Observance of Signals RE ACCREDITATION Work Book



This workbook is derived from extracts from Queensland Rail Standard: Observance of Signals Manual, MD-110-109



Adapted for CKS / CairnsRail Training Modules for workers seeking re-accreditation as Locomotive Driver

Version 1 of 27/4/15

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1 Signals General

1.1 Introduction

1.1.2 Safety

WARNING

The proper observance of signals is vital for the safety of workers and the general public. Rail Traffic Crews and other workers are not to be satisfied with the proper observance of signals only. In addition to the observance of signals, Rail Traffic Crews and other workers must give their attention to the condition of the track and any other factor which affects safety and/or safeworking.

1.1.3 Normal position of signals

Where a signal is capable of showing a stop aspect, the normal position of these signals will be at stop. Some signals, however, may be normally at proceed

- · where they are used to protect level or tramway crossings
- where they are used to extend the limits of a station yard
- · where they are non-controlled signals
- at nominated locations
- at unattended crossing stations in staff and ticket territory

1.2 Types of Signals and Equipment

1.2.1 Running signals

Signals that are mainly used to authorise running movements, but may also be used for shunting movements.

1.2.2 Shunting signals and indicators

Shunting signals regulate shunting movements in sidings, through crossover tracks or along running tracks. When a shunting signal is placed at proceed for a shunting movement it must be assumed that the section of track beyond this signal is occupied.

Separate Indicators show the way the points are set for the route the rail traffic is to take.

1.2.3 Boards

Boards are used to give rail traffic crew and other workers instructions necessary for the running of rail traffic. They must be obeyed, the same as signals.

1.2.4 Signs

Signs are used to tell rail traffic crews and other workers of particular safeworking situations, particular instructions, or to identify locations.

1.2.5 Hand, hand held flag and light signals and radio communication

Hand, hand held flag and light signals and radio communication are used when there are no other appropriate signals an additional signal is required necessary to give rightaway a specific instruction needs to be given an if emergency exists

1.2.7 Whistle codes

Whistle codes are used to warn workers and members of the public, convey messages, warn of an emergency

1.2.6 Rail Traffic signals

Rail Traffic signals are installed on rail vehicles and are used to indicate

- the front and rear of rail traffic
- · indicate rail traffic is intact

1.2.8 Railway Track Signals

Railway Track signals are used

- as warning devices
- emergency signals
- protection

1.2.9 Emergency signals and equipment

Various signals and equipment may be used in an emergency. These include

- railway track signals
- radios
- hand, hand held, flag and light signals
- · train whistle
- bell signals
- flashing headlight
- airbrake
- track circuit clips

1.3 Operating Signalling Equipment

1.3.1 Care and working of signalling equipment

All workers responsible for the operation of signalling equipment will

- make sure equipment is used in the correct manner
- make sure all traffic movements are protected by signals, where provided
- not allow unqualified, unauthorised workers to operate the equipment
- make sure all signalling equipment is in proper working order
- report any failure of signalling equipment
- make sure manually controlled signals are returned to their normal position as soon as rail traffic has passed
- make sure signals and points respond to operation by observing signals, points or indications provided.

1.5 Observance of Signals

WARNING

Rail traffic must not pass signals at stop without authority.

1.5.1 Authority to pass a signal at stop

The authority to pass a signal at stop can only be given by the worker who controls the signal section into which the movement is to be authorised or by validated instructions attached to the signal or in accordance with instructions for the safeworking system.

Rail traffic can only pass a signal at stop when authorised by:

- network control officer or the person in charge of a panel that controls the signal section into which the movement is to be authorised, or
- validated instructions attached to the signal,
- or Rail Traffic Driver to pass a signal fitted with an SP plate.
- or down home signal in Staff and Ticket Territory

1.5.2 Responsibility of workers

Where the observance and obeyance of signals is part of a worker's duty

Workers

- do not allow any other duty to interfere with the observance of signals
- pay strict attention to, and obey, all signals
- keep signal in view of at least one member of rail traffic crew until the signal aspect is no longer visible
- clearly tell others concerned the aspect of signals
- if there is no agreement on the aspect of the signal the rail traffic driver
 - will make sure the correct signal is being called
 - repeat the signal call
 - stop the rail traffic if it is still unclear which is the correct indication
- if after stopping the indication of the signal is unclear, for example, sun shining on the lens, contact the network control officer or officer in charge to confirm the signal indication
- do not move away from the driving station to check the signal indication while the rail traffic is moving
- take extra care when visibility is reduced
- look out for additional signals

Note: Rail traffic crews must call the aspects of signals to other members of the rail traffic crew travelling in the cab of a locomotive/train unit.

Note: Rail operators, who are qualified in safeworking, must call the aspects of signals to members of the rail traffic crew when travelling in the cab of a locomotive/train unit.

1.5.3 Failure to obey signals

When a rail traffic driver fails to obey a signal, or does not respond to a call of a signal by the second rail traffic driver or a rail traffic driver's assistant

Second Rail Traffic Driver or Rail Traffic Driver's Assistant

- if there is enough time to stop the rail traffic prior to the signal
 - make every effort to draw the rail traffic driver's attention to the aspect of the signal
- if there is not enough time to stop the rail traffic prior to the signal
 - apply the emergency brake or open the emergency cock

1.5.4 Passing signals at stop without authority

WARNING

Rail traffic must not pass signals at stop without authority.

Rail Traffic Driver immediate actions

If for any reason, rail traffic passes a signal showing a stop aspect without authority, or passes any other limit of safe working authority:

- bring the rail traffic to a stop immediately in the first safe location
- secure the rail traffic against movement
- warn any other rail traffics or in the vicinity using the emergency call 'Emergency, Emergency'
- If necessary, protect the rail traffic
- contact the Network Control Officer on the radio and say 'Emergency, Emergency, Emergency'
- identify the rail traffic to the Network Control Officer and the location by both rail section and by giving the number of the nearest OHLE structure, mast or kilometre board/marker
- do not move the rail traffic without specific authority from the Network Control Officer or Signaller, unless there is a danger of an accident
- ensure the radio remains on and await further instructions from the Network Control Officer

Note: Standard has range of actions that the network controller and supervisor must take in event of SPAD

1.5.5 Rail Traffic Driver cannot observe the signal

When rail traffic stops in a position and the rail traffic driver cannot observe the signal. The rail traffic driver must confirm the aspect of the signal before proceeding.

Rail Traffic Driver

confirm the aspect of the signal with a qualified worker

Qualified Worker

• maintain communication with the rail traffic driver be in a position to clearly observe the signal until the rail traffic passes the signal

Rail Traffic Driver

• if a qualified worker is not in a position to observe the signal, then tell the Network Control Officer / Officer in Charge

Note: If the aspect of the signal cannot be confirmed, the Network Control Officer may wish to place the signal at stop and issue an Alternative Proceed Authority for the rail traffic to proceed.

Revision Exercises

Section GS 1

Describe the purpose of a running signal
Describe the purpose of a shunting signal
Where would you find a rail traffic Signal?
What does a rail traffic signal indicate?
Who can give authority to pass a signal at stop?
State two actions that can be taken by a drivers assistant if a driver fails to acknowledge a signal indication or a call of a signal indication

1.6 Aspects of Signals

The aspects and indications of semaphore and colour light signals are as shown below

	GREEN	PROCEED
	FLASHING GREEN	PROCEED. Indicates a change from RCS to another safeworking system. Proceed, provided the appropriate safeworking authority is held.
	DOUBLE YELLOW	CAUTION. Proceed prepared to find the next signal at caution.
P	YELLOW	CAUTION. Expect the next signal to be at STOP. Proceed, prepare to STOP prior to the next signal.
	FLASHING YELLOW	SPECIAL CAUTION. Proceed to the next STOP signal at a speed not exceeding 40 km/h, where: points beyond the next Stop Signal must be assumed to be set against the rail traffic, and/or the track beyond the next Stop Signal is occupied a shunting movement is being carried out on an adjacent line, or level crossing protection has not been activated
	RED	STOP

4	TWO WHITE	PROCEED
4	WHITE and RED	STOP
	Reflectorised semaphore arm in the horizontal position	STOP
	Reflectorised semaphore arm at 45 degrees	PROCEED

1.7 Back of Signals

1.7.1 Authority of back of signals

The back of semaphore and colour light signals does not give authority to any rail traffic.

1.8 Signal Terminology

1.8.1 Approach side of signal

When on the 'Approach side' of a signal, the worker must be looking in the direction of and able to see the aspect of the signal or the block limit board number.

1.8.2 Departure side of signal

When on the 'Departure side' of a signal, the worker, when looking at the signal, can only see the back of it (cannot see the aspect of the signal or the block limit board number).

1.9 Signals Not In Use

When signals are not in use they will be identified by

a white cross attached to the front of semaphore signals and points indicators

Note: Lamps are to be removed.

 a cover placed over the signal lights with a white cross showing to the front on all other signals

1.10 Irregular Signals

An irregular signal is one which displays

- a white light where normally a colour light is shown
- more than one proceed signal is displayed where only one should be shown
- no signal where a signal is normally seen (blackout signal)
- a signal for a route on which the rail traffic would not normally run
- a semaphore signal not in a horizontal or 45° position
- conflicting aspects
- a position light signal displaying the lower white light only

Worker observing a defective signal

- treat an irregular signal as a signal at STOP, except for
 - repeat signals
 - approach signals
 - semaphore signal arm indications which can be clearly seen, can be obeyed when no light is showing
- report to the Network Control Officer
 - signal number and location
 - type of defect
 - any signal that is dull or poorly focussed
 - reflectorisation that has become ineffective
 - any signal that is obstructed (example: by trees)

Rail Traffic Crew

· approach defective signal with and prepare to stop

1.13 Passing Signals at Proceed

When rail traffic has stopped and the rail traffic driver cannot see the signal, the rail traffic driver must confirm the aspect of the signal before proceeding past the signal.

Rail Traffic Driver

- confirm the aspect of the signal with a qualified worker who is in a position to clearly see the signal
- the qualified worker must observe the aspect of the signal until the rail traffic passes the signal
- if a qualified worker is not in a position to see the signal, then
- ask the Network Control Officer

2.2 Semaphore Signals

Is a signal capable of showing a stop or proceed aspect

2.3 Colour light signals

Description

• a signal which displays a stop or proceed authority by the lighting of coloured aspects only

2.3.1 Aspects of colour light signals

Colour Light Signals can be of single, two, three or four aspects

- a) Single aspect
 - · red, permanent stop, or
 - · permanent stop with position light signal attached
 - · yellow, permanent caution
- b) Two aspect
 - · green or red
 - · yellow or red
 - green or yellow, used as a repeat or approach signal
- c) Three aspect
 - · displays green, or yellow, or red
- d) Four aspect displays
 - green, or yellow, or double yellow or red

Colour/ Aspect	Red	Yellow	Double Yellow	Green
Meaning	Stop	Expect the next signal to be at STOP. Proceed with Caution, prepare to STOP prior to the next signal.	Proceed with Caution prepared to find next signal at CAUTION	Proceed
Variations		FLASHING YELLOW Special Caution - Proceed to the next Stop Signal at a speed not exceeding 40 km/h		FLASHING GREEN Proceed if Safeworking Authority is held
Single				
Two				
Three				
Four				

2.3.2 Colour light signals – non-controlled and controlled

a) non-controlled signals

Non-controlled signals work by the detection of traffic over track circuiting and are not normally manually controlled. Some non-controlled signals can be operated manually. For example,

- shunting purposes at level crossings
- worksite protection

b) controlled signals

Controlled signals may be controlled by the Officer in Charge. Some controlled signals are capable of being placed in non-controlled working by the Officer in Charge.

2.3.3 Passing non-controlled and controlled signals at stop

a) passing non-controlled signals at stop

Non-controlled signals may be passed at stop on the authority of the Network Control Officer/Officer in Charge in accordance with instructions for the Safeworking System.

b) passing controlled signals at stop

Controlled signals may be passed at stop on the

- authority of the Officer in Charge
- authority of a signal attached to the controlled signal
- authority of the Officer in Charge using a hand signal, hand held flag, light or radio in non-RCS territory

2.7 Stop Boards

Location

 at various locations throughout the Queensland Network

Purpose

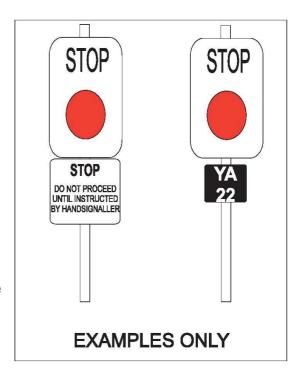
to stop rail traffic to receive instructions

2.7.1 Indications and working

a) authority of stop boards

A Stop Board is a running signal at STOP. At some locations an additional board is attached identifying the Officer in Charge.

b) passing stop boards with no instructions attached



Authority to pass stop boards will be in accordance with the procedures for passing a running signal at stop, as defined by the safeworking system applicable to the area in which the board is located.

c) passing stop boards with instructions attached

When rail traffic approaches a stop board with instructions attached

Rail Traffic Crew

- be prepared to stop at the stop board
- · carry out instructions
- if instructions cannot be carried out
 - do not proceed
 - contact officer in charge
- · obtain authority to pass stop board before proceeding

2.8 Repeat Signal

Description

- a two aspect colour light signal
- identified by a large attached 'P' plate

Location

on the approach side of a signal which has a restricted view

Purpose

 provide rail traffic crews with an indication that the signal being repeated is either at stop or proceed

Note: Rail traffic drivers should be aware these signals are not placed at braking distances.

2.8.1 Indications and working

When the signal shows

- a green aspect the
 - next signal shows a proceed aspect
- a yellow aspect
 - be prepared to find the next signal at stop, proceed and prepare to stop prior to the next signal
- a flashing yellow aspect
 - be prepared to find the next signal at stop, proceed at a maximum speed of 40 km/h and prepare to stop prior to the next signal, because
 - the overlap beyond the next signal is occupied and/or,
 - the points beyond the next signal are set against the passage of the rail traffic, or
 - level crossing protection has not been activated

Note: When a Repeat Signal is a blackout, rail traffic may proceed and prepare to find the signal being repeated at stop.



2.9 Approach Signals and Approach Beacons

Description

- one or two aspect colour light signals identified by a small reflectorised beacon attached to the signal post
- an approach beacon

Location

generally at braking distance from the next stop signal or yard limit board

Purpose

- to warn rail traffic crews they are approaching a signal which may be at stop, or
- a yard limit board

Meaning	Colour Light	Approach Beacon	Next Stop Signal in Advance
PROCEED			At Proceed
CAUTION			Expect to ind at STOP

2.9.1 Indications and working

a) approach signal

When the signal shows

- a yellow aspect
 - expect the next signal to be at stop, proceed, prepare to stop prior to the next signal
- a flashing yellow aspect
 - the next signal is at stop, proceed to the next stop signal at a speed not exceeding 40 km/h
- a green aspect
 - the next signal shows a proceed aspect

Note: When an Approach Signal does not show an aspect, rail traffic may proceed and prepare to find the next signal at stop.

b) approach beacon

An Approach Beacon indicates the next stop signal in advance may be at stop.

Session 2 Revision Exercise

Complete the third column in the table by listing the meaning of the indication and any relevant information pertaining to the indication:

8	FLASHING GREEN
P	YELLOW
	FLASHING YELLOW
4	WHITE and RED
	Reflectorised semaphore arm in the horizontal position

What is the approach side of a si	gnal?	
What authority does the departur	e side of a signal give to rail traffi	ic?

Describe an irregular signal, and the actions that must be taken in the event of encountering one.
In the space below, draw a three aspect colour light signal, labelling the colour of the lenses in their correct alignment.
What arrangement of lights can a two aspect colour light signal display?
List 3 methods of passing a controlled signal at Stop:
What is the 'Authority' of a Stop Board (ie how is it treated)?
How is a repeat signal identified?

Si	ate some unierences between a colour light repeat signal, and a colour light approach signal?

3.3 Position Light Signals

Location

on signal posts or separately mounted

Purpose

- to allow rail traffic to pass a stop signal at stop for a non-running move
- to indicate detected points ahead are correctly set and conflicting signals are at stop

3.3.1 Indications and working

a) signal indications

When a position light signal shows

- a stop aspect
 - when separately mounted, stop and obey the position light signal
- a proceed aspect, proceed at restricted speed
 - · to the limit of shunt board, or
 - intervening signal showing a stop aspect, or
 - as far as the track ahead is clear

Note: Position light signals do not detect track occupancy. They do detect that the points are correctly housed. They do not indicate which way the points are set. It is always required to check which way the points are set before authorising a movement over them.

b) position light signals not to be used for running movements

Position Light Signals must not be used for running moves unless an Alternative Proceed Authority is issued on A Written Authority for Rail Traffic form.

Positional Light Signals are used in the following situations for:

- amalgamating rail traffic
- stowing rail traffic in an occupied signal section
- attaching or detaching locomotives or rail vehicles
- moving to a limit of shunt board
- entering a siding where the running signal does not apply

Note: For the signalling system to provide protection, signals must be obeyed.

c) leading position light signals

Description

 when a running signal on the approach side of a leading position light signal displays a proceed indication the leading position light signal will also display a proceed indication as shown in Figure SG 3.2

Location

 leading position light signals are located between two running signals and are separately mounted.



Purpose

- may be used for both shunting or running movements
- when used for a running movement normal road speed will apply over the signalled section
- will apply to the track up to the next running signal

Note: When the leading position light signal is cleared for a shunting movement and is not cleared in conjunction with a running signal, the procedures in SG 3.3.1 a) (above) apply.

If the previous running signal was at proceed and the leading position light signal is showing an irregular signal

- · attempt to stop the rail traffic prior to the signals
- tell the Network Control Officer
- proceed at restricted speed to the next running signal when authorised by the Network Control Officer and obey that signal

3.5 Siding Signals

Description

• a single aspect light signal bracketed from the main signal post,

Location

• at the entrance to sidings or loop lines from the main line

Purpose

 to allow the movement of rail traffic from the main line into sidings or through loop lines

2

3.5.1 Indications and working

The indications and working of siding signals are

- when the points are set for the main line
 - the single aspect light signal will not show an aspect
- when the points are set for the siding
 - the single aspect light signal will show a yellow aspect in conjunction with a stop aspect in the main signal

Note: When entering sidings or loop lines, rail traffic may proceed to the next stop signal at a speed not exceeding 25 km/h, except when a higher speed is indicated and the next signal is displaying a proceed aspect.

3.7 Catch Point Disc

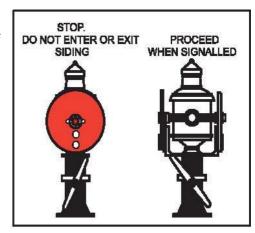
Location

 at the clearance points and attached to catch point of some sidings

Purpose

- to indicate clearance points of sidings
- to indicate the way the catch point is set

3.7.1 Indication and working



a) proceed indication

Catch point discs showing a white light and no disc, indicate points are correctly set for entrance to, or exit from a siding

Rail Traffic Crew

• do not proceed before receiving a verbal, hand or radio signal

b) stop indication

Catch point discs showing a red light and a red disc indicates the catch point is open Rail Traffic Crew

- · do not proceed
- tell officer in charge, to reset the catch point for the movement of the rail traffic

4 Boards

4.2 Speed Boards

Description

- Front black numbers or letters on a yellow reflectorised background (see examples of speed boards in SG 4.2.1)
- Rear black

Location

- at the start of a portion of track where the maximum permissible speed in force varies, for example
- there are often speed variations at or near the start and end of curves, or
- where there is a requirement to repeat the speed indication for the benefit of the rail traffic crew

Purpose

- to indicate the maximum speed at which a rail traffic may travel, provided there is no conflict with the signals or instructions, for example
 - trailable facing points indicators
 - · permanent way protection signals
 - permanent speed boards
 - permanent way speed restriction equipment special
 - permanent speed boards restricting the operation of certain traffic on a section of track
 - dynamic speed indicator (DSI)
 - train notice/weekly notice/circular memo or other business instructions
 - Operational Route Manual and On-track Vehicle Data Manual
 - any other requirements of General Operational Safety Manual
 - hand signallers instructions
 - speed restrictions advised by Network Control
 - ATP indicators

4.2.1 Speed changes



The speed indicated on a speed board will remain in force until the next change of speed is indicated.

When rail traffic approaches or passes a speed board

Rail Traffic Crew

- decrease to indicated speed before the locomotive or leading rail vehicle passes a board indicating a lower speed
- increase to indicated speed after the last rail vehicle of the rail traffic has passed a board indicating a higher speed

4.3 Whistle Boards

Location

 at places where it is necessary for rail traffic to whistle, for example, level crossings, bridges, tunnels

Purpose

 to tell rail traffic crews to sound a whistle to warn workers and/or members of the public that rail traffic is approaching



4.4 Limit of Shunt Boards

Location

at various locations throughout Queensland Network

Purpose

to define the limit of shunting operations



Note: Limit of Shunt Boards must not be passed when moving on the authority of a shunt signal, DTC shunt authority or hand, flag or verbal signal.

4.5 Clearance Point Boards

Location

usually found where lines converge

Purpose

to indicate the point where rollingstock will not foul rollingstock on an adjacent line



6.8 Kilometre Signs

Location

located every kilometre on the left hand side in the direction of increasing kilometres

Purpose

• to identify a distance in kilometres from a set point, for example, from a junction of a branch track in the direction of increasing kilometres

6.20 Super Control Signs

Description

black lettering on a white background

s**ặ**c

Location

 the sign is attached to the signal post of the signal prior to the level crossing

Purpose

 to indicate that the level crossing immediately in advance of the signal operates under Super Control

Draw a speed board showing a 25 kph limit If a train is approaching the above speed board, at what point should the train speed be in compliance with the board? Draw a limit of shunt board On what authority may rail traffic travel to the limit of authority offered by the LOS board? What is the meaning of, and what information is offered by a CP board? What does an SC board indicate?

Session Three Revision

8 Rail Traffic Signals

8.1.2 Safety

WARNING:

The safety of all workers is of the utmost importance. These signals must be correctly used at all times.

To assist in the safe movement of traffic, and make workers aware of the approach and departure of rail traffic, and to make sure rail traffic is intact, it is necessary to clearly identify the front and rear of rail traffic.

As an aid to safety, the headlight on all lead locomotives and power units must be operating to the front both day and night. The only exceptions to this are included in this module.

8.2 Responsibility of Workers

It is the responsibility of workers involved in the running of rail traffic to check that all rail traffic carries the correct rail traffic signals and to report any defective or missing signal to the Officer in Charge.

8.3 Rail Traffic Signals Required

8.3.1 Principle

Rail Traffic direction-of-travel and completeness must be shown by

- headlights or white marker lights at the front of the leading motive power unit, and
- at least one red tail light, or an approved end-of-train marker, at rear of the last vehicle

Marker lights and tail lights must be

- (where fitted) lit during travel, and
- if defective, repaired or replaced as soon as possible

End of train markers

- may travel without being lit during hours of good visibility
- must be lit during hours of poor visibility

8.3.2 End-of-Train markers and tail lights

End-of-train markers with light must be lit in conditions of low visibility.

Defective end-of-train markers or unlit tail lights

If an end-of-train marker with lights is unlit at night or in conditions of low visibility, the Network Control Officer must direct the rail traffic crew or rail company to have the end-of-train marker repaired or replaced as soon as possible.

If rail traffic is not fitted with an end-of-train marker, and the rail traffic does not have at least one working tail light, and rail traffic completeness cannot be assured, the Network Control Officer must

arrange to work the rail traffic under manual block working conditions, and

• warn other rail traffic crew on adjacent lines and following the movement

Missing end-of-train markers and defective tail lights (where used)

If the end-of-train marker is missing or tail light is defective

- the identification number of the last vehicle of a rail traffic must be checked against the rail traffic consist documents, or
- the rail traffic must be otherwise verified as complete

8.4 Visibility Lights

Some locomotives and power units are equipped with visibility lights. These lights consist of two small headlights located on the headstock on the leading end. They are designed to allow headlights to be turned off in certain situations and still allow rail traffic to be visible to oncoming traffic or workers ahead of the rail traffic. They also provide some view of the permanent way for the rail traffic crew. Visibility lights must remain on at all times when the rail traffic is moving.

8.5 Headlights

Headlights will be turned on when a locomotive/train unit is operating. Track vehicles fitted with headlights must have the headlight turned on when operating on track.

Headlights may only be dimmed or turned off as shown in Sections SG 8.5.1 and SG 8.5.2 of this module, and must immediately be restored to high beam when these situations no longer apply.

8.5.1 Headlights dimmed

Headlights will be dimmed when

- approaching station yards
- running through station yards
- a motor vehicle is approaching on a roadway from the opposite direction
- opposing rail traffic
 - approach a level crossing
 - are unable to see if the track ahead is clear, and any points are correctly set

Note: In Brisbane Suburban Areas during times of high density traffic, rail traffic may run with the headlight dimmed.

8.5.2 Headlights turned off

a) Power units fitted with visibility lights

Power units equipped with operating visibility lights may turn the headlight off if there is no level crossing, the track ahead is clear and points are correctly set when

- approaching an opposing rail traffic
- approaching station yards
- running through station yards
- standing in station yards
- at suburban stations
- a motor vehicle is approaching on a roadway from the opposite direction
- b) Power units not fitted with visibility lights

Power units not equipped with visibility lights may turn the headlight off it there is no level crossing, the track ahead is clear and points are correctly set when

- approaching an opposing rail traffic
- at suburban stations
- standing in station yards

8.8 Defective Rear of Train Signal

When a rear of train signal becomes defective and shows no light

- · continue to the next depot station where repairs can be effected
- report defect to officer in charge

8.9 Missing Rear of Train Signals

Before attaching a rear of train signal to replace one that is missing

Worker

- check that the rail traffic is intact by making sure the number of the last vehicle matches the last vehicle shown on the rail traffic list
- if rail traffic is not intact, contact the Network Control Officer

Session 4 Revision Exercises

What are the minimum rail traffic signals required on a running train?
What do rail traffic signals indicate?
State four occasions where headlights may be dimmed
State four occasions where headlights may be switched off (loco has visibility lights
If replacing a missing end of train marker, what check must be made by the worker?