movements, a PROCEED indication by a running signal shows that the block is unoccupied as far as the next running signal.

A PROCEED indication by a shunting signal does not indicate that the block ahead is unoccupied.

LOW SPEED

Low speed signals are small in-line green lights:

- in or below the bottom of the lower case of double colour light signals, or
- below the main lamp case of single colour light signals.

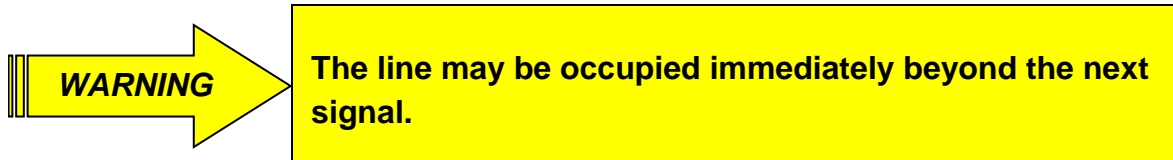
Low speed aspects indicate that the line to the next signal is unoccupied. They authorise rail traffic to proceed, but to expect:

- the next signal to be at STOP, and
- the line beyond the next signal to be occupied.

If *train stops* are provided, the maximum permitted speed is 25km/h. *Intermediate* train stops may require further speed reduction.

CLOSE UP

CLOSE UP signals indicate that the line to the next signal is unoccupied. They authorise rail traffic to proceed, but to expect the next signal to be at STOP.



Irregular signal indications

A fixed signal indication must be treated as STOP if:

- it is an *illegal signal indication*, or
- there is no indication, or
- there is no indication other than the route indicator, or
- it is not understood.

Illegal indications

A signal indication is illegal if it is not consistent with:

- the aspects and indications used in the ARTC Network
- the indications of *adjoining* signals and the known condition of the line
- what is known about *occupancy* of the line.

Qualified Workers must report illegal signal indications to the *Network Control Officer* responsible for the portion of line.

The Signaller must:

- if the *affected signal* is a *controlled signal*, set the affected signal to STOP with *blocking facilities* applied, and
- give Drivers and track vehicle operators a CAN warning about affected *automatic signals*, and
- tell the *Train Controller*, and
- tell a *Signals Maintenance Representative*.

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

Partial indications

Colour light running signals

If a light in a colour light running signal is not visible, Drivers or track vehicle operators must act as if the aspect is the most restrictive combination for the remaining displayed lights.

Colour light signals with route indicators

If a colour light signal shows a PROCEED indication without the route indicator being visible, Drivers or track vehicle operators must obey the PROCEED indication.

Semaphore signals

If, in darkness, no lights are displayed by a semaphore signal, Drivers or track vehicle operators must obey the indication displayed by the signal arm.

Signals not in use

A signal that is not in use must:

- have a large white “X” hung over the signal, or
- if next to a functioning signal, have its head covered or turned away from the line.

Drivers or track vehicle operators must ignore indications of signals marked as not in use.

Signal placement

Signals for a *unidirectional* line are preferably to the left of the line in the direction of travel. If this is not possible, they may be placed:

- above the line, or
- to the right of the line.



Signals for a double-line *bidirectional* line are usually:



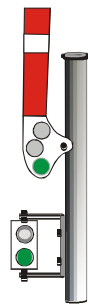
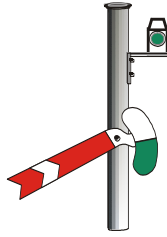
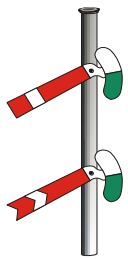
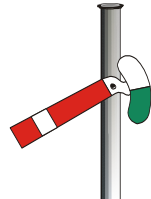
- for travel in the usual running direction, to the left of the line, and
- for travel opposite to the usual running direction, to the right of the line.

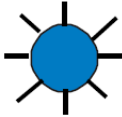
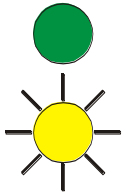
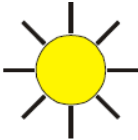

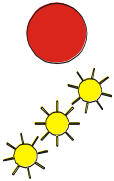


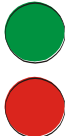
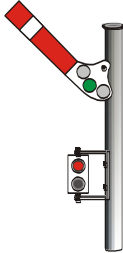
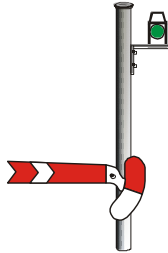
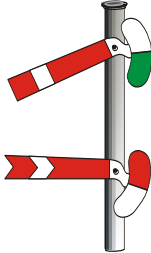
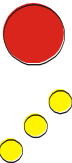
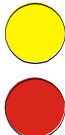
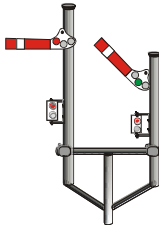
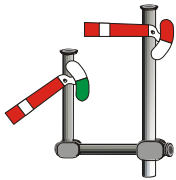
If a signal is placed to the right of the line, a left-pointing arrow may be used to indicate the line to which the signal applies.

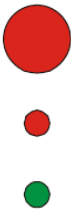

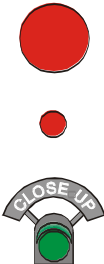
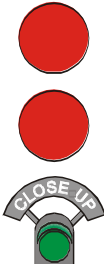


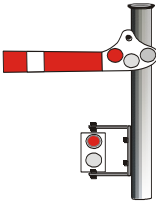
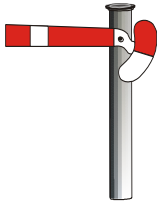
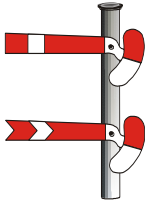
Running signal indications

The legal PROCEED and STOP indications shown by colour light and semaphore signals in the ARTC Network are, from least restrictive (highest) aspect to most restrictive (lowest) aspect.

NOTE In the Figures, lunar white lights are shown in blue , pulsating lights are shown with radial lines .

Meaning and required action	Single colour	Double colour	Upper quadrant	Single lower quadrant	Two lower quadrants, one fishtail
<p>CLEAR</p> <p>PROCEED. Next signal displays a PROCEED indication</p>					
<p>CLEAR</p> <p>PROCEED. Next signal may be at STOP or CLEAR</p>					

Meaning and required action	Single colour	Double colour	Upper quadrant	Single lower quadrant	Two lower quadrants, one fishtail
<p>CLEAR PROCEED.</p>					
<p>PRELIMINARY MEDIUM PROCEED. Next signal displays at least a MEDIUM indication</p>					
<p>MEDIUM PROCEED. Next signal displays at least a CAUTION or CAUTION TURNOUT indication</p>					
<p>MEDIUM TURNOUT PROCEED on turnout route. Next signal displays at least a CAUTION or CAUTION TURNOUT indication</p>					
<p>CAUTION PROCEED. Next signal may be at STOP</p>					
<p>CAUTION TURNOUT PROCEED on turnout route. Next signal may be at STOP</p>					

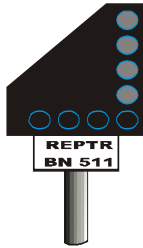
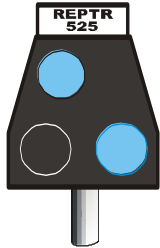


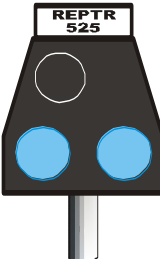

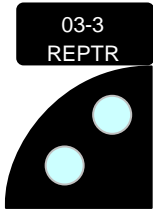
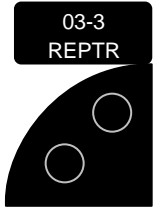
Meaning and required action	Single colour	Double colour	Upper quadrant	Single lower quadrant	Two lower quadrants, one fishtail
<p>LOW SPEED</p> <p>PROCEED ready to stop at the next signal.</p> <p>NOTE: The line immediately beyond the next signal may be occupied.</p> <p>Where train stops are provided, a maximum speed of 25km/h applies</p>					
<p>CLOSE UP</p> <p>PROCEED ready to stop at the next signal.</p> <p>NOTE: The line immediately beyond the next signal may be occupied</p>					
<p>STOP</p>					

Repeater signals

Colour light *repeater signals* take the same form as colour light running or shunting signals.

The repeater signal might show a less restrictive indication than the repeated signal.

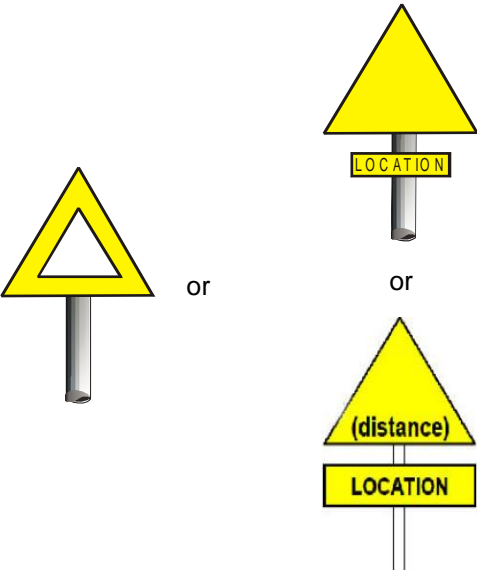
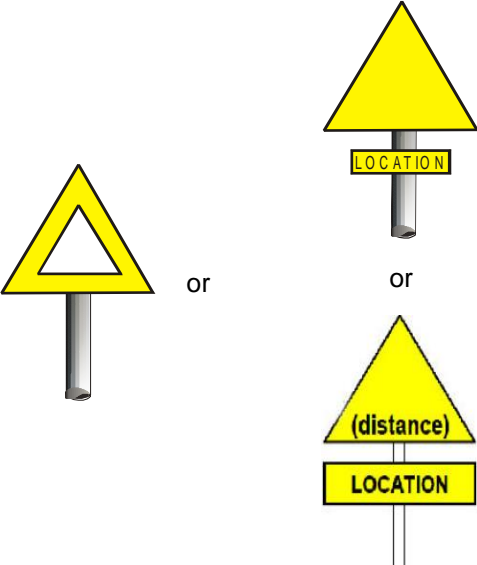
Indications displayed by other repeater signals used in the ARTC Network are:

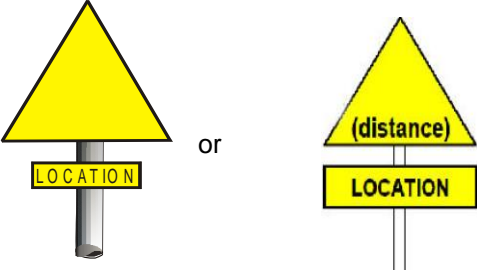
Required action	LEDs	Position lights	Banner
PROCEED. Next signal shows PROCEED.			
PROCEED. Next signal shows STOP.			
Required action	Low Speed Repeater		
PROCEED. Next signal shows a low speed PROCEED indication.			
Obey running signal indication.			

LANDMARK and LOCATION signs

LANDMARK and LOCATION signs warn Drivers and track vehicle operators that they:







- are approaching a location, and
- must be ready to respond to the first signal, STOP sign, *main line* indicator, *mechanical point indicator* or *yard limit* sign at the location.

Territory	Meaning and required action	Sign
Signalled	<p>WARNING</p> <p>Approaching a signalled location, PROCEED being prepared to respond to the next signal. If the first signal ahead shows CLEAR, normal speed may be continued.</p>	
Token	<p>CAUTION</p> <p>PROCEED ready to stop at the next signal, STOP sign, main line indicator, mechanical point indicator or YARD LIMIT sign.</p>	

Territory	Meaning and required action	Sign
Train Order	<p>WARNING</p> <p>Approaching a Train Order location. PROCEED according to the Train Order, being prepared to respond to the next main line indicator or mechanical point indicator.</p>	

YARD LIMIT signs

Drivers or track vehicle operators must respond to YARD LIMIT signs as described in the table below.

Territory	Meaning and required action	Sign
Token	Treat as absolute. PROCEED only when authorised by the Network Control Officer,	
	STOP. Treat as permissive. Check that the line ahead is not <i>obstructed</i> , then PROCEED at restricted speed.	
Train Order	STOP, unless authorised to PROCEED on a Train Order.	
	Defines the departure-end yard limit of a location. If required by the Train Order, report departure beyond the location.	
Signalled	Act in accordance with the Proceed Authority.	 
		<p>Common form of arrival-end YARD LIMIT sign.</p> <p>Common form of departure-end YARD LIMIT sign.</p>

Train Order Network Control boundary signs

At Network Interface locations in Train Order Territory, Drivers or track vehicle operators must respond to NETWORK CONTROL boundary signs as described in the table below.

<p>Limit of Authority for ARTC Network Control Officer. STOP, unless in possession of an Authority issued by the CRN Network Control Officer.</p>	<table border="1"> <tr> <td>END ARTC CONTROL</td> </tr> <tr> <td>LOCATION</td> </tr> <tr> <td>BEGIN CRN CONTROL</td> </tr> </table>	END ARTC CONTROL	LOCATION	BEGIN CRN CONTROL
END ARTC CONTROL				
LOCATION				
BEGIN CRN CONTROL				
<p>Limit of Authority for CRN Network Control Officer. STOP, unless in possession of an Authority issued by the ARTC Network Control Officer.</p>	<table border="1"> <tr> <td>END CRN CONTROL</td> </tr> <tr> <td>LOCATION</td> </tr> <tr> <td>BEGIN ARTC CONTROL</td> </tr> </table>	END CRN CONTROL	LOCATION	BEGIN ARTC CONTROL
END CRN CONTROL				
LOCATION				
BEGIN ARTC CONTROL				

Related ARTC Network Procedures

ANPR 721	Spoken and written communication
ANPR 746	Authorising rail traffic to pass an absolute signal at STOP

Effective Date

11 October 2015