Using a Track Occupancy Authority

Introduction

Track Occupancy Authorities (TOA) are used to occupy a defined portion of track within specified limits for an agreed period.

A TOA may:

- allow the track to be broken or obstructed,
- allow rail traffic associated with the TOA to work within the specified limits, and
- be granted for track vehicles to travel singly or in convoy.

NOTE

The preferred method of obtaining a TOA is using the electronic application

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Obtaining a Track Occupancy Authority

The Protection Officer obtains a TOA from the Network Control Officer responsible for the portion of track.

Protection Officer

1. Tell the Network Control Officer:
   - your name and contact details, and
   - the location of the work or track vehicle travel, and
   - the type of work to be done, and
   - the limits of the TOA, and
   - the protection arrangements for the TOA, and
   - the intended finish time.

Network Control Officer

2. Confirm the details about the location and proposed limits of the TOA.
3. Make sure that:
   - there is no rail traffic within the proposed limits of the TOA, or
   - a unidirectional rail traffic movement within the limits has passed clear and complete beyond the proposed worksite or the starting point of the track vehicle journey, and
   - the control system has validated the rail traffic movement within the limits has passed clear and complete beyond the proposed worksite or the starting point of the track vehicle journey, and
   - when supplied by the Protection Officer, check that the identification number of the lead motive power unit of the rail traffic matches the rail traffic consist.
   - if the TOA is associated with disabled or restrained rail traffic, the rail traffic will not be moved before authority is obtained from the Protection Officer.

Using a Track Occupancy Authority

4. If the TOA is to be authorised to start after a unidirectional rail traffic movement, confirm with the Protection Officer that the TOA does not include multiple worksites.
5. Apply blocking facilities to prevent unauthorised rail traffic entry into the limits of the TOA.
6. Confirm that the TOA will affect only one Network Control Officer's area.
7. Issue the TOA.
8. Make a permanent record of all information about the authorisation and issue of the TOA.
9. Ask the Protection Officer to repeat back information about the TOA or accept the TOA using the electronic application.
10. Authorise the TOA.

Protection Officer

11. If the TOA includes unidirectional rail traffic:
    - confirm with the Network Control Officer that any unidirectional rail traffic within the TOA limits has passed clear and complete beyond the proposed worksite or the starting point of the track vehicle movement, or
    - watch the rail traffic pass complete beyond the proposed worksite limits or the starting point of the track vehicle movement, and
    - document the identification number of the lead motive power unit, and
    - contact the Network Control Officer and provide the identification number of the lead motive power unit.
12. Where practicable, and if authorised by the Network Control Officer, take and safeguard the pilot staff and make a permanent record that the pilot staff has been taken.
13. Confirm the details of the TOA by:
    - Repeating back to the Network Control Officer, or
    - Using the electronic application.
14. Confirm with the Network Control Officer that blocking facilities have been applied to prevent unauthorised entry of rail traffic into the portion of track within the TOA limits.
15. When authorised, put the required protection in place and commence work or travel.

Joint Occupancy with another Track Occupancy Authority

A second TOA with the same limits or overlapping limits as an existing TOA may be authorised.

Network Control Officer

1. Tell the Protection Officer requesting the additional TOA to:
    - consult and make agreed arrangements with the Protection Officer holding the existing TOA, and
    - obtain the supplementary code from the Protection Officer holding the existing TOA.

Using a Track Occupancy Authority

2. If the second TOA is for a track vehicle movement, confirm that the protection has been placed in the direction that the track vehicle is to approach.
3. Where possible, apply additional blocking facilities.
4. Issue the additional TOA.
5. Make a permanent record of all information about the authorisation and issue of the TOA.
6. Ask the Protection Officer to repeat back information about the TOA, or accept the TOA using the electronic application.
7. Authorise the TOA.

Protection Officers

8. Consult on the proposed work, and
9. Agree on the protection arrangements and rail traffic management, and
10. Record the agreed arrangements in permanent form, and
11. Protection Officer holding the existing TOA provides the Protection Officer requesting the additional TOA the supplementary code, and
12. Protection Officer requesting the additional TOA, provides the Network Control Officer the supplementary code.

Joint Occupancy with a Track Work Authority

A TOA may be authorised in an area where a Track Work Authority (TWA) is current.

Network Control Officer

1. Tell the Protection Officer seeking the TOA to consult with the Protection Officer holding the TWA.
2. Confirm that the Protection Officers have consulted with each other, and that the TWA Protection Officer agrees with the arrangements
3. If the TOA is for a track vehicle movement, confirm that the protection has been placed in the direction that the track vehicle is to approach.
4. Record the details of the TOA.
5. Where possible, apply additional blocking facilities.
6. Issue the TOA.

TOA Protection Officer

7. If the TOA is for a track vehicle movement, confirm with the TWA Protection Officer:
   - the direction of travel, and
   - the protection arrangements are agreed.

Using a Track Occupancy Authority

Protection Officers

8. Consult on the proposed work, and
9. Agree on the protection arrangements and rail traffic management, and
10. Record the agreed arrangements in permanent form.

Joint occupancy with a Work Train Order (WTO)

A Work Train Order can be issued where a Track Occupancy Authority (TOA) is current.

Protection Officer

1. Make agreed arrangements and provide Rail Traffic Crew the supplementary code.

Rail Traffic Crew

2. Obtain supplementary code from Protection Officer for associated TOA and provide supplementary code to Network Control Officer (NCO).

Network Control Officer

3. Issue Work Train Order to Rail Traffic Crew.

Protecting worksites

NOTE

When using Railway Track Signals, make sure that red flags/red lights are placed in the middle of the four-foot, adjacent to the railway track signal closest to the worksite.

Protection Officer

Establish if railway track signal protection is required. If required:

1. Make sure that railway track signal protection is placed on all points of entry to the worksite. Place three Railway Track Signals and red flag/red light at least 500m from the worksite.

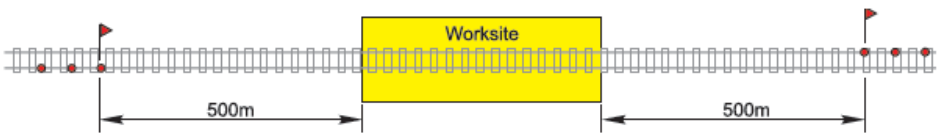

FIGURE 1: Example of protection arrangements for a single worksite

2. If a controlled absolute signal is within 500m of the worksite, a controlled absolute signal more than 500m from the worksite must be used for worksite protection.

Using a Track Occupancy Authority

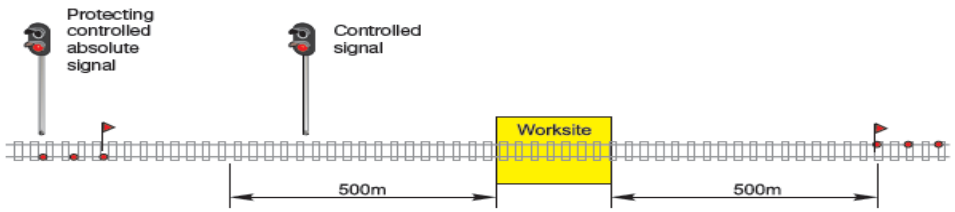

FIGURE 2: Example of protection arrangements for a worksite when the closest signal is less than 500m from the worksite, a signal more than 500m from worksite used for protection

3. If a controlled absolute signal, less than 500m from the worksite, is used to prevent access to the portion of track within the TOA limits, and a set of points is available for a different route, then secure the points for the different route.

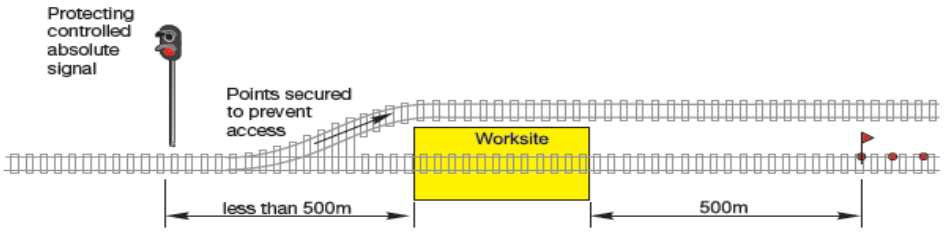

FIGURE 3: Example of protecting signal less than 500m from worksite, points secured for a different route

4. If points cannot be secured for a different route, use a controlled signal at least 500m from the worksite.

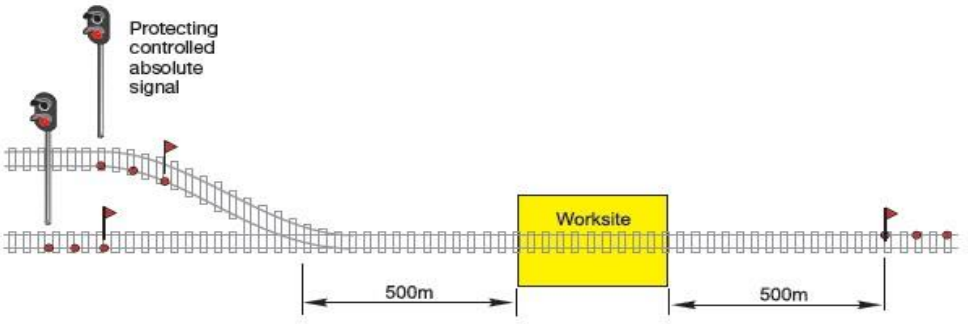

FIGURE 4: Example of protecting a worksite with signals more than 500m from worksite

5. Where multiple worksites are located within TOA limits or additional Work on Track Authorities have been authorised, three Railway Track Signals and red flag/ red light must be placed at least 500m from the entry limits of each worksite.

   If worksites are more than 500m but less than 1000m apart, three Railway Track Signals and red flag/red light must be placed midway between the worksites.

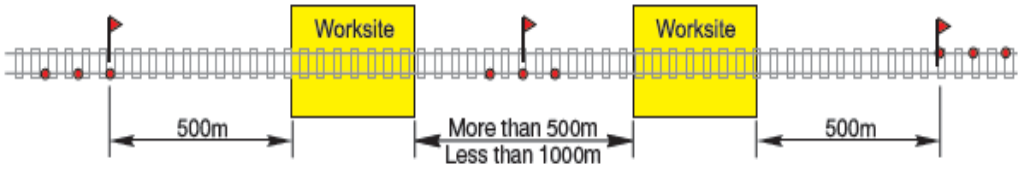

FIGURE 5: Example of protection arrangements for multiple worksites more than 500m but less than 1000m apart

Using a Track Occupancy Authority

6. Where multiple worksites are less than 500m apart, they are to be coordinated as one worksite.

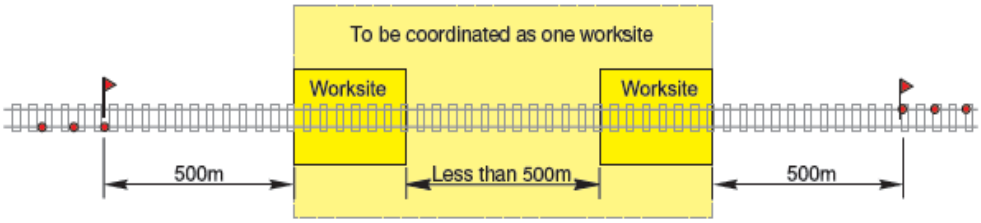

FIGURE 6: Example of protection arrangements for worksites to co-ordinate as one worksite.

Protection Officer

1. If necessary, ask the Network Control Officer for an extension of time for the TOA.
2. When an extension is authorised, record the new expiry time and the authorising Network Control Officer's name on the TOA form, or make a permanent record about the time extension details.

Network Control Officer

3. Tell other affected Network Control Officers about the new TOA expiry time.

Returning the track to service

Protection Officer

1. Make sure that rail traffic and equipment are clear of the track.
2. Make sure that all workers have cleared the worksites.
3. Make sure that:
   - points securing devices have been removed,
   - Railway Track Signals and red flags/red lights have been removed,
   - if necessary, signals have been restored to normal use, and
   - the track is safe for use.
4. If necessary, when advised that the track is certified fit for use, tell the Network Control Officer.
5. Tell affected Network Control Officers about any restrictions on track use.
6. If necessary, replace the pilot staff as required by the Network Control Officer.
7. Fulfil the TOA.

Using a Track Occupancy Authority

Network Control Officer

8. Confirm with the Protection Officer:
   - their name, contact number and worksite location,
   - the TOA number, and
   - workers and equipment are clear of the Danger Zone.
9. Remove blocking facilities.
10. If necessary, test signals.

Keeping records

Network Control Officers must record in permanent form the TOA details, including protection arrangements.

The Protection Officer must record in permanent form details of:

- the TOA,
- protection arrangements for worksites,
- arrangements for rail traffic management, and
- communications with the Network Control Officer about current protection arrangements and changes in protection arrangements.

Each TOA must be shown separately on the Train Control Diagram or diary.

Related CRN Network Procedures

CNPR 704 Using Infrastructure Booking Authorities

CNPR 707 Clipping points

CNPR 709 Using Railway Track Signals

CNPR 710 Piloting rail traffic

CNPR 712 Protecting work from rail traffic on adjacent lines

Effective date

27 August 2023

Using Route Control Blocking

Introduction

Route Control Blocking (RCB) may be used to exclude rail traffic from a defined portion of track within specified limits. RCB is only available using the electronic application.

Using Route Control Blocking

NOTE

RCB is only available using the electronic application.

Protection Officer

1. Make sure that your safety assessment shows that a Local Possession Authority (LPA), Track Occupancy Authority (TOA) or Track Work Authority (TWA) work on track authority is not necessary for the work.
2. Advise the Network Control Officer:
   - your name and contact details, and
   - the type of work, and
   - the intended finish time, and
   - the location of the work, and the track name, and
   - if RCB is following a unidirectional rail traffic movement:
     - tell the Network Control Officer the kilometrage location of the worksite, and
     - observe the rail traffic pass clear and complete beyond the worksite limits, and
     - tell the Network Control Officer the identification number of the lead motive power unit of the rail traffic.
3. Request the Network Control Officer to exclude rail traffic from the defined limits of the RCB by:
   - in Rail Vehicle Detection system, placing all protecting controlled absolute signals that authorise rail traffic entry to the defined limits of the RCB at stop and applying blocking facilities to the route/s between the defined limits of the RCB, or
   - in Train Order territory, applying blocking facilities to prevent rail traffic access to the route/s between the defined limits of the RCB.
4. Confirm with the Network Control Officer the RCB limits, track name, return time, type of work to be performed and if required, kilometre location of the proposed work site.

Using Route Control Blocking

Network Control Officer

5. Make sure that:
   - there is no LPA, TOA or TWA current for the proposed RCB limits.
   - in Rail Vehicle Detection system, all protecting controlled absolute signals that authorise rail traffic entry to the defined limits of the RCB are set to STOP and blocking facilities are applied to the route/s between the defined limits of the RCB, or
   - in Train Order territory, blocking facilities have been applied to prevent rail traffic access to the route/s between the defined limits of the RCB.

Additionally, in all areas:

   - if required, set and secure points to prevent rail traffic access by operating signal controls, and
   - ensure there are no approaching trains between the protecting control points and the proposed work location, and
   - any train that has passed complete beyond the proposed work location will not return, or
   - proceed authority has been fulfilled or cancelled.
6. Confirm with the Protection Officer:
   - that blocking facilities have been applied, and
   - the details of the RCB, and
   - the finish time of the RCB.
7. Propose the RCB.
8. Make a permanent record of the RCB.

Protection Officer

9. Before work begins, confirm with the Network Control Officer:
   - in Rail Vehicle Detection system, all protecting controlled absolute signals that authorise rail traffic entry to the defined limits of the RCB are set to STOP and blocking facilities are applied to the route/s between the defined limits of the RCB, or
   - in Train Order territory, blocking facilities have been applied to prevent rail traffic access to the route/s between defined limits of the RCB, and
   - there is no approaching rail traffic between the protecting control points and the work location, and
   - any rail traffic that has passed complete beyond the work location will not return, and
   - the details of the RCB using the electronic application, and
     - reject the RCB if the details are incorrect, or
     - accept the RCB if the details are correct.

Using Route Control Blocking

Returning the track to service

Protection Officer

1. Confirm the fulfilment details using the electronic application, or
2. Advise the Network Control Officer:
   - when all workers and equipment are clear of the Danger Zone, and
   - points that were secured are available for use, and
   - the security code for the blocks applied.

Network Control Officer

3. If necessary, enter the security code as supplied by the Protection Officer.
4. In Rail Vehicle Detection system, make sure that the points and signals are working correctly after the points have been restored to normal operation.

Related CRN Network Procedures

CNPR 712 Protecting work from rail traffic on adjacent lines

Effective date

27 August 2023

Using Lookouts

Introduction

Lookouts give warning about rail traffic movements to workers in the Danger Zone.

Lookouts may only be used in daylight hours where the visibility conditions allow clear sighting of rail traffic (terrain, fog, heavy rain, or dust may restrict visibility).

WARNING

Lookouts give warning about the approach of rail traffic and must not:

- work continuously at the same location for more than 60 minutes
- unless specified in the Network Local Appendices, use warning light to warn of approaching rail traffic
- manage the passage of rail traffic
- do any other work.

Equipment

Lookouts must have:

- effective communication with workers, and
- one or more audible warning devices.

Protection Officer

- Identify all points of entry into the worksite.
- For each route leading to the worksite, calculate the Minimum Warning Time and Minimum Sighting Distance.
- Determine the number of Lookouts needed to keep watch for rail traffic and give warning.
- Place each Lookout in a safe place.
- If necessary, place an additional Lookout before the Lookout closest to the worksite to give earlier warning about approaching rail traffic.

NOTE

- The maximum number of Lookouts permitted in any running direction is two.
- The additional Lookout must stay within sight and hearing of the Lookout closest to the worksite.

Using Lookouts

Worksites over a large area

Protection Officer

– Make sure that all workers and their equipment are in a safe place before repositioning the Lookout.

– Reposition the Lookout to locations where minimum warning times and communication with the workers are maintained.

– Make sure the Lookout is in position and the line is clear before allowing workers to move.

Giving warning

Lookout

1. Agree with the Protection Officer how workers will be warned about the approach of rail traffic.

NOTE

Lookouts must not use radios or telephones to warn workers.

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2. Stand or walk in a safe place where you can see approaching rail traffic and be within sight and hearing of the workers. If you cannot do both safely, tell the Protection Officer.
3. Ensure tools or devices will not interfere with the ability of the worker to respond to a Lookout's warning.
4. Keep a continuous lookout for the approach of rail traffic.
5. If you see or are told that rail traffic is approaching, warn the workers immediately.
6. Only if workers and their equipment are in safe places, face the approaching rail traffic and give an ALL CLEAR handsignal to the Rail Traffic Crew.
7. Wait for the Rail Traffic Crew to acknowledge the ALL CLEAR handsignal.
8. Make sure that the line is clear before telling the Protection Officer that it is safe for work to resume.
9. Tell the Protection Officer if you need to move from your designated position, and only move if all workers and their equipment are in a safe place, or a new Lookout is in position.
10. Tell the Protection Officer if conditions change.

Using Lookouts

Minimum Warning Time

Minimum Warning Time (MWT) is the minimum time required for a Lookout to warn workers on track about approaching rail traffic.

When using a single Lookout on bidirectional track areas to provide warning for both directions, a minimum of 15 seconds must be used for the see time.

The minimum warning time required must be recorded in permanent form on the Worksite Protection Plan and be calculated as follows:

The Minimum Warning Time required = (S + M + 10) seconds		
S	Time it might take a Lookout to **see (S)** approaching rail traffic and warn workers.	**S** Seconds
M	Time required to **move (M)** the workers, tools, equipment, and materials to a safe place.	**M** Seconds
	Minimum time to be in a **Safe Place** before rail traffic arrives	**10** Seconds
	Minimum warning time required	**S+M+10 = MWT**

NOTE
If using a single Lookout in a bidirectional track area, the see time (S) as detailed above will need to have additional time included for the Lookout to look in both directions. This must not be less than fifteen (15) seconds.

Using Lookouts

Minimum Sighting Distance

The minimum sighting distance needed to see an approaching rail traffic movement is dependent on the minimum warning time required and the maximum permanent track speed and is determined from the below Table.1.
Approaching rail traffic will travel over the distances shown, within the times shown at the top of the table, when travelling at the speeds shown on the left.

Maximum track Speed Km/h	**Sighting distance in metres to provide minimum warning time of:**					
	20 sec	**25 sec**	**30 sec**	**35 sec**	**40 sec**	**45 sec**
160	890m	1110m	1335m	1555m	1780m	2000m
150	840m	1045m	1250m	1460m	1670m	1875m
140	780m	970m	1170m	1360m	1555m	1750m
130	730m	905m	1085m	1265m	1445m	1625m
120	670m	835m	1000m	1170m	1335m	1500m
110	620m	765m	920m	1070m	1225m	1375m
100	560m	695m	835m	975m	1110m	1250m
90	500m	625m	750m	875m	1000m	1125m
80	450m	555m	670m	780m	890m	1000m
70	390m	485m	585m	680m	780m	875m
60	340m	420m	500m	585m	670m	750m
50	280m	350m	420m	485m	555m	625m
40	230m	280m	335m	390m	445m	500m
30	170m	210m	250m	295m	335m	375m
25	140m	175m	210m	245m	280m	315m
20	120m	140m	170m	195m	225m	250m
15	90m	110m	130m	150m	170m	190m

Table 1 Maximum Track Speed Km/h vs Sighting distance in metres to provide minimum warning time

Verification of Sighting Distance

To ensure the sighting distance is correct, the Protection Officer must use one of the following methods:

- approved Network Diagrams which identify actual kilometre to prominent infrastructure or locations, or
- physically drive or walk the sighting distance to accurately measure and identify the specific marker for the sighting distance.

Using Lookouts

Permanent Speeds

Permanent track speed locations are nominated in the Train Operating Conditions manual.

Where there are multiple permanent speeds where Lookouts are being used, the highest permanent speed must be used to determine minimum sighting distances.

NOTE

- Temporary Speed Restrictions must not be used to determine rail traffic speeds.
- Protection Officers must not use previous rail traffic running speeds to determine rail traffic running speed for the purpose of calculating minimum sighting distances.

Example of how Warning Time is Calculated:

The Minimum Warning Time required = (S + M + 10) seconds		
S	Time it might take a Lookout to **see (S)** approaching rail traffic and warn workers.	5 Seconds
M	Time required to **move (M)** the workers, tools, equipment, and materials to a safe place.	14 Seconds
	Minimum time to be in a Safe Place before rail traffic arrives	10 Seconds
	Minimum warning time required	Total 29 Seconds

If the maximum permanent track speed for the worksite location is 145 km/h as identified in the Train Operating Conditions manual.

The Minimum Sighting Distance of approaching rail traffic from the above Table 1. is 1250 metres (rounding up to 30 seconds and 150 km/h).

In this example the Lookout must be positioned to be able to see approaching rail traffic at least 1250m away to give the minimum warning time required**.**

Using Lookouts

Related CRN Network Procedures

Nil

Effective date

27 August 2023

Train Order System

Purpose

To prescribe the rules for using the Train Order system of Safeworking in the Country Regional Network (CRN).

System principle

The Train Order system:

- prevents rail traffic entries into occupied blocks, and
- is a bidirectional system used only on single lines outside Rail Vehicle Detection territory.

In Train Order territory, Train Orders are the only normal authorities for:

- a through-movement only, or
- shunting at a location (Shunt Order), or
- a through-movement with shunt access at a location.

In train order territory Alternate Train Orders may be used to authorise rail traffic movements that cannot be authorised by a Train Order.

If the Train Order system of safeworking fails, a method of special working may be introduced.

Computerised Train Order working

Network Control Officers compile Proceed Authorities and Work on Track Authorities in computerised workstations.

The computerised workstation allows for voice and electronic transmission of Authorities to Competent Workers.

The system maintains blocking facilities against issue of authorities for conflicting movements and occupancies.

For each reporting location, the system generates a security code (security number).

Entry of the relevant security code into a workstation:

- removes a blocking facility, and
- releases the affected block.

For each Shunt Order at a Siding location the system generates a supplementary code.

Failure of computerised system

If the computerised system fails, a method of special working may be introduced.

Train Order System

System description

Network Control Officers must:

- provide Proceed Authorities or Work on Track Authorities and security codes to Rail Traffic Crews and Competent Workers, and
- make sure that Proceed Authorities, Work on Track Authorities and movements are recorded, in permanent form, on a Train Control diagram, and
- only issue an authority for track under their control.

Where provided, Competent Workers must confirm proceed authorities using the In-Cab Equipment or Work on Track Authorities using the electronic application.

If the electronic transmission of authorities fails, or is not available, Competent Workers receiving authorities must:

- compile them on the relevant safeworking form, and
- confirm authorities and security codes by reading them back to the Network Control Officer.

Details of the Train Order for a journey must be progressively reported, fulfilled and confirmed at the locations specified in the Train Order.

Work on track authorities must be issued:

- in accordance with the relevant safeworking rules and procedures, and
- on the relevant safeworking form, or
- where provided, using the electronic application

Security codes

Network Control Officers must:

- provide security codes to Competent Workers, and
- not write down security codes.

If a Proceed Authority or a Work on Track Authority is partially fulfilled, fulfilled or cancelled, Competent Workers must not enter security codes into the system before:

- the location of rail traffic has been confirmed, or
- the location of associated rail traffic has been confirmed.

Competent Workers may enter security codes into the system:

- using the In-Cab Equipment, or
- using the electronic application, or
- using the Network Control Officers computerised workstation.

Train Order System

Proceed authority

Authority to enter a block is given by a valid authority.

Train Orders must specify:

- departure and fulfilment locations, and
- if necessary, reporting, crossing and shunting locations, and
- any special instructions for the movement, and
- conditions affecting the network in accordance with Rule CNGE 206 Reporting and responding to a Condition Affecting the Network (CAN).

Rail traffic must pass indicators at STOP only in accordance with Rule CNSG 610 Passing indicators at STOP.

Issuing a proceed authority

Limit of authority

The limit of authority for a Train Order must be:

- an entry-end YARD LIMIT sign, or
- the departure-end clearance point of a crossing location, or
- the departure-end SHUNT LIMIT sign of a siding location, or
- the END TRAIN ORDER WORKING sign at a signalled location, or
- the END TRAIN ORDER WORKING sign at a Non-Train Order location, or
- the END NETWORK CONTROL sign at a Network Control boundary location.

The limit of authority for a Shunt Order must be:

- a SHUNT LIMIT sign for a location, or
- in locations where SHUNT LIMIT signs are not provided, the YARD LIMIT signs.

Train Orders must not authorise rail traffic to proceed:

- through signalled locations, or
- beyond Network Control boundary locations, or
- beyond intended crossing locations.

Train Order System

Moving rail traffic

Rail Traffic Crews may confirm proceed authorities using the In-Cab Equipment on moving rail traffic.

If the electronic transmission of authorities fails, or is not available, authorities:

- may be transmitted to the Rail Traffic Crews of moving rail traffic by radio, or other form of on-board communications, and
- must not be compiled or confirmed by Rail Traffic Crew members who are operating the controls of moving trains.

Transfer of Proceed Authorities

Rail Traffic Crews must:

- confirm the Proceed Authority details at crew change locations, and
- tell the Network Control Officer:
  - about the change of crew, and
  - their understanding of the limits of the Authority, and
  - any special instructions.

Crossing and passing trains

Crossing and passing movements may be authorised at crossing and siding locations.

The Network Control Officer must:

- determine the order of movement for a crossing, and
- tell Rail Traffic Crews which routes to use.

One train in the movement must be able to stand:

- wholly between clearance points at the location, or
- clear of the main line.

The first train to arrive within yard limits must:

- come to a stand, and
- the Rail Traffic Crew must report arrival to the Network Control Officer.

The Network Control Officer must not authorise the second train to enter yard limits before the first train is stationary:

- wholly between clearance points at a crossing location, or
- at a departure-end clearance point, or
- clear of the main line in a siding.

Train Order System

If there is a Shunt Order current at a siding location, the Network Control Officer may authorise a Train Order to other rail traffic:

- standing at the YARD LIMIT sign, or
- within shunt limits

To obtain a train order for a location where a Shunt Order is current, the Rail Traffic Crew must:

- consult with the holder of the Shunt Order to confirm the intended route is clear, and
- if the route is confirmed clear, obtain the supplementary security code from the holder of the Shunt Order, and
- provide the supplementary security code to the Network Control Officer.

The holder of a Shunt Order must not provide the supplementary security code to the Network Control Officer.

Variation of Train Orders

The Network Control Officer must arrange to cancel a Train Order, and issue a new one, if the Train Order:

- needs to be varied, or
- cannot be fulfilled.

Before a Train Order may be cancelled, the affected rail traffic must be stationary.

NOTE

Rail traffic that has a Train Order for a section in advance of the current authority ('next order') and is closely approaching the limit of the current authority must be brought to a stand before the next order is cancelled.

Loss of paper or electronic Train Order information

Competent Workers must report the loss of a current Train Order to the Network Control Officer as soon as possible.

If a Train Order is lost before rail traffic departs from a location, the rail traffic must not depart.

If a Train Order is lost after rail traffic departs from a location, the rail traffic must not pass the entry-end YARD LIMIT sign at the next location.

The Network Control Officer must:

- obtain a Superintendent security code to cancel or fulfil the lost Train Order, and
- if travel is to continue, issue a new Train Order.

Train Order System

Reporting

Departure

Rail Traffic Crew must report departure:

- from departure locations, and
- from reporting locations.

Departure must be reported only after the rearmost vehicle has cleared:

- a BEGIN TRAIN ORDER WORKING sign, or
- a BEGIN NETWORK CONTROL sign, or
- the departure end YARD LIMIT sign at the location specified in the Train Order.

The Train Order location immediately preceding the limit of a Train Order must be specified as a reporting location.

If the electronic transmission fails or is not available, Network Control Officers must confirm with Rail Traffic Crews:

- train numbers, and
- lead motive power unit number or track vehicle numbers, and
- departure times, and
- the limit of authority for the current Train Order.

Arrival

If a Train Order has shunt access, Rail Traffic Crews must report arrival at the shunting locations to the Network Control Officer verbally or by electronic transmission using the In-Cab Equipment when the rail traffic:

- is between SHUNT LIMIT signs, or
- where SHUNT LIMIT signs are not provided, between YARD LIMIT signs.

Fulfilment at crossing locations

At crossing locations, Rail Traffic Crews must fulfil the Train Order only if the rail traffic is:

- stationary between clearance points, or
- clear of running lines, or
- stationary at the departure-end clearance point if rail traffic is over-length.

Fulfilment at siding locations

At siding locations, Rail Traffic Crews must fulfil the Train Order only if the rail traffic is:

- stationary between SHUNT LIMIT signs, or

Train Order System

- clear of running lines, or
- stationary at the departure-end SHUNT LIMIT sign if rail traffic is over-length

Fulfilment at signalled locations

At signalled locations, Rail Traffic Crews must fulfil the Train Order only if the rail traffic has completely passed the END TRAIN ORDER WORKING sign.

Fulfilment at Network Control boundary locations

At Network Control boundary locations, Rail Traffic Crews must fulfil the Train Order only if the rail traffic has completely passed the END Network control sign.

Confirming the location of rail traffic

The system confirms the location of rail traffic.

If the electronic transmission fails or is not available, the Network Control Officer must confirm the location of rail traffic from:

- the train radio workstation, or
- Rail Traffic Crews.

Communications Failure

If primary communications in rail traffic fails, Rail Traffic Crews must:

- report departure from a reporting location at the first available location, and
- if possible, report at the location immediately preceding the limit of the Train Order.

The Network Control Officer may delegate Competent Workers to relay information between Network Control and Rail Traffic Crews without communications.

Opposing rail traffic with failed primary communications must not be authorised to approach a location simultaneously.

CRN Network Procedures

CNPR 719 Operating groundframes

CNPR 721 Spoken and written communication

Effective date

27 August 2023

Planning Work in the Rail Corridor

Purpose

To prescribe the rules for planning work within the Rail Corridor and assessing the work for safety.

General

Work planned for the Rail Corridor must be assessed for safety and its potential to intrude on the Danger Zone.

Work in the Danger Zone must not:

- be carried out unless there is a safe place that can be easily reached, and
- begin until the required safety measures are in place.

Work in the Danger Zone must be carried out using one of the protection methods listed in this rule.

The level of safety must not be reduced:

- to allow rail traffic movements, or
- because of a lack of trained workers.

Unless constantly in a safe place when on a platform or in other premises, workers in the Rail Corridor must wear approved high-visibility clothing.

Effective communication with Network Control Officers, Possession Protection Officer and Protection Officers must be maintained.

Protection Officer

A worksite within the Danger Zone must have a Protection Officer while work is being performed.

A Protection Officer is responsible for managing the rail safety component of worksite protection.

A Protection Officer's primary duty and responsibility is to keep the worksite and workers safe.

The Protection Officer must be satisfied other work will not interfere with their primary duty.

The Protection Officer must:

- make a safety assessment, and
- brief workers about the rail safety component of worksite protection, and
- make sure that the rail safety component of the work is done safely, and
- keep records about the method used for working safely on track and protection arrangements, and
- communicate with the Network Control Officer about the work.

Planning Work in the Rail Corridor

Assessing safety

When making a safety assessment, Protection Officers must consider, amongst other factors, if:

- work will affect track under the control of different Network Control Officers or Access Providers
- appropriate numbers of Competent Workers are available to protect the work
- easily reached safe places are available for workers
- the sighting distance and speed of approaching rail traffic allows sufficient warning time to be given by Lookouts
- it is possible to close the affected line during the work
- there will be rail traffic on adjacent tracks
- rail traffic will travel on an adjacent track in both directions over a unidirectional track
- there will be rail traffic between and/or within worksites
- signals are available to protect worksites
- other work on track will affect the worksites
- there is safe passage to and from worksites
- there is access to the Rail Corridor by the public
- there is a risk to workers from road traffic
- the work will intrude on level crossings
- the track is electrified
- the line is track-circuited
- the formation of the track and the location will affect the work
- effective communication is available
- equipment used in the work will intrude into the Danger Zone
- other groups need to be told about or involved in the work
- the level of noise at the worksite will be excessive.

The Protection Officer must reassess safety measures if conditions such as visibility or work locations change.

Planning Work in the Rail Corridor

Multiple Access Providers

If the planned work will affect track under the control of more than one Access Provider, the Protection Officer must get the relevant Network Control Officers' authority.

NOTE

Protection Officers must be aware of the protection arrangements required for adjoining Networks.

Where necessary, Competent Workers must be qualified in the adjoining Network Rules and Procedures.

Level Crossings

If work on track at level crossings will intrude on level crossings or affect their operation, the Protection Officer must arrange to ensure the safety of:

- workers, and
- road, pedestrian, and rail traffic.

Methods for working safely on track

Appropriate methods must be selected for arranging and managing work on track in various areas.

On running lines

Work in the Danger Zone may be carried out by using one of the following authorities:

- Local Possession Authority (LPA), as described in CNWT 302 Local Possession Authority
- Track Occupancy Authority (TOA), as described in CNWT 304 Track Occupancy Authority
- Track Work Authority (TWA), as described in CNWT 306 Track Work Authority
- Route Control Blocking (RCB), as described in CNWT 308 Route Control Blocking.

The preferred authorities for working on track are:

- Local Possession Authorities
- Track Occupancy Authorities.

On sidings

Work in the Danger Zone may be carried out by using:

Local Possession Authority (LPA), as described in CNWT 302 Local Possession Authority

Planning Work in the Rail Corridor

Or by use of one of the following methods:

- Siding Protection, as described in CNWT 309 Siding Protection
- Lookout Working, as described in CNWT 310 Lookout Working.

If rail traffic needs to be excluded from a work area, the Protection Officer must speak to the person in charge of the line the work area is to be established on.

Where practicable, the Protection Officer must secure points to prevent unauthorised rail traffic entry into the work area.

NOTE

Each work on track method or authority has mandatory minimum safety measures. However, extra safety measures may be applied.

Local Possession Authority (LPA)

An LPA authorises the Protection of a defined portion of track for a specified period.

An LPA is issued to the Possession Protection Officer.

Work within the portion of track included in the LPA limits must only be done with the Possession Protection Officer's agreement.

A number of work groups, associated rail traffic and equipment may occupy the portion of track defined by an LPA.

The track may be broken or obstructed.

Unless advertised in the Country Network Local Appendix, the intention to take an LPA must be advertised in a Safe Notice or Country Train Notice in advance of the work being undertaken.

Track Occupancy Authority (TOA)

A TOA authorises occupation of track within specified limits, for work on track or track vehicle movements.

A TOA is issued to the Protection Officer for the agreed period.

The track may be broken or obstructed.

In specified circumstances Railway Track Signal protection is not required.

A TOA does not need to be advertised.

Planning Work in the Rail Corridor

Track Work Authority (TWA)

A TWA authorises occupation of a defined portion of track between rail traffic movements.

A TWA does not give exclusive occupancy of the defined portion of track.

The track may be broken or obstructed but must be restored and cleared for rail traffic transit as necessary.

A TWA must be used if rail traffic may need to be stopped or slowed before reaching the worksite and passing through the worksite.

The Protection Officer must manage rail traffic between the limits of the TWA.

A TWA does not need to be advertised.

Route Control Blocking (RCB)

RCB authorises occupation of track within specified limits for limited work on track activities.

RCB may only be obtained using the electronic application.

RCB excludes rail traffic from a portion of track for a specified period.

Work must not break the track or alter track geometry.

RCB uses system generated blocks with security codes to prevent rail traffic access to defined limits.

RCB does not need to be advertised.

RCB must not be used where a LPA, TOA or TWA is in place.

Lookout Working

Competent Workers may use the Lookout Working method to undertake limited work on sidings.

Lookouts are the only safety measure used in this work on track method.

Siding Protection

Siding Protection authorises exclusive occupancy of track between nominated locations for work on track activities in sidings. This occupancy may include rail vehicles secured against movement.

Siding Protection must be authorised by the Network Control Officer.

Protection methods for Siding Protection must be applied by the Protection Officer and Network Control Officer.

Planning Work in the Rail Corridor

Walking in the Danger Zone

Walking in the Danger Zone is:

- walking from place to place in the Danger Zone, and
- doing no work other than placing or removing protection for a worksite or rail traffic.

Persons who are walking in the Danger Zone must comply with CNGE 200 Walking in the Danger Zone.

CRN Network Procedures

CNPR 700 Using a Local Possession Authority

CNPR 701 Using a Track Occupancy Authority

CNPR 702 Using a Track Work Authority

CNPR 703 Using Route Control Blocking

CNPR 704 Using Infrastructure Booking Authorities

CNPR 705 Removing 1500V supply

CNPR 706 Using Siding Protection

CNPR 707 Clipping points

CNPR 709 Using Railway Track Signals

CNPR 710 Piloting rail traffic

CNPR 711 Using Lookouts

CNPR 712 Protecting work from rail traffic on adjacent tracks

CNPR 713 Placing temporary speed signs

CNPR 714 Removing1500V supply in unplanned situations

Effective date

27 August 2023

Track Occupancy Authority

Purpose

To prescribe the rules for authorising, issuing and using a Track Occupancy Authority (TOA).

General

A TOA authorises occupation of track, within specified limits, for an agreed period.

A TOA is issued to the Protection Officer for the agreed period of the occupancy.

A TOA may be authorised for exclusive occupancy, or

- joint occupancy following a unidirectional rail traffic movement, or
- joint occupancy with disabled rail traffic, or
- joint occupancy with restrained rail traffic, or
- joint occupancy with the holder of another TOA for the same limits or overlapping limits, or
- joint occupancy with the holder of a Work Train Order, or
- joint occupancy by mutual agreement with the holder of a Track Work Authority (TWA).

For track within the specified limits, a maximum of two TOAs may be in effect at any one time.

A TOA may involve one or more track vehicles and machines working within the specified limits.

A TOA may be issued for track vehicles to travel singly or in convoy.

A TOA must be issued:

- using the electronic application, or
- using a Track Occupancy Authority form CNRF 002.

TOA Limits

The limits of a TOA must be stated as being between nominated locations such as:

- one yard limit and another yard limit, or
- defined clearance points wholly within one yard's limits, or
- one yard limit to a defined clearance point within another yard, or
- a defined clearance point within one yard's limits to a defined clearance point within another yard's limits.

A TOA may include more than one section, provided it does not extend:

- into the area controlled by another Network Control Officer, or
- beyond a location where rail traffic is shunting in the section ahead.

Track Occupancy Authority

Authorisation

Only Network Control Officers may authorise a TOA for track under their control.

Before authorising a TOA, the Network Control Officer must make sure that:

- the track is unoccupied, and will remain unoccupied, except as specified in the TOA and,
- the Protection Officer knows about any existing obstructions, and
- the Protection Officer understands and agrees to the limits of the TOA, and
- blocking facilities have been applied to prevent the entry of unauthorised rail traffic into the TOA limits, and
- the location has been verified using, for example a:
  - kilometre sign and section, or
  - points number, or
  - signal number.

Pilot staff

A Network Control Officer may authorise a TOA during pilot staff working after arrangements have been made to secure the pilot staff out of use for the duration of the TOA.

The TOA must be issued on a CNRF002 Track Occupancy Authority (TOA) form.

Occupancy following a unidirectional train movement

Before authorising the TOA, the Network Control Officer must make sure that the preceding rail traffic is authorised for a unidirectional movement only, and has passed clear and complete beyond:

- the limits of the proposed TOA, or
- the limits of the proposed worksite, or
- the starting point from which the track vehicle included in the TOA will travel.

The Protection Officer must make sure that the TOA does not include multiple worksites.

Authorising additional TOA's

The Network Control Officer may authorise additional TOA's for the same limits, or for overlapping limits, only after the Protection Officer requesting the additional TOA has:

- consulted with the Protection Officer's holding the existing TOA's, and
- made agreed arrangements with Protection Officer's holding the existing TOA's, and

Track Occupancy Authority

- obtained the supplementary codes from the Protection Officer's holding the existing TOA's, and
- provided the supplementary codes to the Network Control Officer.

Each TOA must be recorded in permanent form separately, and where possible have its own blocking facility applied.

NOTE

For track within the specified limits, a maximum of two TOAs may be in effect at any one time.

Joint occupancy with a Track Work Authority (TWA)

The Network Control Officer may authorise a TOA for a portion of track where there is a current TWA, only:

- after the Protection Officers have consulted with each other, and
- with the agreement of the TWA Protection Officer.

The Network Control officer must record, in permanent form, the details of the TOA.

In unidirectional portions of track where the TOA is for a track vehicle journey that

will travel through the worksite in the wrong running-direction, the TWA

Protection Officer must place:

- the standard protection against rail traffic approaching in the right running-direction, and
- three railway track signals and a red flag/red light at least 500m and not more than 1000m from the worksite in the wrong running-direction.

Joint occupancy with a Work Train Order (WTO)

The Network Control Officer may authorise a WTO where there is a current TOA:

- after the Protection Officer and Rail Traffic Crew have made agreed arrangements, and
- obtained the supplementary code from the Rail Traffic Crew.

The Protection Officer must arrange for the work train to be piloted into and within the TOA.

Protection Officer

At all times there must be a nominated Protection Officer for a TOA.

A Protection Officer is responsible for managing the rail safety component of worksite protection. A Protection Officer's primary duty and responsibility is to keep the worksite and workers safe.

Track Occupancy Authority

The Protection Officer must:

- get the TOA
- protect workers from rail traffic
- make sure that the limits of the TOA are protected against the unauthorised entry or exit of rail traffic
- tell workers about the:
  - locations of safe place
  - safety measures in place
  - the extent of the area protected, and
  - changes to protection arrangements.
- be satisfied that other work will not interfere with protection duties, and
- make sure the protection is in place before work starts.

Protecting TOA limits

The Network Control Officer must apply blocking facilities to prevent unauthorised rail traffic entry into the TOA limits. All points of entry into the TOA limits must be protected.

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Terminal lines

If the Network Control Officer tells the Protection Officer that there is no rail traffic between worksites and the end of a terminal line, Railway Track Signal protection from that direction is not required.

Protecting worksites

Worksites must be protected by three railway track signals and red flags/red lights placed at least 500m on each side of each worksite. If there is only one worksite within the limits of the TOA, railway track signal protection is not required if points are secured to prevent unauthorised rail traffic entry to the TOA limits.

Worksite within 500m of TOA limits

The distance between the signal protecting, or signs designating, the limits of the TOA and a fixed worksite must not be less than 500m unless:

- points can be secured to prevent access to the portion of track within the TOA limits, or
- a work on track authority adjoining the TOA limit has also been authorised for the period of the work.

Track Occupancy Authority

Multiple Worksites

If there is more than one worksite within the limits of the TOA, worksites must:

- have three railway track signals and red flags/red lights placed at least 500m on each side of each worksite, and
- be recorded within the worksite protection plan.

If worksites are more than 500m but less than 1000m apart, three railway track signals and red flags/red lights must be placed midway between the worksites.

If worksites are less than 500m apart the worksites must be co-ordinated as one worksite.

Track vehicle journey

Railway track signal protection is not required for:

- a track vehicle journey, or
- a track vehicle that has stopped to allow work to be carried out using:
  - light, non-powered hand tools
  - light, battery powered hand tools or devices
  - light, powered hand tools.

If a track vehicle journey is stopped to carry out work that breaks the track or alters track geometry or structure, that work must be protected as a worksite.

Rail traffic

Only rail traffic authorised and associated with the TOA may enter the TOA limits.

The Protection Officer must make sure that rail traffic associated with the TOA does not exceed the limits of the TOA.

Protection Officers must manage rail traffic in accordance with CNWT 314 Work trains and CNPR 710 Piloting Rail Traffic.

Adjacent lines

If the safety assessment indicates that workers need to be protected from rail traffic on adjacent lines, the Protection Officer must arrange for adjacent lines to be protected as per Network Procedure CNPR 712 Protecting work from rail traffic on adjacent lines.

The Protection Officer may arrange for the speed of rail traffic on adjacent lines to be restricted.

Piloting

Work Trains must be piloted in accordance with Network Procedure CNPR 710 - Piloting Rail Traffic.

The Protection Officer or a delegate must act as the Pilot.

Track Occupancy Authority

Entering and Within TOA limits

Rail traffic associated with the TOA must be piloted.

Departing rail traffic

Rail traffic may depart from the TOA limits only on the authority of the Network Control Officer.

Work trains departing the TOA limits, that have passed complete beyond all worksites within the TOA limits, and are not returning, do not require a Pilot or piloting.

Liaison with Network Control

The Protection Officer must be the only point of contact between Network Control and workers for matters of worksite protection.

The Protection Officer must:

- tell affected Network Control Officers about protection applied to lines adjacent to the TOA,
- tell affected Network Control Officers about work progress,
- arrange for the movement of rail traffic associated with the TOA, and
- if necessary, seek an extension of time.

Change of Protection Officer

An outgoing Protection Officer must tell the incoming Protection Officer about the worksite protection arrangements.

The incoming Protection Officer must:

- tell affected Network Control Officers about the changed contact arrangements and
- sign the TOA form to acknowledge handover of the TOA, or
- confirm the TOA has been transferred using the electronic application.

Fulfilling the TOA

The TOA may be fulfilled only when the Protection Officer:

- arranges for work to continue under another Work on Track Authority, or
- confirms the fulfilment details using the electronic application, or
- tells the Network Control Officer that:
  - worksites have been cleared, and
  - protection has been removed, and

Track Occupancy Authority

- if required, the portion of track included in the TOA has been certified as available for use, and
- the Pilot Staff has been returned.

The Protection Officer must tell the Network Control Officer about operating restrictions that have been placed or removed.

Where arrangements have been made to continue work under another Work on Track Authority, the Protection Officer must ensure that the protection for the TOA is not removed until the new Work on Track Authority is issued, and the required protection is in place.

Keeping records

Network Control Officers must make a permanent record of the TOA details.

The Protection Officer must keep written records about:

- the TOA details,
- protection arrangements for worksites,
- arrangements for rail traffic management,
- any communications with the Network Control Officer about:
  - current worksite protection arrangements, and
  - changes to the worksite protection arrangements.

CRN Network Procedures

CNPR 701 Using a Track Occupancy Authority

CNPR 702 Using a Track Work Authority

CNPR 707 Clipping points

CNPR 709 Using Railway Track Signals

CNPR 710 Piloting rail traffic

CNPR 712 Protecting work from rail traffic on adjacent lines

Effective date

27 August 2023

Route Control Blocking

Purpose

To prescribe the rules for working in the Danger Zone using Route Control Blocking (RCB) to exclude rail traffic from a portion of track.

General

Safety assessment

RCB excludes rail traffic from a portion of track for a specified period.

RCB must only be applied where system generated blocks with security codes can be used to prevent rail traffic access to defined limits.

RCB can only be applied by a Protection Officer using the electronic application.

WARNING

If the safety assessment shows that a higher level of protection is required, work must be done using work on track authorities as prescribed in:

CNWT 302 Local Possession Authority (LPA)

CNWT 304 Track Occupancy Authority (TOA)

CNWT 306 Track Work Authority (TWA)

Working under RCB

RCB may be used by a single worker, in which case, that worker is also the Protection Officer.

The limits of an RCB must be defined as being between nominated control points.

Using RCB

RCB excludes rail traffic for work:

- not requiring tools, or
- using tools which can be easily and immediately removed from the track by one person and are:
  - light, non-powered hand tools
  - light, battery powered hand tools or devices
  - light, powered hand tools.
- at level crossings to allow vehicles to cross the track.

Route Control Blocking

Restrictions

The RCB must not be used for work that:

- breaks the track, or
- alters track geometry or structure, or
- has an LPA, TOA or TWA work on track authority in place.

Requesting RCB

When using RCB for work on track, the Protection Officer must:

- define the limits between which the track is to be blocked, and
- advise the Network Control Officer the intended finish time, and
- if the RCB is following a unidirectional rail traffic movement:
  - tell the Network Control Officer the kilometrage location of the worksite, and
  - observe the rail traffic pass clear and complete beyond the worksite limits, and
  - tell the Network Control Officer the identification number of the lead motive power unit of the rail traffic
- request permission for RCB.

Authorising RCB

Network Control Officer

Network Control Officers may use the system to propose and queue an RCB only for portions of track in their area of control.

An RCB may include more than one section, provided the RCB does not extend:

- into the area controlled by another Network Control Officer, or
- beyond a location where rail traffic is shunting in the section ahead.

Protection Officer

Using the electronic application, the Protection Officer must:

- reject the RCB if the details are incorrect, or
- accept the RCB if the details are correct.

Route Control Blocking

Occupancy following a unidirectional rail traffic movement

Before authorising the RCB, the Network Control Officer must make sure that the preceding rail traffic is authorised for a unidirectional movement only, and has passed clear and complete beyond:

- the limits of the proposed RCB, or
- the limits of the proposed worksite.

Protecting RCB limits

Protection Officer

In Rail Vehicle Detection system areas, the Protection Officer must arrange for all protecting controlled absolute signals that authorise entry to the defined limits of the RCB to be set to STOP and blocking facilities applied to the route/s between the defined limits of the RCB.

All work conducted within the defined limits of the RCB must have:

- an easily reached safe place and Lookout, or
- points must be secured to prevent rail traffic access.

In Train Order territory, the Protection Officer must arrange for blocking facilities to be applied to prevent rail traffic access to the route/s between the defined limits of the RCB, and

- if work is conducted within 500 metres of the defined limits of the RCB, an easily reached safe place and Lookout must be provided.

Network Control Officer

In Rail Vehicle Detection system areas, the Network Control Officer must place all protecting controlled absolute signals that authorise entry to the defined limits of the RCB to STOP and apply blocking facilities to the route/s between the defined limits of the RCB.

For work conducted within the defined limits of the RCB:

- confirm an easily reached safe place and Lookout is provided, or
- authorise points to be secured to prevent rail traffic access.

In Train Order territory, the Network Control Officer must place blocking facilities to prevent rail traffic access to the route/s between the defined limits of the RCB, and

- if work is conducted within 500 metres of the defined limits of the RCB, confirm an easily reached safe place and Lookout will be provided.

Route Control Blocking

NOTE

Network Control Officers must not authorise rail traffic movements into portions of track where RCB is in use.

Protection Officer

Before work commences, the Protection Officer must confirm with the Network Control Officer:

- there is no approaching rail traffic between the protecting control points and the work location, and
- any rail traffic has passed complete beyond the work location and will not return, and
- the finish time, and
- in Rail Vehicle Detection system areas, all protecting controlled absolute signals that authorise entry to the defined limits of the RCB are set to STOP and blocking facilities are applied to the route/s between the defined limits of the RCB, or
- in Train Order territory, blocking facilities have been applied to the route/s between the defined limits of the RCB.

Protection Officer Primary duty

At all times there must be a nominated Protection Officer for the RCB.

A Protection Officer must be satisfied that other work will not interfere with protection duties.

A Protection Officer is responsible for managing the rail safety component of worksite protection.

A Protection Officer's primary duty and responsibility is to keep the worksite and workers safe.

A Protection Officer must:

- tell workers about the:
  - locations of safe places, and
  - safety measures in place, and
  - the extent of the area protected.
- be the only person to communicate with the Network Control Officer about safety arrangements, and
- make sure that the agreed safety measures are in place before work starts, and
- have a current RCB before work commences.

Route Control Blocking

Fulfilling RCB

The RCB may be fulfilled only when the Protection Officer:

- confirms the fulfillment details using the electronic application, or
- advises the Network Control Officer that:
  - work is completed, and
  - workers and their equipment are clear of the Danger Zone, and
  - points that were secured are available for use.

After being advised by the Protection Officer that the track is clear, the Network Control Officer may request and utilise the security code/s to remove blocking facilities applied for the RCB.

Keeping records

Network Control Officers and Protection Officers must keep a permanent record of the RCB details.

CRN Network Procedures

CNPR 703 Using Route Control Blocking

CNPR 711 Using Lookouts

CNPR 712 Protecting work from rail traffic on adjacent lines

Effective date

27 August 2023

Lookout Working

Purpose

To prescribe the rules for working in the Danger Zone for sidings without a work on track authority using Lookouts as the only safety measure.

General

If a safety assessment shows that it is safe, some kinds of work may be done in the Danger Zone for sidings without a work on track authority. Lookout Working is one of those methods of working.

Lookout Working must not be used on running lines.

WARNING

Lookout Working cannot be used as the only safety measure for:

- work that breaks the track, or
- work that alters track geometry or structure.

WARNING

Lookout Working must only be used where the visibility conditions allow clear sighting of rail traffic (terrain, fog, heavy rain, or dust may restrict visibility).

Lookout Working may be used as a safety measure for work:

- not requiring tools, or
- using tools which can be easily and immediately removed from the track by one person and are:
  - light, non-powered hand tools
  - light, battery powered hand tools or devices.

WARNING

The tool or device must not interfere with the ability of the worker to respond to a Lookout's warning.

Lookout Working

Safety measures

Lookouts are the only safety measure used in this method of working in the Danger Zone.

An easily reached safe place must be available if this method is used.

Work in the Danger Zone must not begin until Lookouts are in position.

Workers must be able to remove themselves, tools, and materials to a safe place immediately when told to do so by a Lookout.

Lookout Working method must be done in daylight hours only, for a maximum of two (2) hours.

If access for additional time is required, this must be treated as a new request for access.

Protection Officer

There must be a Protection Officer for the period of the work.

The Protection Officer's primary duty is to keep the worksite and workers safe.

The Protection Officer must be satisfied that other work will not interfere with protection duties.

The Protection Officer must:

- tell workers about the locations of safe places, and
- determine the number of Lookouts needed to protect the work, and
- make sure minimum warning times are satisfied for the location of Lookouts, and
- if the work location changes, reassess track speeds and the location of Lookouts to make sure that minimum warning times and communication with the Lookouts are maintained, and
- reassess safety measures if conditions such as visibility change, and
- be the only person to communicate to Network Control Officers about safety arrangements.

Placing Lookouts

The Protection Officer must calculate the minimum warning time and minimum sighting distance as detailed in CNRP 711, to:

- make sure that the location of Lookout(s) and the visibility conditions give Lookouts enough time to see approaching rail traffic, and
- make sure that when rail traffic approaches, Lookouts can warn workers in time to allow them to:
  - react to the warning of the approach of rail traffic, and
  - move themselves and their equipment to a safe place and remain there for 10 seconds before the rail traffic arrives.

Lookout Working

To give enough warning time, one additional Lookout may be used, and an additional five seconds of warning time must be added to any calculation of total time to see, move and be in a safe place for all workers and their equipment.

WARNING

If warning time calculations cannot be satisfied, then Lookout Working must not be used.

NOTE

Only one additional Lookout may be placed in each direction from which rail traffic can approach.

Additional Lookouts must remain within sight and hearing of the Lookout closest to the worksite.

The Protection Officer must:

- reassess safety measures if conditions such as visibility change, and
- make sure that Lookouts do not work continuously at the same location for more than 60 minutes.

Communication with Network Control

Work in the Danger Zone must not begin until the Protection Officer has communicated with the Network Control Officer about the use of Lookout Working.

The Protection Officer must advise the Network Control Officer:

- their name and contact details, and
- the location of the work, and
- the type of work to be done, and
- the intended start and finish times.

NOTE

Where Lookout Working is to be used within the limits of a Local Possession Authority (LPA), the Protection Officer must also contact the Possession Protection Officer about:

- using Lookout Working
- ending Lookout Working

Lookout Working

Lookouts

Lookouts must:

- remain within sight and hearing of the worksite
- keep watch for rail traffic approaching the worksite from any direction, and
- immediately warn workers if rail traffic approaches the worksite.

WARNING

Lookouts must be alert for rail traffic which is unexpected or comes from the wrong running-direction.

Lookouts must not:

- work continuously at the same location for more than 60 minutes, or
- manage the passage of rail traffic, or
- do any other work.

WARNING

Lookouts must not use radios or telephones to warn workers.

Ending Lookout Working

The Protection Officer must advise the Network Control Officer when work is completed, and the workers and their equipment are clear of the Danger Zone.

Keeping records

The Network Control Officer and the Protection Officer must record, in permanent form, the Lookout Working Details.

CRN Network Procedures

CNPR 711 Using Lookouts

CNPR 712 Protecting work from rail traffic on adjacent lines

Effective date

27 August 2023

Glossary

absolute signal	A fixed signal that must not be passed at STOP without the authority of the Network Control Officer.
access	A designated safe way into, along, across or out of a Rail Corridor.
Access Provider	An organisation that provides and manages a rail Network and safe method of entry to that Network for Access Users.
Access User	An organisation that has an agreement with an Access Provider to enter and use a rail Network.
active control (level crossing equipment)	A road or pedestrian level crossing where warning equipment warns road users and pedestrians about approaching rail traffic by devices such as flashing lights or barriers.
adjacent	Next to, near to, close to.
adjoining	In contact with, connected to.
advertise	To give written or electronic notice, usually in advance, of planned activities.
affected signal	A signal not available for normal use.
agreed arrangements	Arrangements that have been agreed between Competent Workers regarding the location of worksites, worksite protection and rail traffic management.
airbrake	A braking system activated by change in air pressure.
Aspect	The displayed pattern or position of lights or arms used to give a signal indication.
attended location	A signalling location or block location that is switched in and controlled by a Competent Worker either on-site or at a remote location.
audible warning device	A device, such as a whistle, siren, horn or hooter, used to give warning.
automatic signal	A signal that is normally controlled exclusively by the operation of track-circuits.
authority	A generic term for permission.

Glossary

Authority	Formal authority name.
authorise	To give formal written, spoken or signalled authority for an action.
axle counter	Equipment used in Rail Vehicle Detection Territory to detect the presence of rail vehicles by counting the number of axles entering or leaving a location. They may be used to operate signalling or other infrastructure equipment.
Axle Counter Territory	The portions of line where axle counters are used for the Rail Vehicle Detection system of Safeworking.
balloon loop	A portion of line that allows rail traffic to change direction of travel without change to the leading end.
bank locomotive	A locomotive provided at the rear of a train to assist it up a steep grade (bank).
basic block working	A form of manual block working which does not require the issue of a Condition Affecting the Network (CAN) form.
bidirectional	Allowing for normal movement of rail traffic in either direction according to the infrastructure and system of Safeworking in use.
block	A portion of line with defined limits between which only one rail traffic movement is permitted at any one time.
block location	A defined location that separates blocks.
block point	See block location.
block post	A temporary block location.
block train	A train required to travel under manual block working in track-circuited territory.
block work	See manual block working.

Glossary

blocking facility	A facility or device used by a Competent Worker to prevent either the unintended issue of an Occupancy Authority, or the operation of points or signalling equipment.
CAN block working	Manual block working using a Condition Affecting the Network (CAN)
cancel	To withdraw permission for or to end previously authorised activities, such as Occupancy Authorities, without completing them. (Written authorities have the word CANCELLED written diagonally across them, between two parallel lines).
catch points	Single or double-bladed points used to derail rail traffic that might enter or foul an adjacent running line.
CAUTION fixed signal	An indication provided by a fixed signal. The next fixed signal may be at STOP.
CAUTION handsignal	A handsignal given by a Competent Worker to indicate the need for rail traffic to proceed being prepared to stop. When given by an inner Handsignaller protecting a worksite, and unless otherwise advised by that Handsignaller, a maximum speed of 25km/h applies until the rail traffic has passed the worksite limits.
certify	To classify a worker as competent. To classify infrastructure or rolling stock as fit for purpose.
cess	The space between an outermost rail and the Rail Corridor boundary.
civil infrastructure	The track, track formation and drainage, and fixed structures beside, over or under the track. The term includes supports for overhead electric traction equipment and supports for signalling and telecommunications equipment, but not the equipment itself.
clearance handsignaller	A Handsignaller at a clearance location, who reports the clearance of rail traffic past that location.
clearance location	A location that, once clear of rail traffic, allows a following movement.

Glossary

clearance post	A post, marker, light or disc to indicate the clearance point of two converging lines.
closely approaching	Going towards a location at a speed such that rail traffic crews could not be expected to react in sufficient time to stop.
co-acting signal	A signal, placed near another signal that might be temporarily obscured from a rail traffic crew's view, to provide information about the obscured signal's indication.
commission	To formally place into active service or use.
communication device	A device that supports effective communication between Competent Workers.
competent worker	A worker certified as competent to carry out the relevant task.
Condition Affecting the Network (CAN)	A situation or condition that affects or has the potential to affect the safety of the Network.
consist	A listed order of the vehicles arranged to make up a complete train.
consolidated yard	An area where interlocking's controlled by one signalling location have intervening permissive signals. The area is defined exclusively by a YARD LIMIT (YL) sign and an END OF YARD LIMIT (EYL) sign.
controlled absolute signal	A signal that is controlled or operated by a Network Control Officer or a Competent Worker. The signal must not be passed at STOP without authority.
controlled location	A location where a Network Control Officer controls the signalling and Safeworking operations either on-site or remotely.
Control Point	An asset that is controlled by the NCO to prevent rail traffic entry and blocking facilities can be applied.
controlled signal	A signal that is, or may be, controlled or operated by a Network Control Officer or Competent Worker.
controlled speed	Controlled speed is a speed that allows rail traffic to stop short of an obstruction within half the distance of clear line that is visible ahead.

Glossary

converging	(Lines) meeting and joining to become one line.
convoy	A group of track vehicles not coupled but travelling closely together under a single Occupancy Authority.
Country Network Local Appendices (CNLA)	Publications issued by CRN to prescribe special Safeworking arrangements for a location or area.
Country Regional Network	All operational lines on the UGL Regional Linx Country Regional Network
Country Train Notice (CTN)	A published notice providing details of train operations or events that might affect train operations.
cross	To go past other rail traffic travelling in the opposite direction.
crossing location	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.
crossing loop	A running line in single-line territory, with entry and exit ends connected to a main line that is used to hold a train or track vehicle to allow other rail traffic to cross or pass.
crossover	A portion of line that is used to divert rail traffic from one continuing line to another.
Danger Zone	Everywhere within 3m horizontally from the nearest rail, and any distance above or below this 3m, unless a safe place exists or has been created.
dangerous goods	Materials defined under the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).
dead end siding	A portion of line connected to a running line or other siding, with points at one end only.
delegate	A Competent Worker authorised and designated to act in place of another.
demarcation fencing	Easily seen, continuous worksite safety boundary markers.

Glossary

derail device	A device intended to guide the wheels of rail traffic off rails.
direct	To give instructions.
disabled	Unable to travel due to a defect.
discrete channel	A system in which only the intended participants in a radio or telephone conversation can take part in the conversation.
diverging	(Line) dividing into two lines.
Driver	A Competent Worker controlling the movement of rail traffic.
effective communication	The ability to successfully send, receive and understand information. The communication does not need to be continuous.
electrical infrastructure	Equipment and systems for supplying and distributing electricity for traction purposes.
Electrical Representative	A person with the appropriate delegated authority and electrical engineering competence to make judgments about electrical safety.
electrical safety instructions	Instructions provided by Electrical Maintenance Representatives for work on or near UGL Regional Linx electrical infrastructure.
Electrical System Operator	The person responsible for managing the Network electrical system and authorising the removal and restoration of overhead supply.
emergency	Incident requiring urgent action. The incident might involve death or serious injury, health or safety effects, significant damage to property or infrastructure, significant train service disruption, or environmental impact.
end-of-train marker	A device, including tail lights, fitted to the trailing end of the last vehicle of a rail traffic consist to indicate the end of the consist.
electronic application	An application used for managing operational information about work on track methods and authorities.
exclusive occupancy	Sole occupancy of track within defined limits.
facing points	Points with the switch blades facing approaching rail traffic.

Glossary

failsafe	Designed such that failure results in a safe outcome.
fit for purpose	Able to be used for the function required.
fixed signal	A signal that is located permanently near the line.
fixed worksite	A worksite with boundaries that are fixed and defined for the duration of the work.
foul	In a position to obstruct rail traffic on adjacent lines.
four-foot	The area between the rails of a railway track.
fulfil	To complete the instructions on, and associated activities for an Occupancy Authority. (Written authorities have the word FULFILLED written diagonally across them, between two parallel lines).
groundframe	A small trackside interlocking device used for manual points or signal operation.
handbrake	A mechanical device used to secure a rail vehicle against movement. Includes spring parking brakes.
handsignal	A signal given by hand movements, with or without flags or lights. To give a signal by hand.
Handsignaller	A Competent Worker who gives handsignals to rail traffic crew.
haul	To move rail traffic using a motive power source at the leading end.
hazard light	Amber or orange flashing light fitted to a vehicle to provide warning.
headlights	White lights fitted at the front of rail traffic to provide visibility for the rail traffic crew and to improve the visibility of rail traffic.
illegal signal indication	A signal indication that is inconsistent with the signal aspects and indications used in the CRN, or the indications of adjoining signals and the known condition of the line, or what is known about occupancy of the line.

Glossary

Incident Management Coordinator	A suitably qualified person that has been appointed by the Network Control Officer to liaise with Emergency Services and manage the rail industry response at an incident site.
in effect	Activate, become current, in force.
infrastructure	See civil infrastructure; electrical infrastructure; signalling and telecommunications infrastructure.
instruction sign	A sign, near or fixed to a signal, bearing directions to rail traffic crews.
interlocking	Interaction of equipment controlling points and/or signals to prevent conflicting movements, and to make sure that routes are set correctly.
interlocking area	An area equipped with interlocked points and/or signals.
interlocking machine	Equipment used to operate or control interlocked points and signals.
intermediate	Between two others.
intermediate siding	A siding located within a section, generally used for purposes other than crossing or passing of rail traffic.
isolated 1500v overhead wiring section	A 1500V overhead wiring section disconnected from all possible sources of 1500V supply and made incapable of accidentally being made live.
issue	To give or send copies of authorities, warnings, notices and Network publications to affected Competent Workers by voice, hand delivery or electronic means.
joint occupancy	Simultaneous occupancy of track within defined limits.
level crossing	A location where the railway line and a road or pedestrian walkway cross paths on the same level.
light locomotive	One or more locomotives not attached to another vehicle.
light, battery powered hand tools	An internally powered tool or device that can be easily carried by one person and be immediately removed from the track. The tool must not have

Glossary

	potential to distract the operator or impede the ability of the operator to respond to the warning of approaching rail traffic.
light, non-powered hand tool	A tool that can be carried and easily removed by one person and is not powered by compressed air, gas, electricity, hydraulics, explosive charge or an internal combustion engine.
light, powered hand tool	An internally powered tool that can be carried easily by one person, without mechanical assistance.
limit of authority	It defines the location to which rail traffic may travel under a Proceed Authority or the limits of a work on track authority. The limit may be defined by a sign, a signal capable of displaying a STOP indication, or a specific kilometrage point on a line.
loading outline	The maximum height and width to which rail vehicles can be loaded for a particular line, as prescribed in the Train Operating Conditions (TOC) manual.
local control panel	An interlocking facility that may be switched to and from local control but is capable of being switched to remote control.
Local Possession Authority (LPA)	An authority that closes a defined portion of track for a specified period.
location	A place in the CRN with a designated name, identification number, signalling reference or Kilometrage.
locomotive	Self-propelled, railway vehicles used for hauling other rolling stock.
Lookout	A Competent Worker responsible for keeping watch for approaching rail traffic, and for warning other workers to stand clear of the line before the rail traffic arrives.
Lookout Working	A safety measure used by Competent Workers to carry out work on track without a formally issued work on track authority.
loop	See balloon loop; crossing loop; refuge loop.
low visibility	Any condition that does not allow Competent Workers to view the distance required to work safely.

Glossary

	Visibility restricted by fog, mist, rain, dust, snow, low light or other similar cause.
main line	The running line normally used for running rail traffic through and between locations.
Maintenance Representative	A Competent Worker with the appropriate authority to maintain the infrastructure.
major incident	An incident assessed by UGL Regional Linx or delegate as having a potentially major impact on the Network, human life, property or the environment.
manual block working	A method of special working, which ensures sole occupancy by manually maintaining the block between rail traffic movements.
manual points control mechanism	A device used for the manual control of points. Includes ESML handle, crank handle and hand throw point lever.
marker lights	Lights which indicate the front or rear of a train.
marshal	To arrange the order of vehicles in a train's consist.
may	The word 'may' indicates permission.
motive power unit	A rail vehicle used to provide the power to move itself or other vehicles.
must	The word 'must' indicates that a statement is mandatory.
net train weight	The weight of vehicles and their load in a train consist.
Network	A combination of track and other infrastructure controlled by an Access Provider.
Network Access Level Crossings	Generally permanent level crossings provided at authorised locations for Network maintenance. Excludes public level crossings and private level crossings.
Network Control	The function responsible for managing rail traffic paths and issuing Occupancy Authorities.

Glossary

Network Control Officer (NCO)	A Competent Worker who authorises, and may issue, Occupancy Authorities, and who manages rail traffic paths to ensure safe and efficient transit of rail traffic in the Network.
Network Incident Report (NIR)	A notice used to record and distribute information about incidents on the CRN.
Network Procedures	Procedures issued by UGL Regional Linx for the safe conduct of work on the CRN. To be read in conjunction with the Network Rules.
Network Rules	Rules issued by UGL Regional Linx to mandate the requirements for safe operation in the CRN.
normal speed	Normal speed is a speed that does not exceed the speed limit currently in effect for the location and type of rail traffic.
obstruct	To make a line unsafe for the passage of rail traffic.
occupancy	Presence of rail traffic or track workers on track.
Occupancy Authority	A formal authority that allows occupancy of a portion of line by rail traffic or for work on track.
open channel	A system that allows all radio users to take part in all conversations.
Operator	An organisation that manages, operates or maintains rail traffic on the CRN.
Operator's Representative	A person authorised by an Operator to act on their behalf.
overhead supply	The supply of electric current to the overhead wiring system for traction purposes.
pantograph	An apparatus fixed to the roof of electric traction vehicles to draw current from the overhead supply.
pass	To overtake other rail traffic travelling in the same direction.
passive control level crossing	Road and pedestrian level crossing warning that relies on road users and pedestrians looking out for and giving way to rail traffic.

Glossary

permanent form	A record made in writing or in an electronic system and kept for reference and audit.
permanent record	A record made in writing or in an electronic system and kept for reference and audit.
permissive signal	A fixed signal that is normally controlled by the passage of rail traffic and its normal indication is a Proceed Authority. A signal that can be passed at STOP without the authority of a Signaller or Special Proceed Authority (SPA) if it is considered safe to do.
Pilot	A Competent Worker, who accompanies, directs and advises rail traffic crews.
pilot	To direct or guide rail traffic crews and tell them about local conditions and operating restrictions on running lines and at worksites.
pilot staff	A metal staff that authorises travel through a pilot staff section.
Pilot Staff Notice (PSN)	A form used to give details of pilot staff working.
Pilot Staff Ticket	A written authority issued after a Rail Traffic Crew has seen the pilot staff for a section.
pilot staff working	A method of working rail traffic, using a pilot staff, when the normal system of Safeworking is not available.
Pilot Staff Working Introduction	A formal authority to introduce pilot staff working.
platform	A raised or level area, next to the line, that allows people to enter and leave trains.
points	A track component consisting of paired pieces of tapered rail that can be moved and set to allow tracks to diverge or converge.
points indicator	An indicator showing the position of points.
possession	Closure of one or more lines to allow work to be carried out in the Danger Zone using a Local Possession Authority (LPA) or a Track Occupancy Authority (TOA).

Glossary

possession limit marker	A red light, red flag or sign used to indicate a Local Possession Authority limit.
Possession Protection Officer (PPO)	The Competent Worker responsible for coordinating protection of worksites under a Local Possession Authority (LPA). See also Protection Officer.
prescribed train	A train loaded in excess of a specified percentage of the maximum load that can be hauled by the motive power unit, for that portion of line.
proceed authority	An Authority that allows rail traffic to enter and occupy a portion of line and proceed in the forward direction.
propel	To push rail traffic away from the controlling locomotive or motive power unit. To manage airbrake operation of moving rail traffic from a cab that is not in the lead vehicle of a train.
protection	The means used to prevent rail traffic from entering a worksite or other portion of track, or to prevent road or pedestrian traffic from entering a level crossing.
Protection Officer	The Competent Worker responsible for managing the rail safety component of worksite protection.
pulsating	A regular variation in light intensity, used to distinguish the indication from a steady light of the same colour.
qualified worker	A worker certified as competent to carry out the relevant task.
rail bond	A cable fixed across a break or joint in one rail, or between two rails, to provide a path for traction return current or track-circuits.
rail-connect	To connect 1500V overhead wiring supply to the traction return rail to ensure the immediate discharge of electricity if the 1500V overhead wiring becomes live.
Rail Corridor	The land on which a railway is built; comprising all property between property fences, or if no fences, everywhere within 15m from the outermost rails.
rail traffic	Trains and track vehicle or vehicles travelling on the network.

Glossary

rail traffic crew	Competent Workers controlling the movement of rail traffic.
railway track signal	A device attached to a rail that explodes on impact, used to attract attention of rail traffic crews.
Rail Vehicle/s	Stabled trains wagons or track vehicles
Rail Vehicle Detection (RVD) Territory	The portions of line where the system of Safeworking relies on track-circuiting or axle counters.
rake	Vehicles, usually not formed as a train, moved as a unit during shunting and marshalling.
refuge loop	A running line in double-line territory, with entry and exit ends connected to a main line that is used to hold rail traffic to allow other rail traffic to cross.
release	A device that allows a Competent Worker to take trackside control of points or signals.
remotely controlled location	A location where signals and/or points are controlled by a Competent Worker at another location.
repeater signal	A signal provided at some locations to give rail traffic crew better information about the indication of the next signal.
restrain	To prevent movement of rail traffic with signals, signalling equipment, blocking facilities, or issue of a Condition Affecting the Network (CAN) form as a warning.
restricted speed	Restricted speed is a speed that allows rail traffic to stop short of an obstruction within half the distance of clear line that is visible ahead.
right running-direction	The normal direction of travel on unidirectional lines.
roll-by inspection	A visual inspection of moving rail traffic to identify equipment, loading security or other defects or failures.
route	The path from one limit of authority to the next in the direction of travel.
Route Control Blocking	An authority used by Competent Workers to carry out work on track using control points with blocking facilities applied.

Glossary

running line	A line (other than a siding) that is used for through movement of rail traffic. See also main line and siding.
running signal	A fixed signal placed near a running line to authorise and control running movements.
safe braking distance	A distance indicated to rail traffic that would allow rail traffic to stop with the application of normal service braking.
safety assessment	An assessment process used to identify hazards for all work planned for the Rail Corridor and its potential to intrude on the Danger Zone.
SAFE Notice	An authorised notice distributed to give advice in addition to that provided in the published UGL Regional Linx Network Rules, UGL Regional Linx Network Procedures or UGL Regional Linx Network Local Appendices.
safe place	A place where workers and equipment cannot be struck by rail traffic.
section	The line between the departure-end yard limit of one location and the arrival-end yard limit of another location. A section consists of one or more blocks.
secure	To place and keep something in a known or prepared place or position to safeguard it against accidental or unauthorised access or movement.
security code	A code used to release or suspend the reservation of a portion of track held by a Proceed Authority, Work on Track authority or block.
set back	To move in the reverse direction to that provided in the current Proceed Authority.
shunt	To move rail traffic, rakes of vehicles, or vehicles on lines for purposes other than through-movement.
shunt access	Used in Train Order territory only. Authority to occupy the location for shunting purposes.
shunting signal	A fixed signal provided to authorise and control shunting movements.
shunting yard	A system of tracks, within defined limits, used for shunting and marshalling.
siding	A portion of track where vehicles can be placed clear of the running lines. See also intermediate siding.

Glossary

Siding Protection	A work on track method used by Competent Workers to carry out work on lines that are not designated as running lines.
Sighting distance	The distance that someone can clearly see along the track.
Signaller	See Network Control Officer.
Signalling and communications infrastructure	Signalling equipment and telecommunications equipment used as part of the Safeworking and operating systems of the Network.
Signals Engineer	A person with the appropriate delegated authority and signals engineering competence to make judgments about signalling safety.
Signals Maintenance Representative	A qualified and authorised signals maintenance worker.
site controller	The lead agency officer or multi agency response police officer appointed by and subject to the direction of an Emergency Operations Controller.
six-foot	The area between the closest rails of adjacent tracks.
sole occupancy	Track, within defined limits that have only one current occupancy authority.
Special Order	A bi-directional authority issued to rail traffic in Train Order Territory.
Special Proceed Authority (SPA)	A method of special working which may be used when the normal system of Safeworking is not available.
Special Working	rail traffic movements authorised using a Special Proceed Authority (SPA), Pilot Staff Working or manual block working.
stable	To leave rail traffic unattended and secured, usually in a siding.
staff hut	Place where tokens are kept at a location.
stopping place	A designated location, next to the line, that may allow personnel to enter and leave trains.
substation	Place (including substations, traction substations, transformer rooms, switch rooms, sectioning huts, pole-mounted or pad-mounted transformers) containing high-voltage electrical equipment.

Glossary

sufficient warning time	The minimum time needed for workers to react to a Lookout's warning and move themselves and equipment to a safe place; should include time for the Lookout's reaction and a margin for safety.
supplementary code	A code used to suspend the reservation of a portion of track held by a Shunt Order or Track Occupancy Authority for the purpose of issuing an overlapping authority.
System of safeworking	An integrated system of operating procedures and engineered systems used in the CRN, for safe operation of rail traffic, and protection of people and property. Includes Train Order working and Rail Vehicle Detection.
tail lights	Red lights used to designate the end of rail traffic. See also end-of-train markers.
take-off rail	A structure used to give track vehicles entry to and exit from the line.
terminal line	A dead-end line.
through-movement	Transit or travel in the CRN.
token	A staff or staff ticket used as the authority for rail traffic to occupy a section.
track	The combination of rails, rail connectors, sleepers, ballast, points and crossings.
trackside monitoring equipment	Devices that monitor and respond to track trackside and rail vehicle conditions.
track-circuit	An electric circuit where current is carried through the rails and used to detect the presence of trains. Track-circuits are used in the operation and control of points and signalling equipment.
track-circuited territory	Portions of line where the system of Safeworking relies on track-circuits to detect the presence of rail traffic.
track-circuit shorting clip	A cable that can be clamped to a line's rails to activate track-circuits.
Track indicator diagram	A diagram that shows if tracks are occupied and other relevant information.

Glossary

trackside monitoring equipment	Devices that monitor and respond to track and rail vehicle conditions.
Track Occupancy Authority (TOA)	An authority for Competent Workers and their equipment to occupy a defined portion of track for an agreed period.
track speed	The allowed maximum speed for a portion of track.
track vehicle	A vehicle, usually self-propelled, used for inspecting and/or maintaining infrastructure.
track vehicle identification	The unique number displayed on a track vehicle.
track vehicle crew	The Competent Workers responsible for the operation of a track vehicle.
track vehicle operator	A Competent Worker controlling the movement of a track vehicle.
track work	Construction, maintenance or repair work on or around infrastructure in the Rail Corridor.
track workers	Competent rail safety workers whose primary duties are associated with work on or around infrastructure in the Rail Corridor.
Track Work Authority (TWA)	An authority for non-exclusive occupancy of track by track workers within specified limits.
traction return current	The electric current returning from the 1500V overhead power supply through the rails to sub-stations.
trailing points	Points with the switch blades facing away from approaching rail traffic.
train	A locomotive or self-propelled vehicle, alone or coupled to one or more vehicles.
Train Control Diagram (Graph)	A diagram showing operational information for a train control area, also known as a Train Control graph.
Train Controller	See Network Control Officer.

Glossary

train crew	The Competent Workers responsible for the operation of a train.
train number (identification)	A train or run number used to provide unique identification of a train.
Train Operating Conditions (TOC) Manual	A manual issued by UGL Regional Linx that prescribes the minimum operating requirements for trains and track vehicles in the CRN.
Train Operating Conditions (TOC) Waiver	A notice of changes or exceptions to the requirements specified in the published UGL Regional Linx Train Operating Conditions (TOC) manual.
Train Order	An instruction issued by a Network Control Officer in Train Order territory to direct the movement of a train.
Train Order Location	A location in Train Order territory that may be used as the limit of a Proceed Authority or as a reporting location.
Train Register Book	A book used in signal boxes, staff huts or at block posts to record information about the condition of the line or the movement of rail traffic.
train running information	Information about rail traffic movement and frequency provided for a particular location.
transfer	Movement from location to location.
transit	Through-movement along a portion of line.
travel	Planned or purposeful movement from one location to another.
unauthorised	Not given approval or exceeding the limit of authority. See authorise.
unidirectional	Allowing for normal travel in one direction only according to the infrastructure and system of Safeworking in use.
visibility lights	Lights fitted below the headlights to improve rolling stock's ability to be seen and to assist the crew in viewing of the immediate area in front of the vehicle. Also known as ditch lights or crossing lights.
Walking in the Danger Zone	Walking from place to place in the Danger Zone and doing no work other than placing or removing protection for a worksite or rail traffic.

Glossary

Weekly Speed Notice	An information sheet listing temporary speed restrictions for specific locations.
wheel scale	A build-up of metallic material on a wheel tread's surface.
whistle	A device such as a bell, whistle, siren, horn or hooter, fitted to rail traffic to give audible warning.
wolo	Speed restrictions applied during hot weather.
work on track	The work performed in the Rail Corridor. To perform work in the Rail Corridor.
work on track authority	An authority to work on track. See Local Possession Authority (LPA); Track Occupancy Authority (TOA); Track Work Authority (TWA); Route Control Block (RCB)
work out of service	To work to a suitable yard, service depot, siding or location where rolling stock can leave the running line for repair or replacement of vehicle equipment.
work train	A train used in maintenance, construction, commissioning or testing activities.
Work Train order	An order issued to a work train authorising movement into and within a Track Occupancy Authority in Train Order Territory
wrong running-direction	The direction opposite to the normal direction of travel on unidirectional lines.
yard	A system of tracks within yard limits.
yard limit	A defined operational limit on a running line. See also section.

Effective Date

27 August 2023